

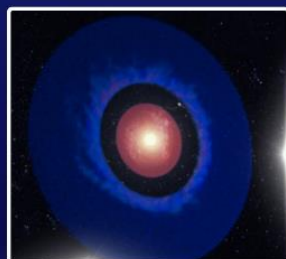
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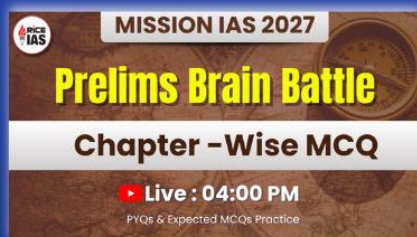
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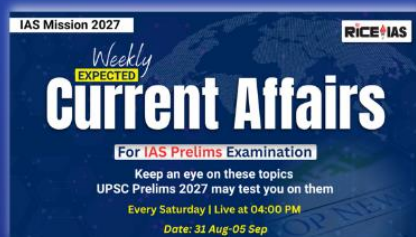
Important government updates, announcements & developments.



MONDAY – FRIDAY | 4:00 PM (Live)

Prelims Brain Battle

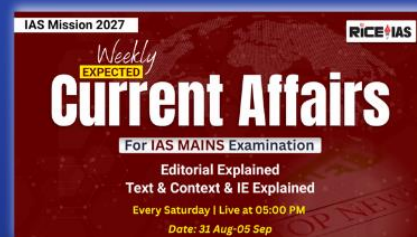
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GENERAL STUDIES 1

1.1. INDIAN SOCIETY

1.1.1. TULU AS AN ADDITIONAL ADMINISTRATIVE LANGUAGE

Context

The decision of the Karnataka Government to accord **Tulu the status of a second additional administrative language in Dakshina Kannada and Udupi districts** highlights the role of language in cultural preservation, public administration and inclusive governance.

Introduction

India's linguistic diversity is a defining feature of its plural society. Recognising regional languages in administration can improve **citizen–state communication, cultural preservation and participatory governance**, while requiring institutional capacity for effective implementation.

Statutory & Constitutional Procedure

- **Constitutional Basis (Article 345):** Empowers the State Legislature to legally declare one or more languages for official state purposes.
- **Legislative Amendment:** Official recognition of Tulu requires a formal amendment to the Karnataka Official Language Act, 1963—a Cabinet decision alone is legally insufficient.
- **Assent & Enactment:** The amendment becomes operational once it passes the State Legislature, receives necessary assent, and is officially notified.

Understanding Tulu

- **Dravidian language:** Tulu belongs to the Dravidian language family, alongside Kannada, Tamil, Telugu and Malayalam.
- **Geographical concentration:** Predominantly spoken in **Dakshina Kannada and Udupi** in Karnataka and parts of northern Kerala.
- **Cultural significance:** Closely associated with traditions such as **Yakshagana and Bhoota Kola**, besides a rich oral and folkloric tradition.
- **Script:** Historically associated with the **Tulu script**, but contemporary Tulu is predominantly written using the **Kannada script**.
- **Speaker base:** Estimates vary because of migration and differences in methods of enumeration; the language has a substantial native-speaking population.

What Does Additional Administrative Language Status Mean?

The recognition enables greater use of Tulu in **district-level government administration**, alongside Kannada.

- **Administrative accessibility:** Citizens can potentially communicate with government institutions in their familiar language.



- **Inclusive governance:** Reduces linguistic barriers in accessing public services.
- **Cultural preservation:** Provides institutional support for a language with a strong oral heritage.
- **Education and public visibility:** Can encourage language learning, signage, publications and cultural activities.
- **Documentation:** Encourages systematic development of dictionaries, translations and official terminology.

Why is Linguistic Recognition Important?

A. Democratic Participation

- Use of familiar languages in administration reduces communication barriers between citizens and the State.
- It enables better access to public services, grievance redressal and participation in local governance.

B. Cultural Continuity

- Recognition supports the preservation of **oral traditions, folklore, literature, performing arts and customary practices** associated with a language.
- It helps prevent cultural knowledge from being lost across generations.

C. Linguistic Diversity

- Recognition strengthens India's tradition of **linguistic pluralism**, consistent with its multilingual constitutional framework.
- It allows regional languages to coexist with wider link languages without cultural homogenisation.

