START YOUR **UPSC CSE JOURNEY** WITH **RICE IAS**

RICE IAS

Expected CURRENT AFFAIRS

For **IAS MAINS** Exam

JUNE-2026

Sealdah, Kolkata | Old Rajinder Nagar, New Delhi | At Adamas University

8100819447 | 9933118849 | 8100971442

INDEX

***

GENERAL STUDIES 1

1.1. INDIAN SOCIETY

1.1.1. CASTE CENSUS AND THE DEBATE ON A CASTELESS SOCIETY

Context:

- The **Supreme Court recently** dismissed a petition seeking to stop the caste census planned under Census 2027.
- The Court observed that the government must know how many backward communities exist and who requires welfare support.
- In April 2025, the Union Government announced that caste enumeration would be included in the Census for the first time since 1931.

What is Caste Census?

- A caste census is the systematic collection of population data based on **caste identity** as part of the national Census. Unlike a conventional census, which records details such as **population, literacy, occupation, and housing**, a caste census specifically identifies the caste of individuals and households.
- This helps generate **caste-wise demographic and socioeconomic data** related to **education, employment, income, and regional distribution**. Such data is important for **evidence-based policymaking, welfare targeting, affirmative action, and reservation policies**.

Historical Evolution of Caste Enumeration in India

1. **The Colonial Era**
    - **1881 to 1931:** Every decennial **Census** conducted under British rule included detailed **caste enumeration**. The **1931 Census**, which recorded nearly **4,147 caste groups**, became the primary database for later **backward class policies** in India.
    - **1941 Census:** Although caste data was collected, it was never fully published due to **World War II** and the circumstances surrounding **Partition**, resulting in a major **data gap** that continues even today.
2. **Independent India's Decision to Stop Caste Enumeration**
    - **1951 Census:** After Independence, the government decided to exclude caste enumeration for all communities except **Scheduled Castes (SCs)** and **Scheduled Tribes (STs)**. This reflected the constitutional vision of creating a **casteless society**.
    - As a result, data regarding **Other Backward Classes (OBCs)** remained frozen at the **1931 Census figures**, and later backward class policies relied mainly on estimates and extrapolations.
3. **Important Commissions Highlighting the Data Gap**
    - **Kaka Kalelkar Commission (1953):** The first **Backward Classes Commission** established under **Article 340** identified around **2,399 backward communities**, but depended entirely on **1931 Census data**.

- **Mandal Commission (1978–80):** Estimated the **OBC population at 52%** using 1931 data, sample surveys, and state-level information. It recommended **27% reservation** for OBCs in Central government jobs and educational institutions.
- **Indra Sawhney Case (1992):** The Supreme Court upheld **27% OBC reservation**, introduced the concept of the **creamy layer**, and imposed a **50% ceiling on total reservations**.

4. **SECC 2011 and Bihar Caste Survey 2023**
   - **Socio-Economic and Caste Census (SECC) 2011:** The first major attempt at caste enumeration after Independence covered nearly **24 crore households**. However, the absence of a standardised caste list led to over **46 lakh caste entries** and nearly **8 crore data errors**, making much of the data unreliable and unpublished.
   - **Bihar Caste Survey 2023: Bihar became the first major State** to publish a detailed caste survey. The survey reported **OBCs at 27.13%** and **Extremely Backward Classes (EBCs) at 36%**, together constituting **63.13% of the State's population**, significantly higher than earlier national estimates and renewing the demand for a nationwide caste census.

Constitutional Paradox in the Caste Census Debate

- India's constitutional framework reflects a complex and dual approach toward caste. While the Constitution aspires to create a society based on equality and social justice, the State also continues to rely on caste identities for welfare and representation policies. This contradiction forms the core of the caste census debate.

1. **On one side: Constitutional Vision of a Casteless Society:** The Constitution seeks to build a society based on the principles of **equality, dignity, fraternity, and social harmony**. The larger constitutional objective has been to gradually eliminate caste-based discrimination and move towards a **casteless social order**.
   - The Constitution guarantees **equality before law** and prohibits discrimination on social grounds.
   - The idea of the **"annihilation of caste"** emphasises the need to remove caste hierarchies and social exclusion.
   - The long-term vision of the Indian State is to promote social transformation beyond traditional caste divisions.
2. **On the Other Side: Caste-Based Welfare and Representation:** At the same time, caste remains an important basis for implementing policies related to **affirmative action and welfare**.
   - Reservations in **education, public employment, and legislatures** are provided to historically disadvantaged communities.
   - Welfare schemes often target **Scheduled Castes (SCs), Scheduled Tribes (STs), and Other Backward Classes (OBCs)**.
   - Political representation and social justice policies require the identification.

Understanding Caste Census 2027

Census 2027 is set to be a landmark event as the **16th decennial census** and the **first truly comprehensive caste count** in independent India.

- **Transition to Digital:** This will be the **first fully digital census**, utilizing mobile applications and specialized portals to ensure **real-time data entry** and minimize the **8 crore data errors** that plagued the **SECC 2011**.
- **Two Phase Operation:** The census will be conducted in two parts. **Phase 1** focuses on **house listing and assets**, while **Phase 2** involves **population enumeration**. It is in this second phase that every individual will **self declare** their caste identity.
- **Methodology Challenge:** Unlike **previous years** where **only SC/ST status** was ticked, the **2027 exercise** requires **recording specific caste names**. The government is currently developing a **master list** to classify the thousands of sub castes that exist across different states.

Importance of Caste Census

- **Constitutional Compliance (Articles 15 & 16):** It provides the **quantifiable empirical data** mandated by the **Supreme Court (SC)** in landmark cases like **M. Nagaraj** and **Jarnail Singh**. Under **Article 16(4)**, the state must prove **"inadequacy of representation"** to justify reservations; a census provides the necessary population **denominator (the total population of a specific group needed to prove "inadequacy of representation" in public services)** to make these policies legally sustainable.
- **Scientific Welfare Targeting:** Under **Articles 15(4) and 15(5)**, the state must identify **Socially and Educationally Backward Classes (SEBCs)** using objective criteria. A census identifies marginalized sub-groups, enabling **sub-categorization** (as recommended by the **Justice Rohini Commission**). This ensures benefits reach the most deprived rather than being cornered by dominant groups.
- **Rationalizing the 50% Cap:** In the **Indra Sawhney (1992)** judgment, the **Supreme Court** established a **50% reservation ceiling**, allowing exceptions only in "extraordinary circumstances." Accurate caste data provides the **factual foundation** required to defend or adjust these limits based on the actual demographic weight of backward communities.
- **Social Audit of Development:** It serves as a comprehensive **performance review** of 75 years of affirmative action. By mapping caste identity against **socio-economic indices** (literacy, assets, and income), the state can conduct a "**social audit**" to see which communities have achieved mobility and which remain trapped in **inter-generational poverty**.
- **Evidence-Based Policy Planning:** Accurate data acts as a **scientific baseline** for all state interventions. Whether it is allocating scholarships or designing housing schemes, a census ensures that resources are distributed based on **proportional need** rather than outdated 1931 estimates, making governance **non-arbitrary**.
- **Institutional & Federal Accountability:** Since the **Seventh Schedule (Entry 69, Union List)** places the Census exclusively under the **Union Government**, a national exercise ensures **data uniformity**. It provides statutory bodies like the **National Commission for Backward Classes (NCBC)**, **National Commission for Scheduled Castes (NCSC)** and **National Commission for Scheduled Tribes (NCST)** with an authoritative dataset to monitor constitutional safeguards effectively.

Key Challenges in Conducting a Caste Census

- **Risk of political misuse:** Critics argue that **caste data** may intensify **vote-bank politics**, encourage caste-based mobilisation, and deepen identity-driven electoral strategies instead of promoting social integration.
- **Data quality and classification issues:** India has thousands of castes and sub-castes with regional variations. Problems related to **self-declaration, spelling differences, and overlapping identities** may produce **unreliable data,** as witnessed during **SECC 2011**.
- **Reinforcing caste identity:** Opponents believe that officially asking citizens to identify by caste may strengthen caste consciousness and contradict the constitutional goal of a **casteless society**.
- **Privacy and misuse concerns:** Combining **caste information with economic and personal details** may lead to **discrimination, profiling, targeted violence, or misuse of sensitive data** if safeguards are inadequate.
- **Methodological challenges:** Issues such as **sub-caste disputes, inter-caste marriages, caste mobility claims, and mixed heritage identities** make classification **highly complex and politically sensitive.**

Way Forward

- **Strict Statutory Confidentiality:** The government must rigorously enforce **Section 15 of the Census Act, 1948**, ensuring individual data remains **strictly confidential**. This prevents the misuse of personal information for **political profiling** or commercial gain, which is essential for maintaining **public trust** and privacy.
- **Standardized Master List:** To prevent the millions of classification errors seen in **SECC 2011**, the **Office of the Registrar General of India (ORGI)** must proactively publish a comprehensive **Master List of Castes**. This transparency allows for the resolution of **regional naming anomalies** before final enumeration begins.
- **Integrated Socio-Economic Correlation:** Caste data should be scientifically mapped against **socio-economic indices** like **literacy**, **land ownership**, and **occupational status**. This provides a **multi-dimensional view of backwardness**, shifting the focus from mere population counts to **evidence-based welfare targeting**.
- **Digital Integrity & Social Audits:** As India's first **fully digital census**, the state must leverage technology for **real-time data validation**. Post-enumeration, aggregate data should undergo **social audits** by independent experts to ensure the findings are robust enough to withstand **judicial scrutiny**.
- **Institutionalizing the "Casteless" Identity:** The state should actively promote the option for citizens to register as **"Casteless."** Tracking this category provides a vital **metric of modernization**, fulfilling the **Ambedkarite goal** of the **Annihilation of Caste** by ensuring measurement today leads to the eventual irrelevance of caste labels.

Conclusion

The caste census is not a celebration of caste but a reckoning with its unfinished consequences, and India cannot build a fair welfare state on nine-decade-old estimates.

Counting caste communities accurately, while ensuring every citizen retains the freedom to declare themselves casteless, is the only honest path toward a welfare system that serves all and an equal society that eventually renders such counting unnecessary.

Q. *The demand for a caste census reflects the tension between the constitutional vision of a casteless society and the practical need for caste-based welfare policies. Critically examine. 15 Marks*

1.2. GEOGRAPHY

1.2.1. IMD'S BLOCK-LEVEL MONSOON FORECASTING SYSTEM

Context:

The India Meteorological Department (IMD) launched a **block-level monsoon forecasting system** covering **15 States and 1 Union Territory**, providing forecasts for **3,196 blocks** for the first time.

What is the New Forecasting System?

- **Granular Scale:** It provides **block-level forecasts** for 3,196 blocks across 15 States, moving beyond traditional district-scale estimates.
- **Hybrid Technology:** The system uses a **"blended" framework** combining traditional physics-based models with AI and a century of historical data.
- **Actionable Windows:** It generates **probabilistic forecasts for a four-week duration** to help farmers time their sowing and irrigation precisely.
- **High-Resolution Focus:** It targets the **"monsoon core zone,"** where rainfed agriculture is most sensitive to minor shifts in monsoon dynamics.

Why is Block-Level Forecasting Important?

- **Addresses Patchiness:** It accounts for localized rainfall variations within a district where one village might be drenched while another remains completely dry.
- **Precision Sowing:** It allows farmers to time their seed-sowing accurately based on their specific block's moisture levels rather than a city-wide average.
- **Mitigates Crop Loss:** By providing hyper-local data, it reduces the risk of investment loss in the "monsoon core zone" where agriculture is primarily rainfed.
- **Improves Agricultural Decision-Making:** It transforms meteorological data into a functional tool for rural decision-making, moving beyond academic accuracy.
- **Enhances Disaster Preparedness:** It provides a critical defense against the increasing frequency of extreme, localized weather events caused by climate change.

Challenges of Block-Level Forecasting

- **Weak Monsoon Complexity:** Forecasting at block resolution is significantly more difficult during "below normal" or erratic monsoon years, such as those influenced by **El Niño**.
- **Data Density Gap:** The system currently covers only half of India because many regions lack the **dense network of observational stations** required for hyper-local accuracy.

- **Inter-State Data Sharing:** Expanding high-resolution models (like the 1 km scale) depends heavily on the willingness of **State governments to share local station data** with the IMD.
- **Technological Transition:** Effectively "blending" traditional physics-based models with **emerging AI analysis** requires constant calibration to maintain reliability at such a fine scale.
- **Infrastructure Requirements:** Achieving nationwide coverage demands a massive scale-up of **Automatic Weather Stations (AWS)** to feed real-time ground truth into the forecasting models.

Way Forward

- **Infrastructure Expansion:** Scaling the network of **Automatic Weather Stations (AWS)** across all states is essential to provide the ground-level data needed for nationwide block-level coverage.
- **Enhanced State Collaboration:** Encouraging states to integrate their local observational data with the IMD's central grid will allow for **ultra-high-resolution (1 km) modeling** beyond Uttar Pradesh.
- **Refining AI-Physics Blending:** Continuous calibration of **hybrid AI and traditional models** will be necessary to improve accuracy during erratic weather patterns and extreme climate events.
- **Agrometeorological Integration:** Strengthening the link between the **Ministry of Earth Sciences and the Ministry of Agriculture** ensures that forecasts translate into specific, actionable advice for farmers.
- **Capacity Building:** Training local agricultural extension officers and farmers to interpret and trust hyper-local, probabilistic data is vital for **maximizing the socio-economic impact** of the system.

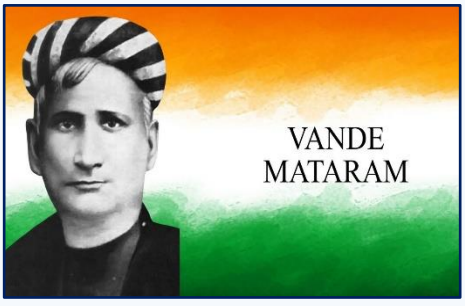
Conclusion

The **block-level system** marks a **paradigm shift** in **climate resilience**, leveraging **AI-driven precision** to transform **meteorological data** into a **strategic shield** for **food security** and **empowered rural livelihoods**.

Q. *How can Artificial Intelligence and high-resolution meteorological data transform monsoon forecasting in India? Discuss the opportunities and challenges. 15 Marks*

1.3. CULTURE

1.3.1. DEBATE AROUND VANDE MATARAM AND SECULARISM IN INDIA



Context:

The recent controversy over mandatory singing of Vande Mataram at government functions has revived debates on **Indian secularism, cultural nationalism, constitutional values, and inclusivity**. The issue highlights the tension between **majoritarian nationalism** and India's **pluralistic identity**.

Historical Background of Vande Mataram

- **Literary Origin:** It was composed by **Bankim Chandra Chatterji** in the 1870s and later included in his 1882 Bengali novel, ***Anandamath***, set against the backdrop of the Sannyasi Rebellion.
- **Political Debut:** The song gained national prominence when **Rabindranath Tagore** sang it for the first time in a political context at the **1896 Calcutta Session** of the Indian National Congress.

- **Symbol of Resistance:** It became the primary anthem of the **Swadeshi Movement (1905)** following the Partition of Bengal, serving as a powerful slogan for anti-colonial resistance.
- **The 1937 Consensus:** To address communal sensitivities regarding later stanzas, a Congress committee (including Nehru and Azad) recommended using only the **first two stanzas**, which focus on the beauty of the motherland.
- **Constituent Assembly Status:** On January 24, 1950, President Dr. Rajendra Prasad declared it the **National Song**, granting it "equal status" with the National Anthem, *Jana Gana Mana*.

Constitutional and Legal Dimensions of Vande Mataram

- **1950 Presidential Statement:** Dr. Rajendra Prasad officially declared *Vande Mataram* as the **National Song** on January 24, 1950, granting it "equal status" with the National Anthem despite not being mentioned in the Constitution itself.
- **Absence of Statutory Penalties:** Unlike the National Anthem, which is protected by the **Prevention of Insults to National Honour Act, 1971**, there is no specific central statute that penalizes a failure to sing or stand for the National Song.
- **Article 51A (Fundamental Duties):** While the Constitution mandates citizens to "respect the National Flag and the National Anthem," it remains **silent on the National Song**, leading to legal debates over the compulsory nature of its performance.

National Anthem vs National Song

Aspect	National Anthem	National Song
Official Status	Jana Gana Mana	Vande Mataram
Constitutional Recognition	Officially adopted	No equal constitutional status
Mandatory Respect	Governed by law and conventions	No similar legal obligation
Nature	Inclusive civic nationalism	Cultural-national symbolism

Why is Vande Mataram Controversial?

- **Religious Imagery:** The later stanzas of the song equate the Motherland with Hindu goddesses like **Durga and Lakshmi**, which some argue conflicts with the monotheistic tenets of Islam and other faiths.
- **Literary Context:** In the original novel *Anandamath*, the song is set within a story depicting a **Sannyasi rebellion** against Muslim rule, which critics argue carries an inherent anti-Muslim historical bias.
- **Communal Sensitivity:** While the first two stanzas are purely descriptive of nature, the full song's historical association with **Hindu nationalism** has led to long-standing communal polarization.
- **Secular State Values:** Opposition parties argue that mandating a song with religious undertones at government events undermines the **secular and multicultural foundations** of the Indian Constitution.
- **Mandatory Imposition:** Recent 2026 government orders requiring the **full version** to be played have reignited debate over whether such symbols should be voluntary expressions of patriotism or state-enforced rituals.

Way Forward

- **Adherence to the 1937 Consensus:** Prioritizing the singing of only the **first two stanzas** ensures the song remains a unifying tribute to nature and the motherland, avoiding sectarian sensitivities.
- **Voluntary vs. Mandatory Participation:** Promoting patriotism as a **voluntary civic virtue** rather than a state-enforced ritual helps preserve the "freedom of conscience" guaranteed under Article 25.
- **Inclusive Symbolism:** Strengthening the use of **pluralistic symbols** alongside the National Song reinforces the multicultural identity of India as a "Union of States."
- **Education and Historical Literacy:** Clarifying the distinction between the **literary context** of the 19th-century novel and the **political role** of the song during the freedom struggle can reduce modern communal friction.
- **Judicial Clarity on Protocol:** Seeking a definitive Supreme Court guideline on the protocol for **National and State songs** would prevent inconsistent executive orders and reduce regional-federal friction.

Conclusion

The future of Indian nationalism lies in **harmonizing** historical symbols with **constitutional secularism**. A **pluralistic** approach, respecting both **federal** identities and **national** heritage, will ensure **social cohesion** and preserve the **multicultural** foundations of the state.

Q. *"The debate surrounding Vande Mataram reflects the larger tension between cultural nationalism and constitutional secularism in India." Discuss. 15 Marks*

***

Scan to attempt more questions...

GENERAL STUDIES 2

2.1. POLITY & GOVERNANCE

2.1.1. CRISIS OF THE ANTI-DEFECTION LAW: RE-EVALUATING THE TENTH SCHEDULE

Context:

The recent mass defection of more than two-thirds of a political party's representatives in the **Rajya Sabha** to a rival formation has sparked a critical debate regarding the efficacy of the **Tenth Schedule**. This event highlights a growing trend where constitutional safeguards designed to ensure political stability are being circumvented through legal maneuvers, potentially undermining the sanctity of the democratic mandate.

Overview of Tenth Schedule in India

1. **What is the Tenth Schedule?**
    - The **Tenth Schedule** is a constitutional provision that was added to the Constitution of India through the **52nd Constitutional Amendment Act, 1985**. It is commonly referred to as the **Anti-Defection Law**.
    - In simple terms, the **Tenth Schedule** lays down the rules under which **an elected member of a legislature** may be **disqualified from membership** on the **grounds of defection**; that is, if they abandon or betray the party on whose ticket they were elected, as determined by the **Presiding Officer of the House**.
2. **Genesis of the Anti-Defection Law**
    - **Political Instability and "Aaya Ram, Gaya Ram"**: The origin of the anti-defection law can be traced back to the political instability that gripped many Indian states in the late 1960s. The phrase **"Aaya Ram, Gaya Ram"** became a symbol of this era.
        - In 1967, a legislator from Haryana changed his party affiliation multiple times within a single day, highlighting how legislators were treating their political allegiance as a tool for personal advancement rather than as a public trust.
    - **Consequences and Scale of Defections**: Unchecked defections led to **toppling of governments, frequent imposition of President's Rule, and erosion of legislative credibility**, with **over 140 defections recorded between 1967 and 1971**.
    - **Committee Recommendation and Legal Response**: The **Y.B. Chavan Committee (1968)** recommended strong legal measures, which resulted in the enactment of the **52nd Constitutional Amendment Act, 1985**, inserting the **Tenth Schedule** (Anti-Defection Law).
3. **Constitutional Provisions**

    The Tenth Schedule operates alongside several other articles of the Constitution that together form the complete framework of the anti-defection law:

    - **Article 102(2):** Provides that a **member of either House of Parliament** shall be disqualified if they are disqualified under the Tenth Schedule.

- **Article 191(2):** Provides the same disqualification for members of **State Legislative Assemblies and Councils**.
- **Article 136:** Empowers the **Supreme Court of India** to grant special leave to appeal against decisions of the Speaker or Chairman in disqualification matters.
- **Article 226:** Empowers High Courts to exercise **judicial review** over decisions taken under the Tenth Schedule, on grounds such as violation of natural justice or constitutional provisions.

4. **91st Constitutional Amendment Act, 2003**

   This amendment strengthened the anti-defection law by **abolishing the split exception** and raising the merger threshold from one-third to **two-thirds of the total membership of the legislature party**. It also capped the size of the **Council of Ministers at 15% of the total strength of the House.**

Key Features of Anti-Defection Law Provisions (Tenth Schedule of Indian Constitution)

1. **Conditions Leading to Disqualification:** A member of a House belonging to a political party will lose their membership if they **voluntarily leave their party**. They will also be disqualified if they **vote against the party's direction (whip)** or **choose not to vote without prior permission**, and the party **does not excuse (condone) this action within 15 days**.
2. **Rules for Independent Members:** An **independent member**, who was elected without the support of any political party, will be **disqualified if they join any political party after the election**.
3. **Rules for Nominated Members:** A **nominated member** is allowed to join a political party **within six months from the date of taking their seat** in the House. If they join any party **after this six-month period**, they will be **disqualified from membership**.
4. **Situations Where Disqualification Does Not Apply (Exceptions)**
   - **Party Merger Exception**: Disqualification does not apply when a member leaves their party due to a **merger with another party**. A valid merger occurs when **at least two-thirds of the members of that party agree to the merger**.
   - **Presiding Officer Exception**: If a member is elected as the **Presiding Officer (Speaker or Chairman)**, they may **resign from their political party** to maintain neutrality. They can also **rejoin the party after leaving the post**, without being disqualified. This exception exists to preserve the **dignity and impartiality** of the office.
5. **Authority Responsible for Decision-Making:** Under the Tenth Schedule, if there is any doubt about whether a member should be disqualified, the decision is taken by the **Speaker or Chairman of the House**. This decision is **not made by the President**, nor is it based on the advice of the **Council of Ministers**.
6. **Power to Make Rules:** The **Presiding Officer** of the House has the authority to **frame rules** to implement the **Anti-Defection Law**. According to these rules, a defection case can be taken up only when a **complaint is filed by another member of the House**.
7. **Function of the Whip:** The **whip** is responsible for **informing party members about the party's official position** and ensuring they vote accordingly. If a member **violates the whip and votes**

against the party line, they may face **disqualification or disciplinary action** under the Anti-Defection Law.

Important Judgements on Anti-Defection Law

- **Kihoto Hollohan v. Zachillhu (1992):** This was the **first major judgement** on the Anti-Defection Law. The Supreme Court **upheld the constitutional validity** of the Tenth Schedule and ruled that it does **not violate the basic structure** of the Constitution. It also clarified that the **Speaker's decision is subject to judicial review**, but **only after the decision is made**, meaning courts cannot interfere while the matter is still pending before the Speaker.
- **Rajendra Singh Rana v. Swami Prasad Maurya (2007):** The Supreme Court held that the **Speaker cannot delay decisions indefinitely** on disqualification petitions. Such **unreasonable delay or inaction** can be **challenged in court**, as it may amount to a **violation of constitutional duty**.
- **Subhash Desai v. Principal Secretary (2023):** In this recent and significant ruling, the Supreme Court made a clear distinction between the **legislature party** (elected members) and the **political party** (wider organisation). It held that the **political party's decisions are binding** on legislators and that a **rebellion within a legislature party does not amount to a merger**. This judgement addressed issues arising from **recent political defections**.
- **G.V. Krishnamurthy v. Union of India (2023):** The Supreme Court reiterated that **disqualification cases must be decided within a reasonable time**. It emphasized that **deliberate delays cannot be used as a political tool**.

Significance of the Tenth Schedule

- **Ensuring Stable Governments:** India's parliamentary system requires the government to maintain a **majority in the legislature**. By restricting defections, the Tenth Schedule helps prevent **political instability** and protects **elected governments** from being unfairly toppled.
- **Reducing Political Corruption:** Defections in India have almost always been linked to inducements — financial benefits, ministerial positions, protection from legal proceedings, and other personal gains. The **Second Administrative Reforms Commission (2008)** specifically identified such inducement-based defections as one of the most corrupting influences in Indian democratic politics. The anti-defection law serves as a constitutional deterrent against this form of corruption.
- **Strengthening Political Party Accountability:** In a parliamentary democracy, political parties form the organisational backbone of governance. When legislators are held to their party's platform, parties are incentivised to maintain coherent and accountable positions, which ultimately benefits governance and policy-making.
- **Preserving Federal Balance:** The law helps prevent the misuse of defections to **destabilise state governments**, especially by external political influence. This supports the **federal structure** and maintains balance between the **Centre and States.**

Criticisms of the Anti-Defection Law

- **Restriction on Freedom of Expression (Curbing Dissent)**: The law limits the ability of legislators to act according to their **own judgement and conscience**. Members are often forced to follow the **party line**, even when it goes against their **beliefs or the interests of their constituents**.

- **Weakening of Intra-Party Democracy**: By penalising defection, the law strengthens the control of **party leadership** over members. This discourages legislators from **questioning leadership decisions** or raising **internal disagreements**, thereby reducing **democratic debate within parties**.
- **Encouragement of Party Fragmentation**: To escape disqualification, politicians may create **new parties** or shift to **smaller groups**, leading to the **fragmentation of the political system**. This can make it difficult to ensure **stable governments** and effective policy implementation.
- **Concerns Regarding the Role of the Presiding Officer**: The role of the **Speaker or Chairman** has been criticised due to **lack of transparency and possible bias**. Since the law's provisions can be **interpreted differently**, and decisions are often seen as **final in practice**, concerns arise about **fairness and impartiality**, especially when there is **limited judicial oversight during proceedings**.

Global Best Practices

- **United Kingdom:** The United Kingdom does not have a formal anti-defection law, and instead relies on strong political conventions, party discipline, and accountability to voters to regulate the conduct of legislators.
- **South Africa:** South Africa previously allowed floor crossing under regulated conditions; however, due to widespread misuse, the provision was eventually abolished to maintain political stability.
- **Bangladesh:** Bangladesh has a stringent anti-defection law, where even abstaining from voting against party directions can lead to disqualification, thereby ensuring strong party discipline.
- **Germany – Constructive Vote of No Confidence**: Under **Article 67 of the Basic Law**, a government can be removed **only if a new Chancellor is elected simultaneously with majority support**. This ensures **stability** by preventing **opportunistic defections** and allowing change **only with a viable alternative government** in place.

Way Forward: Strengthening the Anti-Defection Law

- **Clarifying the Merger Clause through Constitutional Amendment:** Parliament should amend the law to clearly state that a **valid merger** must be decided by the **entire political party (through its authorised body)**, and not just by **two-thirds of the legislature party**. This condition should be **additional, not a substitute**, thereby closing existing **legal loopholes**.
- **Shifting Disqualification Power to an Independent Body:** The authority to decide disqualification cases should be taken away from the **Speaker/Chairman** and given to an **independent institution**. Both the **Law Commission of India (170th Report, 1999)** and the **National Commission to Review the Working of the Constitution (2002)** have recommended assigning this role to the **Election Commission of India** or a **special tribunal** to ensure **impartial decisions**.
- **Ensuring Time-Bound Decisions:** A legal provision should mandate that all **disqualification petitions** are decided within a **fixed period of 3 months**. If the presiding officer fails to act, the case should be **automatically transferred** to the **Election Commission or a tribunal**, preventing **deliberate delays**.
- **Promoting Intra-Party Democracy:** The **Election Commission of India** should be empowered to enforce **internal democracy within political parties**, as suggested by the **Second Administrative Reforms Commission (2008)**. Greater **transparency in party decisions**, especially on mergers, will reduce **forced defections**.

- **Creating a Strong Electoral Deterrent:** Members disqualified for defection should be **barred from contesting elections for at least 5 years**. This would increase the **cost of defection** and discourage **opportunistic party switching**.
- **Timely and Active Judicial Intervention:** The **Supreme Court of India** should more actively use its powers under **Article 142** to ensure **quick resolution** of cases and issue **clear guidelines**. Delays in such matters can **undermine democratic mandates**.

Conclusion

The **Tenth Schedule** stands as a constitutional guarantee that the voter's mandate is not betrayed by post-election opportunism; however, its growing erosion through misinterpretation and institutional failure demands urgent and meaningful reform. Legislative clarity, an independent adjudicatory mechanism, and timely judicial intervention are no longer optional they are indispensable to keeping India's democracy truly representative.

Q. *While the Anti-Defection Law under the Tenth Schedule was enacted to ensure political stability, it has increasingly come under criticism for weakening democratic principles. Critically examine. (15 Marks)*

2.1.2. FOREST RIGHTS ACT (FRA), 2006

Context:

The Allahabad High Court ruled that the Forest Rights Act, 2006 overrides conflicting earlier court orders, while quashing rejection of Tharu tribal claims and highlighting ongoing administrative and judicial violations undermining forest dwellers' rights.

About the Forest Rights Act (FRA), 2006

The **Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006** aims to "undo the historical injustice" meted out to forest-dwelling communities.

Objectives of the Forest Rights Act (FRA), 2006

- **Correct historical injustice** faced by forest-dwelling Scheduled Tribes and traditional forest communities
- **Recognise and vest forest rights** (individual and community) over land and resources
- Ensure **livelihood security** through access to forest produce and land
- Promote **sustainable forest conservation** through community participation
- Strengthen **decentralised governance** via Gram Sabha-led decision-making
- Protect forest dwellers from **arbitrary eviction and displacement**
- Balance **ecological conservation with social justice**

Key Provisions of the Forest Rights Act (FRA), 2006

1. **Eligibility Criteria**
    - **Scheduled Tribes (FDST):** Must primarily reside in forest land and depend on it for livelihood.

- **Other Traditional Forest Dwellers (OTFD):** Must have resided in and depended on the forest for **three generations (75 years)** prior to December 13, 2005.

2. **Types of Rights Recognized**
   - **Title Rights:** Ownership of land being farmed by tribals or forest dwellers (max **4 hectares**). No new lands are granted; only land already under occupation is recognized.
   - **Use Rights:** Rights to **Minor Forest Produce (MFP)** (e.g., honey, wax, tendu leaves), grazing areas, and water bodies.
   - **Forest Management Rights:** Right to protect, regenerate, or conserve any community forest resource which they have been traditionally protecting.
3. **Authorities Involved (The Process)**
   1. **Gram Sabha:** The **initiating authority**. It passes a resolution recommending whose rights should be recognized.
   2. **Sub-Divisional Level Committee (SDLC):** Examines the resolution passed by the Gram Sabha.
   3. **District Level Committee (DLC):** The **final authority** to approve or reject the claims.

Key Challenges of Forest Rights Act (FRA) 2006

- **High Rejection Rates:** Claims are frequently dismissed by District Level Committee (DLC) on technicalities or "insufficient evidence" without granting claimants an opportunity to appeal.
- **Administrative Resistance:** Forest departments often prioritize colonial-era laws over the FRA, viewing the recognition of tribal rights as a loss of territorial control.
- **Consent Violations:** Developmental and mining projects often bypass the mandatory "free, prior, and informed consent" of the Gram Sabha during forest land diversion.
- **Onerous Proof for Other Traditional Forest Dwellers (OTFD):** The "three-generation" (75-year) residency requirement for non-tribals is nearly impossible to document, leading to widespread exclusion.
- **Institutional Weakness:** Gram Sabhas often lack the technical tools (like GPS) and legal expertise necessary to effectively initiate and defend rights claims.
- **Mapping & Boundary Conflicts:** Poor digital records and unclear demarcation create persistent legal friction between community lands and "Protected Areas."

Way Forward

- **Digitization & Tech-Integration:** Use high-resolution satellite imagery and GPS mapping to assist Gram Sabhas in boundary demarcation, reducing dependence on forest department records.
- **Strengthening Gram Sabhas:** Provide legal and technical training to local bodies to ensure they can effectively initiate claims and exercise their "Informed Consent" powers.
- **Streamlining Appeals:** Establish a transparent, time-bound grievance redressal mechanism that allows claimants to contest DLC rejections before an independent tribunal.
- **Sensitization of Bureaucracy:** Conduct mandatory training for Forest and Revenue officials to shift their role from "controllers" to "facilitators" of tribal rights.
- **Convergent Governance:** Integrate forest rights with welfare schemes (like MGNREGA and Mission Antyodaya) to ensure that land ownership translates into sustainable livelihoods and forest conservation.

Conclusion

The FRA is a landmark tool for social justice. Success requires aligning judicial precedents with legislative intent, empowering Gram Sabhas, and ensuring administrative transparency to bridge the gap between statutory rights and ground-level implementation.

Q. *"Despite the progressive intent of the Forest Rights Act, 2006, its implementation remains fraught with legal and administrative challenges." Critically examine in the light of recent judicial developments. (15 Marks)*

2.1.3. BULLDOZER JUSTICE: WHEN THE STATE BYPASSES THE LAW

Context:

Recently, the public glorification of **"bulldozer justice"**, reflected in symbolic gestures such as children gifting toy bulldozers to political leaders, indicates a troubling normalisation of **extrajudicial punishment**, where **demolition of property** is celebrated as decisive governance rather than questioned as a constitutional violation.

Understanding Bulldozer Justice: Meaning, Practice and Legal Context

- **Definition and Nature of Bulldozer Justice**
  - "**Bulldozer Justice**" refers to the **extrajudicial demolition of properties** belonging to individuals accused of crimes, often carried out by state authorities **without completing legal procedures**.
  - It bypasses the established sequence of **allegation → investigation → adjudication → punishment**, thereby violating the **core principles of criminal justice**.
  - The practice converts administrative action into **punitive spectacle**, where destruction becomes a substitute for legal accountability.
- **Historical Background and Evolution**
  - The use of bulldozers as a coercive state tool is not new; during the **Emergency period (1975–77)**, demolitions such as those in **Turkman Gate** were later criticised as **state excesses**.
  - However, unlike earlier criticism, the present trend is being **celebrated politically and socially** as a symbol of **strong governance and zero tolerance**.
  - This shift from **condemnation to endorsement** signals a dangerous normalization of **executive overreach**.
- **Contemporary Drivers Behind the Bulldozer Justice Practice**
  - India's justice system is burdened with a **backlog of over 5.5 crore cases** across all courts, with the Supreme Court alone having **over 90,000 pending cases**, creating an enormous perception of delay.

- The **India Justice Report 2025** revealed that India has only **15 judges per million people** — far below the **1987 Law Commission** recommendation of **50 judges per million** — meaning systemic delays are structural, not incidental.
- In **22 of 25 States**, cases pending for over three years in subordinate courts constitute 25% of all pending cases; **across 25 High Courts**, cases pending for **over five years** account for **51% of total pendency**.
- In an era of rapid service delivery expectations, governance too faces pressure for **quick outcomes**, leading to **shortcuts over due process**.

Supreme Court's Response: Declaring Punitive Demolitions Unconstitutional

In a landmark intervention in **November 2024**, the Supreme Court of India, invoking its extraordinary powers under **Article 142** of the Constitution, issued **pan-India guidelines** declaring punitive demolitions unconstitutional.

- **Mandatory Prior Notice:** Authorities must serve a written notice of at least **15 days** to the property owner via registered post before any demolition action is initiated, giving them time to respond.
- **Right to be Heard:** The affected party must be granted a **personal hearing** to contest the demolition order, and the authority must issue a **reasoned written order** explaining why demolition is the only viable option.
- **Accountability and Video Recording:** All demolition proceedings must be **recorded on video** to ensure transparency and prevent abuse of power.
- **Personal Liability of Officials:** Any public official found violating these guidelines will face **contempt of court proceedings** and will be held **personally liable** to pay for the restitution of the destroyed property from their own salary.
- **Exception Carved Out:** The Supreme Court clarified that its directions will not apply to unauthorised structures in **public places** such as roads, footpaths, railway lines, or riverbanks, and to cases where demolition is ordered directly by a court of law.