D. Social Inclusion

- Availability of government communication in a familiar language makes public institutions more accessible to linguistic communities.
- It can strengthen their **sense of dignity, participation and belonging** within the larger society.

E. Intergenerational Transmission

- Institutional visibility can motivate younger generations to learn and use the language in education and public life.
- This helps sustain **language proficiency, literature and cultural knowledge** over time.

Key Challenges in Implementation

1. Script and Literacy Gap

- Though Tulu has a historical script, contemporary written usage largely relies on the **Kannada script**.
- Limited familiarity with the traditional script creates challenges in developing a wider written administrative ecosystem.

2. Limited Institutional Capacity

- Effective implementation requires **trained translators, language-proficient officials and adequate translation infrastructure**.

- Government departments also need standardised terminology and digital language resources for regular administrative use.

3. Education Gap

- Limited formal teaching of Tulu restricts the development of a wider **literate and proficient user base**.
- Strengthening language education is therefore important for sustaining administrative use beyond the immediate generation.

4. Standardisation

- Administrative use requires consistency in **terminology, spelling, grammar and translation practices** across government departments.
- Lack of standardised official vocabulary could lead to inconsistencies in notifications and other administrative documents.

5. Digitalisation

- E-governance requires Tulu-compatible **fonts, Unicode support, digital databases and language-processing tools**.
- Without adequate digital infrastructure, extending language recognition to online public services may remain difficult.

Way Forward

1. Build Institutional Capacity

- Establish dedicated **language and translation cells** and train government personnel in Tulu communication.
- Develop standard administrative terminology for consistent use across departments.

2. Strengthen Language Education

- Introduce Tulu as an **optional language** in educational institutions where sufficient demand exists.
- Invest in teacher training, textbooks and modern learning resources.

3. Preserve the Traditional Script

- Promote research and teaching of the **historical Tulu script** alongside contemporary Kannada-script usage.
- Digitise manuscripts and other historical linguistic resources to ensure their long-term preservation.

4. Document Cultural Heritage

- Systematically document **oral traditions, folklore, literature and performing arts** associated with Tulu.
- Create institutional archives to facilitate research and transmission of cultural knowledge.

5. Leverage Digital Technology

- Develop **digital dictionaries, OCR, translation tools and Unicode-compatible resources** for Tulu.
- Integrate Tulu into relevant e-governance platforms, digital forms and public-service interfaces.

6. Promote Community Participation

- Involve **linguists, educators, writers, cultural organisations and local communities** in implementation.
- A participatory approach can ensure that language promotion remains both **administratively practical and culturally authentic**.

Conclusion

The recognition of Tulu at the district administrative level represents the broader principle that **linguistic diversity can coexist with administrative efficiency**. A balanced approach combining **official accessibility, education, technological development and cultural preservation** can transform linguistic recognition from a symbolic measure into an instrument of **inclusive and citizen-centric governance**.

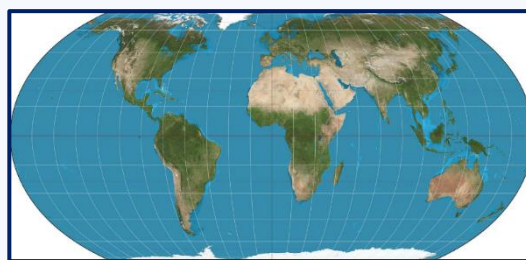
Q. Discuss the significance and challenges of recognising regional languages in promoting linguistic pluralism and inclusive governance. 15 Marks

1.2. GEOGRAPHY

1.2.1. MERCATOR TO EQUAL EARTH: RETHINKING THE WORLD MAP

Context

The **UN General Assembly adopted a Togo-led resolution**, supported by **164 countries**, calling for more accurate representation of the world's land areas, particularly **Africa**; the **US opposed** it and six countries abstained.



The **non-binding resolution** highlights how the **Mercator projection**, though useful for navigation, visually exaggerates the size of regions such as **Europe and North America** relative to Africa and other regions.

Introduction

The Earth's **curved surface** cannot be represented on a flat map without distortions in **area, shape, distance or direction**. Hence, **no projection is perfect**—the Mercator–Equal Earth debate highlights the need for **purpose-specific and geographically accurate representation**.

Why is the Mercator Projection Being Questioned?

1. **Inherent Area Distortion:** Mercator preserves **angles and local shapes**, but distorts **area increasingly towards the poles**. Thus, **high-latitude regions appear much larger** than their actual size.
2. **Misrepresentation of Africa's Size:** **Greenland appears comparable to Africa**, although Africa is nearly **14 times larger**. This can create a **misleading perception of continental scale**.
3. **Eurocentric Representation:** Enlargement of Europe and other northern regions has been criticised for reinforcing **Eurocentric geographical perceptions**. The debate links cartography with **colonial legacies, knowledge inequality and Global South representation**.

4. **Limited Purpose of Mercator:** Mercator was designed primarily for **navigation**, where preserving direction and angles is valuable. It is less suitable for **area-based maps**, such as population, resources and environmental analysis.
5. **Need for Purpose-Specific Projections:** Modern cartography requires different projections depending on whether the priority is **area, shape, distance or direction**. Hence, alternatives like **Equal Earth** are preferred when **accurate relative area** is the objective.

Equal Earth: The Alternative

1. **Equal-Area Projection:** Developed in **2018**, Equal Earth is designed to preserve the **relative area of landmasses**. It reduces the extreme size distortion seen in **Mercator**, especially at higher latitudes.
2. **More Proportionate Representation:** Continents such as **Africa and South Asia** appear closer to their **actual relative sizes**. This provides a more balanced visual understanding of **global geography**.
3. **Corrects Cognitive Distortion:** Helps counter the tendency to **underestimate Africa's actual size** created by conventional maps. Strengthens **cartographic awareness** that maps are representations, not exact replicas of Earth.
4. **Useful for Thematic Mapping:** Particularly suitable for mapping **population, forests, agriculture, minerals, emissions and biodiversity**. Accurate area representation makes **spatial comparisons** more meaningful.
5. **Significance for Global South:** Challenges inherited **Eurocentric representations** of geographical space. Highlights the importance of **inclusive knowledge systems and balanced global representation**.

What is the problem with the new map?

1. **Area Accuracy ≠ Complete Accuracy:** Equal Earth corrects **area distortion**, but still distorts shape, distance and direction. Hence, no single projection can represent all geographical properties accurately.
2. **Cannot Completely Replace Mercator:** Mercator remains valuable for **navigation** because constant-bearing routes appear as straight lines. Therefore, replacing it universally would ignore its functional utility.
3. **Need for Purpose-Specific Projections:** **Equal-area projections** are better for population, resources and thematic comparisons. **Conformal projections** like Mercator remain suitable for navigation and certain technical applications.
4. **Risk of Treating Cartography as a Political Issue:** Criticism of Mercator as "Eurocentric" highlights representation, but its original purpose was primarily **navigation**. Cartographic reform should therefore remain evidence-based rather than purely political or symbolic.
5. **Limited Impact on Global Power Structures:** A new map can improve visual representation of the **Global South**, but cannot by itself correct historical inequalities. Structural issues of knowledge, technology, resources and geopolitical influence require broader reforms.
6. **India's Key Concern: Appropriate and Balanced Adoption:** India support projections that provide **accurate representation without sacrificing practical utility**. The focus is on **purpose-specific mapping**, rather than a binary choice between Mercator and Equal Earth.

Way Forward

- 1. Adopt Purpose-Specific Projections:** Instead of one universal map, projections should be selected according to the **purpose and required geographical property**.
 - **Navigation** → **Mercator**
 - **Area comparison** → **Equal-area**
 - **General reference** → **Compromise projections**.
- 2. Promote Cartographic Literacy:** Schools and institutions should explain **why maps distort** and the strengths and limitations of different projections. This will prevent students from viewing any single map as an **absolute representation of geographical reality**.
- 3. Use Equal Earth for Thematic Mapping:** Equal-area projections can be increasingly used for **population, environment, agriculture, resources and climate mapping**. This enables more accurate visual comparison of spatial data, particularly for the **Global South**.
- 4. Modernise Digital Cartography:** GIS platforms and digital maps should provide **projection choices based on the user's objective** rather than defaulting to one conventional projection. This can make digital cartography more **scientifically accurate, flexible and context-sensitive**.
- 5. Encourage Diverse Cartographic Perspectives:** Mapping should reflect the geographical realities of the **Global South** without compromising mathematical and scientific accuracy. Greater diversity in cartographic standards can reduce **historical representational biases** in global geographical understanding.
- 6. Combine Cartographic Reform with Knowledge Reform:** Changing maps must be accompanied by **better geographical education, diversified knowledge production and wider Global South representation**. Thus, cartographic reform should become part of a broader effort towards **epistemic equity and balanced global representation**.