Judicial Pronouncements Reinforcing Due Process and Property Rights

- **Maneka Gandhi Case, 1978:** The Supreme Court expanded **'procedure established by law'** to mean it must be just, fair, and reasonable — introducing **due process of law** into Indian jurisprudence, directly contradicting arbitrary demolitions based on mere suspicion.
- **Olga Tellis Case, 1985:** The Court held that **Article 21** — the right to life — also encompasses the **right to livelihood and shelter**, meaning demolishing homes without due process is a direct violation of the fundamental right to life.
- **KT Plantation (P) Ltd Case, 2011:** The Court ruled that any legislation depriving a person of property under **Article 300-A** must be just, fair, and reasonable, reinforcing the need for procedural safeguards before property destruction.

Key Concerns: Why Bulldozer Justice Undermines the Rule of Law

1. **Violation of the Rule of Law and Due Process**
    - Bulldozer Justice fundamentally subverts the **constitutional sequence of law enforcement** by jumping from allegation directly to punishment, without investigation or adjudication — the state becomes investigator, judge, and executioner at once.

- This dissolution of powers violates the **doctrine of separation of powers**, which is a basic feature of the Indian Constitution — the executive cannot assume the functions of the judiciary.
- The practice amounts to a **colourable exercise of power** — using lawful municipal authority (demolition of unauthorised structures) for an impermissible or politically motivated objective (punishing an accused person).
- Demolitions carried out immediately after an alleged offence — often before investigations are even completed — **blur the line between punishment and extrajudicial state action**, substituting spectacle for procedure.

2. **Infringement of Fundamental Rights Under the Constitution**
   - **Right to Shelter (Article 21):** The right to life and personal liberty includes the **right to dignified shelter**; sudden punitive evictions permanently destroy a family's **socioeconomic security and livelihood**, violating the most **basic constitutional guarantee.**
   - **Right to Property (Article 300-A):** The Constitution mandates that no person shall be deprived of their property except by **authority of law**, which necessitates a fair procedure before any state seizure or destruction of property.
   - **Right to Equality (Article 14):** When authorities **selectively raze the properties of specific communities** or political dissenters while ignoring similar violations by others nearby, it constitutes a gross violation of the right to equal protection under the law.
   - **Presumption of Innocence: Every accused person is presumed innocent until proven guilty** — punitive demolitions before a trial effectively declare the accused guilty without a court's verdict, violating this foundational principle of criminal jurisprudence.
3. **The Problem of Collective Punishment**
   - Demolishing shared homes **punishes innocent family members** — including children, elderly, and non-involved relatives — for the alleged crime of one individual, violating the principle of **individual criminal liability** that is central to Indian criminal law.
   - Such collective punishment is not only alien to Indian law but also violates the **Geneva Convention 1949**, which explicitly prohibits collective punishments, and the **International Covenant on Civil and Political Rights (ICCPR)**, which affirms that no one shall be arbitrarily deprived of property.
4. **The State's Own Complicity: A Question that Cannot Be Ignored**
   - If demolitions are justified on grounds of **unauthorised construction**, then a critical question arises: why did the government allow the structure to be built in the first place?
   - This reflects **systemic municipal corruption and administrative failure** — the same state that permitted the structure through inaction or complicity cannot selectively invoke building regulations as a post-hoc pretext for punishment.
5. **Long-Term Erosion of Institutional Trust and Democratic Norms**
   - The image of **swift destruction creating an impression of decisive leadership** normalises the idea that **executive authority can override legal safeguards** whenever **public anger** demands immediate retribution.
   - Over time, this risks **weakening institutional credibility** and erodes citizens' trust in lawful processes, as people begin to accept that the law is selectively applied based on political power rather than impartial procedure.

- As a result, the state reducing itself to the level of **vigilante groups** — handing out **instant punishment outside the law** — fundamentally undermines the constitutional compact between the state and its citizens.

Way Forward: Strengthening Rule of Law Instead of Bypassing It

1. **Immediate Judicial and Legislative Safeguards**
   - High Courts and district judiciaries must proactively exercise **suo motu writ jurisdiction** to issue **pre-emptive stays** when **patterns of targeted demolitions** emerge following **communal clashes or political protests.**
   - **State legislatures must amend municipal laws** to explicitly codify the **proportionality doctrine**, making **demolition legally permissible only as an absolute last resort** when the structure poses an **immediate public hazard** and cannot be regularised through other means.
   - The **Representation of the People Act, 1951** should be amended to classify public endorsement or ordering of extrajudicial demolitions by elected representatives as a **corrupt electoral practice**, creating democratic accountability for political misuse.
2. **Structural Institutional Reforms**
   - India must urgently work towards achieving the Law Commission's recommended ratio of **50 judges per million people** by filling over 6,000 judicial vacancies, expanding court infrastructure, and allocating higher budgetary resources to the judiciary.
   - Cases involving heinous crimes must be **mandatorily assigned to Fast-Track Courts** with frequent hearings and fixed disposal timelines, ensuring that the demand for 'quick justice' is met through institutional speed rather than extrajudicial shortcuts.
   - Independent **Municipal Property Tribunals** should be established so that all final demolition orders are vetted by quasi-judicial bodies before execution, stripping local civic bodies of absolute and unchecked adjudicatory power.
3. **Adopting International Standards**
   - India should statutorily adopt the **United Nations Basic Principles and Guidelines on Development-Based Evictions and Displacement (2007)**, which strictly prohibit forced evictions as a punitive measure and mandate comprehensive rehabilitation before any state-led demolition.
   - Strengthening **investigative and prosecutorial capacity** — by modernising **forensic infrastructure, improving police-to-population ratios**, and ensuring independent prosecution — will reduce the systemic delays that make extrajudicial shortcuts appear attractive to the public.

Conclusion

Although **bulldozer justice** may project an image of swift and decisive governance, it fundamentally undermines the **rule of law, constitutional order, and due process**, thereby weakening the very foundation of a democratic state. Therefore, true legitimacy lies not in the speed of punishment but in **fairness, legality, and strong institutions**, and hence strengthening these institutions rather than bypassing them is essential to ensure **justice, accountability, and public trust**.

Q. *Judicial delays are often cited as a justification for 'instant justice'. Evaluate whether bulldozer justice can be seen as a consequence of systemic weaknesses in India's judicial system. (15 Marks)*

2.1.4. LEGAL FICTION AND PARTY MERGERS UNDER THE TENTH SCHEDULE

Context:

- Laws sometimes use a **legal fiction**, as a deliberate pretence that helps the law achieve a fair result. For example, treating a **registered company as a living person** who can sue and be sued, even though a company is obviously not a human being.
- However, **when a legal fiction is stretched far beyond the purpose for which it was created**, it stops being a useful tool and becomes a **dangerous grant of power** and this is exactly what is now happening in India with how the **merger clause** of the **anti-defection law** is being read.

Background: What the Constitution Says About Defections and Mergers

A. The Tenth Schedule — India's Anti-Defection Law

- **What is the Tenth Schedule?** Added by the **52nd Constitutional Amendment in 1985**, it says that a legislator who leaves their party or votes against party instructions will lose their seat in the legislature. This was done to stop **political horse-trading** and defections driven by personal greed or pressure.
- **What is the Exception for Mergers?** Under **Paragraph 4** of the Tenth Schedule, a legislator is **not disqualified** if their original political party actually merges with another party, the logic is that a genuine merger is a party decision, not an individual act of betrayal.
- **What Does 'Deemed Merger' Mean? Paragraph 4(2)** contains a **deeming clause**. It says a merger 'shall be deemed to have taken place if, and only if' **at least two-thirds of the legislature party** agrees to it.
  - The key point is that this two-thirds count is meant to be a **way of checking** whether a real merger has happened at the party level — it is **not the merger itself**.
  - The **actual merger decision** must come from the **original political party's own organisation** — its leadership, general body, or constitution — and the two-thirds threshold only serves as evidence of that.

B. Evolution of the Doctrine of Legal Fiction in India

- **Bengal Immunity Co. Ltd. vs State of Bihar (1955):** A landmark ruling by a **seven-judge Constitution Bench** of the Supreme Court that set the gold standard for interpreting legal fictions in India.
  - The case involved **a tax dispute** where Bihar tried to use a **deeming clause** in the Constitution to tax inter-State sales, the Supreme Court said no, because deeming clauses have **a specific, limited purpose** and cannot be stretched beyond it.
  - Acting Chief Justice S.R. Das gave the governing rule: **"A legal fiction is created for a definite purpose, must be limited to that purpose, and must not be extended beyond its legitimate field."**
- **Rajendra Singh Rana vs Swami Prasad Maurya (2007):** A **Constitution Bench** of the **Supreme Court** applied this logic to the **Tenth Schedule** itself, clearly holding that the

Speaker has no independent power to recognise a merger, and that legislators' votes alone cannot substitute for a genuine decision by the original political party.

- **Registrar Cane Cooperative Societies vs Gurdeep Singh Narwal (March 10, 2026):** The Supreme Court once again **reaffirmed** the **Bengal Immunity principle,** a deeming clause works only for the purpose it was designed for and cannot be expanded to undo things it was never meant to touch.

Why the Discipline of Legal Fiction is Important in Indian Democracy

- **Protects the Core Purpose of the Anti-Defection Law:** The entire reason the Tenth Schedule was added to the Constitution was to prevent individual legislators from **switching sides for personal gain,** if a small group of legislators can declare a 'merger' without their parent party's approval, this purpose is completely defeated.
- **Upholds the Meaning of 'Merger' as a Genuine Party Decision:** A real merger means the **entire party organization** (its leadership and members) decides to join another party; allowing a faction of legislators to call their group-defection a 'merger' is like a few branches of a tree claiming they are the whole tree.
- **Maintains the Integrity of the Legislature:** When legislators can shift parties under the cover of a fake merger, **manufactured majorities** become possible, governments can be toppled or formed not through genuine public mandate but through **engineered floor-crossings**, which undermines representative democracy itself.
- **Keeps Legal Fictions Honest:** As the **philosopher Lon Fuller** warned in **Legal Fictions (1967)**, a fiction is only useful when people acknowledge **it is a fiction, the moment a pretence is treated as real fact, it becomes dangerous; reading the two-thirds threshold as the merger itself is exactly this mistake.**

Challenges: How the Legal Fiction Is Being Misread in Practice

- **Bombay High Court (Goa Bench):** The **supreme court** twice upheld **merger orders based solely on a two-thirds resolution of legislators**, without requiring proof of a merger at the original party level; the January 2025 decision is **currently under challenge before the Supreme Court**.
- **Presiding Officers Recognising Mergers:** The **Rajya Sabha Chairman accepted the merger** of **seven Aam Aadmi Party MPs with the BJP** based only on the legislators' vote count with no proof of a merger decision by the AAP as a political party; the **AAP has filed a disqualification petition**, which, if tested against Bengal Immunity and Rana, should result in the merger being rejected.
- **Doctrinal Danger — Fiction Becoming Fact:** When a deeming clause is read as **constitutive** (creating the merger itself) rather than **evidentiary** (verifying a merger that already happened at the party level), the fiction ceases to be a tool and becomes a **substantive grant of power to a faction of legislators**.
- **Speaker's Vulnerability to Political Pressure:** Given that **Speakers** are themselves party members, the absence of judicial clarity on the merger clause leaves **adjudication of disqualification petitions vulnerable** to partisan interpretation, weakening the constitutional design of the Tenth Schedule.

- **Lack of Rigorous Supreme Court Ruling on the Merger Exception:** While **Bengal Immunity** and **Rana** together provide a clear framework, the Supreme Court has **not yet applied that discipline specifically and rigorously to Paragraph 4(2)** of the **Tenth Schedule** and this gap allows divergent **High Court** and **presiding-officer rulings** to persist.

Global Best Practices: How Other Democracies Handle Party Defections and Mergers

1. **South Africa — Independent Tribunal Model: South Africa's Electoral Court**, an **independent judicial body** separate from **Parliament**, adjudicates disputes over **party membership, floor-crossing, and mergers**. This removes the decision from the hands of the Speaker and ensures **impartial, timely rulings** that are not influenced by the ruling party.
    - **India's Law Commission (170th and 255th Reports)** has also recommended replacing the **Speaker's adjudicatory role** with an independent tribunal — South Africa's model is a working example of how this can be done effectively.
2. **Germany — Strict Party Constitution Requirements for Mergers:** In Germany, a merger of political parties is valid only if it follows the **internal procedures mandated by each party's own constitution**, including **a formal vote by the party's national congress**, not just its legislators; this ensures that **the party organisation, not just its elected members**, owns the merger decision.
    - This is exactly the distinction **India's Supreme Court drew in Rana (2007) — Germany** operationalises it through **clear statutory requirements** under the Political Parties Act, 1967 (Parteiengesetz), making manipulation far harder.

Way Forward for Strengthening Constitutional Discipline in the Interpretation of Party Mergers

- **Supreme Court Must Give a Clear, Specific Ruling on Paragraph 4(2):** A **Constitution Bench** should authoritatively settle that the **two-thirds threshold** in **Paragraph 4(2)** is only a **verification mechanism,** the original political party must independently prove, through documented evidence, that it has decided to merge; this ruling should be binding on all courts and presiding officers.
- **Election Commission Should Lay Down Proof Requirements for Mergers:** The **Election Commission of India** should issue clear guidelines requiring a party seeking recognition of a merger to submit **formal party-body resolution, notification under the party's constitution**, and **ECI acknowledgement,** before any **Paragraph 4** protection is granted to any legislator.
- **Replace the Speaker with an Independent Tribunal for Disqualification Cases:** As recommended by the **Law Commission** and illustrated by South Africa's model, an **independent constitutional tribunal** should decide all anti-defection and merger disputes, removing political bias from the process entirely.
- **Set a Time Limit for Deciding Disqualification Petitions:** The **Supreme Court** should make it mandatory for **all disqualification petitions**, including those related to mergers, to be decided within **90 days,** delays allow merged legislators to consolidate before courts can correct the wrong.
- **Parliament Should Amend the Tenth Schedule for Clarity:** An **Explanation should be added to Paragraph 4** through a constitutional amendment, making it explicit that the two-thirds count verifies an already-completed party-level merger — it does not create one; this removes ambiguity from the text itself and closes the loophole permanently.

Conclusion

- The doctrine of **legal fiction** is a constitutional safeguard designed to ensure limited and disciplined interpretation of deeming provisions. Expanding such fiction beyond its intended purpose weakens constitutional governance and democratic accountability.
- Unless courts and constitutional authorities strictly apply the principles governing legal fiction to the **Tenth Schedule**, the **anti-defection law** may gradually become an instrument for legitimising defections rather than preventing them.

Q. *The misuse of legal fiction under the merger exception of the Tenth Schedule threatens the very purpose of the anti-defection law. Critically examine. (15 Marks)*

2.1.5. MODEL CODE OF CONDUCT AND THE INTEGRITY OF ELECTORAL DEMOCRACY IN INDIA

Context:

- **Free and fair elections** are the bedrock of a constitutional democracy, and the **Model Code of Conduct (MCC)** is India's primary institutional safeguard to ensure that the power of the state is never weaponised in favour of those who hold it during an election.
- However, the **recent controversy surrounding the live broadcast of a senior constitutional authority** on **publicly funded media platforms** — **Doordarshan, Sansad TV**, and **All India Radio** — during an active election period, in which specific opposition parties were named and a particular voter group was urged to vote against them, has has renewed critical questions about the scope, enforceability, and institutional will behind the MCC and the statutory framework under the **Representation of the People Act, 1951**.

Background: Understanding Model Code of Conduct and its Evolution

A. What is Model Code of Conduct (MCC)?

The MCC is a **non-statutory guidelines** issued by the **Election Commission of India** governing the **behaviour of political parties**, **candidates**, and the **party in power** during the **period of general elections or state assembly elections**. It **comes into effect** from the **date of announcement of the election schedule** and remains **operative until the completion of the electoral process**. It derives authority from **constitutional principles** rather than direct legislation.

- **Applicability:** The MCC applies to **all recognised political parties**, their **candidates, star campaigners**, and the **government of the day** — at both the **central and state levels** — as soon as elections are announced by the Election Commission.
- **Non-Statutory but Enforceable Nature:** The MCC **does not** have the **status of a formal law enacted by Parliament**; however, it derives its **enforceability from the constitutional powers** vested in the **Election Commission** under **Article 324**, and violations can attract serious consequences including censure, restraint orders, and in extreme cases, **suspension of party recognition** under **Paragraph 16A of the Election Symbols Order, 1968.**
- **Objectives of the Model Code of Conduct**:
  - The Code aims to ensure **free and fair elections** by preventing undue influence.

- It seeks to create a **level playing field** between ruling and opposition parties.
- It aims to prevent misuse of **government resources, public funds, and official authority**.
- It promotes **ethical political conduct and accountability**.

B. Evolution of the Model Code of Conduct

- **Kerala's Initiative (1960):** The MCC traces its origins to a **behavioural code** first drafted by the **Government of Kerala in 1960** — the **earliest attempt** in independent India to **codify norms of acceptable electoral conduct at the state level.**
- **Election Commission's Formalisation (1968 and 1974):** The **Election Commission of India formally adopted and circulated the MCC** as a national instrument in 1968 and revised it in 1974, giving it the **character of a universal standard applicable to all political parties, candidates, and governments across the country**.
- **Addition of Part VII (1979):** The most consequential structural reform came in 1979 with the addition of **Part VII**, which s**pecifically** governs the **conduct of the 'party in power.' Clauses 1(a), 1(b), and 4 of Part VII** prohibit the **ruling party** from **combining official government visits** with **electioneering, using government machinery or personnel for campaign work**, and **misusing publicly funded mass media** for **partisan or one-sided political coverage** during the **election period.**
- **Strict Enforcement Era (1991 onwards):** The MCC underwent a transformative shift under former **Chief Election Commissioner T.N. Seshan**, whose tenure from 1991 converted the Code from a largely symbolic document into an actively enforced instrument, marking the beginning of robust electoral governance in India.

Key Judgements with respect to Model Code of Conduct

- **Article 324 of the Indian Constitution** grants the Election Commission of India superintendence, direction, and control over the conduct of elections to Parliament and state legislatures. It enables the Commission to act in situations where **statutory law remains silent.**
- **Mohinder Singh Gill v. Chief Election Commissioner (1978):** The Supreme Court, in **Mohinder Singh Gill v. Chief Election Commissioner (1978)**, described **Article 324 as a 'reservoir of power'** that enables the ECI to act in situations where Parliament has not specifically legislated, providing the constitutional backbone for the MCC's enforceability.
- **Harbans Singh Jalal v. Union of India (1997):** The **Punjab and Haryana High Court**, in **Harbans Singh Jalal v. Union of India (1997)**, further clarified that the MCC comes into **legal force** from the moment the election schedule is announced — establishing a clear temporal boundary for its operation.

Statutory Provisions under the Representation of the People Act, 1951

While the MCC operates as an **administrative and quasi-legal instrument**, the **Representation of the People Act, 1951** provides the **statutory backbone for electoral conduct** through **provisions on corrupt practices**:

- **Section 123(3) and Identity-Based Appeals**: This provision declares it a **corrupt practice** to appeal to voters on grounds such as **religion, caste, community, race, or language**. However, it remains limited to specific categories and does not cover all forms of political messaging.

- **Section 123(7) and Use of Government Machinery**: This provision prohibits candidates from obtaining assistance from **government servants** for electoral advantage. It becomes relevant when questions arise regarding the use of **public institutions or officials** in election-related communication.

Significance of Model Code of Conduct

- **Ensuring Electoral Neutrality**: The Code ensures that governance remains **neutral during elections**, preventing the ruling party from gaining undue advantage.
- **Maintaining Level Playing Field**: By restricting misuse of state resources, it creates **equal opportunities for all political actors**, strengthening democratic competition.
- **Promoting Ethical Political Behaviour**: It encourages political parties to adhere to **standards of integrity and restraint**, thereby improving the quality of electoral discourse.
- **Filling Gaps in Legal Framework**: Since **statutory provisions cannot cover every scenario**, the Code acts as a **flexible instrument** to regulate emerging practices such as mass media outreach.
- **Strengthening Public Trust in Elections**: When implemented effectively, the Code enhances **citizens' confidence** in the **fairness of electoral processes**.
- **Regulating Campaign Environment**: It prevents excessive use of **money, media, and influence**, ensuring that **elections are decided on merit** rather than advantage.

Key Challenges in Enforcement of the Model Code of Conduct

- **Ambiguity in the Use of Public Resources during Elections**: The recent debate highlights a major challenge in clearly defining what constitutes **misuse of publicly funded media**.
  - While **Part VII of the Model Code of Conduct** prohibits the ruling party from using government machinery for campaign purposes, the absence of precise guidelines on **public broadcasting and official communication** creates interpretational gaps.
  - This makes it difficult to conclusively determine whether certain broadcasts fall under governance or electioneering.
- **Overlap between Official Communication and Political Messaging**: A significant issue arises when **official addresses delivered through state platforms** contain elements that may influence voters. The challenge lies in distinguishing between **legitimate governance-related communication** and **indirect electoral appeals**, especially when such messages are disseminated through public broadcasters during the election period.
- **Limitations of Statutory Provisions in Addressing Emerging Issues**: The **Representation of the People Act, 1951** primarily regulates electoral appeals based on specific identity factors such as religion, caste, community, race, and language.
  - However, recent developments show that electoral messaging may operate on **different axes such as gender or policy-based persuasion**, which fall outside the explicit scope of the law. This creates a gap between **legal provisions and evolving campaign strategies**.
- **Uncertainty regarding the Use of Government Personnel and Institutions**: Questions arise about whether the involvement of **public broadcasters or official staff in disseminating political messages** amounts to electoral assistance.

  - While the law prohibits the use of **government servants for electoral gain**, its applicability to institutional mechanisms like media platforms remains unclear, leading to legal ambiguity.
- **Non-Statutory Nature and Limited Penal Consequences**: The Model Code of Conduct does not have **legal enforceability**, which limits the scope of punitive action. The Election Commission can issue warnings or censures, but the lack of strong penalties reduces the **deterrence capacity** of the Code.
- **Expanding Scope of Media and Communication Platforms**: The increasing use of **mass media and digital platforms** has made monitoring more complex. The Code was designed in a different communication environment, and its provisions often struggle to keep pace with **modern campaign techniques and large-scale broadcasting tools**.

Global Best Practices in Electoral Conduct Regulation

- **United Kingdom — Statutory Framework and Strong Enforcement**: The United Kingdom follows a **fully statutory electoral framework** under the **Political Parties, Elections and Referendums Act**. The **Electoral Commission** has clear legal authority to ensure **transparency, financial regulation, and penalties**, which provides a strong **deterrent effect**.
- **Germany — Clear Separation between State and Party**: Germany maintains a strict separation between **state resources and political parties**. The use of **government staff, public funds, or state media** for campaigning is prohibited, and violations attract **legal and criminal consequences**.
- **South Africa — Empowered Independent Electoral Body**: South Africa's **Independent Electoral Commission** operates with wide powers, including the ability to **impose fines, disqualify candidates, and initiate prosecution**. This ensures **effective and time-bound enforcement**.

Way Forward: Strengthening Model Code of Conduct

- **Give Legal Status to the Model Code of Conduct**: Parliament should convert the **Model Code of Conduct** into a **law with clear penalties**. This will ensure **strong enforcement** and reduce dependence on voluntary compliance.
- **Clarify Status of Public Broadcasters under Election Law**: There should be clear rules on whether **public broadcasters** like Doordarshan and All India Radio fall under **government servants** in election law. This will help in fixing **accountability for misuse of state media**.
- **Prior Approval for Official Broadcasts during Elections**: The Election Commission should require **mandatory approval** before any official speech is broadcast on public platforms during elections. This will ensure **neutrality and prevent indirect campaigning**.
- **Reform Appointment Process of Election Commissioners**: The process of selecting Election Commissioners should be made **transparent and independent**. Involving multiple institutions will strengthen **credibility and impartiality**.
- **Create Fast Track Mechanism for Election Disputes**: A dedicated system should be set up to resolve **election related complaints quickly**. This will ensure **timely justice during the election period itself**.

- **Extend Rules to Digital and Social Media Platforms**: The Model Code of Conduct should cover **social media, digital campaigns, and new technologies**. Clear rules are needed to prevent **misinformation and misuse of data**.

Conclusion

The **Model Code of Conduct** remains one of India's most important yet institutionally fragile instruments for protecting the integrity of democratic elections, and its effectiveness ultimately depends less on the sophistication of its provisions than on the independence and resolve of the Election Commission to enforce it impartially. Strengthening the MCC through **statutory codification, institutional reform, and judicial oversight** is not merely a technical electoral reform — it is a **fundamental prerequisite** for **sustaining the democratic compact that underpins India's constitutional republic.**

Q. *The Model Code of Conduct acts as a moral and administrative framework rather than a legal instrument. Critically analyse its effectiveness and suggest measures to strengthen its enforcement in India's electoral system. (15 Marks)*

2.1.6. WATER GOVERNANCE IN INDIA

Context:

India supports nearly **18% of the global population** while possessing only about **4% of the world's freshwater resources**, making efficient management of water resources critically important for ensuring **food security, economic growth, social stability, environmental sustainability, and climate resilience**.

Current Water Governance Framework in India

1. **Constitutional Provisions**

   Seventh Schedule (Distribution of Power):

   - **State List (Entry 17):** States have jurisdiction over water supplies, irrigation, canals, drainage, embankments, water storage, and water power.
   - **Union List (Entry 56):** The Centre has the power to regulate and develop **inter-state rivers and river valleys** if Parliament declares it to be in the public interest.
   - **Article 262 (Adjudication of Disputes):** Parliament can by law provide for the adjudication of any dispute with respect to the use, distribution, or control of the waters of any inter-state river or river valley. It can also bar the jurisdiction of the Supreme Court in such matters.

2. **Key Specialized Agencies:**

   - **Central Water Commission (CWC):** The apex technical organization for surface water, responsible for flood forecasting, river conservation, and irrigation project design.
   - **Central Ground Water Board (CGWB):** Manages and monitors groundwater levels and quality across the country.
   - **National Water Development Agency (NWDA):** The primary body for the **Interlinking of Rivers (ILR)** projects (e.g., Ken-Betwa link).

- **National Mission for Clean Ganga (NMCG):** The implementation arm of the "Namami Gange" program, focusing on river rejuvenation.

3. **Legal Framework**

   The legal landscape consists of several key acts that regulate usage and pollution:

   - **Inter-State River Water Disputes Act, 1956:** Provides the legal mechanism to establish Tribunals to resolve river-sharing conflicts.
   - **Water (Prevention and Control of Pollution) Act, 1974:** Created the CPCB and SPCBs to prevent water contamination.
   - **Environment (Protection) Act, 1986:** An "umbrella" legislation under which the **Central Ground Water Authority (CGWA)** was established to regulate groundwater extraction.

Key Government Initiatives for Water Management

- **Jal Jeevan Mission (Rural & Urban):** Aims to provide safe and adequate drinking water through individual household tap connections to all households in India by 2024 (Rural) and 2026 (Urban).
- **Atal Bhujal Yojana (ATAL JAL):** A World Bank-funded scheme focused on community-led sustainable groundwater management in identified water-stressed blocks across seven Indian states.
- **Pradhan Mantri Krishi Sinchayee Yojana (PMKSY):** Focuses on "Har Khet Ko Pani" (water for every field) and improving water-use efficiency through "Per Drop More Crop" via micro-irrigation technologies.
- **Namami Gange Programme:** An Integrated Conservation Mission to accomplish the twin objectives of effective abatement of pollution and conservation and rejuvenation of the National River Ganga.
- **National Aquifer Mapping and Management Program (NAQUIM):** A massive project aimed at mapping India's aquifers to facilitate decentralized groundwater management and scientific planning of recharge structures.

Key Issues Associated with Water Management in India

1. **Over-Exploitation of Groundwater:** India is the world's largest consumer of groundwater, extracting more than the US and China combined, primarily due to subsidized electricity and lack of a robust regulatory framework for private tube-wells.
2. **Inefficient Irrigation Practices:** Agriculture consumes nearly 90% of available water, yet flood irrigation remains the norm, leading to massive wastage and low "crop-per-drop" productivity compared to global drip-irrigation standards.
3. **Fragmented Institutional Governance:** Water management is split between multiple central and state bodies (CWC, CGWB, and State Departments), creating administrative silos that hinder the implementation of a unified "source-to-tap" integrated water strategy.
4. **Water Quality and Contamination:** Industrial effluents, untreated urban sewage, and agricultural runoff have contaminated major river systems and aquifers with heavy metals, arsenic, and nitrates, rendering much of the accessible water unfit for consumption.
5. **Inter-State River Disputes:** The constitutional ambiguity between State and Union lists has led to protracted legal battles over river-sharing (e.g., Cauvery and Yamuna), preventing the holistic development of river basins across administrative boundaries.

6. **Climate Change and Hydrological Volatility:** Shifting monsoon patterns and melting Himalayan glaciers are causing an increase in "extreme events," leading to a cycle of devastating floods and prolonged droughts that exceed the design capacity of existing infrastructure.

Measures India Can Adopt for Effective Water Management

1. **Shift to Demand-Side Management:** Transitioning from supply-augmentation (dams/canals) to demand-side efficiency through water-use audits and rationalized pricing can curb the unchecked extraction seen in the industrial and domestic sectors.
2. **Promotion of "Sahi Fasal" and Crop Diversification:** Incentivizing farmers to shift from water-guzzling crops like paddy and sugarcane to climate-resilient millets and pulses can drastically reduce the 89% water-load currently borne by the agricultural sector.
3. **Adoption of the "Sponge Cities" Concept:** Integrating permeable pavements, urban wetlands, and bioswales into city planning allows for natural rainwater absorption, effectively reducing urban flooding while simultaneously recharging depleted local aquifers.
4. **Institutional Integration (National Water Commission):** Merging the Central Water Commission and Central Ground Water Board into a single unified body, as suggested by the Mihir Shah Committee, would enable a holistic "one water" approach to surface and groundwater.
5. **Mainstreaming Nature-Based Solutions (NbS):** Implementing large-scale watershed management, afforestation, and the restoration of traditional water bodies (like *Johads* and *Baolis*) provides low-cost, decentralized solutions for drought-proofing rural landscapes.
6. **Circular Water Economy and Mandatory Reuse:** Enforcing the mandatory treatment and reuse of urban wastewater for non-potable purposes (industrial cooling/gardening) can bridge the growing gap between freshwater demand and its finite availability.

Conclusion

India must pivot toward a **circular water economy**, integrating digital monitoring and community-led conservation. By harmonizing institutional frameworks and climate-resilient infrastructure, India can ensure permanent water security, powering its transition into a sustainable global superpower.

Q. *"India's water crisis is fundamentally a crisis of governance rather than mere scarcity." Examine the current water governance framework in India and discuss the major challenges associated with sustainable water management. (15 marks)*

2.1.7. NTA'S 'ZERO ERROR' POLICY FAILURE

Context:

- Recently, nine days after nearly **22.79 lakh medical aspirants** appeared for the **National Eligibility cum Entrance Test (NEET-UG) 2026**, the **National Testing Agency (NTA)** announced that the **examination had been compromised and ordered a full re-test**, an unprecedented move in NEET's history.
- The decision triggered nationwide outrage, with the **Federation of All India Medical Association (FAIMA)** approaching the **Supreme Court** demanding either sweeping structural reforms within

the NTA or its complete replacement, exposing deep cracks in India's examination governance framework.

Understanding the Role of NTA and the Growing Crisis of Trust

A. What is the National Testing Agency (NTA)?

- The **National Testing Agency (NTA)** was established in **2017** by the Ministry of Education as an autonomous and specialised examination conducting body.
- It was created to ensure **transparent, efficient, standardised, and technology-driven examinations** for higher education admissions across India.

B. Role of National Testing Agency (NTA):

- NTA conducts major national-level examinations such as:
  - **NEET-UG** for medical admissions like MBBS, BDS, AYUSH, and other medical courses.
  - **JEE Main** for engineering admissions.
  - **CUET** for undergraduate admissions.
  - UGC-NET and several other entrance examinations.
- In **2026**, nearly **22.79 lakh students** appeared for the examination across **5,432 centres**, making it **one of the world's largest entrance tests**.
- The stakes are extremely high because:
  - Medical seats remain limited.
  - Social pressure on aspirants is enormous.
  - Coaching expenses and years of preparation are involved.
  - The examination directly shapes students' career trajectories.

C. NEET Result Controversy:

- **In 2024:**
  - **67 of the top 100 candidates scored full marks**, whereas only **2 students** achieved full marks in 2023 and none in 2022.
  - This led to massive **rank inflation**, making admissions into top medical colleges highly competitive.
  - With approximately **13 lakh qualifying students** competing for only around **1.1 lakh MBBS seats** in government and private colleges, competition intensified sharply.
  - Investigations revealed that around **155 students** allegedly **benefited from leaked question papers**, yet demands for a re-test were dismissed, creating a perception of **inconsistent decision-making**, lack of accountability, and weak institutional response to malpractice.
- **In 2026:**
  - Despite NTA's stated **'Zero Error, Zero Tolerance'** policy and elaborate security arrangements, Rajasthan Police investigations found that a **'guess paper' containing 120 out of 410 actual exam questions** had allegedly been circulating **nearly a month before the exam**.

- The NTA itself confirmed the compromise and announced a re-test, making it the first such instance in NEET's history.

Why NTA's 'Zero Error' Promise Fell Short

A. Promises Made — But Leadership Instability Undermined Execution

- After the 2024 scandal, the then **NTA Director General**, **IAS officer Subodh Kumar Singh**, was transferred and the agency **remained without a full-time chief for over a year**, creating a dangerous administrative vacuum.
- In March 2026, **Abhishek Singh**, former CEO of the IndiaAI Mission, took charge and announced a strict **'Zero Error, Zero Tolerance' policy**, promising structural renewal.
- Despite the fresh leadership and strong public commitments, NTA could not prevent the 2026 paper leak, underscoring that **changing personnel without reforming systems** does not address the root problem.

B. Security Measures That Were Put in Place — Yet Failed

- **Physical and Technological Safeguards** deployed for NEET-UG 2026 included:
  - **Sealed handling** of confidential examination materials under strict protocols.
  - **GPS-enabled vehicles with police escorts** for transportation of question papers.
  - **CCTV surveillance** at all **5,432 exam centres**, with feeds linked to centralised control rooms with up to 1,50,000 cameras.
  - **Aadhaar-based biometric authentication** to eliminate impersonation.
  - **Metal detector frisking** and real-time monitoring through centralised systems.
  - Blocking of **120 Telegram channels** allegedly spreading fake papers and misleading candidates.
- **Despite these measures**, a leaked **'guess paper'** with a large portion of actual exam questions reportedly circulated for weeks before the exam, pointing to failures in **intelligence gathering, source-level security, and institutional enforcement**.

Challenges That Continue to Persist in NTA Examination Governance

- **Infrastructural Bottleneck: NTA's CBT capacity** covers only about **1.5 lakh students per day** across **552 centres**. Moreover, **NEET-UG** involves nearly **22–23 lakh candidates** annually, making it one of the largest single-day examinations in the world. A tender floated in 2024 to expand **computer lab infrastructure** could not be finalised, leaving the system structurally underprepared.
- **Political and Bureaucratic Inertia:** Shifting NEET to CBT requires approval from both the **Ministry of Education and Ministry of Health**. Despite proposals circulating for **at least five years**, no decision has been made, reflecting **a failure of political will and inter-ministerial coordination.**
- **Organised Leak Networks:** Paper leaks are increasingly driven by **criminal networks** operating through **encrypted messaging apps, regional coaching centres**, and **corrupt insiders**, posing a law enforcement challenge that goes well beyond NTA's institutional mandate.

- **Weak Legal Deterrence:** While the **Public Examinations (Prevention of Unfair Means) Act** exists, its enforcement remains limited. The CBI filed chargesheets against **45 accused** in the 2024 case, yet no public conviction has followed.
- **Leadership Instability:** Prolonged periods without a full-time NTA chief and frequent leadership changes **disrupt long-term reform momentum**, preventing consistent policy implementation.
- **Human Cost on Aspirants:** Re-examinations inflict serious **psychological distress** on lakhs of students, disproportionately harming **economically weaker aspirants** who lack the resources to prepare again, making every governance failure a social justice issue.

Key Recommendations of Radhakrishnan Committee After the 2024 Crisis

Following the **NEET-UG 2024 controversy**, the **Ministry of Education** constituted a high-level committee headed by former **ISRO Chairman K. Radhakrishnan**. The **Radhakrishnan committee** submitted its report in **October 2024** and recommended major reforms in examination governance.