Conclusion

The **Mercator–Equal Earth debate is not about a “wrong” or “correct” map**, but about choosing the right projection for the right purpose. The way forward is **purpose-specific mapping, cartographic literacy and fair representation** to ensure scientifically accurate and cognitively balanced understanding of the world.

***Q.** The choice of a map projection involves a trade-off between geographical accuracy, functional utility and representation. Examine with reference to the Mercator and Equal Earth projections.*

15 Marks

Scan to attempt more questions...



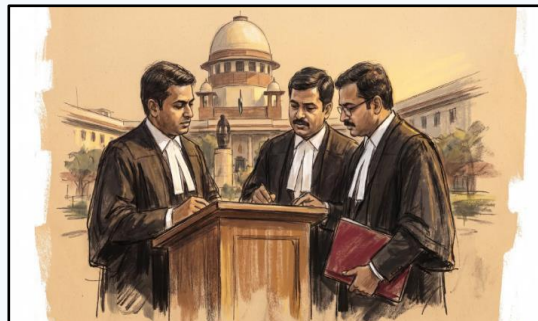
GENERAL STUDIES 2

2.1. POLITY & GOVERNANCE

2.1.1. REVIVING AN UNUSED CONSTITUTIONAL PROVISION

Context

Justice Ujjal Bhuyan's observation has revived debate on the unused **"distinguished jurist" route** for Supreme Court appointments, raising concerns over **judicial diversity, the Collegium system, and the balance between legal scholarship and courtroom experience.**



Introduction

The Indian Constitution provides **three eligibility routes** for appointment to the Supreme Court: elevation of High Court judges, direct elevation of experienced advocates, and appointment of a **"distinguished jurist."**

Constitutional Framework for Supreme Court Appointments

1. **Article 124(3)(a)** provides eligibility for a person who has been a **judge of a High Court for at least five years.**
2. **Article 124(3)(b)** provides eligibility for a person who has been an **advocate of a High Court for at least ten years.**
3. **Article 124(3)(c)** provides a third route for a person who, in the **President's opinion, is a "distinguished jurist."**

Thus, the Constitution deliberately created a **broader talent pool** for the Supreme Court by recognising judicial experience, professional legal practice and exceptional legal scholarship as potentially relevant forms of expertise.

Relevant Constitutional Development

1. **The 42nd Constitutional Amendment Act, 1976, temporarily extended the distinguished-jurist concept to High Court appointments,** thereby recognising the possibility of using academic legal expertise beyond the Supreme Court.
2. **The 44th Constitutional Amendment Act, 1978, subsequently removed this provision for High Court appointments,** reflecting the continuing debate over the practical suitability of non-traditional candidates for judicial office.

This history demonstrates that the idea of academic participation in judicial appointments has constitutional precedent but has never become an established appointment practice.

Why Was the "Distinguished Jurist" Category Included?

1. Constitutional and Institutional Dimension

- **The provision was intended to widen the talent pool for the higher judiciary** by allowing eminent legal minds outside the conventional judge–advocate pipeline to become Supreme Court judges.

- **The Constituent Assembly recognised that judicial excellence need not arise exclusively from courtroom practice**, as exceptional contributions to jurisprudence and constitutional thought can also come from legal scholarship.

2. Intellectual Dimension

- **Distinguished jurists can contribute specialised knowledge of constitutional theory, jurisprudence, comparative constitutional law, human rights and public law**, which can enrich constitutional adjudication.
- **The growing complexity of modern litigation strengthens the case for specialised expertise**, particularly in areas such as artificial intelligence, data protection, environmental law, technology regulation and international law.

3. Diversity Dimension

Opening the judicial appointment process to eminent academics could increase professional and intellectual diversity within the Supreme Court, which is presently dominated by judges and practising advocates.

4. Comparative Dimension

The elevation of Harvard Law professor Felix Frankfurter to the U.S. Supreme Court serves as an example of how distinguished legal scholarship can enrich constitutional adjudication.

Present Status of the Distinguished Jurist Provision

1. **The distinguished-jurist route under Article 124(3) has never been used for appointing a Supreme Court judge**, despite being constitutionally available since 1950.
2. **The higher judiciary has traditionally drawn its members predominantly from High Court judges**, while only a relatively smaller number of practising advocates have been directly elevated to the Supreme Court.
3. **The Constitution does not define the expression “distinguished jurist” or prescribe objective eligibility criteria**, creating uncertainty regarding who qualifies for this category.
4. **The evolution of the Collegium system has further reinforced the traditional judge–advocate appointment pipeline**, with legal academics generally remaining outside the mainstream process.

Arguments in Favour of Appointing Distinguished Jurists

1. Judicial Diversity

- Including distinguished jurists would diversify the professional composition of the Supreme Court beyond the traditional judge–advocate route.
- Greater professional diversity can introduce different approaches to constitutional interpretation, legal reasoning and policy-sensitive adjudication.

2. Constitutional Expertise

- Eminent constitutional scholars may bring deep expertise in constitutional structure, fundamental rights, separation of powers and comparative constitutional jurisprudence.

- Such expertise can be particularly valuable when the Supreme Court is dealing with complex constitutional questions involving emerging technologies, privacy, federalism and institutional accountability.

3. Research-Oriented Adjudication

Academic jurists may strengthen research-based judicial reasoning by bringing extensive experience in legal scholarship, comparative jurisprudence and interdisciplinary analysis.

4. Global Perspective

Exposure to comparative constitutional systems can help the Court evaluate international approaches while developing solutions suited to Indian constitutional conditions.

Concerns Regarding Academic Jurists

1. Lack of Courtroom Experience

A Supreme Court judge must understand procedural law, evidence, appellate practice, case management and litigation dynamics, which may not be adequately acquired through academic work alone.

2. Law in Theory vs Law in Practice

A scholar may possess exceptional theoretical knowledge but may have limited experience in applying legal principles to disputed facts and competing claims.

3. Judicial Effectiveness

Academic excellence by itself cannot automatically establish suitability for judicial office, because judicial competence also requires practical judgment, decisiveness and the ability to manage adversarial proceedings.

4. Risk of Excessive Theoreticalism

An excessively theoretical approach could potentially distance judicial reasoning from the practical realities faced by litigants and lower courts.

Way Forward

1. The Categorical definition

Transparent and broad-based criteria should be developed to identify a "distinguished jurist," while avoiding an excessively rigid definition that defeats the purpose of Article 124(3)(c).

2. Broaden the Talent Pool

The judicial appointment process should actively consider exceptional legal scholars, constitutional experts and specialists in emerging fields of law where their expertise can contribute to constitutional adjudication.

3. Ensure Practical Competence

Academic distinction should be assessed alongside practical exposure to litigation, adjudication, public institutions, law reform or other relevant legal processes.

4. Strengthen Academia–Judiciary Linkages

Greater institutional interaction between courts, universities and legal research institutions can facilitate judicial research, constitutional scholarship and evidence-based adjudication.

5. Improve Collegium Transparency

The identification and consideration of distinguished jurists should follow transparent and reasoned procedures while preserving the independence of the judiciary.

Conclusion

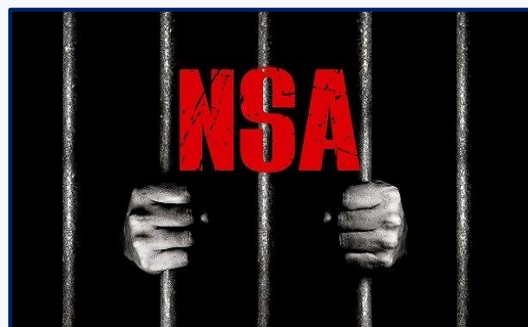
- The “**distinguished jurist**” provision under **Article 124(3)** represents an important but unused constitutional avenue for diversifying the Supreme Court. Its activation need not imply replacing experienced judges or advocates; rather, it can **complement existing expertise with specialised legal scholarship**.
- The larger objective should be to create a judicial appointment system that combines **merit, independence, diversity, constitutional vision and professional competence**.