- **Key Recommendations:**
  - **Transition to Computer-Based Testing (CBT):** The panel identified the traditional **pen-and-paper testing (PPT) model as a major security risk** and recommended a shift to CBT format, similar to **JEE Main**, which successfully handles **13–15 lakh students annually** over four to five days.
  - **Computer-Assisted Secure PPT:** For an interim transition period, the panel recommended **digitally encrypted question papers** transmitted to e**xam centres and printed locally** just before the test, eliminating the vulnerable printing-and-transit stage where most leaks occur.
  - **Infrastructure Expansion:** The panel highlighted the need to significantly augment **CBT centre capacity** beyond the existing limited infrastructure.

Global Best Practices India Can Learn From

A. China's Use of Advanced Surveillance and AI Monitoring

- China deploys:
  - AI-enabled surveillance,
  - Biometric verification,
  - Signal jammers, and
  - Real-time digital monitoring during high-stakes examinations like the **Gaokao.**
- Severe legal penalties act as a strong deterrent against organised cheating.

B. United Kingdom's Independent Examination Regulation

- The UK separates examination conduct from independent regulatory oversight through bodies such as **Ofqual**.
- Independent auditing and transparent grievance redressal improve public trust in examination systems.

Way Forward for Building a Credible and Secure Examination Ecosystem

- **Immediate Transition Towards CBT:** NTA must be given a firm, time-bound mandate and adequate budget to expand CBT infrastructure to at least **20–25 lakh daily capacity** within three years. NEET must transition to online mode in a phased manner, beginning with urban centres.

- **Adopt Computer-Assisted Secure PPT as Interim Solution:** Until full CBT capacity is ready, the **Radhakrishnan Panel's recommendation** for digitally encrypted, locally printed papers must be implemented immediately to eliminate the transit-and-printing vulnerability.
- **Establish an Independent Examination Regulatory Authority:** A **statutory, independent body**, insulated from ministerial interference, should oversee all national examinations, similar to the NBME in the US or the GMC in the UK.
- **Strengthen the Legal Framework:** The **Public Examinations (Prevention of Unfair Means) Act** must be enforced stringently with fast-track courts for paper leak cases, ensuring visible deterrence through timely convictions.
- **Create Large, Rotating Question Banks:** NEET should move to an **adaptive testing model** with a dynamic pool of thousands of validated questions, so that leaking any single set of papers becomes irrelevant.
- **Fast-Track CBI Investigations with Transparent Outcomes:** The government must ensure that investigations into exam leaks result in **visible, public convictions** within a defined timeframe to rebuild public trust.
- **Psychological Support for Aspirants:** The government must set up **mental health helplines and counselling services** specifically for students affected by examination disruptions, recognising the serious human cost of systemic failures.

Conclusion

- The repeated failure of examination integrity is not merely an administrative lapse; it is a **governance crisis** that strikes at the heart of India's commitment to **meritocracy, equal opportunity, and the right to education**.
- Transforming NEET from a system prone to leaks into a benchmark of fairness and trust demands **urgent political will, institutional independence, technological investment, and legal accountability**.

Q. *Evaluate the effectiveness of the National Testing Agency (NTA) in conducting large-scale examinations in India. What reforms are necessary to restore public trust in the examination system? 15 Marks*

2.1.8. UNDERSTANDING GOVERNOR'S CONSTITUTIONAL ROLE IN GOVERNMENT FORMATION

Context:

- In recent times, several instances across Indian states have brought into sharp focus a **critical constitutional question:** whether a **Governor** can delay the formation of a **legitimately elected government** by imposing conditions that the **Constitution of India** itself does not prescribe.
- Governors insisting on **pre-oath proof of majority**, directing freshly sworn-in governments to face a **confidence vote within 72 hours**, and **selectively applying constitutional conventions** have made the office of the Governor **a central point of India's ongoing federal debate.**

Office of the Governor: Constitutional Position, Powers, and Limitations

- **Constitutional Position of the Governor:** The Governor is the **constitutional head of a state** under **Article 153** of the Constitution of India. The President appoints the Governor under **Article 155**, and the Governor holds office at the **pleasure of the President under Article 156**. Crucially, the Governor is **not directly elected by the people of the state** and therefore does not carry an independent popular mandate.
- **Executive Powers and the Bound Role:** Under **Article 154**, the executive power of the state is vested in the Governor. However, **Article 163** makes it clear that the **Governor** exercises these powers on the **aid and advice of the Council of Ministers**, headed by the **Chief Minister**. The scope of the Governor's personal discretion is thus **narrow, bounded, and well-defined** by both the Constitution and established conventions.
- **Government Formation and Article 164:** Under **Article 164(1)**, the Chief Minister is appointed by the Governor. The Governor's role here is to **identify the person most likely to command the confidence of the House** and invite that person to be sworn in. The Governor is not an arithmetic examiner.
    - The Governor has no power to sit in judgment on whether a Chief Minister-designate has produced sufficient signed letters of support before being administered the oath of office.
- **Floor of the House Is the Only Test of Majority:** Under **Article 164(2)**, the **Council of Ministers** is **collectively responsible to the Legislative Assembly**. The Constitution places the test of majority squarely on the floor of the House, not in the **Governor's chamber**. This is the essence of **parliamentary democracy**, where a government stands or falls by a vote of the legislature, not by the **personal assessment of a constitutional appointee**.

Constitutional Conventions on Government Formation and Where the Governor Has Gone Wrong

- **Expert Commissions Have Unanimously Laid Down the Correct Order of Preference:** The **Sarkaria Commission (1988)**, the **Venkatachaliah Commission (2002)**, and the **Punchhi Commission (2010)** all recommended the same sequence: the **single largest pre-poll alliance** is invited first, followed by the **single largest party that stakes a claim** and can form a stable government. Pre-poll combinations are prioritised because the voter knew precisely what they were choosing at the time of voting.
- **Selective Application of these Conventions Across States Has Damaged the Governor's Credibility:** These commission recommendations have not been applied uniformly. There have been documented instances where the **second largest legislative group was invited ahead of the single largest party**, and where unequal timelines were granted to different formations in comparable situations.
    - This inconsistency creates a justified perception of **partisan conduct over constitutional obligation** and erodes public trust in the Governor's office as a neutral constitutional authority.
- **Minority Governments Are a Fully Legitimate Feature of Parliamentary Democracy:** India's own parliamentary history is rich with examples of **minority governments** that were validly sworn in and functioned without any pre-oath proof of majority.
    - **For instance,** on **May 1996**, **President Shankar Dayal Sharma** swore in **Atal Bihari Vajpayee** as **Prime Minister even though the ruling party (BJP)** did not have a majority, and gave him 13 days to prove his numbers.

  - **Similarly, P.V. Narasimha Rao** led a **minority Congress government** for a full five-year term and survived a no-confidence vote in **July 1993 by a single vote**.
  - **H.D. Deve Gowda** and **I.K. Gujral** both led **minority United Front governments** at the Centre.
  - In **2004**, the first **Manmohan Singh government** began as a **minority arrangement** and **ran a full term with outside support**. In none of these cases was the incoming government asked to prove **an absolute majority before taking the oath.**
- **Ordering a Confidence Vote Within 72 Hours Creates the Very Conditions the Anti-Defection Law Was Built to Stop:** Directing **a newly sworn-in Chief Minister** to prove confidence within **72 hours** opens an artificial window for **horse-trading and floor crossing**, precisely what the **anti-defection law under the Tenth Schedule** was enacted to prevent. Legislators are forced into consequential decisions without adequate time for deliberation, and bad actors are handed a short but exploitable opportunity.
- **Only Correct Constitutional Remedy Is a No-Confidence Motion Brought by the Opposition:** When a government's majority is genuinely in doubt, the Constitution prescribes one democratic remedy: the Opposition must bring a **no-confidence motion on the floor of the Assembly**, with full debate and legislators voting on public record.
  - Directing a newly sworn in government to prove its majority even before it has started functioning **may weaken the people's mandate** at the very beginning of democratic governance.

Key Supreme Court Judgements on the Governor's Constitutional Role

- **S.R. Bommai v. Union of India (1994):** This landmark ruling established that the **floor of the Legislative Assembly** serves as the sole valid constitutional test for a government's majority, thereby prohibiting Governors from dismissing governments based on **subjective assessments** and ensuring that the imposition of **President's Rule under Article 356** remains strictly subject to **judicial review**.
- **Rameshwar Prasad v. Union of India (2006):** The Court reinforced the principle that the Governor must act as an **agent of the Constitution** rather than a representative of the Central government, explicitly declaring that **partisan political motivations** cannot be used to justify gubernatorial actions or the unconstitutional dissolution of state assemblies.
- **Karnataka Government Formation Dispute (2018):** By intervening to compress a floor test timeline, the Supreme Court prevented the potential for **engineered defections**, establishing a precedent that protects the democratic process from both **excessive delay and excessive haste** while ensuring the Governor's invitation to form a government remains facilitative rather than punitive.

Global Best Practices: Government Formation in Mature Parliamentary Democracies

- **United Kingdom:** Guided by the **Cabinet Manual**, the monarch adopts a purely **facilitative role** by inviting the **leader most likely to command a majority** without demanding **pre-oath proof**, allowing the government's confidence to be tested naturally through the **King's Speech debate** in the **House of Commons.**
- **Germany:** Under the **Basic Law (Grundgesetz)**, the Federal President maintains a minimal role as the legislature retains total control over government survival through the **constructive vote of no-confidence**, a mechanism requiring the election of a successor before a sitting Chancellor can be removed.

- **Canada:** Following established **parliamentary conventions**, the Governor-General invites the leader of the largest party or coalition to form a government, whereas the mandatory testing of confidence occurs subsequently through the **Speech from the Throne**, entirely avoiding the practice of imposing **punitive conditions or immediate majority proof** before the swearing-in ceremony.

Way Forward: Strengthening the Constitutional Framework to Protect Democratic Mandates

- **Clear Judicial Guidelines Should Be Established on Government Formation:** The Supreme Court should lay down comprehensive and binding principles regarding the invitation to form government, the order of preference in a hung Assembly, and the reasonable timeline for conducting a floor test so that arbitrary interpretations of constitutional discretion can be prevented.
- **Primacy of the Floor Test Should Be Strictly Preserved:** The determination of majority must take place only on the floor of the Legislative Assembly because the **floor test** remains the most transparent, democratic, and constitutionally valid method for testing legislative confidence.
- **Recommendations of Constitutional Commissions Should Be Institutionalised:** The recommendations made by the **Sarkaria Commission**, **Venkatachaliah Commission**, and **Punchhi Commission** regarding government formation and gubernatorial conduct should be formally incorporated into constitutional practice through clear procedural guidelines.
- **Office of the Governor Should Function with Political Neutrality:** Governors should discharge their constitutional responsibilities with complete impartiality and constitutional restraint so that the credibility and dignity of the office are protected in a parliamentary democracy.
- **Constitutional Morality Should Guide the Exercise of Discretionary Powers:** The exercise of discretionary powers should be guided by **constitutional morality**, democratic conventions, and respect for the people's mandate rather than by political considerations or subjective assessments.
- **Healthy Democratic Conventions Should Be Strengthened:** Constitutional authorities must uphold democratic conventions relating to government formation because conventions play a vital role in ensuring political stability, institutional trust, and cooperative federalism in India.
- **Role of the Governor Should Be Limited to a Facilitative Constitutional Function:** The Governor should act as a neutral constitutional facilitator during government formation and should avoid actions that may create perceptions of political interference or constitutional overreach.

Conclusion

Recent controversies have highlighted the urgent need to ensure that the office of the Governor functions with **constitutional neutrality**, **restraint**, and respect for the **democratic mandate**. Thus, strengthening **constitutional conventions**, ensuring transparent use of **gubernatorial discretion**, and preserving the primacy of the **floor test** are essential for protecting **parliamentary democracy**, **constitutional morality**, and **cooperative federalism** in India.

Q. *The Governor's role in government formation is constitutional and facilitative, not political and discretionary. Examine in the context of recent debates on gubernatorial discretion in India. (15 Marks)*

2.1.9. BUDGETARY IMBALANCE IN INDIA'S JUSTICE DELIVERY SYSTEM

Context:

The Union Budget 2026-27 lacks targeted financial allocation to improve justice outcomes. An analysis of the budgets across 11 high-GDP States (e.g., Gujarat, Maharashtra, Karnataka, UP) reveals deep structural skewness, showing that India continues to view justice through the lens of **enforcement rather than adjudication**.

Status of Justice Spending in India

- **State-Level Expenditure:** 11 high-GDP states spend an average of **4.6%** of their total budgets on the collective justice system (Police, Prisons, Judiciary, Legal Aid).
- **Global Comparison:** While Europe spends approximately 0.31% of its GDP on justice (excluding police), India's judiciary budgets account for **less than 1%** of total State budgets despite unprecedented caseloads.
- **Per-Capita Asymmetry:**
  - **Police:** ₹1,500 (Nationally) | ₹1,616 (Average across the 11 high-GDP states).
  - **Prisons:** ₹150.
  - **Judiciary:** ₹450.
  - **Free Legal Aid:** ₹9.

Pillar-Wise Structural Deficits

A. Policing: Over-emphasis on Enforcement & Surveillance

- **The Skew:** Policing devours **over 80%** of all justice-related allocations across major states.
- **Quality Deficit:** Most funding goes toward salaries and administrative firefighting. Strategic quality-enhancing areas are starved:
  - **Training:** Receives less than 1.5% of the police budget.
  - **Forensics:** Receives roughly 1%.

B. Judiciary: Capacity Starvation vs. Massive Caseloads

- **Subordinate Courts Crisis:** The 3,500 district courts handle **7 times** the caseload of High Courts but receive only **3 times** the budget.
- **Judge-to-Population Deficit:** The actual bench strength stands at **15 judges per 10 lakh population**, heavily missing the **1987 Law Commission recommendation of 50 judges per 10 lakh**.
- **Administrative Deficit:** For every judicial position, 5–9 secretarial and clerical staff are needed but remain unfulfilled. Training accounts for just 1% of the judicial budget.

C. Prisons: Overcrowding & Low Priority

- **Underfunded:** Prisons account for a minuscule **0.14%** of State budgets.
- **Infrastructural Strain:** Average occupancy stands at **137%** in high-GDP states (higher than the national average of 131%).
- **Human Resource Crisis:** Prisons operate with at least **30% vacancies**, and only ₹0.23 out of every ₹100 spent is directed toward staff training.

D. Legal Aid & Independent Oversight: The Weakest Links

- **Legal Aid:** Receives the least funding (₹9 per capita), crippling the primary vehicle meant to ensure **Article 39A** (Equal Justice and Free Legal Aid) for low-income and marginalized groups.
- **State Human Rights Commissions (SHRCs):** Paralyzed by a financial starvation of a mere **80 paisa per capita** and human resource deficits exceeding **40% vacancies**.

Government Initiatives

- **e-Courts Mission Mode Project (Phase III):** It aims to digitize the justice system by creating paperless courts, expanding cloud data storage, and integrating AI for case pendency forecasting.
- **Tele-Law Scheme:** It provides mainstream legal aid to the grassroots level by connecting marginalized citizens with panel lawyers through video conferencing via Common Service Centres (CSCs).
- **Centrally Sponsored Scheme (CSS) for Judicial Infrastructure:** It provides financial assistance to States and UTs to construct modern court halls, residential units for judges, and citizen amenities like waiting halls.
- **Nyaya Vikas Portal:** It acts as an online monitoring system to track the real-time implementation and fund release status of judicial infrastructure projects across the country.
- **National Campaign (Hamara Samvidhan Hamara Samman):** It enhances legal awareness and instills constitutional values among citizens through local sub-campaigns like Sabko Nyaya Har Ghar Nyaya.

Implications of Starved Legal Aid & Oversight

- **Makes justice a luxury:** When legal aid is underfunded, quality legal representation becomes accessible only to those who can afford to pay for it.
- **Denies rights to the marginalized:** Low-income individuals bear the heaviest burden, facing extended jail time simply due to a lack of a timely defense.
- **Fails constitutional promises:** A weak legal aid setup directly undercuts **Article 39A**, which guarantees free legal assistance for all citizens.
- **Paralyzes human rights watchdogs:** Starving State Human Rights Commissions with just 80 paisa per capita leaves them unable to look into serious systemic abuses.
- **Leaves errors unchecked:** Large vacancy rates (40%) in oversight bodies mean institutional wrongdoings slip by without any independent correction.

Way Forward

1. **Balance the funding pipeline:** Shift financial allocations away from a pure enforcement model by actively channeling more funds into court infrastructure, prison reforms, and free legal aid.
2. **Fill vacancies systematically:** Launch time-bound recruitment drives to scale up judge strength closer to the Law Commission's target of 50 per 10 lakh population, along with necessary clerical staff.
3. **Invest heavily in human capital:** Drastically raise budgetary spending on staff training and scientific forensics to ensure high-quality investigations and professional judicial management.
4. **Institutionalize legal aid budgets:** Protect vulnerable citizens by setting up inflation-indexed, mandatory funding blocks specifically for free legal defense and legal awareness drives.

5. **Revive human rights watchdogs:** Provide adequate, independent per-capita funding to State Human Rights Commissions (SHRCs) and eliminate vacancies to restore effective independent oversight.

Conclusion

A **constitutionally recalibrated** justice budget is vital to unlock India's economic potential. Investing in **tech-driven adjudication** and **people-centric legal ecosystems** will transition governance from basic enforcement to a **futuristic, rights-respecting democracy**.

Q. *Critically analyse the impact of underfunding of judiciary, legal aid, and prisons on the constitutional promise of access to justice in India. (15 Marks)*

2.1.10. JUDICIAL SCRUTINY OF THE SHANTI ACT, 2025

Context:

- The **Supreme Court of India** is currently examining the constitutional validity of the **Sustainable Harnessing and Advancement of Nuclear Energy for Transforming India (SHANTI) Act, 2025**, which introduces **private participation in the nuclear sector**.
- The legal challenge centers on whether the **financial liability caps** and **supplier exemptions** provided in the **new law** violate the **Fundamental Right to Life** guaranteed under **Article 21** of the Constitution.

About India's Existing and Historical Nuclear Liability Landscape

Before the introduction of the **SHANTI Act**, India followed a more restrictive regime that primarily prioritized state control and rigorous accountability.

- **Atomic Energy Act of 1962**: This historical framework ensured that **nuclear energy remained an exclusive state monopoly**, managed by **public sector undertakings** like the **Nuclear Power Corporation of India Limited (NPCIL).**
- **Civil Liability for Nuclear Damage Act (CLNDA Act) of 2010**: Previous regulations, such as the **Civil Liability for Nuclear Damage Act of 2010,** included a **"Right of Recourse"** that allowed **operators to sue suppliers for defective equipment**, a provision now heavily diluted.
- **Shift to Private Markets**: The transition under the SHANTI Act signals a move from **publicly funded energy security** to a **market-driven approach involving global private capital.**

Overview of the SHANTI Act, 2025

The **SHANTI Act** represents a paradigm shift in India's atomic energy governance, effectively repealing the **Atomic Energy Act of 1962** and the **Civil Liability for Nuclear Damage Act of 2010**. It seeks to modernize the legal framework to meet India's goal of achieving **net-zero emissions** by significantly **scaling up nuclear power capacity**.

- **End of State Monopoly:** For the first time, the law permits **private sector companies** and **foreign corporations** to build, own, and operate nuclear power plants in India.

- **Tiered Liability Structure:** The Shanti Act introduces **a graduated liability system** based on the **thermal capacity of the reactor**. Large reactors (**above 3,000 Megawatts thermal**) have a **liability cap** of approximately **₹ 3,000 crore to ₹ 4,000 crore**.
- **Supplier Indemnity:** A major departure from the 2010 law is the removal of the **"Right of Recourse"** against suppliers. Under the new regime, e**quipment suppliers are generally exempt from liability** unless there is an express written contract or proven intent to cause harm.
- **Consolidated Regulation:** The Shanti Act grants **statutory status** to the **Atomic Energy Regulatory Board** and establishes a **Nuclear Liability Fund** to address damages that exceed the operator's financial cap.

Why Strategic Support Has Been Extended by the Government to the SHANTI Act?

- **Energy Security and Rising Electricity Demand**: India's **growing economy, industrial expansion, and rising electricity** needs have made continuous expansion of power generation necessary. **Nuclear energy** has therefore been promoted as a stable and long term source of electricity capable of **reducing dependence on imported fossil fuels** and protecting **India from global fuel price instability and geopolitical tensions.**
- **Climate Commitments and Clean Energy Transition**: India's commitment to achieving **Net Zero emissions by 2070**, has strengthened support for nuclear power expansion. Since **nuclear energy produces relatively low greenhouse gas emissions**, it has been considered an important part of **India's clean energy and sustainable development strategy.**
- **Need for Foreign Investment and Advanced Technology**: Large nuclear projects require **advanced technology, massive investment, and sophisticated safety systems**. Through **foreign participation, access to modern reactors, technical expertise, and improved safety mechanisms has been expected.**
- **Global Experience and Strategic Competitiveness**: Countries such as **France, United States, Russia, and China** have successfully **expanded nuclear energy through international collaboration and private investment** and therefore, it has been viewed as necessary for strengthening India's future **energy security, technological capacity, and strategic competitiveness.**

Key Challenges Emerging from the SHANTI Act, 2025

The enactment of the **Sustainable Harnessing and Advancement of Nuclear Energy for Transforming India (SHANTI) Act, 2025** has introduced several deep-rooted structural and legal challenges.

1. **Dilution of the Constitutional "Absolute Liability" Standard**

   A major challenge is the Act's departure from the landmark **Absolute Liability** doctrine established in the **1986 Oleum Gas Leak Case**.

   - **The 1986 Oleum Gas Precedent (M.C. Mehta versus Union of India)**: Following the **Bhopal gas tragedy of 1984**, the Supreme Court formulated the progressive doctrine of **Absolute Liability,** ruling that an enterprise engaged in an inherently dangerous or **hazardous** industrial activity owes an **absolute, non-delegable duty** to the **community to ensure that no civilian harm occurs, and must provide unconditional compensation if a failure takes place**.

- **The SHANTI Act Conflict**: By capping liability at less than ₹ **4,000 crore**, the new law effectively replaces this "**absolute**" duty with a limited one, **potentially allowing massive corporations to escape the full financial weight of a disaster.**
- **The Deep Pocket Principle**: Historical jurisprudence mandates that the **larger and more prosperous** an enterprise is, the higher the compensation must be; however, the Act's flat liability cap of less than ₹ **4,000 crore** at treats all large-scale operators the same, regardless of their wealth.

2. **Fiscal Risks and the "Socialization of Losses"**

The Act creates a significant fiscal challenge by potentially shifting the financial burden of a nuclear disaster from private polluters to the public exchequer.

- **Taxpayer Vulnerability**: If **a catastrophic accident occurs** (similar in scale to **Chernobyl or Fukushima**), the costs will likely exceed the ₹ **4,000 crore** limit.
- **Residual Burden**: Because the private operator's liability is capped, any additional billions required for cleanup and victim relief must be provided by the **Indian government and its taxpayers**.
- **Subversion of Polluter Pays**: A major systemic challenge is the explicit subversion of the globally accepted **Polluter Pays Principle,** which is an integral part of **environmental jurisprudence** under Article 21 because **the entity responsible for the risk is not held accountable for the full extent of the potential damage.**

3. **Supplier Immunity and the Moral Hazard Challenge**

The complete exemption of technology and equipment suppliers under the SHANTI Act poses a severe risk to long-term safety standards.

- **Removal of Recourse**: Under previous laws, an operator could sue a supplier for **defective equipment**; however, the new Act shields these vendors from such claims.
- **Lack of Incentive**: This exemption creates a **moral hazard**, as foreign or domestic manufacturers may be less motivated to ensure the highest possible safety grades if they face no legal or financial consequences for design flaws.
- **Safety Blind Spots**: Without supplier accountability, the legal system fails to address the root cause of accidents that stem from faulty industrial components.

4. **The "Race to the Bottom" for Foreign Direct Investment (FDI)**

The Act reflects a difficult challenge in balancing the need for advanced technology with the protection of public safety.

- **Minimizing Risk to Attract Capital**: The low liability caps were specifically designed as **interconnected strategies** to attract foreign private investors who were previously hesitant to enter the Indian market.
- **Global Double Standards**: This creates a situation where international firms enjoy **capped liability in India** while being subject to much higher accountability standards in their home countries.
- **Prioritizing Policy over Safety**: Critics argue that this approach sacrifices the **Right to Life (Article 21)** on the "altar of policy" to secure foreign technological collaboration.

5. **Erosion of Institutional and Regulatory Oversight**

   The shift to a private-driven nuclear sector raises challenges regarding the independence and transparency of safety regulators.

   - **Regulatory Capture**: There is a heightened risk that the pressure to maintain a **"business-friendly" environment** could lead to weakened safety inspections or "softer" oversight of private operators.
   - **Accountability of Private Entities**: Since these firms perform vital **state functions**, the lack of a strong mechanism to treat them as **"State" agents under Article 12** limits the **ability of citizens to hold them directly accountable for fundamental rights violations**.
   - **Opaque Decision Making**: The "**sensitive**" nature of nuclear policy can lead to a lack of **public transparency**, making it harder for communities living near plants to assess the true risks they face.

Way Forward

- **Revision of the Liability Cap:** The liability ceiling under the SHANTI Act must be **reviewed and significantly raised** in consultation with independent nuclear safety experts, legal scholars, and civil society groups, so that it reflects the realistic scale of damage that a nuclear accident in India could cause.
- **Restoration of Supplier Liability:** A proportionate and defined level of **supplier liability must be restored** into the legal framework to ensure that equipment and technology providers have a commercial and legal incentive to maintain the highest possible safety standards.
- **Establishing an Independent Nuclear Regulatory Authority:** India must create a **fully autonomous, well-resourced, and technically capable regulatory body** to oversee the licensing, operations, and safety audits of all nuclear plants, including those operated by private and foreign entities.
- **Multi-Party Insurance and Compensation Pool:** A **dedicated national nuclear compensation fund**, contributed to by operators, suppliers, and the Government of India, must be established on the lines of international best practices to ensure that adequate resources are available for victims without delay in the event of an accident.
- **Parliamentary Review:** The SHANTI Act should be referred to a **Parliamentary Standing Committee** for a comprehensive review involving independent nuclear scientists, constitutional lawyers, environmentalists, and representatives of communities living near proposed nuclear plant sites.
- **Joining International Liability Conventions:** India should consider ratifying the **Convention on Supplementary Compensation for Nuclear Damage**, which would bring it into alignment with global standards and provide an additional layer of internationally pooled compensation for victims.

Conclusion

The debate surrounding the **SHANTI Act, 2025** highlights that while expansion of **nuclear energy** may be important for India's energy security and climate goals, **public safety, environmental protection, constitutional rights, and strong corporate accountability** must remain the core principles guiding India's nuclear governance framework.

Q. *Balancing nuclear energy expansion with public safety remains one of the biggest governance challenges for India. In the light of the SHANTI Act, 2025, analyse the key challenges and suggest suitable reforms. 15 Marks*

2.1.11. JUDICIAL ACCOUNTABILITY AND THE LIMITS OF CONTEMPT POWER IN INDIA

Context:

In a democracy, **courts derive their legitimacy not only from constitutional authority** but also from **public trust**, and **such trust can be sustained only when institutions remain open to scrutiny**. While the **power to punish for contempt is a constitutional safeguard** meant to protect the dignity of the judiciary, **recent rhetorical excesses and administrative actions have raised concerns** about a potential **chilling effect on free speech**.

Recent Judicial Controversies

A "**chilling effect**" occurs when people become afraid to speak their minds because they fear **institutional punishment**.

- **Use of Harsh Language:** In a recent court hearing about a **lawyer's career elevation**, **CJI Surya Kant** used certain words to describe **certain individuals and young lawyers** using the **Right to Information (RTI) Act**. Even if these words were meant for people with **fake degrees**, using such labels from the highest chair in the land creates an atmosphere of **fear and disrespect**.
- **NCERT Textbook Controversy:** Following a controversy over **NCERT school textbooks**, the **Supreme Court** showed strong anger toward **three academics** who helped draft the chapters. They were effectively removed from future work on public school books without being given a **fair hearing**, which goes against the basic principle of natural justice.
    - This raised the issue of the Court being both the **aggrieved party and the arbiter**, which directly violates the principle of **nemo judex in causa sua** (no one shall be a judge in their own cause). This is a problem because **justice must not only be done but must also be seen to be done by an unbiased party.**
- **Gag Order Case:** In cases like the **Ali Khan Mahmudabad** matter, the Court provided legal protection but also issued a **gag order** (a **command to stay silent**). This shows a trend where the Court tries to **control public behavior** rather than just deciding if a law was broken.
- **RTI Transparency Gap:** When a journalist asked the **Supreme Court Registry for data** on complaints against judges, the request was denied. However, the **Law Ministry** later showed that the data did exist. The Registry then called the request **"fishing and roving,"** which looks like the **Court is arguing its own case rather than following transparency laws.**

Why the Judiciary Must Remain Open to Public Criticism?

In a healthy democracy, no institution is above questioning. The judiciary is the **backbone of the democratic setup**, and its true strength lies in its ability to handle honest feedback rather than reacting defensively.

- **Judges as Public Actors Exercising State Power:** As former **CJI D.Y. Chandrachud** observed, judges are public actors who exercise immense state power. Because their decisions affect millions of lives, the judiciary—like the executive or legislature—must remain subject to **public scrutiny and democratic accountability**.
- **The Right to Information (RTI) as a Valid Tool:** The **RTI Act, 2005** was created to bring transparency to all public institutions. Seeking data about judicial administration is a **legitimate democratic right** and should not be viewed by the courts as "**hostile activism**" or a **"fishing inquiry."**
- **Preventing a "Chilling Effect" on Dissent:** When the judiciary uses harsh language outside of formal legal proceedings, it acts as **institutional condemnation** without any due process. This creates a "**chilling effect**," where **lawyers, journalists,** and **scholars** become too afraid to raise valid concerns, effectively **silencing legitimate dissent**.
- **Upholding Judicial Neutrality:** A core principle of the rule of law is that the entity feeling wronged should not also be the judge. To maintain **institutional credibility**, the Court must separate its role as an "**aggrieved party**" from its role as an "arbiter" to avoid the **perception of bias.**
- **Social Audit and Quality Control:** Criticism acts as a **social audit** that prevents the **judiciary** from becoming an isolated "**ivory tower**." Scholarly analysis and investigative journalism force the legal system to think deeper, often leading to the correction of **outdated or incorrect judgments**.
- **Freedom of Speech is Universal:** The **Constitution of India** under Article **19(1)(a)** protects the right to speak. This right includes the freedom to express **dissatisfaction** with any wing of the government, including the courts, as long as it is done decently

Challenges in Balancing Contempt Powers and Judicial Accountability

1. **Accountability Gap:** The judiciary enjoys significant **constitutional authority** as the guardian of fundamental rights and the Constitution, but the absence of a strong external accountability mechanism creates challenges in ensuring **judicial accountability** without affecting **judicial independence**.
2. **Conflict Between Contempt Law and Freedom of Speech:** The broad and vague use of terms such as "**scandalising the court**" under the **Contempt of Courts Act, 1971** often creates tension with the **fundamental right to free speech under Article 19(1)(a)**, making it difficult to clearly separate **fair criticism from actual obstruction of justice**.
3. **Lack of Independent Oversight Mechanisms:** The **absence of an independent mechanism to examine complaints against judges**, along with **limited transparency in judicial administration and in-house inquiry procedures**, weakens public confidence and raises concerns regarding **institutional accountability**.
4. **Digital Misinformation Crisis:** Courts today face **coordinated misinformation campaigns** and **abusive social media discourse**. In the **absence of a specific legal framework to handle digital-age threats**, judges sometimes resort to **informal and disproportionate reactions** that harm their own image.
6. **Declining Public Trust:** Persistent issues such as **judicial delays**, pendency of more than **5 crore cases**, and the perceived lack of transparency in the **Collegium system** have weakened public

confidence in the judiciary, leading to growing public criticism and greater scrutiny of judicial functioning.

Important Supreme Court Judgments on Free Speech and Contempt

- **Romesh Thappar v. State of Madras (1950):** This landmark judgment established that freedom of speech is the foundation of all democratic liberties and that restrictions on it must be narrowly and precisely defined by law.
- **E.M.S. Namboodiripad v. T.N. Nambiar (1970):** The Court affirmed that **bona fide criticism for public benefit is always protected speech**, while deliberate and malicious attacks on judicial authority can amount to contempt.
- **S. Mulgaokar Case (1978):** Justice Krishna Iyer laid down the **"Magnanimity Rule,"** suggesting that courts should be slow to use contempt powers and should ignore **uninformed or petty criticism**.
- **P.N. Duda vs. P. Shiv Shanker (1988):** The Court held that even if a person uses **strong language** to criticize the judicial system, it does not necessarily amount to contempt if there is no interference with the **administration of justice**.
- **Arundhati Roy Contempt Case (2002):** The Court emphasized that while the **freedom of speech** is paramount, it cannot be used to "**scandalize**" the court in a way that shakes public confidence.
- **Prashant Bhushan Contempt Case (2020):** The Supreme Court **convicted advocate Prashant Bhushan for tweets criticising the judiciary,** leading to wider national debate regarding freedom of expression and judicial accountability.

Global Best Practices

Many developed democracies have moved toward a **near-total immunity** for critics of the judiciary.

- **United Kingdom:** In 2013, the UK abolished the offense of **"scandalizing the court,"** recognizing that the reputation of judges should be sustained by their **conduct and judgments** rather than the threat of prosecution.
- **United States:** The **"Clear and Present Danger"** test is applied, where speech is only punished if it poses an immediate and serious threat to the **fairness of a trial**.
- **European Court of Human Rights (ECHR):** The ECHR allows for a very wide margin of **academic and journalistic criticism**, asserting that the judiciary must tolerate more criticism than private citizen.

Way Forward for Building a Confident and Transparent Judiciary

To regain the high ground, the Indian judiciary must adopt a strategy of **transparency and restraint**.

- **Revise the Contempt of Courts Act:** Parliament and the judiciary must together work to amend the **Contempt of Courts Act, 1971** and clearly distinguish between speech that genuinely obstructs justice and speech that merely criticises judicial decisions or the conduct of judges.
- **Strengthen the RTI Framework for Courts:** The Supreme Court and High Courts must fully embrace the **Right to Information Act** and proactively disclose information about complaints received, administrative decisions, and judicial vacancies to promote transparency and public trust.
- **Establish an Independent Accountability Body:** A transparent and independent mechanism, similar to the **Judicial Conduct Investigations Office in the United Kingdom**, must be created in India to receive and investigate complaints against judges in an impartial and credible manner.

- **Exercise Restraint in Oral Observations:** Judges must remain mindful that even informal remarks made from the Bench carry immense institutional authority and can have a wide **chilling effect** on lawyers, academics, and journalists without any formal legal proceeding having been initiated.
- **Strictly Uphold Natural Justice:** The Court must rigorously follow the principle that **no one shall be a judge in their own cause**, especially in all matters where the judiciary's own functioning, conduct, or reputation is directly under examination.
- **Adopting the 'Public Actor Model':** The judiciary should return to the mindset that it is a **public actor** subject to scrutiny, which fosters a healthier relationship with the **Bar, the press, and the academy.**

Conclusion

The true measure of a great judiciary is not its power to silence criticism, but its willingness to engage with it openly and fearlessly, for an institution that cannot bear scrutiny will eventually lose the **public confidence** that is its only true foundation. Therefore, by embracing transparency and upholding the **freedom of speech**, the **judiciary** can ensure that it remains the ultimate **custodian of the Constitution** in the eyes of the people.

Q. *Judicial dignity and democratic accountability must coexist in a constitutional democracy. Examine the challenges in balancing contempt powers with freedom of speech in India. 15 Marks*

2.2. INTERNATION RELATIONS

2.2.1. UAE EXIT FROM OPEC: IMPLICATIONS FOR GLOBAL OIL POLITICS & INDIA

Context:

The recent announcement that the **United Arab Emirates (UAE)** driven by Abu Dhabi will exit **OPEC and OPEC+** effective **May 1, 2026**, marks a seismic shift in global energy geopolitics.

Reasons Behind UAE's Exit from OPEC

- **Monetizing 'Peak Oil':** With global demand expected to plateau, Abu Dhabi aims to extract and sell its **100 billion barrels** of reserves now to maximize revenue before the transition to EVs and renewables devalues hydrocarbons.
- **Funding 'Vision 2031':** Surplus oil revenue is critical to financing the UAE's transition into a **knowledge-based economy**, focusing on technology, tourism, and non-oil logistics.
- **Idle Capacity & ROI:** Having invested **$150 billion** to reach a **5 million barrels per day (mbpd)** capacity, the UAE views OPEC-mandated production cuts as a waste of infrastructure and a loss of potential profit.
- **Strategic Autonomy from Saudi Arabia:** The exit marks a break from Saudi-centric policy, allowing the UAE to compete freely against Riyadh's **'Project HQ'** (requiring multinational firms to move their regional bases to Riyadh) and assert its own regional leadership.
- **Preference for Bilateralism:** By bypassing OPEC's collective bargaining, the UAE can now offer **direct discounts and long-term supply guarantees** to key partners like India in exchange for strategic investments.