Q. Why has the “distinguished jurist” provision under Article 124(3) remained unused? Discuss its significance for judicial appointments. *10 Marks*

2.1.2. THE CONSTITUTIONAL DILEMMA OF THE NATIONAL SECURITY ACT (NSA)

Context

The **Allahabad High Court** quashed the **National Security Act (NSA)** detention of a student activist, terming the executive action “despotic” and passed “without application of mind.” Ordering ₹5 lakh compensation deducted from the salaries of erring officials, the court warned that unchecked bureaucratic overreach risks creating an “Orwellian dystopia.”



Introduction

Enacted to neutralize grave threats to state security, the **National Security Act (NSA), 1980**, permits preventive detention without formal trial. However, recurring executive misuse against democratic dissent undermines **fundamental rights**, bypassing procedural natural justice and testing the constitutional balance between sovereign defense and individual liberty.

About National Security Act (NSA), 1980

- **Core Mandate:** Enacted on September 23, 1980, empowering Central and State governments to detain individuals preventively without formal charges or trial to maintain **state security and public order**.
- **Colonial Lineage:** Traces roots to colonial regulations like **Bengal Regulation III (1818)** and the **Rowlatt Act (1919)**, subsequently evolving through post-independence statutes including the **Preventive Detention Act (1950)** and **MISA (1971)**.
- **Statutory Detention Limits:** Authorizes preventive detention for up to **12 months** (extendable upon fresh evidence), permitting authorities to withhold grounds of arrest for up to **10 days**.

Constitutional Framework & Safeguards

- **Article 22(3)(b):** Creates a constitutional carve-out suspending standard safeguards, exempting the state from producing detainees before a magistrate within 24 hours or providing immediate legal counsel.

- **Article 22(4):** Restricts preventive detention to a maximum of **three months** unless an independent **Advisory Board** confirms sufficient cause for continued detention.
- **Advisory Board Review:** Comprises three individuals qualified to be High Court judges; however, detainees are statutorily barred from having **legal representation** before the panel.

Legal Provisions

- **Grounds for Invocation:** Invoked against acts prejudicial to the **defense of India**, foreign relations, state security, or the maintenance of **public order** and essential community supplies.
- **Executive Immunity:** Grants overarching protection under Section 16 for any action taken or intended in "**good faith**", shielding officials from legal prosecution.
- **Denial of Natural Justice:** Deprives detainees of normal bail provisions and the right to cross-examine evidence presented against them during detention proceedings.

Significance of the National Security Act

1. Pre-emptive Threat Mitigation

- Empowers the state to proactively neutralize acute threats to national security and internal peace before actionable harm occurs.
- Prevents organized subversion, espionage, and cross-border terrorism that threaten **territorial sovereignty**.

2. Effective Deterrence

- Imposes a severe psychological deterrent against anti-social syndicates, habitual offenders, and disruptive actors targeting critical infrastructure.
- Disfavors intentional attempts to incite widespread civil unrest or communal disharmony.

3. Operational Agility in Sensitive Zones

- Equips authorities with rapid, decisive intervention powers in volatile conflict environments, border corridors, and communally fragile districts.
- Enables swift administrative action when ordinary law enforcement mechanisms are inadequate to maintain peace.

4. Safeguarding Essential Supplies

- Deters calculated sabotage, hoarding, and illicit disruptions affecting the supply of **essential commodities and civic services**.
- Ensures uninterrupted community lifelines and public utility operations during socio-economic crises.

5. Sovereign Safety Valve

- Acts as an emergency statutory backstop to preserve state security when standard criminal prosecution machinery is incapacitated or slow.
- Guarantees public order when gathering courtroom-admissible evidence is compromised by imminent peril.

Associated Challenges

1. Threat of Executive Arbitrariness

- Broad executive discretion allows authorities to invoke the law for routine law-and-order disputes to bypass standard bail processes.
- Reflected in systemic judicial quashing rates, such as the Allahabad High Court invalidating **94 out of 120 detention orders** in 2021.

2. Infringement of Natural Justice

- Statutory prohibition of legal representation before the **Advisory Board** violates the bedrock principle of *audi alteram partem* (right to be heard).
- Detainees remain vulnerable to fabricated executive claims without access to specialized legal assistance.

3. Absence of Transparency & Data Vacuum

- Because NSA detentions bypass standard **First Information Reports (FIRs)**, the **National Crime Records Bureau (NCRB)** excludes them from national crime statistics.
- This omission prevents empirical legislative assessment and conceals the actual scale of preventive incarcerations.

4. Prolonged Unreviewed Detention

- Allows individuals to be incarcerated for up to **three months** before mandatory review by the Advisory Board.
- Leaves citizens vulnerable to custodial excesses and mental trauma during extended confinement without formal charge.

5. Suppression of Democratic Dissent

- Subjective statutory phrasing enables the state to weaponize preventive detention against labor demonstrators, student activists, and political opposition.
- Chills constitutionally protected freedoms of speech, peaceful assembly, and collective bargaining under **Article 19**.

Way Forward

1. Strengthen Judicial Oversight

- Institutionalize immediate, independent judicial scrutiny at the stage of the District Magistrate's order to eliminate arbitrary detentions.
- Ensure timely judicial intervention rather than relying exclusively on post-facto habeas corpus petitions.

2. Grant Statutory Legal Representation

- Amend Section 11 of the NSA to permit detainees legal counsel before the **Advisory Board**.
- Align administrative review processes with constitutional fair-trial standards and international human rights norms.

3. Enforce Personal Accountability & Restitution

- Implement judicial precedents mandating that compensation for illegal detention be deducted directly from the **salaries of erring officials**.

- Dismantle blanket bureaucratic immunity by investigating and penalizing malicious invocations of preventive detention.

4. Delineate "Public Order" Thresholds

- Statutorily clarify the distinction between localized "law and order" problems and genuine disruptions affecting "**public order**" at large.
- Prevent executive authorities from invoking national security mechanisms for petty or routine penal offenses.

5. Incorporate Sunset Clauses & Mandatory Re-evaluation

- Introduce periodic legislative reauthorization mechanisms (**sunset clauses**) to prevent the normalization of emergency-era powers.
- Mandate monthly internal reviews of detention orders instead of permitting automatic prolonged incarceration.

6. Mandate Comprehensive Data Tracking

- Require state governments to furnish detailed, disaggregated data on preventive detentions for mandatory inclusion in **NCRB reports**.
- Enhance public transparency and parliamentary accountability regarding detention rationale and demographics.

Conclusion

Preventive detention is an exceptional constitutional compromise, not an administrative shortcut for ordinary penal procedures. Safeguarding the republic requires strictly circumscribing executive discretion with judicial accountability, ensuring that sovereign security never compromises the fundamental soul of constitutional liberty.

Q. Analyse the constitutional safeguards under the National Security Act (NSA), 1980, and discuss the challenges arising from its arbitrary invocation. 15 Marks

2.1.3. THE ARCHITECTURE OF POLITICAL FINANCE

Context

A recent investigation found that **six Gujarat-based Registered Unrecognised Political Parties (RUPPs) received ₹1,700 crore in donations in 2023–24**, exceeding the **₹1,480 crore** received collectively by five major national parties. The anomaly highlights the potential misuse of **shell parties and opaque financial channels for tax evasion and money laundering**.



Introduction

Electoral funding is the financial backbone of representative democracy, enabling elections and political participation. However, opaque and unregulated funding can foster a **politico-corporate nexus, criminalisation of politics and plutocratic influence**. Hence, a **transparent and accountable political finance framework** is essential for safeguarding electoral integrity.

Constitutional and Legal Basis of Political Parties

- **Fundamental Right: Article 19(1)(c)** of the Indian Constitution grants citizens the fundamental right to form associations or unions, forming the bedrock for political organization.
- **Statutory Registration: Section 29A of the Representation of the People Act (RPA), 1951**, governs the formal registration of political parties with the **Election Commission of India (ECI)**.
- **Constitutional Recognition:** Political parties were not explicitly mentioned in the original Constitution but gained constitutional status via the **52nd Amendment Act (1985)**, which introduced the Anti-Defection Law under the Tenth Schedule.

Types of Political Parties in India

- **National Parties:** Parties that secure a widespread electoral footprint across multiple states, entitling them to an exclusive nationwide reserved symbol.
- **State Parties (Regional Parties):** Parties demonstrating significant electoral presence within a specific state or states, granted a reserved symbol within that jurisdiction.
- **Registered Unrecognised Political Parties (RUPPs):** Newly registered parties or those that have not secured a sufficient vote/seat share to attain State or National party status. They must choose from a list of "free symbols."