- **Green Energy Rebranding:** Leaving the "oil cartel" helps the UAE pivot its image toward a **diversified energy superpower**, prioritizing Green Hydrogen and Nuclear power while distancing itself from OPEC's climate-action resistance.

Implications for Global Energy Order

- **Weakening of the Cartel:** The loss of the UAE's ~14% production capacity diminishes OPEC's ability to manipulate prices, shifting the global market from a **Cartel-led** to a **Competitive-market** model.
- **Volume over Price:** Abu Dhabi's shift to high-volume production challenges the Saudi-led strategy of artificial price inflation, triggering a "race to monetize" reserves before the **Peak Oil** era.
- **Geopolitical Fragmentation:** The move signals the breakdown of **OPEC+ consensus**, paving the way for a fragmented energy landscape dominated by **bilateral strategic partnerships** (e.g., UAE–India).
- **Energy Transition Subsidy:** The UAE is using maximized oil revenues to fund its pivot into a **Renewable Energy Superpower**, setting a global precedent for using hydrocarbons to subsidize green hydrogen and nuclear futures.
- **Market Pressure on Rivals:** Increased independent supply puts downward pressure on global prices, benefiting importers while stressing the fiscal stability of other major producers like the **USA, Brazil, and Guyana**.

Significance for India

1. **Economic Stability & Lower Import Bill**
   - **Fiscal Relief:** Every $1 drop in the price of crude oil reduces India's import bill by approximately **₹10,000 crore**. A UAE producing at full capacity (5 mbpd) puts downward pressure on global prices, helping India manage its **Current Account Deficit (CAD)**.
   - **Inflation Control:** Lower fuel costs have a cooling effect on logistics and food prices, assisting the RBI in maintaining its **CPI inflation** targets.
2. **Enhanced Energy Security**
   - **Diversification:** India can now negotiate **direct, long-term supply contracts** with the UAE without the constraints of OPEC's production quotas. This reduces dependence on the more volatile "OPEC+ consensus."
   - **Proximity Advantage:** The UAE is geographically closer to India than Russia or the US. This ensures lower freight costs and faster turnaround times for Indian refineries.
3. **Strategic Petroleum Reserves (SPR)**
   - India and the UAE already cooperate through **Abu Dhabi National Oil Company** storing crude in Mangaluru's strategic reserves, strengthening energy security. Post-OPEC exit, the UAE can expand storage in India, ensuring **assured supply during global disruptions and geopolitical crises**.
4. **Strengthening the CEPA Framework**
   - The **Comprehensive Economic Partnership Agreement (CEPA)** signed in 2022 is the bedrock of India-UAE ties. India can offer the UAE guaranteed demand in exchange for the

UAE investing oil revenues back into Indian infrastructure and the **India-Middle East-Europe Economic Corridor (IMEC)**.

5. **Support for "Refining Hub" Ambitions**
    - India aims to expand its refining capacity to **450 mmtpa** by 2030. An independent UAE can act as a steady supplier of specific crude grades required for Indian refineries, supporting India's goal of becoming a global exporter of refined petroleum products and petrochemicals.
6. **Transition to Green Energy Cooperation**
    - Both United Arab Emirates and India are aligning oil monetisation with major investments in green hydrogen and solar energy. This complements India's **National Green Hydrogen Mission**, enabling joint R&D and clean energy partnerships beyond the "Peak Oil" era.

Potential Challenges for India

- **Market Volatility:** The decline of OPEC's stabilizing influence could lead to **extreme price swings**, making it difficult for India to maintain predictable budgetary allocations and fiscal planning.
- **Geopolitical Tightrope:** India must carefully balance its deepening strategic ties with an independent UAE without alienating **Saudi Arabia**, which remains a critical energy partner and leader of the remaining OPEC bloc.
- **Asset Stranding Risk:** A sudden surge in cheap oil from the UAE might slow India's domestic momentum for **Renewable Energy (RE) adoption**, potentially delaying the long-term goal of Net Zero by 2070.
- **Regional Instability:** If the exit triggers a "price war" or deepens the rift between Gulf monarchies, it could lead to **regional friction** in the Middle East, threatening the security of the 9 million-strong Indian diaspora.
- **Supply Chain Vulnerability:** Increased reliance on bilateral deals over a regulated cartel system means India's energy security becomes more sensitive to the **domestic policy shifts** or political stability of a single nation (the UAE).

Way Forward

- **Deepening Bilateral Energy Diplomacy:** India should leverage the **CEPA framework** to move beyond a buyer-seller relationship, securing long-term, fixed-price contracts and expanding joint ventures in **upstream exploration** within the UAE.
- **Expansion of Strategic Reserves:** Capitalize on the UAE's production flexibility to fill India's **Phase II Strategic Petroleum Reserves (SPR)** at Padur and Chandikhole, ensuring a robust buffer against global supply shocks or maritime disruptions.
- **Balancing West Asian Ties:** Adopt a **"de-hyphenated" diplomatic approach** to maintain strong ties with both the UAE and Saudi Arabia, ensuring that energy competition between the two does not adversely affect India's regional security interests.
- **Integrated Energy Transition:** Use the period of potentially lower oil prices to redirect fiscal savings into the **National Green Hydrogen Mission**. Collaborating with the UAE on carbon capture and storage (CCS) technology can help decarbonize India's heavy industries.
- **Strengthening the IMEC Route:** Accelerate the development of the **India-Middle East-Europe Economic Corridor (IMEC)** to integrate energy grids and pipelines, turning the UAE's "Peak Oil" exit into a permanent logistical and energy highway for India.

- **Refining Hub Optimization:** Modernize Indian refineries to handle the specific crude grades that the UAE will now market independently, positioning India as the primary **downstream processing hub** for the UAE's expanded output.

Conclusion

The UAE's OPEC exit marks a shift toward market-driven energy realism. For India, this offers a strategic opportunity to secure affordable crude, strengthen bilateral ties, and leverage UAE investments to fuel its green transition.

Q. *In the context of the United Arab Emirates exit from Organization of the Petroleum Exporting Countries, examine its implications for India's energy security and India–UAE strategic partnership. (10 marks)*

2.2.2. INDIA–NEW ZEALAND FREE TRADE AGREEMENT (FTA)

Context:

- At a time when global supply chains are fractured and protectionism is rising, India recently concluded a landmark **Free Trade Agreement (FTA) with New Zealand** one of its fastest-concluded FTAs ever, as a decisive reflection of its **recalibrated foreign trade policy** under the **"Viksit Bharat 2047" vision**, transitioning from a cautious, tariff-focused negotiator to a strategic, high-velocity trade partner.
- A **Free Trade Agreement (FTA)** is a treaty between two or more countries that reduces or eliminates barriers to trade such as tariffs, quotas, and regulatory restrictions to enable the free flow of goods, services, capital, and labour across borders, thereby enhancing economic cooperation.

India–New Zealand Relations: The Foundation

- **Historical Ties:** Formal diplomatic relations were established in **1952**; Indian soldiers fought alongside **ANZAC forces at Gallipoli (1915)** during **World War I**, forming a deep historical bond.
  - **Diplomatic relations** were formally established in **1952**, and both countries are **members of the Commonwealth**, sharing **democratic values and common law traditions**. Both nations support a **rules-based international order**, strengthening cooperation in global governance.
- **Bilateral Trade:** Total trade in goods and services reached **USD 2.4 billion in 2024**. Bilateral merchandise trade grew by **49% to USD 1.3 billion in 2024–25**. India maintains a **positive trade balance**, exporting more than it imports. New Zealand is India's **second-largest trading partner in the Oceania region**.
- **Trade Composition:** India exports **pharmaceuticals, machinery, textiles, and precious stones** to New Zealand, while importing **wool, iron & steel, fruits & nuts, and aluminium**.
- **Diaspora Bridge:** The **~300,000-strong Indian diaspora** roughly **5–6% of New Zealand's population** acts as a powerful cultural and economic bridge between both nations. Cultural connections are further strengthened through **education exchanges, tourism, and traditional knowledge systems**.

- **Defence & Security:** A bilateral **Defence Agreement signed in early 2025** enhanced military engagements and naval port visits. New Zealand is also aligning with India's **Indo-Pacific Oceans Initiative (IPOI)** to improve maritime domain awareness.
- **Multilateral Cooperation:** New Zealand supports India's bid for **permanent UNSC membership** and entry into the **Nuclear Suppliers Group (NSG)**. It is a member of the **International Solar Alliance (ISA)** and the **Coalition for Disaster Resilient Infrastructure (CDRI)**, both led by India.

Strategic Features of the India–New Zealand FTA

1. **Unprecedented Market Access for Indian Exports**
   - **100% Duty-Free Access:** New Zealand has **eliminated all tariffs** on Indian exports, benefiting **labour-intensive sectors** like MSMEs, textiles, leather, footwear, and gems & jewellery where earlier tariffs were as high as **10%**.
   - **India's Tariff Offer:** India has offered tariff liberalisation on **70.03% of tariff lines**, covering approximately **95% of bilateral trade value**. While **30% of these lines** will see immediate duty elimination, the rest will undergo **phased reduction over 3 to 10 years**.
   - **Input Cost Reduction:** India gains duty-free access to key industrial inputs like **wooden logs, coking coal, and metal scrap**, directly enhancing manufacturing competitiveness and supporting **'Make in India'**.
2. **Protection of Sensitive Domestic Sectors**
   - **Strategic Exclusion List:** India has kept **29.97% of tariff lines** outside the liberalisation framework to shield domestic industries.
     - **Excluded Items:** All **dairy products** (fluid milk, cheese, yogurt), sensitive agricultural commodities like **onions, peas, corn**, sugar, aluminium, arms & ammunition, and specific gems & jewellery.
   - **Dairy Red Line:** The exclusion of core dairy products is India's most significant protective win, shielding **millions of small dairy farmers** from New Zealand's global dairy dominance.
   - **Graduated Access for Value-Added Dairy:** India will grant progressive **duty-free access for infant formula and high-value-added dairy products** over a **seven-year period**, enabling domestic firms to access quality raw materials.
   - **Tariff Rate Quota (TRQ) Mechanism:** Products like **apples, kiwifruit, Manuka honey, and albumins** are regulated through **TRQs with minimum import price safeguards and seasonal constraints**, balancing market access with farmer protection.
   - **Trade Remedies:** The FTA allows **safeguard measures against import surges** — including raising duties or pausing tariff cuts — ensuring balanced protection for domestic industries.
3. **Massive Foreign Direct Investment Commitment**
   - **USD 20 Billion Investment:** New Zealand has made a **binding commitment to invest USD 20 billion in India over the next 15 years** in high-priority sectors including **agri-tech, food processing, renewable energy, education, and healthcare management**.
   - **Rebalancing Clause:** A dedicated **rebalancing mechanism** addresses any shortfall in investment delivery, ensuring this commitment translates into **tangible economic outcomes** rather than remaining a paper pledge.

4. **Talent Mobility & Human Capital Pathways**
   - **5,000 Skilled Professional Visas:** An annual quota of **5,000 Temporary Employment Entry Visas** (up to 3 years) has been created for skilled Indians in **IT, healthcare, and engineering**.
   - **Student-Friendly Provisions:** Caps on Indian students are removed; students may work **20 hours per week** during study, with **post-study work rights of 3–4 years** for STEM graduates.
   - **Working Holiday Visas:** An annual quota of **1,000 work-and-holiday visas** for young Indians aligns India's workforce with New Zealand's age-eligibility requirements.
5. **Services, AYUSH & Cultural Diplomacy**
   - **Services Market Access:** New Zealand offers market access across **118 service sectors** including IT, education, finance, and tourism — along with **Most-Favoured Nation (MFN) treatment in 139 sub-sectors**.
   - **AYUSH Recognition — A Historic First:** This is the **first bilateral FTA** to formally recognise India's traditional medicine systems like **Ayurveda, Yoga, Unani, Siddha, and Homoeopathy (AYUSH)** alongside New Zealand's indigenous **Māori health practices**, enabling formal trade and professional exchange in traditional medicine.
   - **Cultural Chapter:** A dedicated chapter covering **traditional knowledge, audio-visual industries, sports, and tourism** strengthens people-to-people linkages between the two nations.
6. **Intellectual Property & GI Protection**
   - **GI Law Amendment:** New Zealand has pledged to **amend its Geographical Indication legislation within 18 months**, providing EU-equivalent protection to Indian GI products in the Oceania market.
   - **Iconic Products Protected:** Iconic Indian brands like **Darjeeling Tea, Basmati Rice**, and other GI-tagged exports will gain top-tier legal protection in New Zealand and Oceania.
   - **Mutual Recognition Arrangement (MRA):** Shared standards via Australia enable India's **80+ organic exports** including basmati rice, tea, flax seeds, and isabgol to gain smoother access in New Zealand.
7. **Trade Facilitation, Pharma & Rules of Origin**
   - **Faster Customs Clearance:** The FTA mandates **24–48 hour cargo clearance**, paperless trade systems, and **Authorised Economic Operator (AEO) mechanisms** to boost MSME efficiency.
   - **Pharma Fast-Track:** Global **Good Clinical Practice (GCP) / Good Manufacturing Practice (GMP)** approvals such as US FDA and EMA certifications will be mutually recognised, reducing duplicative inspections and lowering costs for Indian pharma exports.
   - **Product Specific Rules of Origin (PSRs):** A robust PSR framework ensures **genuine value addition** by Indian exporters, preventing misuse of trade benefits by third-country actors routing goods through India.
8. **Geopolitical & Strategic Significance**
   - **Gateway to Oceania & Pacific:** The FTA enables India to use New Zealand as a **logistical hub and regulatory reference point** to access **Pacific Island Countries (PICs)**, strengthening India's Indo-Pacific footprint.

- **OECD Standards Compliance:** By meeting New Zealand's high standards, India demonstrates its capacity to engage in **OECD-standard global supply chains**, setting a precedent for future FTA negotiations.
- **First-Mover in Oceania:** Negotiations concluded in just **9 months** (March to December 2025), marking India's **fastest FTA execution** and a decisive first-mover advantage in the region.

Key Challenges in India–New Zealand FTA

- **China Shadow Over FTA Gains:** New Zealand's **heavy economic dependence on China (~30% of exports)** may push it to avoid taking clear positions in Indo-Pacific disputes, potentially diluting the FTA's strategic value for India and limiting deeper supply chain integration.
- **Investment Delivery Risk:** The binding commitment of **USD 20 billion over 15 years** is ambitious. Without strong sector-specific enforcement, actual capital flows may fall well short of targets. The **rebalancing clause** provides a remedy mechanism, but its effectiveness will depend on consistent diplomatic follow-through from both sides.
- **Dairy Exclusion vs. Agricultural Expectations:** While India has protected **core dairy products** in the exclusion list, the **phased market access for infant formula and high-value dairy products** over seven years could still exert competitive pressure on domestic nutritional firms if domestic infrastructure is not upgraded simultaneously.
- **Security Friction — Khalistan Issue:** The presence of **pro-Khalistan elements** operating under New Zealand's liberal policies creates diplomatic tension. This security friction, if unaddressed, can undermine trust and delay the smooth operationalisation of FTA provisions, particularly those linked to **talent mobility and diaspora engagement**.
- **Weak Institutional Framework for Implementation:** Effective FTA delivery demands strong bilateral institutions. Current gaps in **counter-terrorism cooperation, critical minerals collaboration, and maritime security coordination** reduce the overall strategic depth of the partnership, making it susceptible to disruptions caused by changes in political leadership on either side.
- **Transactional Mindset Limiting FTA Depth:** New Zealand largely still perceives India as a **labour source and education destination** rather than a comprehensive strategic partner. This transactional outlook may restrict the FTA's potential in **deep-tech, defence innovation, and critical capital partnerships** that India needs to fully realise its **Viksit Bharat 2047 ambitions.**

Way Forward: Measures to Strengthen the India–New Zealand FTA

- **Fast-Track the USD 20 Billion Investment:** Both countries must set up a **Joint Investment Monitoring Committee** to track sector-specific capital inflows in **agri-tech, renewable energy, food processing, and healthcare**. Activating the **rebalancing clause** early will prevent delivery gaps from becoming a diplomatic liability.
- **Maximise FTA's Trade Potential Through Digital Integration:** India must leverage its **Digital Public Infrastructure (UPI, Aadhaar, ONDC)** to boost **MSME exports, digital commerce, and cross-border fintech services** under the FTA's **118 services sectors** market access commitment, directly helping India double bilateral trade to the **USD 5 billion target in five years**.
- **Operationalise Agricultural & GI Commitments:** India must promptly activate the **Centres of Agricultural Excellence** and pursue **joint research in dairy modernisation, food safety, and cold-chain logistics**. Simultaneously, India must push New Zealand to complete its **GI law**

amendment within the 18-month timeline to unlock legal protection for brands like **Darjeeling Tea and Basmati Rice** in Oceania.

- **Institutionalise Security to Protect FTA Gains:** A **bilateral counter-terrorism framework and Mutual Legal Assistance Treaty (MLAT)** must be established to tackle the **Khalistan issue and cross-border extremism**. Without resolving this security friction, the trust needed for smooth implementation of the FTA's **talent mobility and diaspora provisions** will remain fragile.
- **Use FTA as a Launchpad for Future-Ready Sectors:** The FTA's investment commitment should be channelled into **green hydrogen, space cooperation, clean technology, and AI-driven fintech** to transform the partnership from a **transactional trade deal into a long-term strategic alliance** that truly serves the goals of **Viksit Bharat 2047**.
- **Leverage Diaspora & Indo-Pacific Outreach to Expand FTA Reach:** The **300,000-strong Indian diaspora** must be systematically engaged to promote **FTA awareness, business linkages, and AYUSH trade**. Simultaneously, New Zealand's role as a gateway must be used to deepen India's outreach to **Pacific Island Countries (PICs)** under the **Indo-Pacific Oceans Initiative (IPOI)**, giving the FTA true regional strategic weight.

Conclusion

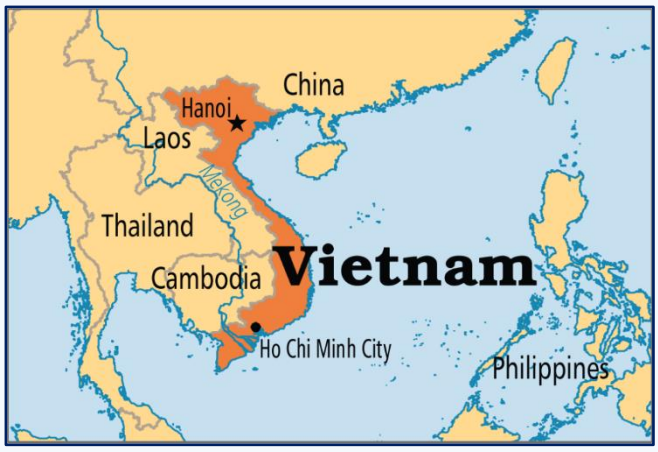
- The **India–New Zealand FTA** is a next-generation, inclusive partnership that simultaneously empowers **farmers, MSMEs, women, youth, and startups** while maintaining a careful balance between **market access and domestic protection**, taking India's total FTAs to **9 agreements with 38 advanced economies covering nearly 65–70% of global GDP**.
- Far beyond a bilateral trade deal, this agreement is a **geopolitical statement** — signalling India's capacity for swift, standards-compliant diplomacy, its seriousness about Indo-Pacific leadership, and its resolute march towards **Viksit Bharat 2047**.

Q. *Free Trade Agreements are no longer just economic tools but instruments of geopolitical strategy. Analyse this statement in the context of the India–New Zealand FTA. (15 Marks)*

2.2.3. INDIA–VIETNAM RELATIONS

Context:

The state visit of Vietnamese President **Tô Lâm** to India marked the elevation of bilateral ties to an **Enhanced Comprehensive Strategic Partnership**, reflecting deepening cooperation in defence, economy, technology, and Indo-Pacific security.



India–Vietnam Relations: Key Dimensions

1. **Historical Background**
   - **Civilizational Links:** Ancient ties through the **Champa civilization** and the spread of Buddhism.
   - **Anti-Colonial Brotherhood:** Personal friendship between **Mahatma Gandhi/Jawaharlal Nehru** and **Ho Chi Minh** forged during struggles against French and British imperialism.

- **ICSC Role:** India served as the Chairman of the **International Commission for Supervision and Control (ICSC)** after the 1954 Geneva Accords to facilitate peace in Indochina.
- Integration of Vietnam as a "pillar" of India's **Look East Policy (1991),** later Act East Policy to balance regional power dynamics.
- **Comprehensive Strategic Partnership (2016):** Upgraded during PM Modi's visit, placing India in Vietnam's top-tier diplomatic bracket (alongside Russia and China).
- Moved from "capacity building" (training) to "capability enhancement" (supply of **INS Kirpan**, high-speed guard boats, and **BrahMos** negotiations).

Strategic Importance of Vietnam for India

Vietnam is often described as the **"swing state"** of the Indo-Pacific and the **"strongest pillar"** of India's Act East Policy. Its importance is multifaceted:

1. **Geopolitical Counterbalance to China**
   - **Maritime Sentinel:** Vietnam's 3,200 km coastline along the South China Sea (SCS) makes it critical for monitoring and countering China's "Nine-Dash Line" assertions.
   - **Strategic Autonomy:** Like India, Vietnam follows a policy of "multi-directionalism" (avoiding formal military alliances). This shared pursuit of autonomy makes them natural partners in a multipolar Asia.
2. **The Linchpin of ASEAN**
   - **Gateway to Southeast Asia:** Vietnam is one of the fastest-growing and most militarily capable members of ASEAN. India's influence in Southeast Asia is structurally linked to the strength of its partnership with Hanoi.
   - **Institutional Influence:** Vietnam consistently supports India's broader role in regional forums like the **ASEAN Defence Ministers' Meeting (ADMM-Plus)** and the **East Asia Summit (EAS)**.
3. **Maritime Security & Freedom of Navigation**
   - **SLOC Protection:** Over 50% of India's trade passes through the South China Sea and the Malacca Straits. A friendly Vietnam ensures that these Sea Lines of Communication (SLOCs) remains open and governed by UNCLOS 1982.
   - **Operational Reach:** Vietnam provides Indian Naval ships with access to its ports (e.g., **Cam Ranh Bay**), extending India's operational footprint beyond the Indian Ocean.
4. **Energy Security & Blue Economy**
   - **Offshore Exploration:** Vietnam has offered India oil and gas blocks in the SCS (Phu Kanh Basin). Despite Chinese pressure, India's **ONGC Videsh (OVL)** maintains its presence there, which is a significant statement of India's strategic intent.
5. **Defense Industrial Partnership**
   - **Market for Indigenization:** Vietnam is a primary "launch customer" for India's defense exports (BrahMos, Akas missiles, Tejas). Successful cooperation here establishes India as a credible **Regional Security Provider**.
   - **MRO Hub:** Since both nations use similar Russian-origin equipment (Su-30s, Kilo-class subs), Vietnam serves as a vital partner for joint maintenance, repair, and logistics.

6. **Economic Diversification (China-Plus-One)**
    - **Supply Chain Resilience:** As a global manufacturing hub, Vietnam is essential for India's goal to build resilient supply chains that are less dependent on China, particularly in electronics, textiles, and **Critical Minerals** (Rare Earths).

Key Pillars of India-Vietnam Defence Cooperation

1. **High-Level Institutional Mechanism (2+2 Dialogue):** Both nations have agreed to institute a **2+2 Ministerial Dialogue** involving Foreign and Defence Ministers. This elevates the relationship to the same strategic level India shares with the Quad members (USA, Japan, Australia).
2. **Defence Industrial Cooperation & Procurement:** The partnership has shifted from capacity-building to **capability enhancement** through the procurement of Indian hardware. Discussions have been revived for the sale of **BrahMos supersonic cruise missiles** and the purchase of **patrol vessels** and **high-speed boats**.
3. **Maintenance, Repair, and Overhaul (MRO) Support:** India is providing technical support for Vietnam's Russian-origin platforms, such as **Su-30 fighter jets** and **Kilo-class submarines**. This leverages India's extensive experience and domestic facilities for similar equipment used by the Indian Armed Forces.
4. **Maritime Security and Information Sharing:** There is a deep alignment on ensuring **Freedom of Navigation** and overflight in the South China Sea. Both nations are pursuing a **White Shipping Information Sharing** agreement to track commercial vessels and enhance maritime domain awareness.
5. **Defence Lines of Credit (LoC):** India has extended a **$500 million Defence Line of Credit** to Vietnam, with $300 million already identified for specific projects. These funds facilitate Vietnam's acquisition of Indian-made defence platforms like **Offshore Patrol Vessels (OPVs)**.
6. **Human Resource and Training:** India continues to provide extensive training to Vietnamese personnel under the **ITEC program** and through dedicated Army, Navy, and Air Force teams. This includes specialized training for **UN Peacekeeping operations** and underwater combat skills for submarine crews.

Key Challenges in India-Vietnam Relations

1. **The "China Factor" & Asymmetric Pressure:** Vietnam's proximity to China and deep economic integration force it to balance ties carefully, often hesitating on overt military alliances that might provoke Beijing.
2. **Implementation and "Delivery Deficits":** A recurring gap exists between signing MoUs and actual project completion, particularly in utilizing the $500 million Defence Line of Credit and infrastructure projects.
3. **Complexities in Defence Exports (e.g., BrahMos):** Exporting lethal platforms involves navigating complex financial arrangements, technical integration with Vietnam's existing systems, and managing the resulting regional geopolitical fallout.
4. **Structural Economic Barriers:** Bilateral trade remains narrow, hindered by high logistics costs, a lack of direct shipping routes, and stringent legal frameworks that deter private Indian investment.
5. **Divergence in Multilateral Platforms:** While both seek a rules-based order, Vietnam is wary of the "Quad's" security branding, preferring ASEAN-led mechanisms to avoid being caught in a Great Power crossfire.

6. **Slow Progress in Connectivity Projects:** The **India-Myanmar-Thailand (IMT) Trilateral Highway** extension to Vietnam remains stalled due to political instability in Myanmar, limiting physical trade and "Act East" potential.

Way Forward

1. **Operationalizing Defence Agreements:** Shift focus from MoUs to the timely delivery of **BrahMos missiles** and utilization of the **$500 million Line of Credit**. Reliable **MRO (Maintenance, Repair, and Overhaul)** support is essential to establish India as a long-term security partner.
2. **Enhancing Maritime Domain Awareness (MDA):** Operationalize **White Shipping** agreements and expand joint patrols to monitor non-military vessel movements. This creates a collective deterrent against **maritime coercion** and ensures stability in the South China Sea.
3. **Strengthening Supply Chain Resilience:** Leverage the **"China-Plus-One"** strategy to integrate manufacturing in **semiconductors, electronics, and textiles**. Joint ventures in **Critical Minerals (Rare Earths)** are vital to break monopolies and secure technological sovereignty.
4. **Accelerating Digital and Financial Connectivity:** Expand **UPI-NAPAS** interoperability to enable seamless, real-time cross-border payments for trade and tourism. This **"Digital Bridge"** will drive economic integration and set a fintech template for other ASEAN nations.
5. **Revitalizing Physical Connectivity Projects** Fast-track the **IMT Trilateral Highway** and explore its extension to Vietnam to link South and Southeast Asia. Improving **direct shipping routes** is critical to reducing logistics costs and hitting the **$25 billion trade target**.
6. **Energy Security and Green Transition** Diversify from oil exploration to collaborative projects in **Green Hydrogen, solar, and offshore wind**. Joint research in the **"Blue Economy"** will ensure energy independence while meeting global climate commitments.

Conclusion

The India-Vietnam partnership is a **geopolitical anchor** for a multipolar Indo-Pacific. By fusing **technological sovereignty** with **maritime deterrence**, this "Enhanced" alliance will redefine regional security, ensuring a rules-based order against unilateral hegemony.

Q. *India–Vietnam relations have emerged as a key pillar of India's Indo-Pacific strategy. Discuss the strategic, economic, and geopolitical significance of the India–Vietnam partnership in the evolving regional order. (15 Marks)*

2.2.4. INDIA-SOUTH KOREA DEFENCE TIES: THE KIND-X INITIATIVE

Context:

During the April 2026 Summit, India and South Korea launched the **Korea-India Defence Accelerator (KIND-X)**, elevating their Special Strategic Partnership through a dedicated "innovation bridge."

Evolution of Defence Relations between India-South Korea

The bilateral relationship has transitioned from buyer-seller dynamics to a collaborative industrial partnership:

- **Early Milestones:** The 2005 MoU on Defence Industry and Logistics and the 2010 MoUs on R&D cooperation.
- **Strategic Elevation:** The 2015 upgrade to a **Special Strategic Partnership**.
- **The Gold Standard (K9 Vajra-T):** The successful co-production of K9 Vajra-T self-propelled howitzers by L&T and Hanwha Aerospace under 'Make in India' serves as the template for future ventures.
- **The 2020 Roadmap:** Expanded cooperation into land, naval, aero, and guided weapon systems.
- **Indo-Pacific Synergy:** Alignment between India's **Act East Policy** and South Korea's **New Southern Policy** (and later its 2022 Indo-Pacific Strategy) solidified their shared vision for a rules-based order.
- **KIND-X (2026):** The launch of the **Korea-India Defence Accelerator (KIND-X)** marks the shift toward an "innovation bridge," focusing on AI, autonomous systems, and space intelligence.

Understanding KIND-X (Korea-India Defence Accelerator)

1. **Conceptual Framework: The "Innovation Bridge"**

   KIND-X is a structured platform designed to synchronize the defense-industrial bases of both nations.

   - **Modeled on Success:** It mirrors the **INDUS-X** (India-U.S.) and **FRIND-X** (India-France) models, acting as a catalyst for startups and small-scale innovators.
   - **Key Agencies:** It creates a direct link between India's **Innovations for Defence Excellence (iDEX)** and South Korea's **Defense Acquisition Program Administration (DAPA)**.
   - **Stakeholders:** It moves beyond G2G (Government-to-Government) to include **startups, venture capitalists, universities, and industrial incubators**.

2. **Strategic Objectives**

   - **Co-Development over Procurement:** Moving away from the traditional buyer-seller relationship to joint R&D and intellectual property (IP) creation.
   - **Supply Chain Diversification:** Reducing dependence on legacy systems (specifically Russian/Chinese tech) by integrating Indian manufacturing scale with Korean high-tech.
   - **Dual-Use Technology:** Leveraging civilian breakthroughs in South Korea's tech giants (Samsung, Hyundai) for defense applications like AI and robotics.

3. **Priority Technology Areas**

   Under the KIND-X framework, both nations have prioritized five "Frontier Domains":

Domain	Focus Area
Artificial Intelligence	Military AI platforms, predictive maintenance, and autonomous decision-making.
Space & ISR	Joint development of Intelligence, Surveillance, and Reconnaissance (ISR) satellites and Space Situational Awareness (SSA).
Autonomous Systems	Unmanned Aerial Vehicles (UAVs), robotics for land warfare, and maritime drones.

Semiconductors	Establishing "Defence Semiconductor Fabs" to secure the supply of critical chips for missile and radar systems.
Advanced Air Defence	Co-designing self-propelled air defence systems (building on the K30 Biho precedent) to counter modern UAV threats.

Strategic Significance & Synergies of KIND-X

1. **Visionary Alignment:** Bridges India's **"Vision 2047"** (Self-reliance) with South Korea's **"Defence Innovation 4.0"** (AI-led warfare), shifting focus from catching up to setting global tech standards.
2. **Indo-Pacific Stability:** Strengthens the **"Rules-based Order"** by providing a democratic alternative to regional hegemonic powers, enhancing the "strategic autonomy" of Asian middle powers.
3. **Industrial Integration:** Links South Korea's **high-tech clusters** (Daejeon, Gumi) with India's **Defence Corridors** (UP, Tamil Nadu), blending Korean precision engineering with Indian manufacturing scale.
4. **Deep-Tech Synergy:** Capitalizes on South Korea's **semiconductor and electronics** leadership to co-develop dual-use technologies in AI, robotics, and Space Situational Awareness (SSA).
5. **Global Export Hub:** Transitions the partnership from **"Make in India"** to **"Make for the World,"** leveraging the K9 Vajra template to jointly supply high-quality, cost-effective defense hardware to the Global South.

Key Challenges to KIND-X Implementation

- **IP & Tech Sensitivity:** High barriers to sharing **"deep-tech"** (semiconductors, satellite algorithms) due to sensitive proprietary data and unharmonized **Intellectual Property (IP)** laws.
- **Fiscal Coordination:** Absence of a structured **bilateral venture capital** ecosystem (unlike INDUS-X) to provide consistent grants and "patient capital" for defense startups.
- **Bureaucratic Mismatch:** Conflict between India's lengthy **Defence Acquisition Procedure (DAP)** and South Korea's rapid **"Innovation 4.0"** cycles, leading to a "speed mismatch" for investors.
- **Geopolitical Balancing:** Divergent foreign policies regarding **China** create "red lines" in co-developing sensitive hardware, requiring delicate diplomatic navigation.
- **Technical Standardization:** Lack of common **MIL-SPEC (Military Specifications)** and joint certification processes, delaying the integration of new tech into existing combat platforms.

Way Forward

1. **Dedicated Venture Fund:** Establish a **KIND-X Joint Fund** managed by DIO and DAPA to provide "patient capital" for high-risk R&D in semiconductors and space-based ISR.
2. **Regulatory Fast-Track:** Create a **"Green Channel"** within India's Defence Acquisition Procedure (DAP) and harmonize testing protocols to accelerate "lab-to-battlefield" transitions.
3. **Institutionalized Dialogue:** Launch an **Annual KIND-X Summit** with a Track 1.5 component, integrating venture capitalists, academia, and industry leaders into the strategic core.
4. **Local Hub Integration:** Build **"Korea-India Tech Zones"** directly linking South Korea's innovation clusters (Daejeon) with India's Defence Industrial Corridors (UP, Tamil Nadu).
5. **Maritime & Dual-Use Focus:** Prioritize **Maritime Domain Awareness (MDA)** and autonomous systems, leveraging South Korea's shipbuilding expertise to secure the Indo-Pacific.

Conclusion

KIND-X represents a **Special Strategic Partnership** shift toward **technological interdependence**. By integrating **deep-tech** ecosystems, it strengthens India's **strategic autonomy** and **Aatmanirbharta**, positioning the duo as a **democratic manufacturing hub** for **Indo-Pacific** security.

Q. *Discuss the significance of the Korea-India Defence Accelerator (KIND-X) in strengthening India's defence indigenisation and strategic cooperation in the Indo-Pacific region. (15 Marks)*

2.2.5. U.S.–CHINA STRATEGIC STABILITY AND INDIA'S STRATEGIC AUTONOMY

Context:

Recent summit talks between Donald Trump and Xi Jinping signalled a temporary easing of tensions between the United States and China amid ongoing disputes over trade, Taiwan, technology, and global influence.

Key Highlights of the U.S.–China Summit

- **Massive Aviation Deal:** China agreed to a massive purchase of 200 Boeing aircraft, with a potential scale-up commitment of up to 750 total planes powered by General Electric engines.
- **Taiwan Arms Package Stall:** President Trump stated he has not yet approved or determined whether to move forward with a major pending arms package for Taiwan following the bilateral discussions.
- **Denuclearization Dialogue:** The two superpowers actively discussed global denuclearization strategies, though specific execution details and diplomatic timelines remain strictly confidential.
- **Strategic Security Equilibrium:** Both nations engaged in high-level defense and modern warfare diplomacy to navigate shifting geopolitical power dynamics and regional security frictions.
- **Global Economic Rebalancing:** The trade talks heavily emphasized supply chain stabilization and massive commercial transactions to address long-standing market access imbalances.

Structural Nature of U.S.–China Rivalry

1. **Declining Unipolarity**
   - U.S. military superiority remains intact.
   - However, its uncontested global dominance is increasingly questioned.

   Reasons of Declining Unipolarity

   - Costly foreign wars
   - Relative economic slowdown
   - Rise of alternative power centres
2. **Rise of China**
   - China no longer follows Deng Xiaoping's strategy of "hide capabilities and bide time".
   - Expanding influence through:
     - Belt and Road Initiative (BRI)
     - Technology dominance

- Military modernization
- South China Sea assertion

Thucydides Trap

The "Thucydides Trap" refers to the possibility of war or conflict when a rising power challenges an existing dominant power.

The term was inspired by the ancient Greek historian Thucydides, who explained that the rise of Athens and the fear it created in Sparta made war inevitable.

Conflict between:

- Established power → U.S.
- Rising power → China

Established Power (U.S.) + Rising Power (China)→Strategic Rivalry

Contemporary Relevance

- Trade wars
- Technology wars
- Indo-Pacific competition
- Taiwan tensions

Implications for India

- **Dilution of Strategic Leverage:** A stabilizing détente between Washington and Beijing reduces the immediate U.S. incentive to treat New Delhi as an indispensable, frontline Indo-Pacific counterweight to China.
- **Disruption of Supply Chain Derisking:** The potential easing of U.S. technology controls and bilateral tariffs on China threatens to undermine India's "China-Plus-One" advantage by steering foreign manufacturing investments back to Chinese factories.
- **Reduced Pressure on Regional Adversaries:** Washington's prioritized transactional bilateralism with Beijing may diminish U.S. willingness to aggressively penalize or counter China's deep military-economic alignments with Pakistan.
- **Energy Security and Choke Point Vulnerabilities:** The joint U.S.-China commitment to keep the Strait of Hormuz open offers temporary relief for India's critical energy imports but underscores a superpower duopoly over global maritime lanes.
- **Imperative for Strategic Autonomy:** The sudden shift toward major-power alignment forces New Delhi to aggressively recalibrate its foreign policy, reinforce minilateral partnerships (like the Quad), and diversify its own economic networks independently.

Way Forward

- **Accelerate Domestic Manufacturing and Infrastructure:** India must rapidly reform labor, land, and logistics to absorb global supply chains, ensuring it remains the premier "China-Plus-One" destination despite any U.S.–China trade truces.
- **Deepen Strategic Autonomy and Minilateralism:** New Delhi should enhance independent partnerships with middle powers (like France, Japan, and Australia) and fortify minilaterals like the Quad to prevent a superpower duopoly from dominating the Indo-Pacific.

- **Achieve Techno-National Self-Reliance:** Government and private sectors must aggressively fund and execute national deep-tech missions in semiconductors, AI, and quantum computing to eliminate critical technological dependencies on both Washington and Beijing.
- **Strengthen Neighborhood First and Maritime Deterrence:** India must consolidate its security footprint in the Indian Ocean Region through proactive neighborhood diplomacy and rapid naval modernization to counter China's expanding maritime influence.
- **Leverage Economic Diplomacy and Free Trade Agreements:** New Delhi must fast-track high-quality bilateral FTAs with the UK, EU, and Eurasian nations to diversify its export markets and reduce vulnerability to sudden global trade realignments.

Conclusion

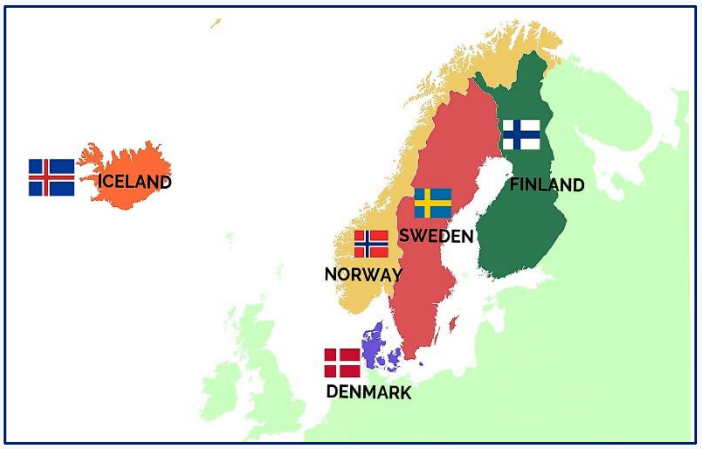
India's future lies in transforming geopolitical headwinds into strategic tailwinds. By championing **techno-national self-reliance**, forging **resilient minilateral alliances**, and securing **economic sovereignty**, New Delhi can confidently navigate the superpower duopoly and anchor the emerging multipolar world order.

Q. *The emerging rivalry between the United States and China is often explained through the concept of the "Thucydides Trap". Examine the structural nature of U.S.–China competition and discuss its implications for India's strategic autonomy. (15 marks)*

2.2.6. INDIA–NORDIC PARTNERSHIP AND THE EMERGING ARCTIC GEOPOLITICS

Context:

Prime Minister Narendra Modi visited Oslo for the 3rd India–Nordic Summit amid changing global geopolitics. Earlier India's engagement with Nordic countries focused mainly on climate cooperation, innovation and the blue economy, but now the partnership is acquiring strategic, economic and security dimensions.



Evolution of India-Nordic Engagement

The Nordic countries include **Norway**, **Sweden**, **Finland**, **Denmark**, **Iceland**

- **Phase 1 (2018–2022):** Formulated during the first summit in Stockholm (2018) and the second in Copenhagen (2022). The relationship was primarily anchored in functional cooperation:
  - Climate action and green transition.
  - Digitalization and technological innovation.
  - Blue economy and maritime cooperation.
- **Phase 2 (Present - 2026 onwards):** Driven by a shifting trans-Atlantic alliance and structural shifts in Europe, the relationship is transitioning from episodic engagement to a **sustained strategic partnership**.

Why the Partnership is Becoming Strategically Important

1. **Geopolitical Realignment:** It provides India with a trusted, non-hegemonic democratic partnership in the Indo-Pacific and Northern Europe amid escalating NATO-Russia-China polar rivalries.
2. **Monsoon and Climate Security:** Collaborative research on Arctic ice melt helps India understand and mitigate devastating disruptions to its summer monsoon and rising sea levels along its coastline.
3. **Green Energy Transition:** Nordic leadership in offshore wind, green hydrogen, and geothermal technology directly fuels India's massive renewable energy expansion and net-zero targets.
4. **Supply Chain Diversification:** Access to Sweden's rare earth elements and Norway's deep-sea mining opportunities helps India diversify its critical mineral sourcing away from China's dominance.
5. **Maritime Connectivity:** It opens avenues to link the Chennai-Vladivostok corridor to the Northern Sea Route, securing alternative, efficient maritime trade lanes to Northern Europe.
6. **Advanced Technological Synergy:** Nordic expertise in 5G/6G, artificial intelligence, and semiconductors perfectly complements India's massive engineering talent and digital manufacturing scale.

India's Arctic Engagement

India became an observer in the Arctic Council in 2013.

India's Arctic infrastructure includes:

- Himadri Research Station
- IndARC underwater observatory
- Gruvebadet atmospheric laboratory in Norway

Challenges in India's Arctic Strategy

1. **Geopolitical Tightrope Balancing:** India faces a steep diplomatic challenge in maintaining its deep energy cooperation with Russia along the Northern Sea Route without alienating the newly NATO-aligned Nordic states.
2. **Severe Lack of Hard Infrastructure:** India lacks critical domestic assets, such as heavy icebreakers and ice-class polar vessels, which heavily restricts its autonomous operational capability in the frozen Arctic waters.
3. **Absence of Dedicated Diplomatic Leadership:** Unlike other Asian observer states like China, Japan, and South Korea, India does not have a designated Special Envoy for Arctic Affairs, weakening its persistent diplomatic footprint.
4. **Massive Financial Capital Requirements:** Deploying polar-capable technologies, building specialized ships, and setting up deep-sea research infrastructure require massive, long-term capital investments that compete with immediate domestic economic priorities.
5. **China's Overwhelming Polar Dominance:** China's aggressive investments in the "Polar Silk Road," advanced icebreakers, and joint infrastructure projects with Russia leave India struggling to close a massive strategic gap in the region.

6. **Regulatory and Environmental Uncertainties:** Navigating the evolving, highly strict environmental laws of the Arctic Council regarding resource extraction and shipping limits the commercial viability of Indian private sector participation.

Way Forward

1. **Appoint a Special Envoy for Arctic Affairs:** India must designate a dedicated Arctic diplomat to ensure a persistent, high-level voice in Arctic Council negotiations, mirroring other major Asian observer nations.
2. **Fast-Track Ice-Class Shipbuilding:** India needs to aggressively utilize its Shipbuilding Financial Assistance Policy to construct at least five Arctic-capable, ice-class vessels by 2030-31 to secure early-mover logistics advantages.
3. **Operationalize an India-Arctic Economic Forum:** Establishing a formal B2B platform will effectively connect Indian industries with Nordic partners for joint ventures in sustainable shipping, specialized manpower, and infrastructure.
4. **Launch the Arctic-Himalaya Climate Data Corridor:** India should co-develop a joint scientific data network with the Nordics to map the direct meteorological teleconnections between polar ice melt and the Indian monsoon.
5. **Institutionalize Co-Development in Green Tech:** The partnership must shift from a standard buyer-seller dynamic to joint manufacturing in offshore wind components, green hydrogen production, and grid-balancing technologies.
6. **Maintain Strategic Autonomy through Dual Engagement:** India should pragmatically pursue commercial shipping opportunities with Russia on the Northern Sea Route while simultaneously partnering with the Nordic states for sustainable, rule-based Arctic governance.

Conclusion

Transforming episodic engagement into a sustained **strategic partnership** with the Nordics empowers India to master **polar geopolitics**, secure **climate-resilient monsoons**, and pioneer **green-tech innovations**, anchoring its status as a vital global **Arctic stakeholder**.

Q. *"India's engagement with the Nordic countries is evolving from climate-centric cooperation to a broader strategic partnership shaped by Arctic geopolitics and emerging global power shifts." Discuss. (15 Marks)*

2.2.7. INDIA'S FOREIGN POLICY PUSH IN UAE & EUROPE

Context

Prime Minister Narendra Modi's visit to the United Arab Emirates, Netherlands, Sweden, Norway and Italy reflected India's growing strategic engagement with Europe and West Asia amid global geopolitical instability. The visit focused on trade diversification, energy security, AI governance, climate cooperation, Arctic research, and multilateral coordination.

Strategic Background of India's Europe and UAE Outreach

- **Fractured Geopolitical Order:** Rising global instability driven by superpower friction, specifically the Russia-Ukraine war, US-Israel tensions with Iran, and China's aggressive economic policies.
- **Postponed Diplomatic Agenda:** The crucial India-Nordic Summit and several European bilateral engagements had to be rescheduled following their cancellation after the 2025 Pahalgam conflict.
- **Supply Chain Realignment:** A growing global consensus among democratic nations to de-risk economic dependencies and build resilient, alternative trade networks.
- **Domestic Resource Crunch:** The visit coincided with India's newly launched internal "austerity" drive aimed at conserving foreign exchange reserves and managing energy volatility.

Key Objectives of the Visit

- **Safeguarding National Energy Security:** Securing steady, long-term oil storage deals with the UAE and collaborating on clean energy tech with Europe to insulate India from global fuel crises.
- **Boosting Trade and Markets:** Speeding up negotiations for major economic agreements like the India-EU FTA to open new doors for Indian businesses and increase trade with the Nordic region.
- **Building Reliable Supply Chains:** Partnering with like-minded democracies to diversify global manufacturing networks and reduce reliance on economically coercive powers.
- **Collaborating on Deep-Tech and Minerals:** Setting global rules for safe Artificial Intelligence (AI) use and securing reliable access to critical minerals needed for India's tech sector.
- **Strengthening Climate and Maritime Research:** Teaming up with Nordic nations to study climate impacts in the polar Arctic and enhance security across vital global shipping routes.

Key Pillars of Engagement

- **Securing Reliable Energy Reserves:** Partnering with countries like the UAE to build long-term oil reserves and protect India from global fuel supply shocks.
- **Expanding Green and Clean-Tech Ties:** Joining forces with European and Nordic nations to share technology for climate change solutions and green energy transitions.
- **Unlocking New Trade and Markets:** Pushing forward with major trade deals like the EU and EFTA agreements to open up new markets and diversify global supply chains.
- **Cooperating on Future Tech and Materials:** Working together to build safe rules for Artificial Intelligence (AI) and securing access to essential critical minerals.
- **Advancing Arctic and Maritime Research:** Partnering with Nordic countries to study climate change impacts in the Arctic and protect vital global sea routes.

Key Challenges in India–Europe Relations

- **Balancing Conflicting Global Alliances:** Staying independent and maintaining good relations with India's traditional allies while navigating Western pressure over the wars in Ukraine and the Middle East.
- **Turning Friendly Words into Real Deals:** Moving past warm handshakes and ceremonial awards to sign actual commercial contracts and bring visible economic benefits back home.
- **Breaking Through Low Trade Volumes:** Overcoming years of slow economic progress to significantly boost business with Nordic countries, where trade is stuck at a very low level.
- **Handling Criticism Over Media Openness:** Managing diplomatic awkwardness and public criticism in Europe caused by India's hesitation to hold open, joint press conferences.

- **Aligning Different Tech and Green Laws:** Making complex international agreements on AI safety, clean energy, and mineral mining work smoothly despite India and Europe having different legal systems.

Way Forward

- **Expedite Trade Pact Ratifications:** Fast-track the signing and implementation of the upcoming India-EU FTA to turn diplomatic momentum into deep, systemic economic integration.
- **Operationalize Green and Critical Tech Frameworks:** Move from dialogue to action by setting up joint working groups to execute concrete projects under the Green Strategic Partnerships and AI governance initiatives.
- **Deepen Commercial Ties with the Nordic Region:** Actively incentivize private sector investments to aggressively push bilateral trade with Nordic countries past the current $20 billion bottleneck.
- **Bridge the Democratic Transparency Gap:** Harmonize international public relations by adopting standard democratic engagement practices, like open press briefings, to reinforce the narrative of shared values.
- **Leverage Upcoming Multilateral Forums:** Use the upcoming G-7 outreach summit in France and European bilateral visits to solidify agreements on Strategic Petroleum Reserves and supply chain resilience.

Conclusion

India's strategic pivot toward Europe and the UAE lays the groundwork for **resilient supply chains** and **green energy security**. Consolidating these ties into binding trade pacts will elevate India as a vital stabilizer in the **emerging multipolar world order.**

Q. *"Blanket bans on online gaming are often counterproductive in the digital age." Discuss in the context of the rise of offshore betting platforms and the need for a robust regulatory framework in India. (15 Marks)*

2.3. SOCIAL JUSTICE

2.3.1. FROM COVERAGE TO CARE: STRENGTHENING INDIA'S PUBLIC HEALTH SYSTEM

Context:

- India's public health sector stands at a defining moment **expanding insurance coverage** through schemes like **Ayushman Bharat PMJAY** has broadened financial access, yet the system continues to grapple with deep structural gaps in quality, affordability, and equity.
- The recently released **80th Round of the Household Social Consumption (Health) Survey** by the **National Statistical Office (NSO)** India's first comprehensive health survey in the **post-COVID era** reveals that having an insurance card still does not guarantee access to a hospital bed, making the journey from **coverage to care** India's most urgent health policy challenge.

Background: Key Highlights of the NSO 80th Round Health Survey

- **Survey Scope:** The **National Statistical Office (NSO)** released the **80th Round of the Household Social Consumption (Health) Survey** India's first comprehensive post-pandemic health survey and after **Pradhan Mantri Jan Arogya Yojana**-**PMJAY attained maturity,** covering **1,39,732 households** (**76,296 rural; 63,436 urban**) to assess healthcare access, affordability, and utilisation. Moreover, previous surveys of the same kind (**64th and 75th rounds**) had shown that most Indians lacked any form of health insurance.

A. Health-Seeking Behaviour

- **PPRA Nearly Doubles:** The **Proportion of Population Reported Ailing (PPRA)** rose from **6.8% to 12.2% in rural** and **9.1% to 14.9% in urban areas** (2017–18 to 2025), signalling improved **proactive health-seeking behaviour**, not a deterioration in health.
- **Epidemiological Transition:** India shows a **decline in infectious diseases** and rising **Non-Communicable Diseases (NCDs)** including **diabetes and cardiovascular conditions** aided by **Information, Education and Communication (IEC)** efforts and community screening.

B. Out-of-Pocket Expenditure (OOPE)

- **Median ₹11,285 Per Hospitalisation:** Over half of all hospitalisations involve low expenditure; only a few high-cost cases surgeries and cancer push up the mean. At **public health facilities**, the median OOPE per hospitalisation is just **₹1,100**, and for **outpatient care** it is **zero** supported by the **Free Drugs Service Initiative (FDSI)**, **Free Diagnostics Initiative (FDI)** (2015), and **1.84 lakh Ayushman Arogya Mandirs (AAMs)**.
- **Poor Benefit Most:** The **bottom two consumption quintiles** show a **declining OOPE trajectory**, confirming that government interventions are effectively reaching the most economically vulnerable.

C. Health Insurance Coverage

- **Threefold Expansion Under PMJAY:** Coverage under **Ayushman Bharat – Pradhan Mantri Jan Arogya Yojana (AB-PMJAY)** and State schemes rose from **12.9% to 45.5% in rural** and **8.9% to 31.8% in urban areas**, protecting vulnerable populations from **catastrophic health expenditure**.

D. Public Facility Utilisation

- **Rural Outpatient Utilisation: 28% → 35%:** Use of public facilities for outpatient care rose from **28% (2014) to 35% (2025)** in rural areas, driven by **preventive, promotive, and early diagnostic care** under AAMs.

E. Maternal and Child Health

- **Near-Universal Institutional Deliveries:** Institutional deliveries rose from **90.5% to 95.6% in rural** and **96.1% to 97.8% in urban areas** (2017–18 to 2025), driven by **Janani Suraksha Yojana (JSY)**, **Janani Shishu Suraksha Karyakaram (JSSK)**, and **Pradhan Mantri Surakshit Matritva Abhiyan (PMSMA)**. Notably, **66.8% of rural deliveries** now take place in **government health facilities** (urban: **47%**).

Challenges in India's Public Health Sector

1. **Structural Weakness in Public Hospitals**
   - India spends only about **2.1% of GDP on health (2021–22)** well below the **WHO-recommended 5%** and far behind nations like Brazil (9.6%) and Thailand (3.7%).
   - India has approximately **0.55 hospital beds per 1,000 population** against the WHO norm of 3 per 1,000, revealing a chronic **infrastructure deficit** in the public sector.
   - Public hospitals are severely short-staffed: India has just **0.65 doctors per 1,000 people** (WHO recommends 1 per 1,000), with acute shortages in **rural and semi-urban areas**.
   - Private hospitals dominate **tertiary and super-speciality care** while public facilities remain largely confined to primary and basic secondary care, creating a **dual-tier healthcare system**.
2. **Insurance Coverage Without Genuine Access**
   - **PMJAY reimbursement rates are often below market rates**, making many private hospitals reluctant to empanel or causing them to recover costs through separate charges on patients.
   - The survey confirms: while insurance coverage has grown threefold, the **hospitalisation rate has not returned to pre-2014 levels** showing that the poor remain practically excluded despite being nominally covered.
   - **Awareness gaps** about entitlements and empanelled hospitals further reduce the effective utilisation of insurance, especially among **women, elderly, and marginalised communities**.
3. **Underfunded Preventive and Chronic Care**
   - The **Ayushman Arogya Mandir (AAM) network** formerly Health and Wellness Centres which provides free medicines and diagnostics, is **significantly underfunded relative to NCD management needs**.
   - India's NCD burden is rising rapidly: NCDs account for **over 60% of all deaths** in India (ICMR, 2023), requiring sustained medicines, diagnostics, and specialist follow-ups all expensive and largely private.
   - **Generic medicine availability** under Pradhan Mantri Bhartiya Janaushadhi Pariyojana (PMBJP) is patchy in rural areas, limiting affordable access to essential chronic care drugs.
4. **Financial Risk Despite Nominal Protection**
   - The **catastrophic health expenditure** defined as OOPE exceeding 10% of household income still affects roughly **17% of Indian households** (National Health Accounts, 2022).
   - The 80th Round confirms this duality: while the median OOPE has dropped, the **mean OOPE has roughly doubled**, reflecting that a minority of households face very high expenditures particularly for surgeries, cancer treatment, and organ care.
   - **Health expenditure remains a leading cause of indebtedness and poverty in India**, with an estimated **55 million people pushed into poverty annually** due to healthcare costs (World Bank).
5. **Urban-Rural and Gender Disparities**
   - Rural areas have far fewer public health facilities per capita, with only **25,743 Community Health Centres** against a requirement of over 35,000 (RHS 2022–23).

- **Women's access to healthcare** is constrained by mobility, social norms, and the concentration of gynaecology and maternal care facilities primarily in district hospitals.

Government Initiatives: Building the Architecture of Universal Health Coverage

- **Ayushman Bharat PMJAY (2018):** Provides health cover of **₹5 lakh per family per year** for secondary and tertiary hospitalisation to over **12 crore poor and vulnerable families** the world's largest government-funded health insurance scheme.
- **Ayushman Arogya Mandir (AAM):** Converted from Sub-Health Centres and PHCs to provide **comprehensive primary care** including free essential medicines, diagnostics, and telehealth services; **over 1.72 lakh centres** operationalised by 2024.
- **Pradhan Mantri Jan Arogya Yojana (PM-JAY) Expansion (2024):** Extended to cover **all citizens above 70 years of age** irrespective of income, addressing the vulnerable elderly population.
- **National Health Mission (NHM):** Aims to strengthen **rural health infrastructure**, focusing on maternal and child health, immunisation, and disease control through a network of ASHAs, ANMs, and health workers.
- **PM Ayushman Bharat Health Infrastructure Mission (PM-ABHIM):** A ₹64,180 crore scheme to develop critical healthcare infrastructure at the block, district, and metropolitan levels, particularly strengthening **public hospitals for pandemic preparedness and tertiary care**.
- **Pradhan Mantri Bhartiya Janaushadhi Pariyojana (PMBJP):** Over **10,000 Janaushadhi Kendras** provide generic medicines at 50–90% less than market prices, reducing OOPE for chronic disease patients.
- **eSanjeevani Telemedicine:** India's national telemedicine platform has recorded **over 30 crore consultations** (2024), bridging specialist access in rural and remote areas.

Global Best Practices: Lessons India Can Learn

- **Thailand's Universal Coverage Scheme (UCS):** Thailand achieved near-universal health coverage by investing heavily in **public hospital networks** and setting regulated fees for all facilities, resulting in the private sector's OOPE share dropping to under 12%. India can adopt **regulated pricing mechanisms** for PMJAY-empanelled hospitals.
- **Brazil's Sistema Único de Saúde (SUS):** Brazil's unified public health system, funded by dedicated taxes, provides **free universal healthcare** through strong primary care — reducing hospitalisation by preventive management. India's shift toward **strengthening primary care through AAM** mirrors this model.
- **Rwanda's Community-Based Health Insurance (CBHI):** Rwanda achieved over **90% insurance coverage** by integrating community health workers into insurance enrolment and care delivery a model relevant to India's ASHA network.

Way Forward: Strengthening India's Public Health Sector

A. Expand and Upgrade Public Hospital Capacity

- India must urgently increase **public sector hospital beds** from 0.55 to at least 2 per 1,000 population, with a special focus on **district hospitals and medical colleges** to enable tertiary care competition with the private sector.

- Under PM-ABHIM, fast-tracking the development of **Critical Care Blocks in every district** will reduce dependence on expensive private hospitals for emergency and speciality care.

B. Reform PMJAY Reimbursement and Regulate Private Providers

- Reimbursement rates under PMJAY must be periodically revised to reflect actual treatment costs, and **empanelled hospitals must be prohibited from charging separately for diagnostics** and ancillary services already included in packages.
- A dedicated **Health Regulatory Authority** similar to the Insurance Regulatory and Development Authority (IRDAI) can monitor hospital billing, quality standards, and patient grievances.

C. Adequately Fund the AAM Network for NCD Management

- The **Ayushman Arogya Mandir (AAM) network** must receive **dedicated NCD care funding** including point-of-care diagnostics for diabetes, hypertension, and cancer screening so that chronic disease patients are managed at the primary level, reducing costly hospitalisations.
- **Universal free essential medicines** for NCDs at all public health facilities, similar to Tamil Nadu's model, can dramatically cut OOPE for the poor.

D. Strengthen Health Workforce

- India must produce more doctors, nurses, and paramedics the **National Medical Commission's push to increase MBBS seats** must be matched by expanding post-graduate medical education to reduce the specialist shortage.
- **Community Health Officers (CHOs) deployed at Health and Wellness Centres** should be expanded and empowered to provide first-line chronic disease management.

E. Increase Public Health Expenditure

- India must progressively increase **public health expenditure to 2.5% of GDP** as committed in the National Health Policy 2017, and further toward the WHO-recommended 5% with **dedicated funds for public hospital upgradation** and telemedicine infrastructure.
- States should be incentivised through **GST devolution conditionalities** tied to health infrastructure outcomes, encouraging higher state-level health spending.

F. Leverage Technology and Data

- The **Ayushman Bharat Digital Mission (ABDM)** creating unique health IDs, digitising health records, and enabling health data exchange must be accelerated to reduce duplication of diagnostics and improve clinical decision-making.
- Real-time OOPE and disease burden data from surveys like the 80th Round must be **integrated into health policy planning cycles** at the state level for targeted interventions.

Conclusion

- The **80th Round of the Household Social Consumption (Health) Survey** by the **National Statistical Office (NSO)** clearly shows that while **insurance coverage has expanded**, **gaps in access, infrastructure, and affordability continue to persist**.

- India must now focus on **strengthening public hospital infrastructure for tertiary care**, regulating **private providers under insurance schemes**, **fully funding preventive and chronic care**, and **progressively increasing public health expenditure** — so that every Indian citizen's right to affordable, quality healthcare moves from a **constitutional aspiration to a lived reality**.

Q. *India's healthcare challenge is no longer just about financial protection but about ensuring actual access to care. Discuss the key challenges in India's public health system and suggest measures to strengthen public sector hospital capacity. (15 Marks)*

2.3.2. RISING INEQUALITY IN INDIA: TRENDS, DIMENSIONS AND POLICY CONCERNS

Context:

Recent policy developments such as the implementation of the new Labour Codes and the replacement of Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA) with the Viksit Bharat-Guarantee for Rozgar and Ajeevika Mission (Gramin) Bill, 2025 have reignited debates on inequality, labour welfare and rural distress in India.

What is Inequality?

Inequality is the structural disparity in the distribution of economic assets (income, wealth) and life chances (education, healthcare, political voice). It is not merely about "having less," but about the **gap** between different segments of a population.

Major Types of Inequality

1. **Income Inequality:** Unequal distribution of salaries, wages and earnings among individuals, where high-income groups earn disproportionately more than low-income workers.

   Example: A corporate CEO earning lakhs per month while a daily wage labourer earns only a few hundred rupees a day.

2. **Wealth Inequality:** Unequal ownership of assets such as land, property, gold, shares and businesses, leading to concentration of wealth in a few hands.

   Example: A small percentage of Indians owning large urban properties and financial assets while many rural families remain landless.

3. **Consumption Inequality:** Differences in the ability of households to spend on goods and services such as education, healthcare and lifestyle needs.

   Example: Urban affluent families spending heavily on private education and luxury goods while poor households struggle to afford basic nutrition.

4. **Social Inequality:** Unequal access to opportunities and resources based on caste, gender, religion, class or region.

   Example: Women and Scheduled Castes often facing barriers in employment, education and social mobility compared to dominant social groups.

Measuring Inequality

1. **Gini Coefficient**

   A statistical measure used to assess the degree of inequality in income, wealth or consumption distribution within a society.

   - Gini Coefficient = 0 → Perfect Equality (Everyone has equal income or resources)
   - Gini Coefficient = 1 → Perfect Inequality (One person possesses all income or resources)

   Example:

   If two households earn almost the same income, inequality is low; but if one household earns significantly more than others, inequality is high.

2. **Monthly Per Capita Expenditure (MPCE)**

   MPCE measures the average monthly consumption expenditure per person in a household and is widely used to study consumption inequality in India.

   Formula:

   MPCE = Total Monthly Household Expenditure ÷ Total Number of Family Members

   Example:

   If a family spends Rs. 20,000 per month and has 5 members, then MPCE = Rs. 4,000.

Key Findings on Inequality in India

Based on the **World Inequality Lab (2024)** and the **NSSO Household Consumption Expenditure Survey (HCES 2023-24)**, here are 5 crisp points for your notes:

- **Rise of the "Billionaire Raj":** Inequality in India has skyrocketed since the early 2000s. As of 2022-23, the **top 1%** of the population holds **22.6% of the national income** and **40.1% of the total wealth**, marks that are historically higher than even the British Colonial Raj.
- **Declining Consumption Inequality:** Contrary to wealth trends, the **Gini Coefficient for consumption** has shown a decline. In 2023-24, it dropped to **0.237 (Rural)** and **0.284 (Urban)**, suggesting that while wealth is concentrating at the top, basic consumption is becoming slightly more distributed across the broader population.
- **Narrowing Rural-Urban Gap:** The consumption gap between rural and urban India is shrinking. The difference in Monthly Per Capita Expenditure (MPCE) fell from **84% in 2011-12 to 70% in 2023-24**, driven largely by faster growth in rural non-food spending.
- **Shifting Spending Patterns (Non-Food Dominance):** For the first time, food accounts for **less than half** of the average rural household's expenditure (47%). Spending has shifted toward conveyance, consumer durables, and processed foods, reflecting a transition in the rural economy.
- **Welfare Net Impact:** Social welfare programs (like free food grains under PMGKY) have a measurable impact on the bottom deciles. When "imputed values" of free items are included, the MPCE for the poorest 5-10% shows the highest growth rate, indicating that the safety net is propping up bottom-tier consumption.

Causes of Rising Inequality in India

1. **Skill-Biased Technological Change (SBTC):** Rapid digitalization and AI adoption disproportionately reward high-skilled workers in the tech and service sectors. Conversely, low-skilled workers face stagnant wages or job displacement due to automation.

2. **Regressive Taxation and Loopholes:** High reliance on indirect taxes (like GST) burdens the poor more than the rich as a percentage of income. Simultaneously, the ultra-wealthy often leverage tax exemptions and loopholes to pay lower effective rates.
3. **Capital Concentration vs. Labor Stagnation:** Returns on capital (stocks, real estate) have historically outpaced growth in real wages. This "Piketty Effect" ensures that those who already own assets accumulate wealth much faster than those relying solely on labor.
4. **Informality and Job Polarisation:** Over 90% of India's workforce remains in the informal sector without social security or collective bargaining power. This creates a "dual economy" where a tiny formal elite prospers while the rest remain in subsistence.
5. **Low Female Labor Force Participation (FLFP):** Persistent gendered barriers keep India's FLFP at a low (approx. 15.7%), leading to "missing" household income. This gender gap suppresses the economic mobility of nearly half the population.
6. **Structural Gaps in Human Capital:** Unequal access to high-quality healthcare and "elite" education creates a cycle of intergenerational poverty. Children from affluent backgrounds access high-value networks, while others remain trapped in low-productivity cycles.

Key Government Initiatives to Reduce Inequality

1. **Viksit Bharat—G RAM G Act, 2025**

   Replacing MGNREGA, this Act increases the statutory employment guarantee from 100 to **125 days** per rural household. It prioritizes the creation of climate-resilient assets and "saturation-based" delivery to ensure no eligible rural family is left without a livelihood.

2. **PM Garib Kalyan Anna Yojana (PMGKAY) Extension**

   The government has extended this massive food security net until **December 2028**, providing 5kg of free food grains monthly to over 80 crore people. This serves as a critical buffer against food inflation, protecting the bottom 60% of the population from consumption shocks.

3. **Social Security for Informal & Gig Workers (e-Shram)**

   With the **Code on Social Security (2020)** coming into force in late 2025, gig and platform workers are being integrated into the e-Shram portal. This provides them with Universal Account Numbers (UAN) and access to health insurance under **Ayushman Bharat (AB-PMJAY)**.

4. **PMAY 2.0 (Urban & Gramin)**

   Launched in late 2024, PMAY 2.0 targets the construction of **3 crore additional houses** to bridge the housing gap. By focusing on "Housing for All," the initiative aims to reduce wealth inequality by providing permanent physical assets to the landless and urban poor.

5. **National Social Assistance Programme (NSAP) Saturation**

   The 2026-27 policy shift aims for **100% saturation** in social pensions for the elderly, widows, and disabled persons. Through Direct Benefit Transfer (DBT), the mission eliminates middlemen to ensure that the most vulnerable receive monthly financial aid directly in their bank accounts.

6. **Pradhan Mantri Jan Vikas Karyakram (PMJVK)**

   This scheme targets "Horizontal Inequality" by developing socio-economic infrastructure in historically marginalized and minority-concentrated areas. It focuses on schools, health centers, and skill labs to ensure that regional disparities do not hinder individual economic mobility

Way Forward: Mitigating Inequality

1. **Universal Social Security:** Accelerate the transition of informal workers into the formal sector via the **e-Shram** portal to provide portable health, pension, and insurance benefits.
2. **Progressive Fiscal Policy:** Balance the tax structure by exploring **wealth/inheritance taxes** for the ultra-rich while lowering GST on essential commodities to reduce the burden on the poor.
3. **Investing in the Care Economy:** Expand public childcare and elderly care to improve **Female Labour Force Participation (FLFP)** and address gender-based economic gaps.
4. **Outcome-Oriented Human Capital:** Shift focus from "access" to "quality" in education and health to ensure **intergenerational mobility** regardless of a household's paying capacity.
5. **Labor-Intensive Growth:** Incentivize high-employment sectors (textiles, food processing) via **PLI 2.0** to create mass jobs for the semi-skilled workforce and counter skill-biased disparity.
6. **Rurban Industrialization:** Decentralize industries through the **Viksit Bharat Mission (Gramin)** to create agro-processing clusters, keeping value addition and income within the rural economy.

Conclusion

To achieve **Viksit Bharat by 2047**, India must bridge structural gaps through inclusive growth. Prioritizing social security, progressive taxation, and rural industrialization will ensure that prosperity is shared equitably, leaving no citizen behind.

Q. *Inequality in the ownership pattern of resources is one of the major causes of poverty. Discuss in the context of 'paradox of poverty'. (15 Marks)*

***

Scan to attempt more questions...

GENERAL STUDIES 3

3.1. ECONOMY

3.1.1. INDIA'S ENERGY SECURITY IN A FRAGMENTED GLOBAL ORDER

Context:

The recent conflicts in West Asia and the Russia-Ukraine war have highlighted how geopolitical crises directly affect India's economy, especially through energy prices and supply chains. India's energy security is no longer only about cheap imports; it now depends on resilience, diversification, and strategic preparedness.

The Evolving Paradigm of Energy Security

- **From "Cheap Fuel" to "Strong Buffers"** Energy security has shifted from simply finding the lowest price to building a system that can survive sudden global shocks. Nations are now choosing to pay more for "insurance" such as extra storage and spare supply capacity prioritizing economic safety over simple market efficiency.
- **Diversification and "Power of Choice"** True security now depends on having a diverse "basket" of suppliers, allowing a country to quickly pivot if one region becomes unstable. India's strategy of balancing Russian imports with traditional Gulf ties is a prime example of using "optionality" to maintain steady supplies.
- **The Fragility of Sea Lanes** Even with many suppliers, the physical journey of oil remains a major risk because it often passes through narrow "chokepoints" like the Strait of Hormuz. Because 25% of global oil travels through these vulnerable areas, protecting sea routes with naval strength has become as important as the fuel itself.
- **Energy as a Shield for the Economy** Steady energy supplies are now seen as the foundation of a healthy domestic economy, directly affecting inflation and growth. By securing supply chains, a nation protects its citizens from "imported" economic crises, ensuring that global volatility doesn't derail domestic prosperity.

Global Energy Market: Breakdown of the Old Order

- **From Pipelines to Sea Routes:** The Russia-Ukraine war destroyed the myth of pipeline reliability, pushing the world toward sea-borne LNG. This shift has elevated the strategic risk of maritime **chokepoints**, such as the **Strait of Hormuz**, where local conflict now dictates global prices.
- **Security Over Savings:** The "just-in-time," low-cost procurement model has been replaced by a **"security-first"** approach. Nations now treat energy as an insurance policy, investing heavily in massive strategic reserves and spare capacity to buffer against supply shocks.
- **The Power of "Optionality":** Fixed, long-term dependencies on single suppliers are over. Large importers like India now utilize **"optionality"** the ability to switch between diverse sources like Russia, the US, and the Gulf—to maintain leverage and stability.
- **Europe's Strategic Pivot:** Europe has permanently severed its reliance on cheap Russian gas, which once met 45% of its demand. This collapse forced a rapid grid redesign, a 20% drop in consumption, and a total commitment to the global LNG market.

- **New "Green" Vulnerabilities:** The energy transition is trading oil dependency for a reliance on **critical minerals**. The global risk is shifting from "extracting fuel" to "controlling processing," creating new geopolitical dependencies on nations that dominate the battery supply chain.

Government Initiatives on India's Energy Security

1. **Strategic & Maritime Security**
   - **Operation Sankalp:** Launched by the Indian Navy to ensure the safe passage of Indian-flagged vessels through the **Strait of Hormuz** and the Gulf region.
   - **Strategic Petroleum Reserves (SPR) Programme:** To create a "national insurance" against supply chain breaks, India is building massive underground storage facilities. Current capacities in **Visakhapatnam, Mangaluru, and Padur** are being expanded to increase the number of days India can survive without imports.
2. **Diversification of Energy Mix**
   - **National Green Hydrogen Mission (NGHM):** With an outlay of **₹19,744 crore**, it aims to make India a global hub for Green Hydrogen. The goal is to produce 5 MMT per year by 2030, potentially saving over ₹1 lakh crore in fossil fuel imports.
   - **PM JI-VAN Yojana:** Focuses on creating an ecosystem for **Second Generation (2G) Bioethanol**. By converting agricultural waste (like stubble) into fuel, it supports the **Ethanol Blending Programme (EBP)** and reduces reliance on imported crude.
   - **PM-KUSUM & PM Surya Ghar:** These schemes focus on "solarizing" the demand side agriculture and households to reduce the burden on the national grid and decrease the fiscal cost of energy subsidies.
3. **Securing Future Technologies**
   - **National Critical Mineral Mission (NCMM):** Launched in **2025**, this mission is vital for the transition to EVs and renewables. It focuses on:
   - **Domestic Exploration:** Targeting over 1,200 sites for minerals like Lithium and Cobalt.
   - **Overseas Acquisition:** Through **KABIL** (Khanij Bidesh India Ltd), India is securing mineral assets in the "Lithium Triangle" (South America) and Australia.
   - **Recycling Incentives:** A ₹1,500 crore scheme to recover critical minerals from e-waste and old batteries.
4. **Geopolitics and Diplomacy**
   - **International Solar Alliance (ISA):** A global platform led by India to promote solar energy deployment, particularly in "sun-shine" countries, reducing global dependence on fossil-fuel-rich regions.
   - **Global Biofuels Alliance (GBA):** Launched during India's G20 presidency to accelerate the global uptake of biofuels, creating a more stable and diversified alternative fuel market.

Challenges to India's Energy Security

- **Extreme Import Dependence:** India remains structurally vulnerable, importing nearly 90% of its crude oil requirements while domestic production remains stagnant at around 28.7 MMT. This creates a direct link between global geopolitical volatility and domestic inflation/GDP growth.

- **Geographic and Maritime Bottlenecks:** Diversifying suppliers does not solve the "chokepoint" problem, as nearly 45% of imports still transit through the Strait of Hormuz. Regional tensions in these sea lanes necessitate costly military interventions, like Operation Sankalp, to ensure supply continuity.
- **The "Processing" Monopoly:** The shift toward green energy introduces a new reliance on critical minerals (Lithium, Cobalt, Rare Earths) where China controls over 90% of production. India currently processes less than 5% of its future battery-grade needs, risking a shift from oil-dependency to mineral-dependency.
- **Strategic Reserve Inadequacy:** Compared to peers like Japan (254 days of reserves), India's strategic petroleum reserves (SPR) are still in an early stage of expansion. Current capacity lacks the depth required to cushion the economy against a prolonged total disruption of global supply chains.
- **Energy Transition Paradox:** While the transition to EVs and solar reduces long-term oil demand, the short-term cost of technology adoption and infrastructure overhaul is immense. Transitioning too fast without a secure mineral supply chain could destabilize the energy market before the benefits are realized.

Way Forward for India's Energy Security

- **Scaling Strategic Petroleum Reserves (SPR):** India must rapidly expand its underground storage capacity beyond the current phases to match the resilience of nations like Japan. Increasing the "days of cover" ensures a larger buffer against sudden supply shocks or total blockages of maritime chokepoints.
- **Securing Critical Mineral Supply Chains:** To avoid a new dependency on China, India needs to aggressively pursue "mineral diplomacy" through the KABIL consortium. This involves acquiring overseas assets and building domestic high-end processing facilities for lithium, cobalt, and rare earths.
- **Enhancing Maritime Defense and Diplomacy:** Strengthening the Indian Navy's "Blue Water" capabilities is essential for securing vital sea lanes like the Strait of Hormuz. Sustained initiatives like Operation Sankalp should be integrated into a broader maritime security framework with regional partners.
- **Decarbonization and Demand Side Management:** The "oil intensity" of the Indian economy must be reduced by accelerating the FAME-II scheme for EVs and shifting freight from road to rail. Incentivizing green hydrogen and biofuels will decouple industrial growth from global crude price fluctuations.
- **Leveraging "Market Power" for Better Terms:** As a rare engine of incremental oil demand, India should negotiate more favorable "destination-free" contracts and eliminate the "Asian Premium." Using this leverage allows India to secure supply priority and pricing discounts during periods of global surplus.

Conclusion

India must transition from **tactical agility** to **structural resilience**. By securing **critical mineral chains** and expanding **strategic reserves**, India can decouple its **macroeconomic stability** from **geopolitical shocks**, ensuring a **sustainable, self-reliant** energy future.

Q. *"Energy security in the 21st century is no longer limited to access to oil, but includes resilience, diversification and supply-chain security." Discuss in the context of India's changing geopolitical environment. (15 Marks)*

3.1.2. CAPITAL FLIGHT AND RUPEE UNDER PRESSURE

Context:

- India's external sector is under significant stress in 2026, with the **rupee crossing the 95 mark against the US dollar**, foreign exchange reserves have fallen by **USD 38 billion in just two months** to approximately **USD 691 billion**, and a widening **Current Account Deficit (CAD)** (the difference between the total value of goods and services a country imports versus exports) driven by soaring crude oil and gold imports.
- The government has called upon citizens to reduce non-essential purchases of gold, cut back on overseas travel, and conserve fuel. While this is a signal of the seriousness of the situation, understanding the **root causes, risks, and real solutions** is far more important for any policy discussion.

Present Macroeconomic Situation: Understanding the Factors of External Stress

1. **Crude Oil Imports Are Draining Foreign Exchange**
    - India imports nearly **89 per cent of its crude oil needs**. With the **West Asia conflict** causing disruption to global oil supplies, particularly through the **Strait of Hormuz** (a narrow sea passage through which nearly one-fifth of the world's oil travels), **Brent crude has surged above USD 100 per barrel**.
    - Every single dollar increase in crude oil prices adds approximately **USD 1.5 to USD 2 billion to India's annual import bill**. State-owned **Oil Marketing Companies (OMCs)** are currently absorbing losses of nearly **Rs 30,000 crore every month** because retail fuel prices have been kept unchanged, placing severe pressure on government finances.
    - The cost of **imported agricultural inputs like urea and ammonia has nearly doubled to USD 935 per tonne**. This creates a difficult policy choice: passing the cost to farmers risks **food inflation**, while absorbing the cost risks **breaching the fiscal deficit target**, with no comfortable middle ground available.
2. **Record Gold Imports Are Directly Widening the Trade Deficit**
    - India is the **world's second largest consumer of gold after China**. Despite already holding thousands of tonnes of idle household gold, fresh import demand has remained very strong.
    - The gold import bill reached a **record USD 71.98 billion in Financial Year 2025-26**, nearly doubling from USD 35 billion in 2022-23. Gold now accounts for almost **9 per cent of India's total import bill**.
    - Unlike gold purchased by the Reserve Bank of India (RBI) as part of its foreign reserve strategy, **household gold imports do not add to the country's productive capacity** or generate

export earnings. They simply convert rupees into dollars, widen the Current Account Deficit, and put downward pressure on the rupee.

3. **High Overseas Spending Is Draining Discretionary Foreign Exchange**
   - The **Liberalised Remittance Scheme (LRS)** allows Indian residents to send up to **USD 250,000 abroad per financial year** for purposes such as education, travel, and investment. However, spending on **foreign travel and overseas events accounted for over 50 per cent** of all LRS outflows in the first 11 months of FY26.
   - This large volume of **discretionary outward spending** adds further pressure on foreign exchange reserves at a time when every dollar saved matters for macroeconomic stability.

Key Concern: Understanding the Taper Tantrum and Why Capital Flight Is Doubly Worrying

A **key concern for India's external sector** is not just what is happening now, but what **could happen if foreign central banks raise interest rates** in the future.

A. How Capital Flows Work in an Interconnected World

- **Emerging market economies** like **India typically offer higher returns on investments** compared to **developed economies**, but they also carry higher risks, including **currency depreciation** and **inflation risk**. **Foreign investors** constantly **compare returns** on **Indian assets** with **returns on assets** in developed countries like the **United States** and the **United Kingdom.**
- If **foreign interest rates rise**, the **relative attractiveness** of holding Indian assets decreases. **Foreign investors** then sell Indian assets and repatriate their money, which involves **exchanging rupees for dollars**. This **additional demand for dollars weakens the rupee further**.

B. Taper Tantrum of 2013

- A **classic example of this risk** occurred in 2013. After the **2008 Great Recession**, the **US Federal Reserve** had pushed **interest rates to near zero** (called the **zero lower bound**) and had been buying bought large amounts of government bonds to inject money into the economy (called **QE-quantitative easing**).
- When the **Federal Reserve** merely **announced a possible end to this programme** without actually raising rates, the mere **expectation of higher future interest rates** caused **a massive and sudden withdrawal of capital** from **emerging market economies** including **India.** This episode is known as the '**Taper Tantrum**'.

C. Why India's Position in 2026 Is More Alarming Than 2013

- The **US Federal Reserve and the Bank of England** have held rates at **3.75 per cent since December 2025** with no signal of a hike. Yet capital is **already fleeing India** and the rupee is already falling, meaning investors have **acted on anticipated future hikes** without any formal announcement. If developed economies eventually do raise rates to contain **oil-driven inflation**, India's external vulnerabilities will intensify sharply with **limited fiscal and monetary room** to respond.
- The **only available tools** to defend the rupee at that point would be raising domestic interest rates (which would hurt domestic investment) or imposing **capital controls** (which could deter foreign investors and damage India's reputation as an open economy).

- Additionally, with **imported agricultural inputs such as urea and ammonia** doubling in cost to **USD 935 per tonne**, passing on these costs to **farmers risks food inflation**, while absorbing them threatens to breach **fiscal deficit targets**.

Why India Is Calling for Economic Austerity: The Government's Response

The government's call for citizens to reduce gold purchases, overseas travel, and fuel use is a **demand-side intervention**, meaning it tries to reduce the country's outflow of foreign exchange by changing people's spending behaviour rather than through formal policy restrictions. Each element has a specific economic purpose:

- **Reducing gold purchases** directly cuts the demand for dollars used to finance imports, easing pressure on both the **Current Account Deficit** and the rupee. The government has also introduced **higher import duties on gold** as a supplementary measure.
- **Promoting work-from-home, carpooling, and virtual meetings** reduces petroleum consumption without imposing politically sensitive fuel price increases. The fiscal savings this creates can be redirected to secure **fertilizers and energy imports** that are essential for agriculture and the approaching Kharif sowing season.
- **Encouraging domestic tourism over foreign travel** keeps money within the Indian economy, supports local businesses, and conserves foreign exchange that would otherwise flow out under the Liberalised Remittance Scheme.

Impact of Excessive Import Restrictions

- **Disrupting Manufacturing and Exports:** India's manufacturing sector is deeply integrated into **Global Value Chains (GVCs)** and depends heavily on imported capital goods, semiconductors, and specialised raw materials.
  - Restricting these imports to conserve forex would directly hurt **industrial output, export competitiveness, and GDP growth**. Key export sectors such as pharmaceuticals, electronics, and refined petroleum products all rely on imported inputs.
- **Protectionism Trap:** High tariff barriers or aggressive import substitution can protect domestic industries in the short term but breed **inefficiency and loss of global competitiveness** over time. This paradoxically **weakens India's export earnings**, the very source of sustainable forex inflows.
- **Spooking Foreign Investors:** Foreign Institutional Investors (FIIs) and long-term Foreign Direct Investment (FDI) flows require **predictable and open capital account management**. If India is perceived as becoming overly restrictive, investors will attach a higher **country risk premium** to Indian assets, triggering more capital outflows rather than reducing them.

Way Forward: From Crisis Management to Structural Resilience

- **Revamping the Gold Monetisation Scheme (GMS):** India holds thousands of tonnes of idle household gold. A well-incentivised and transparent GMS can channel this into the formal financial system, **reducing the need for fresh gold imports** without suppressing demand through blunt tariff tools.
- **Scaling Exports as the Sustainable Forex Strategy:** The most durable solution to a widening Current Account Deficit is earning more foreign exchange. Expanding **Production Linked Incentive (PLI) schemes**, easing the business environment, and attracting stable **Foreign Direct Investment (FDI)** over volatile FII flows will build long-term resilience.

- **Accelerating Energy Transition:** Scaling up **Electric Vehicles (EVs), the National Green Hydrogen Mission**, and Thorium-based nuclear energy are structural necessities to reduce India's **dependence on imported fossil fuels** and decouple economic growth from the volatility of the Strait of Hormuz.
- **Calibrated RBI Monetary Policy:** The RBI must continue to manage exchange rate volatility prudently, using reserves strategically. If foreign central banks do eventually raise rates, India may need to consider **measured domestic rate adjustments** to protect the interest rate differential that keeps India attractive to foreign capital.

Conclusion

- India's external sector stress in 2026, driven by soaring import bills, capital flight, and a depreciating rupee, is not a temporary disruption but a reflection of **deep structural dependencies on imported oil and gold** that have built up over decades and are now being exposed by a global crisis.
- Lasting stability requires India to move beyond crisis-mode demand compression towards **structural reforms in energy, exports, and financial instruments**, so that the economy is genuinely resilient to external shocks rather than perpetually vulnerable to them.

Q. *India's present external sector stress reflects deeper structural vulnerabilities rather than a temporary global shock. Examine. 15 Marks*

3.1.3. INDIA'S PATH TO VIKSIT BHARAT BY 2047

Context:

- India has recorded a real **Gross Domestic Product (GDP) growth** of **6.5% in FY 2024–25**, making it one of the **fastest-growing major economies in the world**, supported by **strong domestic demand, macroeconomic stability**, **controlled inflation**, and **gradual fiscal consolidation**,
- The **Economic Survey 2025–26** highlights that India's future growth must increasingly depend on a **productivity-led transformation** driven by all three engines of growth — **Labour, Capital, and Total Factor Productivity (TFP)** — as excessive dependence on the services sector alone cannot generate large-scale employment or sustain broad-based structural transformation for India's vast working population.
- Achieving the vision of **Viksit Bharat by 2047** will therefore require a decisive transition from merely achieving high growth to ensuring efficient and productive growth, with **manufacturing** emerging as the central pillar.

Manufacturing: Role of Manufacturing and its Missing Link in India's Development Journey

A. Role of Manufacturing in National Development

- **Bridge Between Sectors:** In every successful development story — particularly in **East Asian economies** such as South Korea, Taiwan, and China — manufacturing served as the critical

bridge between **low-productivity agriculture and high-productivity modern sectors**, enabling a smooth and broad-based structural transformation.

- **Employment at Scale:** Manufacturing is uniquely capable of absorbing large numbers of workers, including those without high educational qualifications, and providing them with stable, formal employment — something the **services sector** alone cannot achieve at the scale India needs.
- **Economic Survey's Position:** The **Economic Survey 2025–26** has explicitly stated that **manufacturing is central to sustaining India's growth and generating employment at scale**, reinforcing the urgency of making manufacturing both bigger and more productive.

B. India's Manufacturing Gap: Why the Sector Has Fallen Short

- **Services-Led, Not Manufacturing-Led:** India's economic growth has been predominantly **services-driven**. While services have performed well, manufacturing has **not expanded sufficiently** to absorb the large workforce or generate broad-based productivity gains across the economy.
- **Labour Stuck in Agriculture:** As a result of weak manufacturing growth, a **disproportionately large share of India's labour force** remains in **low-productivity agriculture**, unable to move into more productive and better-paying sectors — the very transition that development requires.
- **Missing Middle in Firm Structure:** India's manufacturing is dominated by **a large number of very small, low-productivity firms** and has very few mid-sized firms capable of scaling up. In contrast, East Asian economies built **strong cohorts of medium and large firms** that drove exports and industrial growth — India's 'missing middle' is a key structural weakness.
- **Efficiency Gap Despite Infrastructure:** Despite **significant recent investments in infrastructure**, efficiency gaps in India's manufacturing sector persist, meaning that returns on capital invested remain below potential, a problem rooted not just in hardware but in how firms are organised and managed.

Key Challenges Preventing Productivity from Rising

A. Weak Business Dynamism and the Problem of Creative Destruction

- **Creative Destruction:** Economists describe **creative destruction** as the process by which **new, more efficient firms replace older, less productive ones** — freeing up capital and labour for better uses. This is the primary engine of productivity growth in modern economies.
- **India's Slow Churning:** In India, this process remains sluggish. Inefficient firms continue to survive for long periods, while productive newer firms struggle to access the **credit, land, and labour** they need to grow — a pattern that collectively suppresses overall productivity.

B. Zombie Firms: A Persistent Drain on the Economy

- **Zombie Firms:** Zombie firms are companies that are **no longer economically viable** — they cannot earn enough to even cover their interest payments — yet continue to operate, kept alive by **bank loans or regulatory forbearance** rather than genuine business performance.
- **Scale of the Problem:** A 2025 research paper titled **'Zombie Firms in Emerging Markets: Survival and Funding Mechanisms'** reveals that while zombie firms form a **small share of total firms**, they account for a **disproportionately large share of total debt and assets** — meaning a significant volume of the economy's resources is locked in unproductive use.

- **Crowding Out Productive Firms:** By occupying credit, labour, and capital, zombie firms **crowd out productive firms** that could grow and generate employment — directly undermining India's productivity and job creation goals.
- **Gradual and Persistent Nature:** The research shows that **zombification is not a sudden crisis but a slow, persistent deterioration** — financial decline begins well before a firm is formally identified as a zombie, and once there, recovery is rare and often temporary.
- **Bank Financing Worsens Outcomes:** Crucially, the **source of financing matters**: firms funded primarily through **bank loans** are far more likely to become zombies and remain so for longer, whereas **equity-financed firms** recover faster and are less prone to zombification — pointing to a structural weakness in India's bank-dominated financial system.

C. Institutional Failures That Keep Inefficient Firms Alive

- **Reluctance to Recognise Losses:** India's **financial and regulatory structures** have historically supported continued operation of stressed firms rather than facilitating their orderly exit — due to bank reluctance to recognise bad loans and regulatory delays in insolvency resolution.
- **Insolvency Bottlenecks:** The **Insolvency and Bankruptcy Code, 2016**, while a landmark reform, still faces **capacity constraints and delays** in the National Company Law Tribunal, slowing down the reallocation of assets from failed firms to productive ones.
- **Rigid Factor Markets:** Inefficiencies in **land, labour, and capital markets** further restrict productive firms from scaling up and unproductive ones from exiting cleanly — trapping resources across the economy.

Government Initiatives to Strengthen Manufacturing and Productivity

- **Production Linked Incentive (PLI) Scheme and PLI 2.0:** Launched across **14 key sectors** including electronics, pharmaceuticals, and automobiles to incentivise large-scale manufacturing and integrate India into Global Value Chains (GVCs) and transform India into a major global manufacturing hub through higher value addition and technological advancement.
- **PM GatiShakti — National Master Plan:** A **multi-modal infrastructure connectivity plan** to reduce logistics costs, ease movement of goods, and directly improve manufacturing competitiveness.
- **National Logistics Policy, 2022:** Aims to reduce India's high logistics costs from **14–16% of Gross Domestic Product to 8% by 2030**, bringing them closer to global benchmarks and easing the cost burden on manufacturers.
- **Insolvency and Bankruptcy Code, 2016:** Provides a **time-bound resolution mechanism** for stressed firms, enabling exit of unviable businesses and reallocation of their assets to productive use, though further strengthening is needed.
- **Labour Code Reforms:** Consolidation of **29 central labour laws into 4 Labour Codes** to simplify compliance, improve flexibility, and encourage formal employment in manufacturing.
- **Make in India and MSME (Micro, Small and Medium Enterprises) Reforms:** Focused on **ease of doing business**, collateral-free credit, and formalisation to help small firms grow and access formal financial markets.

Way Forward for Achieving the Goal of Viksit Bharat through Productivity-Led Growth

- **Deepen Global Value Chain Integration:** India must reduce **tariff and non-tariff barriers**, improve trade facilitation, and position itself as a reliable manufacturing partner in high-growth sectors like electronics, chemicals, and defence to capture a larger share of global production.
- **Boost Research and Development in Manufacturing:** Increasing investment in **research and development, technology adoption, and innovation** through industry-academia linkages and public-private partnerships will drive sustained productivity improvements across manufacturing.
- **Strengthen the Insolvency Framework:** Expanding **National Company Law Tribunal capacity**, reducing resolution timelines, and improving creditor rights will enable faster exit of zombie firms and quicker reallocation of resources to more productive uses.
- **Shift Financing Towards Equity:** Developing **deeper capital markets, venture capital ecosystems, and angel investor networks** will reduce dependence on bank financing, lower the risk of zombie firm formation, and improve the overall resilience of the business sector.
- **Reform Credit Allocation:** Introducing **stricter early-warning systems and proactive non-performing asset recognition** in banks will reduce the flow of credit to unviable firms and redirect it towards productive enterprises.
- **Simplify Regulations and Implement Labour Codes:** Reducing **regulatory compliance burdens** and effectively implementing the four Labour Codes will allow firms to scale, restructure, and respond to market conditions without unnecessary rigidity.

Conclusion

Achieving the vision of **Viksit Bharat by 2047** will require India to move beyond high GDP growth toward sustained **productivity-led development** through stronger manufacturing, efficient resource allocation, and deep structural reforms that enable productive firms to grow while allowing inefficient firms to exit.

Q. *Why has India's manufacturing sector not emerged as a strong engine of productivity growth and labour absorption despite rapid economic expansion? Discuss with suitable measures. (15 Marks)*

3.1.4. INDIA'S STRATEGIC PETROLEUM & GAS RESERVES: ENERGY SECURITY CHALLENGE

Context:

The recent hike in petroleum prices after four years highlighted India's structural vulnerability in the energy sector. Rising crude oil prices, rupee depreciation, inflationary pressures, and pressure on foreign exchange reserves exposed the inadequacy of India's Strategic Petroleum Reserves (SPR) and gas storage infrastructure.

What are Strategic Petroleum Reserves (SPR)?

Strategic Petroleum Reserves (SPRs) are large stockpiles of crude oil maintained by countries to safeguard against **unexpected supply disruptions**, geopolitical crises, or economic shocks.

Key Features

- **Purpose:** To cushion the economy from sudden oil supply shocks, prevent extreme domestic price spikes, and maintain national security.
- **Storage Method:** Typically stored securely underground in massive **salt caverns** or **rock caverns** to prevent evaporation, minimize fire hazards, and protect against external attacks.
- **Global Benchmark:** The International Energy Agency (IEA) mandates that member countries maintain emergency oil stocks equivalent to at least **90 days** of net oil imports.
- **Ownership:** Governed and funded directly by central governments, distinct from the commercial inventories held by private oil marketing companies.

India's Current Petroleum Reserve Status

1. **Capacity & Days of Cover**
   - **Dedicated Strategic Petroleum Reserve (SPR) Capacity: 5.33 Million Metric Tonnes (MMT)** (~39 million barrels).
   - **Pure SPR Cover:** Provides approximately **9.5 days** of net crude import cover at full capacity. (Currently filled to roughly **64%** capacity).
   - **Total National Cover: 74 days** of storage capacity (combining the 9.5-day SPR with 64.5 days of commercial/refinery inventory held by Oil Marketing Companies).
2. **Infrastructure Locations**

   Managed by the **Indian Strategic Petroleum Reserves Limited (ISPRL)**, the reserves are housed in underground rock caverns across two phases:

   Phase I (Fully Operational)

   - **Visakhapatnam, Andhra Pradesh:** 1.33 MMT
   - **Mangaluru, Karnataka:** 1.50 MMT *(Includes commercial partnership with UAE's ADNOC)*
   - **Padur, Karnataka:** 2.50 MMT

   Phase II (Under Development / High Priority)

   Approved to add **6.5 MMT** of capacity under a Public-Private Partnership (PPP) model to raise independent SPR cover to ~22 days:

   - **Chandikhol, Odisha:** 4.0 MMT
   - **Padur, Karnataka (Phase II):** 2.5 MMT
3. **Gas & Allied Hydrocarbon Buffers**
   - **LNG (Natural Gas):** Lacks dedicated underground strategic storage. Relies on a floating **10% buffer mandate** at commercial regasification terminals, providing an operational cushion of about **60 days**.
   - **LPG:** Maintained via domestic rolling stocks and a recent production ramp-up (to 54,000 tonnes/day) providing **45 days** of buffer against a national demand of 80,000 tonnes/day.

Why is India Vulnerable?

- **Extreme Import Dependency:** India imports over 85% of its crude oil and around 50% of its natural gas requirements, making its economy highly sensitive to global supply shocks.

- **Critically Low Strategic Buffer:** India's dedicated SPRs hold less than 10 days of crude oil consumption, which is vastly inadequate compared to the 90-day global benchmark recommended by the IEA.
- **Absence of Strategic Gas Storage:** India completely lacks dedicated underground strategic reserves for LNG and LPG, leaving vital sectors like agriculture (fertilizers) and households highly exposed to spot-market spikes.
- **Fiscal and Currency Vulnerability:** High global oil prices rapidly deplete India's foreign exchange reserves, weaken the Indian Rupee, and trigger severe domestic imported inflation.
- **Geopolitical Exposure:** Lacking a massive strategic energy cushion forces India to constantly navigate volatile global geopolitics and sanctions regimes to secure uninterrupted, discounted energy shipments.

International Comparison

Country	SPR Capacity	Key Feature
United States	~714 million barrels	Built after 1973 oil shock
China	~900 million barrels	Massive strategic buildup
India	~39 million barrels	Limited reserve capacity

Strategic Implications Strategic Petroleum Reserve (SPR) system for India

- **Macroeconomic Insulation:** A deep SPR cushions the economy against global oil shocks, protecting the Indian Rupee from sharp depreciation and keeping domestic inflation in check.
- **Geopolitical Lever and Strategic Autonomy:** Massive reserves allow India to resist external diplomatic pressures and sanctions, giving it the freedom to negotiate independent energy deals.
- **National Security and Defence Readiness:** A guaranteed emergency fuel supply ensures that military operations and critical national infrastructure remain fully functional during maritime blockades or wartime disruptions.
- **Fiscal Stability and Deficit Control:** Drawing from reserves during price spikes prevents heavy under-recoveries by oil companies, protecting the government from sudden fiscal deficit expansions.
- **Supply Chain and Food Security:** Expanding reserves to include gas (LNG) ensures uninterrupted feedstock for fertilizer plants, directly safeguarding India's agricultural output and food security.

Government Initiatives

- **PPP & Commercialization Shift:** Phase II expansions (Chandikhol and Padur) use a commercial-cum-strategic PPP model, leasing storage to foreign/private firms while retaining sovereign first right to the crude during crises.
- **International Energy Diplomacy:** India partnered with global majors like UAE's ADNOC to store overseas crude directly in Indian caverns (e.g., Mangaluru), securing a zero-cost external supply buffer.
- **Mandated Gas Floating Buffers:** Lacking underground storage, the government mandates domestic LNG terminals to maintain a rolling **10% buffer** of all incoming shipments for strategic state use

Challenges India faces in building and managing its SPRs

- **High Capital Investment:** Constructing massive underground caverns and filling them with millions of barrels of crude oil requires astronomical upfront financial investments from the government.
- **Geological and Land Constraints:** Finding suitable geological structures, such as unlined rock caverns or salt domes, requires extensive geographical mapping and complex land acquisition processes.
- **Slow Infrastructure Execution:** Phase II of India's SPR program has faced significant delays due to bureaucratic hurdles, shifting toward Public-Private Partnership (PPP) models, and long construction timelines.
- **Storage Degradation and Costly Management:** Maintaining crude oil underground for long periods requires constant monitoring, high operational costs, and periodic commercial "cycling" to prevent oil quality degradation.
- **Absence of Private Sector Enthusiasm:** Attracting foreign oil majors or private investors to build and manage these reserves is difficult due to strict government regulations and lower financial returns on strategic infrastructure.

Way Forward

- **Expedite Phase II Construction:** India must accelerate the development of its planned Phase II caverns at Chandikhol and Padur to quickly add 6.5 MMT of capacity and double its strategic cushion.
- **Establish Strategic Gas Storage:** The government needs to prioritize building dedicated underground storage for LNG and LPG to insulate the critical fertilizer and domestic cooking sectors from international market spikes.
- **Leverage Commercialization and PPP Models:** India should offer flexible commercial terms to international oil companies, allowing them to store oil in Indian caverns while reserving the first right of refusal for domestic use during crises.
- **Explore Salt Cavern Storage Technology:** Moving toward salt cavern storage—which is cheaper, faster to develop, and easier to operate than rock caverns—can significantly scale up storage capacity in regions like Rajasthan.
- **Diversify and Secure Long-Term Contracts:** India must combine physical storage with aggressive energy diplomacy, locking in long-term supply agreements and diversifying import sources to ensure steady inflows even during global supply chain re-alignments.

Conclusion

Expanding and modernizing India's SPR network through advanced tech and deep global partnerships will secure its **economic resilience, transform energy vulnerabilities** into **strategic autonomy**, and fuel **sustainable future growth**.

Q. *Discuss how inadequate strategic petroleum and LNG reserves increase India's vulnerability to global geopolitical and economic shocks. Suggest measures to strengthen India's long-term energy security architecture. (15 Marks)*

3.1.5. INDIA'S EV TRANSITION AND THE POWER GRID CHALLENGE

Context:

Rising crude oil prices due to tensions in the Strait of Hormuz have renewed focus on India's transition toward Electric Vehicles (EVs). However, the larger challenge lies not merely in EV adoption, but in building a power grid capable of sustaining mass electrification of transport.

Present Status of India's EV Transition

- India has nearly **420 million registered vehicles**.
- **Total Sales:** Crossed a major milestone of **2.55 million units** annually, representing a strong **25% Year-on-Year (YoY) growth**.
- **Overall Penetration:** EVs now account for **8.64%** of total automotive registrations in India (up from 7.7% in the previous fiscal).
- **Target vs. Reality:** While momentum is steady, current adoption still trails the government's ambitious target of **30% EV penetration by 2030**.

The Arithmetic of a "Second Power System"

- **The Scale:** India has ~420 million registered vehicles. Full electrification requires **900 TWh to 1,100 TWh** of additional electricity per year.
- **The 2047 Target:** Even a moderate **50% fleet conversion by 2047** demands **~500 TWh**, equivalent to **one-third of India's current annual electricity generation**.
- **The Illusion of Two-Wheelers:** 309 million electric two-wheelers (the largest fleet class) would consume only **55 TWh–75 TWh** (less than 7% of total projected EV demand).

Freight: The Heavy Lift

Freight and goods vehicles represent barely **2% of the registered fleet** but will drive the bulk of EV power demand.

A single Heavy Goods Vehicle (HGV) produces emissions equivalent to roughly 25 passenger cars. Electrifying roads fundamentally means electrifying supply chains.

Government Initiatives

- **PM E-DRIVE Scheme:** Replaced the older FAME framework with a ₹10,900 crore outlay to provide upfront demand subsidies for electric two-wheelers, three-wheelers, e-ambulances, and e-trucks.
- **PLI Scheme for Advanced Chemistry Cell (ACC):** Offers financial incentives to establish a 50 GWh domestic manufacturing capacity for advanced battery storage cells to reduce heavy import dependence.
- **PLI Scheme for Automobile and Auto Components:** Targets deep localization of the clean energy supply chain by offering cash incentives to local manufacturers of high-tech electric vehicle components.

- **GST & Tax Incentives:** Lowers the financial barrier for consumers by capping the Goods and Services Tax (GST) on EVs at a minimal **5%** (compared to up to 28% for internal combustion engine vehicles).
- **FPC-Linked Highway Charging Mandates:** Funds the state-led rollout of target infrastructure to establish **72,300 public fast chargers** across high-density city hubs and Dedicated Freight Corridors.

Major Challenges & Grid Vulnerabilities

- **Instantaneous Peak Demand & Grid Instability:** Grids are stressed by instantaneous load, not annual volume. Unmanaged charging especially during the **7:00 PM evening peak**—could add several hundred gigawatts of load, causing grid instability, supply disruptions, and power tariff spikes.
- **Upstream Energy Mix (The Coal Trap):** If the incremental terawatt-hours needed for EVs are generated from coal, India merely swaps oil dependence (Gulf) for coal dependence (Australia/Indonesia) without achieving net-carbon reduction. The transition loses logic if the grid isn't cleaner than the fuel it replaces.
- **Distribution & Financial Bottlenecks:** Fleet operators seeking high-tension connections at freight depots face long delays. State Power Distribution Companies (**Discoms**) are already burdened by massive accumulated financial losses and have not budgeted for the required localized distribution upgrades.
- **Downstream E-Waste Crisis:** Hundreds of millions of EV batteries will eventually reach end-of-life. India currently lacks the heavy-industrial recycling infrastructure needed to handle this scale, risking a new waste crisis.

Way Forward

- **Integrated Capacity Planning:** Transition EV load from a footnote to a primary variable in the **National Electricity Policy**, explicitly modeling 30%, 50%, and 100% fleet electrification scenarios up to 2047.
- **Mandate Smart Charging Standards:** Legislate that all new charging infrastructure must possess smart-charging capabilities at the equipment standard level to prevent future retrofitting costs.
- **Demand-Side Management (DSM):** Deploy structural tools like **Time-of-Use (ToU) pricing**, workplace charging mandates during solar hours, hub-based battery storage, and battery swapping networks.
- **Joint Power Mapping:** Conduct a coordinated power-mapping exercise specifically for the **Golden Quadrilateral** and **Dedicated Freight Corridors (DFCs)** before electric trucks hit commercial scale.
- **Inter-Ministerial Governance:** Establish a formal institutional mechanism bridging the Ministries of **Transport, Power, and Distribution Finance** to eliminate isolated planning.
- **EV-Ready Discom Reforms:** Integrate explicit "EV-readiness benchmarks" into the **Revamped Distribution Sector Scheme (RDSS)** to strengthen last-mile financial and technical capability.

Conclusion

To achieve **sustainable mobility**, India must look beyond scooters to revolutionize its grid. **Strategic capacity planning**, **smart-charging mandates**, and a **diversified clean energy portfolio** will turn grid vulnerabilities into the backbone of zero-emission freight logistics.

Q. *"The political visibility of India's two-wheeler electric transition risks obscuring a deeper infrastructure challenge rooted in supply chain electrification." Critically analyze the challenges faced by India's electrical grid in light of full fleet electrification by 2047. (15 Marks)*

3.1.6. IMPROVING FERTILIZER USE EFFICIENCY FOR SUSTAINABLE AGRICULTURE IN INDIA

Context:

- The ongoing tensions in **West Asia** and rising fuel and fertilizer prices have exposed India's dependence on imported inputs for fertilizer production. Although India meets nearly **80% of its urea demand domestically**, the sector remains dependent on imported fuel, while **phosphatic fertilizers** are largely imported due to the absence of sufficient **rock phosphate reserves** in the country.
- Moreover, **green ammonia**, produced through the electrolysis of water using solar energy, is emerging as an alternative for fertilizer production, but its sustainability remains limited in **water stressed regions.**
- At the same time, **nitrogen and phosphorus fertilizers** remain crucial for India's **food security**. However, despite spending nearly **₹2 lakh crore annually on fertilizer subsidies**, more than **two thirds of the subsidy amount** is lost through inefficiency and pollution rather than contributing effectively to agricultural output.

Understanding Chemical Fertilizers

Chemical fertilizers are **synthetic, industrially manufactured substances** containing high concentrations of **essential plant nutrients**, produced through processes like the **Haber-Bosch Process**, which combines **atmospheric nitrogen** with **hydrogen** derived from **natural gas under high pressure.**

- **Three Big Nutrients: NPK**
  - **Nitrogen (N):** Essential for **leaf** and **shoot growth**. The **most common form** used in India is **Urea**, which accounts for the **largest share of fertilizer consumption**.**Phosphorus (P):** Critical for **root development**, **flowering,** and **seed formation**. The common form is **DAP (Di-ammonium Phosphate)**, which **India imports** almost entirely **due to the absence of domestic rock phosphate reserves**.
  - **Potassium (K):** Supports **plant health, disease resistance,** and **water regulation**, usually applied as **MOP (Muriate of Potash)**.
  - The **Nitrogen, Phosphorus, and Potassium ratio** in some regions has reached an alarming **34:10:1 against the ideal of 4:2:1**, reflecting severe and dangerous nutrient imbalance in Indian soils.

Importance of Fertilizers for Improving Agricultural Productivity and Economic Stability in India

A. Role in Agricultural Productivity

- **High-yielding variety (HYV) seeds** are completely dependent on **chemical fertilizers** to realize their genetic potential. Without adequate NPK supply, HYV crops cannot produce optimal yields.
- Fertilizers enable **multiple cropping cycles** per year across **Rabi, Kharif, and Zaid** seasons by quickly **replenishing soil nutrients** between consecutive harvests on limited arable land.
- Beyond foodgrains, fertilizers are critical for **oilseeds, pulses, and fodder crops** that support India's **dairy sector**, the largest in the world.

B. Macroeconomic Significance

- **Agriculture employs 42% of India's workforce** and contributes **17 to 18% of GDP**. Fertilizer availability and affordability directly determine rural income, consumption, and broader economic growth.
- Adequate fertilizer use maintains surplus production of **rice and wheat** essential for the **Public Distribution System (PDS)**, which underpins India's food security architecture.
- Stable agricultural productivity helps control **food inflation** and keeps the **Consumer Price Index (CPI)** predictable, supporting sound monetary policy and macro stability.
- **For Kharif 2026**, the Union Cabinet approved **Rs. 41,534 crore in subsidies** for **Phosphatic and Potassic fertilizers** alone, an increase of over **Rs. 4,300 crore** from the previous year.

Major Challenges Associated with Chemical Fertilizer Use in India

- **Import Dependence and Supply Vulnerability:** India lacks sufficient reserves of **rock phosphate, potash, and sulphur**, making it heavily dependent on fertilizer imports. Geopolitical tensions in **West Asia** and possible disruptions in the **Strait of Hormuz**, through which nearly **30% of global fertilizer trade** passes, threaten fertilizer availability and price stability. Rising fuel prices also increase production costs for the **urea industry**, which relies heavily on imported natural gas.
- **Rising Subsidy Burden and Policy Distortion:** India spends nearly **₹2 lakh crore annually** on fertilizer subsidies. For **Kharif 2026**, the government approved **₹41,534 crore** subsidy for **P and K fertilizers**, increasing fiscal pressure. Moreover, **Urea** remains outside the **Nutrient Based Subsidy, NBS** framework, making it cheaper than other fertilizers and encouraging excessive nitrogen use.
- **Imbalanced Fertilizer Use and Low Efficiency:** In several regions, the **NPK ratio** has become highly distorted at **34:10:1** against the ideal **4:2:1**. The **Nitrogen Use Efficiency, NUE** of urea remains very low, with **only about one third absorbed by crops,** while the rest is lost through volatilisation, runoff, and leaching.
- **Soil Degradation and Fertilizer Trap:** Excessive fertilizer use depletes **soil organic matter** and weakens water and nutrient retention capacity. This creates a **fertilizer trap**, where **declining soil fertility forces farmers to use more fertilizers** without proportionate yield increases, especially in States like **Punjab and Bihar**.
- **Environmental and Health Concerns:** Excessive fertilizer application causes **groundwater contamination, air pollution, biodiversity loss, eutrophication, and greenhouse gas emissions**. Continuous chemical use has also created deficiencies of **Zinc, Boron, and Sulphur**, reducing long term soil health.

- **Weak Adoption of Sustainable Alternatives:** Traditional practices such as **green manuring, crop rotation, composting, and biofertilizers** remain limited. At the same time, challenges related to **Nano Urea and Nano DAP**, including **inconsistent performance, lack of awareness, and limited access to drone** based spraying technologies, hinder the transition towards sustainable nutrient management.

Government Initiatives Improving Fertilizer Efficiency and Reduce Dependence

- **PM-PRANAM Scheme:** Promotes **balanced and responsible use of fertilizers** by **incentivising states** that reduce fertilizer consumption below the baseline, linking financial rewards to efficiency outcomes.
- **Nano Urea and Nano DAP:** These next-generation fertilizers enhance **Nutrient Use Efficiency (NUE)** by delivering nutrients directly in liquid nano form, reducing physical volumes, logistics costs, and foreign exchange outflow on imports.
- **Neem Coated Urea (NCU):** Introduced to slow the release of nitrogen and reduce ammonia losses to the atmosphere, though it has not been sufficient to fully address nitrogen use inefficiency.
- **Paramparagat Krishi Vikas Yojana (PKVY):** Promotes **organic and natural farming** as an alternative to chemical-intensive agriculture across identified clusters.
- **GOBARdhan Scheme:** Converts cattle waste into **Bio-CNG and Bio-slurry**, providing farmers with high-quality organic nutrient sources as a substitute for chemical fertilizers.
- **Soil Health Card (SHC) Scheme:** Provides crop-wise nutrient recommendations based on farm-specific soil testing, helping farmers avoid unnecessary fertilizer application.
- **Dalhan Aatmanirbharta Mission (October 2025):** Committed to **100% MSP procurement of Tur, Urad, and Masoor** for four years, with an allocation of **Rs. 11,440 crore** to scale up pulse production to **350 lakh tonnes per year** in five years. However, as per April 2026 data, pulse sowing area grew by only a **negligible 1.26%** over the previous year, indicating poor implementation.

Way Forward for Improving Fertilizer Use Efficiency in India

- **Shift from Fertilizer Supply Expansion to Nutrient Use Efficiency:** India must move beyond a subsidy driven supply approach and focus on improving **Fertilizer Use Efficiency** by producing more crop output with lower fertilizer application. Reviving the **Interministerial National Nitrogen Steering Committee** is essential to ensure coordinated action across agriculture, fertilizer, water, food, and environment sectors.
- **Reform Cropping Patterns and Procurement Policies:** Expanding government procurement beyond **rice and wheat** to include **pulses, oilseeds, and millets** can reduce excessive urea consumption and encourage crop diversification. Promoting **pulse and legume based crop rotations** is crucial, as legumes naturally fix atmospheric nitrogen and require minimal urea use. Shifting even **20% of rice cultivation area towards pulses** can save fertilizers, conserve water, and improve nutritional security.
- **Promote Organic and Biological Nutrient Sources:** India must significantly expand the use of **manure, compost, biochar, green manure, and biofertilizers** to restore soil organic carbon and reduce chemical fertilizer dependence. Fertilizer recommendations should prioritise organic inputs as the basal dose, while chemical fertilizers should only supplement nutrient deficiencies.

A balanced transition towards **40% organic sources, 30% biofertilizers, and 30% chemical fertilizers** can improve long term sustainability.

- **Expand Precision Agriculture and Efficient Nutrient Delivery:** Precision farming techniques such as **site specific soil testing, drip fertigation, and drone based foliar spraying** should be scaled up to minimise nutrient losses and improve **Nutrient Use Efficiency, NUE**. These technologies ensure targeted fertilizer application and reduce pollution caused by runoff and volatilisation.
- **Strengthen Research and Climate Resilient Crop Varieties:** Greater investment is needed in developing and promoting crop varieties with **higher nutrient efficiency and lower fertilizer requirements**. Indian research shows that improved **rice germplasm** can significantly increase nitrogen use efficiency while maintaining crop yields.
- **Undertake Structural Fertilizer Policy Reforms:** Bringing **Urea** under the **Nutrient Based Subsidy, NBS** framework is necessary to correct pricing distortions and reduce excessive nitrogen use. Expanding **Direct Benefit Transfer, DBT** and strengthening the **Integrated Fertilizer Management System, iFMS** can improve subsidy targeting, prevent diversion of subsidised fertilizers, and promote balanced nutrient application.

Conclusion

- India's fertilizer challenge is fundamentally a **systemic failure** rooted in policy distortions, procurement imbalances, and poor inter ministerial coordination, and resolving it demands a transformation of the entire **farming systems approach** rather than isolated interventions.
- Therefore, with bold reforms in crop procurement, genuine incentives for **pulse and legume cultivation**, investment in soil health, and structural pricing corrections, India can break free from the fertilizer trap and secure **food security, fiscal sustainability, and environmental resilience** simultaneously.

Q. *India's fertilizer crisis is not merely a supply issue, but a structural challenge linked to cropping patterns, subsidy distortions, and declining soil health. Examine. 15 Marks*

3.1.7. INDIA'S EXPORT DIVERSIFICATION AND GLOBAL TRADE COMPETITIVENESS

Context:

- **India's export sector** has shown **significant resilience** despite global trade disruptions, geopolitical tensions, and slowing world demand. **Merchandise exports** grew by nearly **14% in April 2026** to **$43.6 billion**, while **non-oil exports** also increased by around **9%**, reflecting India's growing diversification and supply chain strength.
- However, India still faces major challenges related to **cost competitiveness, logistics efficiency, quality standards, and global market integration**.

Emerging Growth Drivers in India's Export Economy

A. Electronics and Premium Smartphone Manufacturing

- **Shift to High-Value Manufacturing:** India has rapidly moved from being a basic assembly destination to a **sophisticated global manufacturing hub**, riding the **'China Plus One'** supply chain realignment that has pushed multinational companies to diversify away from China.
- **PLI-Driven Transformation:** The **Production Linked Incentive (PLI) scheme** has actively incentivised component manufacturing, pushing the sector towards high-value premium devices. **Smartphone exports reached a record $30 billion in the Calendar Year 2025**, driven heavily by Apple, pushing total electronics exports past the **₹4 trillion milestone**.

B. Services Sector and Global Capability Centres

- **Services as the Primary Trade Anchor:** India's services sector has become the most resilient pillar of external trade, effectively cushioning merchandise trade deficits. The **share of services in total exports has risen to 49%** in 2026, compared to just 39% in 2014.
- **Beyond Basic IT Outsourcing:** The explosive growth of **Global Capability Centres (GCCs)** delivering high-end research and development, Artificial Intelligence, and financial solutions has elevated India's knowledge exports globally. **Services exports touched an all-time high of $387.6 billion in the Financial Year 2024–25**, with January 2026 alone contributing an estimated **$43.90 billion**.

C. Defence Indigenisation and Strategic Export Pivot

- **From Importer to Exporter:** India has orchestrated a profound strategic reversal — shifting from historical dependence on defence imports to emerging as a **credible net exporter of advanced military hardware**, underpinned by the **Atmanirbhar Bharat** mandate and negative import lists.
- **Record Defence Exports:** Defence exports surged to a record **₹23,622 crore ($2.8 billion) in Financial Year 2024–25**. India now exports to over **100 nations**, including the United States, France and Armenia, and is pursuing significant export deals for **BrahMos missiles** with countries like Vietnam and Indonesia.

D. Strategic Trade Diversification and Free Trade Agreements

- **New Destinations, New Pathways:** The government data shows that at least **20 exporting sectors have added 17 or more new destinations** in the last year. For example, **handloom products are now exported to 29 more countries** than in 2024–25, reflecting the real-world impact of India's diversification push.
- **Free Trade Agreements Bearing Fruit:** The **India–EFTA Trade and Economic Partnership Agreement (TEPA)** guarantees a landmark, legally binding Foreign Direct Investment commitment of **$100 billion over 15 years**. New agreements with the European Union and New Zealand provide tariff elimination on key Indian exports. The United Nations Conference on Trade and Development (UNCTAD) currently ranks India **third in the Global South** for trade diversification.

E. Pharmaceuticals and Engineering Goods

- **Pharma Beyond Generics:** India's pharmaceutical sector is evolving from basic generics to producing advanced **biologicals and complex formulations** for highly regulated global

markets. **Overall pharmaceutical exports rose 9.4% to $30.47 billion in Financial Year 2024–25**, crossing the $30 billion milestone.

- **Engineering Goods Resilience:** Engineering goods — one of India's key export sectors — exported more in April 2026 than in the same month last year, demonstrating resilience in supply chains. **Engineering goods exports surpassed $10.40 billion in January 2026**, driven by upgradation towards high-tech automotive, aviation, and infrastructure supply chains.

F. Agricultural Exports and Clean Energy Manufacturing

- **Stable Agricultural Exports:** India's **agricultural exports** maintained a formidable **$51.9 billion milestone in 2025**, with a **deliberate shift from volatile raw commodity exports towards climate-resilient, value-added processed foods** such as ready-to-eat meals and organic millets, supported by **Mega Food Parks** and **Agricultural and Processed Food Products Export Development Authority (APEDA)** market intelligence.
- **Solar Module Exports Surging:** India is capitalising on global energy transition realignments, with **solar module exports rising 30.7% in April–October 2025**, with the United States accounting for almost the entire increase. This conversion from import dependency to export strength has been powered by **multi-billion-dollar PLI allocations** for domestic solar photovoltaic manufacturing.

Major Challenges Limiting India's Export Competitiveness

A. Structural Logistics Constraints

- **High Logistics Costs:** Despite the push under **PM GatiShakti**, India's logistics costs remain high due to over-reliance on road transport. **Roads dominate with about 71% of freight movement**, railways carry **around 18%,** and **Inland Water Transport** remains **marginal at just 2%,** inflating the final landed cost of Indian goods.
- **West Asia Trade Disruption:** The **West Asia crisis** has caused exports to the region to fall by **28% in April 2026**. Imports from the region fell 32%, exposing India's vulnerability to geopolitical disruptions.

B. Carbon Border Adjustment Mechanism and Green Compliance

- **CBAM as a New Trade Barrier:** The European Union's **Carbon Border Adjustment Mechanism (CBAM)**, which entered its financial phase in January 2026, poses a severe threat to **India's carbon-intensive exports** like **steel, aluminium, and cement**. Indian steel exporters may face an additional tax burden of **20–35%**, potentially wiping out the price advantage of Indian-made metals in Europe.
- **MSME Compliance Gap:** Many Indian **Micro, Small and Medium Enterprises (MSMEs)** lack the sophisticated carbon accounting infrastructure required for CBAM compliance, risking either high carbon taxes or total exclusion from the lucrative European Union market.

C. Credit Gap and Low Free Trade Agreement Utilisation

- **MSME Credit Gap:** The current credit gap for MSMEs is estimated at a staggering **₹30 lakh crore**, with export credit interest rates often **2–4% higher** than those available to global competitors, making it **difficult for small exporters** to scale up to international quality standards.
- **Low Free Trade Agreement Utilisation:** Despite several high-**profile Free Trade Agreements**, the **actual utilisation rate among domestic exporters** remains below **25% for**

older agreements, compared to 70–80% in advanced trading nations. **Complex Rules of Origin** requirements and lack of awareness are the primary barriers.

D. Inverted Duty Structures, Non-Tariff Barriers and Concentration Risk

- **Inverted Duty Structure:** A persistent inverted duty structure, where **raw materials** are taxed at a **higher rate than finished products**, disincentivises domestic value addition in critical sectors like **electronics** and **chemicals**.
  - India's historical dependence on **China** for over **70% of its Active Pharmaceutical Ingredient (API)** requirements also exposes pharmaceutical exports to critical supply disruptions.
- **Non-Tariff Barriers and Concentration Risk:** Indian exporters increasingly face stringent **Sanitary and Phytosanitary (SPS) measures** in the **United States** and **European Union**.
  - Under the **Harmonised System code HS04**, India faced **344 shipment rejections** between **2010 and 2024**.
  - Additionally, the export basket remains heavily concentrated in petroleum products and gems and jewellery, **high sensitivity to commodity price swings** makes the trade balance structurally vulnerable.

Way Forward to Strengthen India's Export Competitiveness

- **Unified Digital Trade Architecture:** India must operationalise an AI-driven **Single Window 2.0** merging customs, shipping, and quality certification bodies, automating **Rules of Origin** verification and offering **Trusted Supplier green-channel** clearances to eliminate friction for MSMEs.
- **Strategic Component Manufacturing and PLI 3.0:** Policy must pivot from final assembly to **deep-tier component manufacturing** through **PLI 3.0** for **rare earth processing, semiconductor materials**, and **chemical intermediates**, reducing import dependency.
- **Green Export Credit and Carbon Accounting Framework:** A **Green Export Credit facility** must subsidise decarbonisation in **steel and textiles**, while indigenous carbon accounting frameworks help exporters navigate CBAM compliance proactively.
- **Port-Led Industrialisation and Modal Rebalancing:** Integrating **Dedicated Freight Corridors** directly into automated **Mega Ports**, and shifting freight from roads to coastal shipping and inland waterways, can structurally deflate landed costs by **20–30%** and sharpen India's price competitiveness.
- **Free Trade Agreement Facilitation Centres and Trade Attaches:** The government should establish **FTA Facilitation Centres** at the district level providing commodity-specific tariff intelligence, and deploy dedicated Trade Attaches in emerging markets like the **Gulf Cooperation Council** and **Africa**, ensuring India harvests the benefits of its signed trade deals.
- **Diversified Trade Finance and Export Factoring:** Integrating the **Trade Receivables Discounting System (TReDS)** with international trade platforms and establishing a **Sovereign Export Insurance Fund** will unlock **collateral-free working capital for MSMEs** and open high-growth non-traditional markets.
- **Quality Harmonisation and Mutual Recognition Agreements:** India must pursue **Mutual Recognition Agreements (MRAs)** with major trading partners so that Indian laboratory certifications are accepted globally, while investing in **National Quality Infrastructure** and state-of-the-art testing clusters to prevent repeated rejection of agricultural and pharmaceutical exports.

Conclusion

India's strong export performance reflects the early success of diversification efforts, but sustaining this momentum will require deep structural reforms in logistics, finance, quality standards, and manufacturing capabilities so that the country can emerge as a globally competitive export driven economy.

Q. *India's export diversification strategy has improved resilience against global trade disruptions, but structural bottlenecks continue to limit export competitiveness. Examine. 15 Marks*

3.2. ENVIRONMENT

3.2.1. CARBON MONEY MUST STAY AT HOME

Context:

- The **European Union's Carbon Border Adjustment Mechanism (CBAM)** which came into full force on **January 1, 2026** is **Europe's bold climate instrument**, but for developing nations like India, it increasingly resembles a trade barrier dressed in green clothing.
- The deeper question is not whether carbon pricing is legitimate, but whether India will remain a passive rule-taker or assert itself as a sovereign rule-maker in the rapidly unfolding global green economy.

Background: Understanding the EU's Carbon Border Adjustment Mechanism (CBAM)

- **What is CBAM?:** The **Carbon Border Adjustment Mechanism (CBAM)** is the EU's policy to impose a carbon cost on imports of certain goods entering Europe, placing them on par with **EU-produced goods** that already pay a price for their carbon emissions under the **EU Emissions Trading System (ETS),** the **world's largest carbon market**, operational **since 2005**.
- **EU ETS as the Foundation: European producers** must purchase **carbon allowances** corresponding to their **greenhouse gas emissions**. Imported goods traditionally carried no equivalent carbon cost, giving them a price advantage — CBAM eliminates this gap by pricing the embedded carbon in imports at the point of entry.
- **Core Objective:** CBAM aims to **create a level playing field** by pricing the **embedded carbon in imports at the EU border**, aligning trade with climate goals.
- **Key Policy Linkages:** CBAM is closely tied to the EU's **Green Deal** and its goal of achieving **net-zero emissions by 2050**.
    - It is also connected to global trade rules under **General Agreement on Tariffs and Trade (GATT)**, particularly **Article III (National Treatment)**.
- **Sectoral Coverage:** Initially applies to **six carbon-intensive sectors like steel, aluminium, cement, fertilisers, electricity, and hydrogen** with plans to expand to **around 180 additional products** in future.
- **Implementation Timeline:** CBAM had a transitional reporting phase **from October 2023 to December 2025**. The **full compliance phase** began **January 1, 2026**.

  - **Free carbon allowances for EU producers** under ETS will be phased out gradually from **2026 to 2034**, progressively raising effective carbon costs for EU industry even as CBAM tightens on imports.
- **Working Mechanism:** Importers must buy **CBAM certificates** linked to the EU ETS price, currently averaging around **€50–65 per tonne of CO_2**, making it a **significant trade cost**.
  - Moreover, if a carbon price has already been paid in the country of origin, it may be **deducted under Article 9 of CBAM Regulation**.
- **Implications for India:** India's exports of **steel and aluminium to the EU (over USD 8 billion annually)** fall directly under CBAM. Estimated **additional cost of USD 100–150 per tonne on steel exports** could **erode competitiveness** in the EU market.

Key Challenge for India

- **Subsidy Asymmetry — EU Producers vs Indian Exporters**: European producers enjoy **massive decarbonisation subsidies, subsidised public finance**, and **continue receiving free ETS allowances even as CBAM phases in** effectively **lowering their real carbon cost**. **Indian exporters**, by contrast, receive **no equivalent state support** and must bear the full CBAM charge, creating a structurally discriminatory financial burden.
- **WTO and GATT Compatibility Concerns**: CBAM's design sits uneasily with **GATT Article III (General Agreement on Tariffs and Trade),** which **prohibits deploying internal charges to shield domestic producers from fair competition**. Since EU producers simultaneously receive subsidies while paying lower effective carbon costs during the ETS transition, **CBAM** may constitute **disguised protectionism** rather than genuine carbon equalisation.
- **No FTA Exemption for India**: The **India-EU Free Trade Agreement (FTA),** whose negotiations concluded on **January 27, 2026**, grants **no CBAM exemption to India**. The EU was unequivocal no country receives country-specific flexibility leaving India fully exposed to CBAM despite a landmark new bilateral trade framework.
- a direct affront to the principle of climate justice, which holds that developing nations should not subsidise developed-country decarbonisation at the expense of their own economic growth.
- **Sovereignty Over Carbon Policy at Stake**: CBAM gives the **EU extraterritorial power** to price **carbon on India's exports** denying India the sovereign right to design its own climate transition at its own pace, on its own terms, and using its own resources. A country that cannot shape the carbon price on its exports risks becoming permanently subordinate in global green governance.

India's Strategic Response: CCTS, CBAM Article 9, and the India Border Adjustment Mechanism (IBAM)

India is not starting from zero. The country has already laid the foundation of a domestic carbon pricing system through the **Carbon Credit Trading Scheme (CCTS)**, and the proposed **India Border Adjustment Mechanism (IBAM)** offers a legally grounded, financially sound, and diplomatically viable strategy to convert CBAM's threat into India's green opportunity.

- **Carbon Credit Trading Scheme (CCTS) — India's Domestic Carbon Market:** The **Carbon Credit Trading Scheme (CCTS)**, notified by the **Government of India in 2023 under the Energy Conservation (Amendment) Act, 2022,** establishes a **domestic carbon price through tradable certificates**. It will progressively cover **key industrial sectors**, including **steel, cement, and aluminium** — the same sectors targeted by CBAM providing India with a compliance-grade carbon market instrument recognised under international trade law.

- **CBAM Article 9 — The Legal Hook for India**: Under **CBAM Regulation Article 9,** European importers may deduct the carbon price already paid in the country of origin from their CBAM obligations. This is India's most important legal entry point if CCTS is formally recognised by the EU as a **credible carbon price**, **Indian exporters can offset part of their CBAM liability** against **domestic payments** already made under CCTS, preventing double-taxation of the same carbon tonne.
- **FTA Annex 14-A — The Diplomatic Lever**: The **India-EU FTA's Annex on Carbon Border Measures (Annex 14-A)** establishes a **formal technical dialogue** on CBAM implementation, including how India's carbon price can be credited at the EU border. It also contains a **Most-Favoured-Nation (MFN) clause** any CBAM flexibility extended to any other country automatically extends to India — making this annex a living instrument India must actively use.
- **What Is IBAM?** The **India Border Adjustment Mechanism (IBAM)** is a proposed **policy instrument** under which India would impose its own **carbon-based export charge on CBAM-covered goods** at the point of export, collected domestically before the goods reach the EU border. This ensures that the carbon cost is paid inside India — keeping the revenue in Indian hands rather than at the EU border where it funds European budgets.
- **How IBAM Neutralises CBAM**: If **IBAM is properly sequenced through Annex 14-A negotiations** and formally recognised by the EU under CBAM Article 9, Indian exporters would face no higher net carbon cost than under CBAM alone. What would otherwise be an implicit levy collected in Europe becomes an explicit domestic payment fully offset at the EU border with the critical difference that every rupee raised stays in India.
- **Ring-Fenced Green Fund**: IBAM revenues must be mandatorily channelled into a dedicated, transparently governed Green Transition Fund, restricted to verifiable climate investments **modernising blast furnaces, expanding renewable energy capacity, scaling green hydrogen** and **scrap-based steelmaking**, and supporting **workers in carbon-intensive sectors during the transition.**

Global Best Practices: Lessons for India

- **United Kingdom — Domestic ETS Alignment**: The UK has its own domestic **Emissions Trading Scheme (UK ETS)** and is actively negotiating a CBAM-to-ETS linking arrangement with the EU that would allow UK exporters to avoid double-carbon charges demonstrating that pre-recognised domestic carbon pricing is the most effective defence against CBAM.
- **Canada — Comprehensive Carbon Pricing**: **Canada's federal Output-Based Pricing System (OBPS),** which covers industrial facilities above certain emission thresholds, is being positioned as equivalent to EU ETS for CBAM Article 9 credit purposes — showing that well-governed domestic carbon markets can be leveraged diplomatically to reduce CBAM exposure.
- **South Korea — ETS Maturity Advantage**: South Korea's **Korean Emissions Trading Scheme (K-ETS)**, one of Asia's most mature carbon markets operational since 2015, positions Korean exporters well for CBAM credit recognition — offering India a model of how a domestic market, built over time with regulatory rigour, becomes a powerful trade protection tool.

Way Forward: Strategy to Turn CBAM from a Threat into an Opportunity

- **Accelerate CCTS Implementation and Coverage:** India must fast-track the operationalisation of **Carbon Credit Trading Scheme (CCTS)** with credible **Monitoring, Reporting, and Verification (MRV) systems**, extending its coverage to all **CBAM-affected sectors — steel, aluminium, cement, fertilisers** with **transparent price discovery mechanisms**. A well-functioning **CCTS** is India's primary instrument for claiming **CBAM Article 9 credits**.
- **Use Annex 14-A as a Proactive Diplomatic Tool:** India must treat the **India–European Union Free Trade Agreement's Annex 14-A** not as a footnote but as a **live negotiating table**. The **technical dialogue channel** must be used to pre-negotiate the recognition of both **CCTS** and **India Border Adjustment Mechanism (IBAM)** as credible carbon prices, and to establish **transparent currency conversion protocols (rupee-to-euro carbon price equivalence)**, ensuring **CBAM offsets** are legally secure before **IBAM** is launched.
- **Design IBAM Through Legislation, Not Executive Action: India Border Adjustment Mechanism (IBAM)** must be enacted through **dedicated parliamentary legislation** not executive notification to give it the **legal permanence and institutional credibility** that the **European Union** requires to recognise it under **Article 9**. The legislation must clearly define the **fund structure, revenue ringfencing, governance architecture, and audit obligations**.
- **Champion the Climate Justice Narrative in Multilateral Forums:** India must raise the **structural inequity embedded in CBAM** at the **World Trade Organization (WTO)**, **United Nations Framework Convention on Climate Change (UNFCCC)**, and the **Group of Twenty (G20)**, building coalitions with other **developing economies — South Africa, Brazil, Vietnam** who face similar **CBAM exposure**, to collectively demand a **Common But Differentiated Responsibilities (CBDR) carve-out** or a **development-country adjustment window within CBAM's Article 9 framework**.
- **Invest IBAM Revenues in Measurable Industrial Decarbonisation:** The credibility of **India Border Adjustment Mechanism (IBAM)** internationally depends entirely on what happens to its **revenues domestically**. India must establish a **ring-fenced, independently audited Green Transition Fund** with **annual public disclosures of carbon reductions achieved** — demonstrating to the **European Union**, to **Indian exporters**, and to the world that Indian **carbon revenues** are driving **real, verifiable decarbonisation**, not disappearing into general fiscal expenditure.

Conclusion

CBAM represents both a challenge and an opportunity for India to assert its **economic sovereignty and climate leadership**. By strategically implementing **IBAM and strengthening domestic carbon systems**, India can transform external pressure into a catalyst for a **self-driven green transition**.

Q. *The European Union's Carbon Border Adjustment Mechanism (CBAM) represents a shift from free trade to climate-linked trade regulation. Critically examine its implications for India's trade interests and global climate justice. 15 Marks*

3.2.2. INDIA'S WASTE MANAGEMENT CRISIS

Context:

- **India's waste crisis** has emerged as a major **environmental, public health, and governance challenge**, with overflowing landfills, polluted rivers, plastic-clogged drains, and rising air pollution affecting both urban and rural areas.
- While the **Solid Waste Management Rules, 2026** aim to strengthen waste governance, their excessive centralisation raises serious concerns regarding **federalism, local autonomy, administrative capacity, and practical implementation**.

Understanding Waste Management and the Federal Balance in India

A. What is Solid Waste Management?

- **Solid Waste Management (SWM)** refers to the scientific process of **segregation, collection, transportation, recycling, treatment, and safe disposal of waste** generated by households, industries, institutions, markets, and commercial establishments.
- Waste management covers different categories of waste such as **biodegradable waste, plastic waste, e-waste, sanitary waste, hazardous domestic waste, and construction waste**, all of which require separate treatment mechanisms.
- Effective waste management also includes **community participation, behavioural change, recycling systems, composting infrastructure, scientific landfills, and environmental monitoring**, rather than focusing only on waste collection.

B. Growing Waste Crisis in India

- India generates nearly **1.6 lakh tonnes of municipal solid waste daily**, and the quantity is rising rapidly due to **urbanisation, consumerism, changing lifestyles, and increasing use of packaged products**.
- Although around **70-75% of waste is collected**, only a limited proportion is scientifically processed, while large quantities continue to be dumped openly in **landfills and dumping grounds**.
- Major cities such as **Delhi, Mumbai, Bengaluru, Kolkata, and Chennai** are facing serious challenges including **overflowing landfills, methane emissions, landfill fires, toxic leachate, and severe air and water pollution**.
- Rural India is also witnessing increasing waste-related problems because of the spread of **plastic waste, sanitary waste, pesticide containers, tourism waste, and electronic waste** in villages and ecologically sensitive regions.

C. Solid Waste Management Rules, 2026

- The **Solid Waste Management Rules, 2026** have been framed under the **Environment (Protection) Act, 1986**, which was enacted mainly under **Article 253 of the Constitution** to implement India's international obligations under the **1972 Stockholm Declaration**.

- **Article 253** empowers **Parliament** to legislate even on matters related to **State subjects** when international treaty obligations are involved, thereby strengthening the Union's role in environmental governance.
- However, such constitutional authority should not result in excessive centralisation over matters closely linked with **local administration, sanitation, public health, and municipal governance**.
- Waste management depends heavily upon local factors such as **land availability, settlement patterns, fiscal capacity, infrastructure, and citizen participation**, which differ significantly across States and regions.

Importance of Effective and Decentralised Waste Management

1. **Effective Waste Management is Essential for Public Health and Environmental Protection**
   - **For Public Health:** Improper waste disposal leads to **water contamination, spread of diseases, mosquito breeding, and respiratory illnesses** caused by open burning and landfill emissions.
   - Poor sanitation particularly affects people living near **dumping grounds and low-income settlements**, where environmental health risks are extremely high. Therefore, scientific waste management is necessary for improving **public hygiene, disease prevention, and quality of life**.
   - **For Environmental Protection:** Open dumping and unmanaged landfills release large quantities of **methane gas**, which contributes significantly to **climate change and global warming**.
   - Untreated waste also contaminates **groundwater, rivers, lakes, agricultural land, and coastal ecosystems**, thereby damaging biodiversity and ecological balance. Effective waste management is therefore essential for **pollution control, climate mitigation, environmental conservation, and sustainable urban development**.
2. **Waste Management Promotes Circular Economy and Resource Efficiency**
   - Proper segregation, recycling, composting, and scientific processing help convert waste into useful resources such as **compost, recyclable materials, bio-energy, and industrial raw materials**. This supports a **circular economy** by reducing pressure on natural resources, improving resource efficiency, generating green jobs, and minimising dependence on virgin raw materials.
3. **Decentralised Waste Governance Strengthens Cooperative Federalism and Accountability**
   - Effective waste governance requires strong **cooperative federalism**, because waste-management challenges differ significantly across **metropolitan cities, hill towns, coastal regions, tribal areas, and rural settlements**. The principle of **subsidiarity** becomes important because governance functions should be performed at the **lowest effective level closest to local realities and people's needs**.
   - Local governments possess better understanding regarding **waste-generation patterns, collection systems, land availability, community participation, and regional ecological conditions**. Therefore, decentralised governance improves **transparency, local accountability, citizen ownership, and administrative responsiveness**, while excessive centralisation often weakens local innovation and reduces States into mere implementing agencies.

Major Challenges in the Solid Waste Management Rules, 2026

1. **Excessive Centralisation Weakens Federalism**
   - The **Solid Waste Management Rules, 2026** reflect a highly **centralised governance structure** where the **Union government** designs **operational frameworks** while **States and local bodies mainly function as implementing agencies**.
   - Such an approach weakens **cooperative federalism** because **different States possess varying administrative capacities**, fiscal resources, ecological conditions, and governance challenges.
   - A uniform national framework may fail to address region-specific realities and reduce opportunities for **local innovation and flexibility**.
2. **One-Size-Fits-All Approach Ignores Ground Realities**
   - Waste-management challenges differ across India because **metropolitan cities, hill towns, coastal regions, tribal areas, and rural settlements** face entirely different geographical and infrastructural constraints.
   - However, the Rules impose similar compliance expectations without adequately considering differences in **infrastructure, fiscal capacity, population density, and administrative strength**, which may create unrealistic implementation burdens.
3. **Weak Capacity of Rural Local Bodies**
   - Most **Gram Panchayats** lack technical staff, digital infrastructure, financial resources, and waste-processing facilities required for advanced waste-management systems.
   - Rural waste management should focus more on **community awareness, household composting, simplified waste collection, and cluster-based processing systems** suited to local realities.
4. **Digital Compliance Burden and Weak Financial Support**
   - Excessive emphasis on **digital reporting, audits, and centralised monitoring through CPCB platforms** may shift focus from actual service delivery towards paperwork and data entry.
   - At the same time, municipalities and Panchayats continue to face **financial constraints, weak revenue generation, and dependence on irregular grants**, which limit effective implementation of waste-management obligations.
5. **Risk of Judicialisation**
   - Non-implementation of the Rules may increase **Public Interest Litigations (PILs)** and judicial monitoring, leading to court-driven governance focused more on compliance reports than actual environmental outcomes and citizen participation.

Global Best Practices In Decentralised Waste Management

1. **Germany's Decentralised Recycling Model**
   - Germany has developed **an efficient decentralised recycling system based on strong municipal autonomy,** citizen participation, producer responsibility, and strict source segregation practices.

- Local governments are provided flexibility to design region-specific waste systems according to local infrastructure and community needs.

2. **Japan's Community-Centred Waste Governance**
   - Japan has established **highly disciplined community-based waste segregation systems** where citizens actively participate in sorting and recycling waste according to strict local guidelines.
   - Strong local accountability and social discipline have helped Japan minimise landfill dependence and improve recycling efficiency.
3. **Sweden's Circular Economy Approach**
   - Sweden has successfully converted large quantities of waste into energy and recyclable resources through **advanced processing systems** and **strong circular economy policies**.
   - Efficient segregation systems and local innovation have significantly reduced landfill usage across the country.

Way Forward for Building a Sustainable Waste Governance Framework in India

1. **National Standards Must Be Balanced with State Flexibility**
   - The Union government should establish **minimum environmental standards** while allowing States sufficient flexibility to design waste-management systems according to their own **ecological, administrative, social, and fiscal realities**. Such a balanced approach would strengthen **cooperative federalism** while ensuring national environmental commitments are maintained.
2. **Local Governments Must Be Financially and Administratively Empowered**
   - Municipalities and Panchayats require adequate **financial support, technical expertise, institutional autonomy, and administrative capacity-building** to effectively implement waste-management systems at the grassroots level.
   - Waste governance cannot succeed unless local bodies are treated as genuine institutions of self-governance rather than merely implementing agencies dependent upon higher authorities.
3. **Different Regions Require Context-Specific Waste Models**
   - Waste-management systems should be designed according to regional requirements because challenges differ significantly across India.
   - **Megacities** require advanced waste-processing infrastructure, scientific landfill remediation, and metropolitan waste-management authorities due to massive waste-generation volumes.
   - In contrast, **rural areas and small towns** require decentralised systems based on **community composting, cluster-level processing facilities, and locally suitable collection mechanisms**.
4. **Citizen Participation Must Become Central to Waste Governance**
   - Sustainable waste management depends upon **behavioural change, community ownership, and active citizen participation** in segregation, recycling, and sanitation practices.

- Institutions such as **Ward Committees, Gram Sabhas, Resident Welfare Associations (RWAs), and citizen monitoring systems** should become integral parts of local waste governance to improve accountability and public participation.

5. **States Should Be Encouraged to Innovate**
   - States should be encouraged to develop **region-specific innovations** such as decentralised composting systems, integration of informal waste workers, local recycling markets, and community-driven waste-management models.
   - Successful State-level experiments can later be replicated nationally, thereby strengthening both **innovation and cooperative federalism**.

Conclusion

- India's waste crisis cannot be resolved solely through **centralised regulation, digital compliance systems, and top-down administrative control**.
- Sustainable waste governance requires a balanced framework based on **cooperative federalism, empowered local governments, adequate financial support, scientific infrastructure, State-level flexibility, and active citizen participation** to build cleaner, healthier, and environmentally sustainable cities and villages.

Q. *India's waste crisis cannot be solved through excessive centralisation alone." Examine the challenges associated with the Solid Waste Management Rules, 2026 and suggest suitable measures. 15 Marks*

3.3. INTERNAL SECURITY

3.3.1. CYBER WARFARE AND THE CRISIS OF GLOBAL LEGAL ACCOUNTABILITY

Context:

- Recent tensions involving **the United States, Israel, and Iran** have exposed how modern warfare is no longer limited to physical battlefields alone.
- Alongside **conventional military strikes**, these conflicts have witnessed the active use of **cyber operations** to hack news websites, disrupt communication applications, and manipulate the information environment.
- This shift marks a decisive moment in global security, where **digital disruption** has become an integral part of military strategy, targeting civilian infrastructure, defence networks, and governmental systems simultaneously.

Understanding the Modern Landscape of Cyber Warfare and Digital Disruption

- **About Cyber Warfare**: Cyber warfare refers to the use of **hacking, digital disruption, and information manipulation** by states or non-state actors to weaken adversaries, often before or alongside physical military action.

- **Targeting Critical Infrastructure:** Cyber operations frequently target **critical infrastructure, defence networks, communication systems, financial institutions, and digital platforms**, expanding conflict beyond traditional physical battlefields.
- **Growing Role of Non-State Actors:** Several **non-state cyber groups**, such as the **Handala Hack Team**, have reportedly conducted attacks on foreign organisations, including a **U.S.-based medical technology company**, highlighting the growing influence of cyber actors in global conflicts.
- **Impact on Civilian and Commercial Sectors:** Cyber operations target **critical infrastructure** such as power grids, banking systems, water supply networks, and defence communication systems, making their impact on civilian life potentially catastrophic.
- **Challenges of Regulation and Accountability**: Unlike conventional warfare, cyberattacks can occur **across borders without direct military confrontation**, making them far harder to detect, attribute, and regulate under existing international legal frameworks.

Why Drawing the Legal Line in Cyberspace is So Difficult?

- International law does provide some relevant principles. **Article 2(4) of the United Nations Charter** prohibits the use of force by one state against another, and the doctrine of **state responsibility** holds states accountable for internationally wrongful acts, both of which apply in principle to cyberspace.
- However, the critical challenge lies in determining when a cyber operation becomes **sufficiently serious** to qualify as a prohibited use of force or an internationally wrongful act.
- **Grey Zone of Cyber Harm:**
  - Cyberattacks often cause **indirect, temporary, or non-physical damage** that is far harder to measure than the destruction caused by conventional weapons.
  - Disrupting an election database, **slowing down a hospital network, or interfering with financial markets** may cause immense harm, but it remains legally unclear whether such acts cross the **threshold of an act of war.**
  - The **Tallinn Manual**, a **non-binding academic document** prepared by **NATO** cyber experts, attempts to clarify when cyber operations violate international law, but it lacks legal enforceability and universal acceptance.
- This creates a deeply problematic situation where significant and deliberate harm can be caused in cyberspace **without triggering any formal legal response,** leaving victims without meaningful recourse.

Major Challenges Preventing Legal Accountability in Cyber Conflicts

1. **Attribution Problem: Knowing Without Proving**
   - Cyber operations are typically conducted through **hidden networks, proxy servers, and multiple jurisdictions**, making it extremely difficult to identify the actual perpetrator with the standard of evidence required by a court of law.
   - Governments may possess strong **intelligence based certainty** about who carried out an attack, but translating that intelligence into **legally admissible evidence** is an entirely different challenge.
   - This creates a serious divide between **political certainty and legal proof**, and without reliable attribution, holding a state accountable under international law becomes nearly impossible.

2. **Forum Problem: Nowhere to Go for Justice**
    - The **International Court of Justice (ICJ)** can only hear disputes between states that give their **consent** to be subject to its jurisdiction, which states involved in cyber operations rarely provide.
    - Domestic courts face the barrier of **sovereign immunity**, which protects foreign governments from being sued in another country's legal system.
    - As a result, victims of state sponsored cyberattacks have **very limited legal forums** where they can effectively seek justice or compensation.
3. **Political and Strategic Calculations That Override Legal Action**
    - States often avoid initiating legal proceedings because doing so may **escalate inter-state tensions**, invite diplomatic retaliation, or require the public disclosure of sensitive intelligence capabilities.
    - For this reason, most cyber incidents are resolved through **back-channel diplomacy and political negotiations** rather than through courts or formal legal mechanisms, further weakening the culture of accountability.
4. **Evidence Challenge: Complex, Classified, and Hard to Present**
    - Cyber litigation involves highly **technical data, classified intelligence, and complex chains of causation** that courts are often ill-equipped to evaluate.
    - Establishing who carried out an attack, how much damage it caused, and exactly how the harm occurred requires a level of **technical and evidentiary precision** that is extremely difficult to achieve in legal proceedings.

International Efforts So Far and Why they Fall Short

- The **Budapest Convention on Cybercrime (2001)** is the most widely referenced international treaty on cybercrime, with over **68 state parties**. It promotes cooperation in investigating and prosecuting cybercrime across borders.
- The **United Nations Convention against Cybercrime**, adopted in **2024**, seeks to build a **broader global framework for international cooperation** in addressing cyber threats.
- The **UN Group of Governmental Experts (UN GGE)** and the **Open-Ended Working Group (OEWG)** have been working to build consensus on norms of **responsible state behaviour in cyberspace**, though no binding agreement has been reached.
- **Critical limitation of all these frameworks:** They primarily focus on **cybercrime and law enforcement cooperation** and fall significantly short when it comes to addressing **state-sponsored cyber warfare** as part of geopolitical conflict. There is still **no binding international treaty** that directly governs cyber operations during armed conflict.

India's Growing Vulnerability and Its Necessary Role in Shaping Cyber Norms

- India's **rapid digital expansion in sectors** such as **finance, governance, healthcare, and energy** has increased dependence on platforms like **UPI, Aadhaar, and power grids**, making **critical infrastructure vulnerable to cyberattacks**.
- According to **CERT-In**, India reported over **1.3 million cybersecurity incidents in 2022**, including attacks linked to **hostile state-backed actors**, highlighting the urgent need for **stronger cyber security and global cyber norms**.

What India Must Do Going Forward:

- Actively participate in **United Nations Group of Governmental Experts (UN GGE) and the Open-Ended Working Group (OEWG)** to advocate for clearer norms of responsible state behaviour and binding accountability mechanisms in cyberspace.
- Strengthen the **National Cyber Security Policy** and enhance the capacity of **Indian Computer Emergency Response Team (CERT-In)** and the **National Critical Information Infrastructure Protection Centre (NCIIPC)**
- Build robust **bilateral and multilateral cyber cooperation frameworks** with like-minded democracies to enable better attribution, information sharing, and coordinated response to cyber threats.
- Contribute to the development of a **legally binding international treaty** that specifically addresses state-sponsored cyber warfare, incorporating both **accountability mechanisms and clear attribution standards**.
- Invest heavily in **domestic cyber capacity building**, including a skilled cyber workforce, advanced threat intelligence infrastructure, and regular cross-sector resilience exercises.

Conclusion

Cyber warfare has **permanently altered the nature of modern conflict** leaving a dangerous **accountability gap** that hostile actors continue to exploit. Unless the international community builds **credible, enforceable, and inclusive mechanisms for accountability in cyberspace**, significant harm will continue to occur beyond the effective reach of law, threatening the stability of nations, the safety of civilians, and the integrity of the global order.

Q. *Cyber warfare is outpacing the evolution of international legal accountability." Critically examine the challenges posed by cyber warfare and suggest measures for strengthening global cyber governance.*

3.4. SCIENCE & TECHNOLOGY

3.4.1. INDIA'S SPACE DIPLOMACY

Context:

India's space programme, led by Indian Space Research Organisation, has evolved from self-reliance to **strategic international cooperation**. Space diplomacy today serves **scientific, economic, geopolitical, and security objectives**.

Evolution of India's Space Cooperation

Phase I: Technological Foundations (1960s–1970s)

- **The "Seeker" Era:** Focused on infrastructure building via international aid.
- **Key Milestones:** Launch of the US-made **Nike-Apache** rocket (1963); building **Aryabhata** (indigenous satellite) launched by the **USSR** (1975).

- **Social Impact:** The **SITE** program used a **US satellite** to demonstrate space technology's utility in rural education.

Phase II: Growth & Geopolitical Friction (1980s–1990s)

- **Propulsion Gains:** Successfully adapted **French Viking technology** to create the **Vikas Engine**.
- **The Cryogenic Crisis:** US sanctions under **MTCR** blocked a Russian engine deal, forcing India toward **indigenization** and self-reliance in heavy-lift technology.
- **Commercial Reliance:** Used **French Arianespace** for launching heavy INSAT satellites.

Phase III: Global Service Provider (2000s–2019)

- **Reliability:** The **PSLV** became a global workhorse, famously launching **104 satellites** in one mission (2017).
- **Scientific Synergy: Chandrayaan-1** carried foreign payloads (NASA/ESA) to discover water on the Moon; **Mangalyaan** utilized NASA's Deep Space Network for tracking.
- **Soft Power:** Gifted the **South Asia Satellite** to SAARC nations, establishing "Space Diplomacy."

Phase IV: Strategic Partner & Commercial Actor (2020–2026)

- **Collaborative Design:** Transitioned from "buyer" to "co-developer" (e.g., **NISAR** with NASA and **LUPEX** with Japan).
- **Human Spaceflight: Gaganyaan** supported by Russian training and French/US space medicine; the **Axiom-4** mission (2025) marks a joint Indo-US ISS flight.
- **Institutional Reform:** New entities like **NSIL** and **IN-SPACe** have opened the sector to **100% FDI** and private global players like OneWeb.

Pillars of India's Space Diplomacy

1. **Net Provider of Space Services (Global South Leadership)**
    - **Capacity Building:** Sharing "frugal innovation" with developing nations through programs like **UNNATI** (nanosatellite training).
    - **Space for Development:** Utilizing satellites for disaster management (**Sentinel Asia**), telemedicine, and weather forecasting for the Global South.
    - **Regional Connectivity:** The **South Asia Satellite (GSAT-9)** serves as a diplomatic "gift" to neighboring countries, enhancing communication and regional goodwill.
2. **Strategic Autonomy & Parity**
    - **Balanced Alliances:** Engaging in high-end co-development with the West (e.g., **Artemis Accords** and **NISAR** with NASA) while maintaining historical ties with Russia and emerging blocs like **BRICS**.
    - **Dual-Use Capabilities:** Leveraging space for **Maritime Domain Awareness** and surveillance to secure the Indo-Pacific.
3. **Commercial Expansion & Governance**
    - **Market Share:** Using **NSIL** and **IN-SPACe** to capture a larger slice of the $400B+ global space economy through low-cost, reliable launch services (**PSLV/SSLV**).
    - **Rule-Shaping:** Transitioning from a "rule-taker" to a "rule-maker" in global space governance, advocating for equitable access and sustainable use of outer space.

4. **Sustainability & Safety (Space Ethics)**
    - **Space Situational Awareness (SSA):** Leading initiatives like **Project NETRA** to track space debris, ensuring the long-term sustainability of the orbital environment.
    - **Global Responsibility:** Adhering to and promoting international norms (e.g., Liability Convention) to prevent the weaponization of space.

Key Bilateral and Multilateral Engagements

1. **Bilateral Engagements**
    - **United States (NASA):**
        - **NISAR:** A joint Earth-observation mission (launching 2026) to monitor global environmental changes.
        - **Artemis Accords:** India's participation in the US-led lunar exploration program.
        - **Axiom-4:** Collaborative mission to send an Indian astronaut to the International Space Station (ISS).
    - **France (CNES):**
        - **TRISHNA:** A joint thermal infrared imaging mission for climate and water management.
        - **Space Medicine:** Cooperation on life-support systems for the **Gaganyaan** mission.
    - **Japan (JAXA):**
        - **LUPEX:** The Lunar Polar Exploration mission, a joint rover-lander project to explore the Moon's South Pole.
    - **Russia (Roscosmos):**
        - Historical partner in **Gaganyaan** (astronaut training and flight suits).
2. **Multilateral Engagements**
    - **BRICS Space Council:**
        - Development of a **Remote Sensing Satellite Constellation** for shared data on disaster management and climate monitoring.
    - **The Global South & SAARC:**
        - **South Asia Satellite:** Provided free communication services to neighboring nations.
        - **UNNATI Program:** ISRO's training program for officials from developing nations in nanosatellite assembly.
    - **QUAD (Space Working Group):**
        - Focus on **Maritime Domain Awareness (MDA)** and climate monitoring in the Indo-Pacific.
    - **International Charter on Space and Major Disasters:**
        - India provides high-resolution satellite data to help the global community respond to natural calamities.

Strategic Significance of India's Space Cooperation

1. **Strategic Autonomy:** Balancing high-tech partnerships with the **US (Artemis Accords)** alongside deep ties with **Russia and France** prevents bloc dependency and maintains India's independent geopolitical stance.
2. **National Security Multiplier:** Joint initiatives like **NISAR** and **QUAD** cooperation enhance **Maritime Domain Awareness** and border surveillance, providing critical data to track "dark shipping" and monitor sensitive frontiers.

3. **Global South Leadership:** Using space as "Soft Power" through the **South Asia Satellite** and **UNNATI** program, India offers a "frugal" alternative to China's Space Silk Road, cementing its role as a leader for developing nations.
4. **Commercial & FDI Growth:** International partnerships with firms like **OneWeb** and **Axiom**, backed by **100% FDI** policies, aim to scale India's global market share from **2% to 10% by 2033**, turning the country into a global launch hub.
5. **Governance Rule-Shaper:** Active roles in **COPUOS** and the **Artemis Accords** have transitioned India from a "rule-taker" to a "rule-shaper" in global space ethics, debris management, and resource sustainability.

Challenges of India's Space Cooperation

1. **Geopolitical & Strategic Risks**
   - **The "Technology Denied" Legacy:** Despite signing the **Artemis Accords**, high-end technology transfer (e.g., radiation-hardened chips, advanced semiconductors) remains restricted by Western export control regimes and the **MTCR**.
   - **Strategic Balancing Act:** Deepening ties with the **USA** risks alienating traditional partners like **Russia** (crucial for Gaganyaan) or being caught in the "Cold War" dynamics between the US and **China**.
   - **Regional Competition:** China's **"Space Silk Road"** offers massive infrastructure funding to developing nations, challenging India's "frugal" diplomacy in the Global South.
2. **Commercial & Economic Constraints**
   - **Market Share Gap:** Despite being a reliable launcher, India holds only **~2%** of the $540B global space economy. Over-reliance on the aging **PSLV** workhorse and slow production of the **SSLV** have allowed SpaceX to dominate the small-satellite market.
   - **FDI & Private Participation:** While **100% FDI** is now permitted, global investors remain cautious due to a lack of a clear, codified **National Space Act** to address liability and insurance for private missions.
3. **Sustainability & Governance Issues**
   - **Orbital Congestion:** The rise of mega-constellations (like Starlink) has increased the risk of collisions. India's **Project NETRA** and **IS4OM** are evolving but still lag behind the US and Russia in comprehensive **Space Situational Awareness (SSA)**.
   - **Legal Lacunae:** There is no international consensus on **Space Resource Mining** or "Orbital Squatting." As India plans its own station (**BAS**), it faces a "first-come, first-served" disadvantage in prime Low Earth Orbits (LEO).
4. **Technical & Infrastructure Bottlenecks**
   - **Single Spaceport Dependency:** Almost all international launches rely on **Sriharikota**. While a second port at **Kulasekarapattinam** is under development (2025-26), the delay impacts India's ability to provide rapid, high-frequency launch services.
   - **Component Dependency:** "Atmanirbhar Bharat" notwithstanding, India remains twelve times more dependent on **imports** for high-grade space electronics than it earns from space exports.

5. **Ethical & Humanitarian Dilemmas**
    - **Resource Prioritization:** Critics often question high-expenditure international missions (like Mangalyaan-2 or Shukrayaan) against domestic socio-economic needs.
    - **The "Kessler Syndrome":** Increased international launches from Indian soil contribute to the global debris problem, necessitating a difficult balance between commercial profit and the "Long-term Sustainability" (LTS) of outer space.

Way Forward

1. **Strengthening the Legal & Regulatory Pillar**
    - **Codifying the Space Act:** The immediate priority is passing a comprehensive **National Space Act** to provide legal certainty on liability, insurance, and intellectual property. This will boost investor confidence and facilitate deeper integration with global private giants.
    - **Streamlining IN-SPACe:** Transitioning **IN-SPACe** into a more robust "single-window" clearing house to reduce the gestation period for international joint ventures and satellite constellations.
2. **Transitioning to "Industrial Cooperation"**
    - **Co-Production over Procurement:** Shifting from just buying technology to co-manufacturing. Initiatives like the **iCET (Indo-US)** should be used to establish semiconductor plants in India specifically for radiation-hardened, space-grade chips.
    - **Global Supply Chain Integration:** Encouraging Indian MSMEs to become Tier-1 and Tier-2 suppliers for global entities like Boeing, Airbus, and SpaceX, moving India from a "launch destination" to a "manufacturing hub."
3. **Expanding the "Space Diplomacy" Horizon**
    - **Space for the "Viksit" Global South:** Beyond just gifting satellites, India should lead a **"Space-G20"** secretariat to standardize disaster-response protocols and climate-tracking data for developing nations.
    - **Trilateral Alliances:** Exploring trilateral partnerships (e.g., **India-France-UAE** or **India-Japan-Australia**) to secure the Indo-Pacific through shared Maritime Domain Awareness (MDA) and satellite-based secure communications.
4. **Leadership in Space Sustainability (LTS)**
    - **Rule-Making in SSA:** India should lead the development of international norms for **Space Situational Awareness (SSA)**. By championing "Zero Debris" missions and active debris removal (ADR) technologies, India can position itself as a responsible custodian of the "Global Commons" in space.
    - **Managing Orbital Crowding:** Taking a firm stand in the UN and **COPUOS** against "orbital squatting" by mega-constellations to ensure equitable access to Low Earth Orbit (LEO) for all nations.
5. **Future-Proofing through R&D**
    - **Quantum & Deep-Tech:** Prioritizing international collaboration in **Quantum Key Distribution (QKD)** and high-thrust electric propulsion. These are the "frontier technologies" that will define space superiority in the next decade.

- **Bharatiya Antariksha Station (BAS):** Utilizing the experience from the **Axiom-4 mission (2025-26)** to accelerate the modular development of India's own space station, envisioned for 2035.

Conclusion

India's space cooperation has transitioned from dependency to strategic parity. By fostering global partnerships, India is evolving into a "Net Provider" of space services, cementing its leadership in the quest for a **Viksit Bharat**.

Q. *"India's space cooperation has evolved from a developmental necessity to a strategic instrument of foreign policy." Discuss in the context of recent global partnerships. (15 Marks)*

3.5. DISASTER MANAGEMENT

3.5.1. URBAN FIRE SAFETY IN INDIA: CHALLENGES AND MITIGATION

Context:

Recent fire incidents in Delhi (Shahdara, Palam, Dwarka) have highlighted critical gaps in urban planning, building safety protocols, and electrical infrastructure during peak summer months.

Introduction

Urban fire safety refers to the preventive and protective measures designed to minimize fire risks in densely populated areas. In India, rapid urbanization often bypasses **National Building Code (NBC)** compliance, leading to avoidable tragedies.

Constitutional Provisions for Urban Fire Safety in India

- **Article 243W & 12th Schedule:** Introduced by the **74th Constitutional Amendment Act (1992)**.
  - **"Fire Services"** is listed as **Entry 7** in the 12th Schedule.
  - It empowers Municipalities to perform functions related to fire prevention and life safety.
- **State List (Entry 6):** Public health and sanitation, including fire services, fall under the legislative jurisdiction of individual States.

Reasons for Frequent Urban Fire Accidents in India

1. **Violation of National Building Code (NBC):** Many buildings lack mandatory fire exits, open terraces, and refuge areas. Unauthorized constructions and illegal extensions often block ventilation, turning structures into "smoke chambers" during a fire.
2. **Electrical Overloading and Poor Wiring:** The use of high-wattage appliances (like ACs) during summer exceeds the designed capacity of old wires. Frequent bypassing of **Miniature Circuit Breakers (MCBs)** prevents the system from tripping safely during a short circuit.
3. **Compromised Security Features:** Installation of permanent metallic grills on balconies and windows intended for theft prevention traps occupants inside. Similarly, modern electronic locks often fail to release during power cuts or fire-related malfunctions.

4. **Inefficient Urban Planning and Congestion:** Narrow lanes and haphazardly placed overhead hanging wires prevent fire tenders from reaching the spot. Illegal parking and low-entry gates often block access for heavy hydraulic fire-fighting equipment.
5. **Negligence in Mixed-Use Occupancy:** Residential buildings are frequently used as small-scale factories or warehouses for flammable materials. These spaces rarely follow the stringent industrial fire safety protocols required for hazardous storage.
6. **Lack of Fire Safety Audits and Enforcement:** Local municipal bodies often suffer from a shortage of inspectors, leading to "paper-only" Fire NOCs. Without periodic audits, active systems like smoke detectors and sprinklers often remain non-functional or unmaintained.

Government Initiatives for Urban Fire Safety in India

1. **Legislative and Policy Frameworks**
   - **National Building Code (NBC) 2016:** Published by the **Bureau of Indian Standards (BIS)**, Part 4 of this code is the definitive guide for fire safety. It mandates structural requirements like fire-resistant doors, specific exit widths, and mandatory fire lifts in high-rises.
   - **Model Building Bye-Laws (2016):** Issued by the Ministry of Housing and Urban Affairs (MoHUA), these guide local municipal bodies to integrate NBC fire safety standards into their building approval processes.
2. **Institutional and Strategic Guidelines**
   - **NDMA Guidelines (2012):** The **National Disaster Management Authority** has issued specific protocols for the "Revitalization of Fire and Emergency Services." These provide a roadmap for state governments to scale up training, manpower, and equipment.
   - **SFAC (Standing Fire Advisory Council):** Functioning under the Ministry of Home Affairs, this body acts as the apex technical advisory committee to the government on all matters related to fire services.
3. **Financial Modernization (XV Finance Commission)**

   The 15th Finance Commission has made significant budgetary provisions to bridge the infrastructure gap:
   - **State-Level Allocation:** Approximately **₹5,000 crore** was earmarked specifically for the "Modernization of Fire Services" across states.
   - **Urban Grants:** A portion of the **₹38,000 crore** technical grant for urban local bodies is tied to improving disaster management capabilities, including fire preparedness.

Technical, Technological, and Community Initiatives

- **Fire Safety Audits:** Mandatory periodic inspections of "Special Buildings" (hospitals, malls) by certified auditors are required to renew the **Fire No-Objection Certificate (NOC)**.
- **National Fire Service College (NFSC):** Based in Nagpur under the MHA, it provides specialized training and professional degree courses to develop a skilled cadre of fire officers.
- **Aapda Mitra Scheme:** A community-centric initiative where local volunteers are trained as first responders for disaster evacuation, including basic fire safety and first aid.

Challenges in Urban Fire Management

- **Weak Municipal Enforcement:** Building bye-laws and National Building Code (NBC) standards are often bypassed during construction due to corruption or lack of technical staff.

- **Legacy Infrastructure:** Older, congested urban pockets feature narrow lanes and overhead hanging wires that physically prevent the entry of modern fire tenders.
- **Shortage of Manpower and Equipment:** Most state fire services operate with significant vacancies and lack advanced high-rise firefighting tools like long-reach hydraulic ladders.
- **Poor Maintenance of Active Systems:** In many buildings, installed safety features like smoke detectors and sprinklers become non-functional over time due to a lack of regular servicing.
- **Unregulated Mixed-Use Occupancy:** The proliferation of small-scale industries and warehouses within residential zones creates high-risk zones that lack proper industrial safety protocols.
- **Low Public Awareness:** A general lack of "safety culture" leads residents to block escape routes or install permanent window grills that turn homes into death traps during emergencies.

Global Best Practices in Urban Fire Safety

Country	Practice Name	Explanation
USA	**NFPA Standards & NEC Compliance**	The National Fire Protection Association (NFPA) sets 300+ rigorous codes, including the **National Electrical Code (NEC)**, which is updated every 3 years to mandate advanced circuit breakers that prevent electrical fires.
Japan	**Fire-Resilient Urbanism (Bousai)**	Tokyo uses **"Fire Containment Zones"** and earthquake-resistant building codes that mandate automatic gas shut-off valves and "seismic breakers" to prevent post-disaster fire outbreaks.
Singapore	**Mandatory Fire Safety Managers (FSM)**	The Civil Defence Force (SCDF) mandates a certified **Fire Safety Manager** for all public and industrial buildings to conduct bi-annual drills and daily safety audits, ensuring zero-gap enforcement.

Way Forward for Urban Fire Safety

1. **Strict Enforcement of the NBC:** Municipalities must link **Property Tax and Insurance premiums** to National Building Code (NBC) compliance, ensuring safety is a financial incentive rather than a choice.
2. **Mandatory Electrical Safety Audits:** Implement periodic third-party electrical inspections for buildings older than 15 years to identify **overloaded circuits** and mandate the installation of high-quality circuit breakers.
3. **Modernizing Fire Infrastructure:** Utilize the **XV Finance Commission grants** to induct narrow-lane fire tenders, drones for high-rise surveillance, and IoT-based hydrants that signal local stations when water levels are low.
4. **Retrofitting and Design Innovation:** Promote the use of **"Swing-away" or "Removable" metallic grills** and fire-resistant materials in existing high-density residential areas to balance security with emergency evacuation.
5. **Community-Led Preparedness:** Scale up the **Aapda Mitra scheme** to create a cadre of "Fire Mitras" in every Resident Welfare Association (RWA) to lead mock drills and maintain clear escape routes.

6. **Institutional Accountability:** Adopt the Singapore model of appointing **Certified Fire Safety Managers** for large residential complexes, making them legally responsible for the functionality of active firefighting systems.

Conclusion

Urban fire safety must evolve from a reactive service to a proactive governance pillar. By integrating **NBC compliance**, **technological modernization**, and **community-led preparedness**, India can build resilient cities that prioritize human life over structural shortcuts.

Q. *Recent urban fire accidents in India expose deeper failures in urban planning, electrical safety, and disaster preparedness. Examine the major challenges in ensuring fire safety in Indian cities and suggest measures to improve urban resilience. (15 Marks)*

3.6. DEFENCE

3.6.1. INDIA'S NEW SECURITY DOCTRINE

Context:

Operation Sindoor was launched by ndia on May 7, 2025, as a high-intensity retaliatory strike against terrorist infrastructure in Pakistan following the Pahalgam terror attack of April 22, 2025. It marked a major shift in India's national security doctrine.

Significance of Operation Sindoor

- **Doctrinal Shift:** It marks the formal end of "Strategic Restraint," replacing the traditional "dossier approach" with a **zero-tolerance policy** where cross-border terrorism is treated as an official **act of war**.
- **Nuclear De-hyphenation:** By striking deep-state targets (e.g., Bahawalpur and Muridke), India successfully called the adversary's **nuclear bluff**, demonstrating the ability to conduct high-intensity operations below the nuclear threshold.
- **Operational Integration:** The mission served as a successful litmus test for **Jointmanship**, showcasing seamless synergy between the Army, Navy, and Air Force under a unified political directive.
- **Technological Sovereignty:** The stellar performance of indigenous platforms and air-defence systems (like the S-400) validated the push for **Atmanirbharta**, proving that domestic innovation is critical for national security.

Features of the New Indian Doctrine

- **Proactive Retribution:** India has moved from diplomatic "reactive restraint" to a policy of immediate military costs. It no longer relies on international dossiers, instead choosing to defend its interests through decisive, independent action.
- **Calling the Nuclear Bluff:** The doctrine identifies a "conventional space" for military strikes below the nuclear threshold. By targeting assets deep within adversary territory, India has demonstrated that nuclear status is not a shield for proxy warfare.

- **Integrated Combat Synergy:** Defense is now a "whole-of-nation" effort. It emphasizes "Jointness," synchronizing the Army, Navy, and Air Force with advanced technology (like the S-400) to create an overwhelming, unified response.
- **Zero-Tolerance Mandate:** Cross-border terrorism is now classified as an "Act of War." This provides the military with a political "free hand" to dictate the timing and intensity of strikes, shifting the psychological burden of uncertainty to the aggressor.

Strategic Implications for India

1. **Shift from Defensive to Proactive Deterrence:** India has moved away from a purely reactive posture to one of "credible deterrence" that includes preemptive options. This implies a willingness to strike at the sources of terror or aggression across borders to maintain national integrity.
2. **Integrated Theatre Commands (ITC):** The transition toward jointness among the Army, Navy, and Air Force aims to optimize resource allocation and operational synchronization. This structural shift ensures a unified military response to hybrid threats and two-front challenges.
3. **Atmanirbharta in Defense Technology:** There is a decisive push for indigenous manufacturing to reduce dependency on foreign Original Equipment Manufacturers (OEMs). This strengthens strategic autonomy, ensuring that critical supply chains remain resilient during periods of global geopolitical friction.
4. **Multi-Domain Operations and Cyber-Space Security:** The doctrine recognizes that modern warfare extends beyond land, sea, and air into the digital and extra-atmospheric realms. Significant emphasis is now placed on protecting critical information infrastructure and enhancing space-based surveillance.
5. **Strategic Autonomy through Multi-Alignment:** India seeks to maintain independent decision-making by engaging with multiple global power centers simultaneously. This allows the nation to balance its interests in forums like the Quad and BRICS while acting as a "Vishwa Bandhu" (Global Friend).

Challenges of India's New Strategic Doctrine

1. **Risk of Nuclear Escalation:** Frequent military retaliation against a nuclear-armed Pakistan increases the danger of unintended escalation and strategic instability in South Asia.
2. **Sustaining High Military Readiness:** A proactive doctrine requires continuous deployment, surveillance, and operational preparedness, placing immense pressure on armed forces and resources.
3. **Diplomatic and Global Pressure:** Major powers and international organizations may push India toward restraint during crises, limiting strategic flexibility.
4. **Economic and Fiscal Burden:** Maintaining advanced defence capabilities, modernization, and indigenous production demands massive long-term financial investment.
5. **Cyber and Hybrid Warfare Threats:** Adversaries may increasingly use cyberattacks, drones, misinformation, and proxy actors instead of conventional warfare.

6. **Dependence on Indigenous Defence Capacity:** The success of the doctrine depends on rapid growth of domestic defence manufacturing, where technological gaps and import dependence still remain significant.

Way Forward

1. **Strengthen Integrated Theatre Commands:** India must accelerate military integration among the **Army, Navy, and Air Force** to ensure faster decision-making and seamless joint operations during future conflicts.
2. **Boost Defence Indigenisation and Atmanirbhar Bharat:** Greater investment in **indigenous defence manufacturing**, drones, missiles, AI, and cyber systems is essential to reduce foreign dependency and enhance strategic autonomy.
3. **Enhance Intelligence and Surveillance Capabilities:** India should strengthen **real-time intelligence gathering**, satellite surveillance, cyber monitoring, and border reconnaissance to prevent terror infiltration and hybrid threats.
4. **Develop Advanced Cyber and Hybrid Warfare Preparedness:** A modern security doctrine must include strong capabilities against **cyberattacks, drone warfare, misinformation campaigns, and electronic warfare** emerging from hostile actors.
5. **Expand Strategic Diplomacy and Global Partnerships:** India should deepen cooperation with partners like the **QUAD, France, and the United States** to build international support against cross-border terrorism and regional instability.
6. **Maintain Credible Deterrence with Escalation Control:** While adopting a proactive military posture, India must continue focusing on **measured response, escalation management, and strategic stability** in a nuclearized region.

Conclusion

Operation Sindoor marks a decisive shift in India's security doctrine from reactive restraint to proactive deterrence. Its long-term success depends on **military preparedness, defence indigenisation, strategic diplomacy**, and effective escalation management in an increasingly complex geopolitical environment.

Q. *"Operation Sindoor reflects a paradigm shift in India's national security doctrine from strategic restraint to proactive deterrence." Discuss the strategic significance of this shift. Also examine the challenges associated with India's emerging security doctrine. (15 Marks)*

***

Scan to attempt more questions...

Through the Eyes of Aspirants

P.V Surendra

Monthly Current affairs magazine of RICE IAS is really helping me alot. It is comprehensively covering current events with segregation of topics in subject wise.

Sulagna Roy

Provides gainful insights about the current relevant news. Really beneficial.

Shreya Mondal

By reading current affairs, it has become easy to conclude the important news at the end of monthly magazine.

Aindrila saha

The monthly magazines for current affairs are exam-oriented and written in a very concise manner suitable for performing well in the examinations.

Kashish Kapoor

By reading Monthly Current Affairs it has become easy to conclude the important news at the end of the month.

Kishore Muddada

The topics are comprehensively covered in each magazine content was crisp, clear & to the point that are very much important for the preparation & the current is also covered with the static part. Keep up the good work.

OUR COURSES

IAS 2-Year General Studies

Prelims Cum Mains Foundation Course

Classroom & LIVE Online Programme

- Complete GS coverage for Prelims & Mains from Basics to Advance
- 1,400+ hours of classes in Kolkata by top Delhi faculty
- Expert in-house mentors trained in Delhi
- Weekly tests with faculty-led discussions
- Exam-oriented study material with PYQ focus

For **UPSC CSE-2028**

IAS 10-Month General Studies

Prelims Cum Mains

Classroom & LIVE Online Programme

- Complete GS coverage for Prelims & Mains
- 700+ hours of classes in Kolkata by top Delhi faculty
- Expert in-house mentors trained in Delhi
- Weekly tests with faculty-led discussions
- Exam-oriented study material with PYQ focus

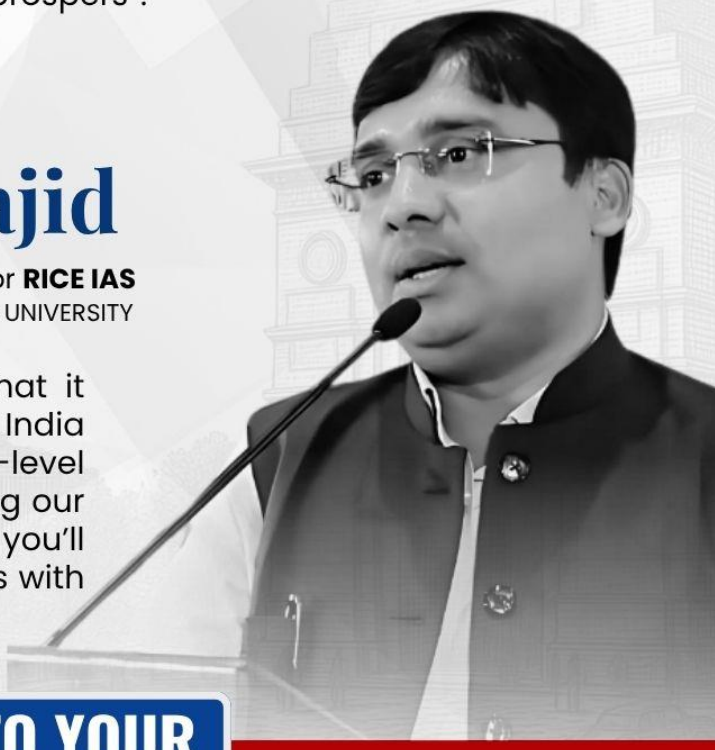
For **UPSC CSE-2027**

RICE IAS

Prof. (Dr.) Samit Ray

CHAIRMAN OF RICE GROUP
& CHANCELLOR OF ADAMAS UNIVERSITY

"Bengal once led India in the Civil Services, producing pioneers like Satyendra Nath Tagore and Subhas Chandra Bose. Today, we must revive that legacy. With the right guidance and training, Bengal's youth can again shape governance and nation-building. When Bengal's students rise, the whole nation prospers".



S.A. Majid

Co-Founder & Director **RICE IAS**
Vice President -ADAMAS UNIVERSITY

"With 12 years at Vajiram & Ravi, I know what it takes to crack UPSC CSE (IAS/IPS/IFS/other All India Services). We started RICE IAS to bring Delhi-level coaching and expert faculty to Bengal, reviving our legacy of producing IAS and IPS officers. Here, you'll find not just guidance but a mentor who stays with you until success"

GET CLOSER TO YOUR
IAS & IPS DREAMS

Sealdah, Kolkata | Old Rajinder Nagar, New Delhi | At Adamas University

8100819447 | 9933118849 | 8100971442