Recognition of Political Parties

- **Regulatory Framework:** The formal recognition of parties is strictly governed by the **Election Symbols (Reservation and Allotment) Order, 1968**.
- **Criteria for National Party:** Must secure 6% of valid votes in four or more states plus 4 Lok Sabha seats; OR win 2% of Lok Sabha seats from at least three states; OR be recognized as a State Party in at least four states.
- **Criteria for State Party:** Must secure 6% of valid votes and win 2 Assembly seats; OR win 3% of total Assembly seats (or 3 seats, whichever is higher); OR secure 8% of the total valid votes polled in the state.

The Mechanics of Electoral Funding in India

Registered Unrecognised Political Parties (RUPPs)

- Formed under Section 29A of the Representation of the People Act (RPA), 1951, RUPPs are granted common symbols, star campaigners, and 100% tax exemptions (Section 12, IT Act, 2025).
- While intended to expand grassroots representation, thousands exist solely on paper to harvest financial benefits without genuine electoral participation.

Corporate Funding and Trusts

- Regulated under Section 182 of the Companies Act, 2013, corporate funding was drastically expanded following the 2017 amendment that removed the 7.5% net-profit cap on donations.
- Electoral Trusts serve as pooled intermediary bodies (e.g., Prudent Electoral Trust), maintaining partial anonymity while transferring corporate funds to political entities.

The Electoral Bonds Scheme

- Introduced in 2018 as anonymous bearer instruments sold exclusively via the State Bank of India (SBI) to formalize donations.

- On February 15, 2024, the Supreme Court struck down the scheme as unconstitutional, citing severe violations of the citizens' fundamental Right to Information.

Global Paradigms & State Funding

- Unlike France or New Zealand, which employ strict state-funding models and corporate bans, India relies heavily on private capital.
- Committees like Indrajit Gupta (1998) and the 2nd Administrative Reforms Commission have repeatedly advocated for partial, in-kind state subsidies to establish a level playing field.

Significance of Transparent Electoral Funding

1. **Sustains Democratic Exercises:** Provides the necessary capital to conduct complex, large-scale electoral processes across a vast demographic without compromising systemic integrity.
2. **Fosters Political Inclusivity:** Fair funding distribution allows marginalized voices and independent grassroots candidates to effectively compete against legacy parties.
3. **Prevents Policy Capture:** Transparent financing restricts the influence of "Big Money," ensuring state policies are dictated by public welfare rather than corporate quid pro quo.
4. **Enhances Voter Empowerment:** Mandatory disclosures enable the electorate to make highly informed decisions by tracking the ideological and financial backers of their representatives.
5. **Curbs the Parallel Economy:** Formalizing political finance directly attacks the circulation of black money and illicit capital within the national economy.

Challenges

1. **The "Letter Pad Party" Loophole:** Hundreds of RUPPs act as opaque conduits for money laundering, protected by the Election Commission's lack of explicit statutory power to de-register inactive parties (upheld in the 2002 *INC vs. Institute of Social Welfare* ruling).
2. **Unchecked Corporate Nexus:** The removal of the corporate donation cap allows wealthy conglomerates to disproportionately influence democratic outcomes and skew the electoral playing field.
3. **Foreign Funding Risks:** Amendments to the Foreign Contribution (Regulation) Act (FCRA), 2010, permit foreign entities with Indian subsidiaries to fund parties, threatening sovereign policy autonomy.
4. **Cash Donation Anonymity:** Lowering the anonymous cash donation limit from ₹20,000 to ₹2,000 paradoxically increased the volume of untraceable micro-donations, defeating the purpose of transparency.
5. **Exorbitant Campaign Costs:** The soaring expense of modern elections acts as a high barrier to entry, forcing political parties into a perpetual cycle of fund-seeking from vested commercial interests.

Way Forward

1. **Empower the Election Commission:** Amend the RPA to grant the EC explicit authority to de-register political parties that fail to contest elections for ten consecutive years, as recommended by the Law Commission's 255th Report.

2. **Link Tax Benefits to Performance:** Stipulate a minimum legislative vote percentage threshold for RUPPs to avail of income tax exemptions, thereby deterring the formation of shell organizations.
3. **Bring Parties Under the RTI Act:** Classify recognized political parties as "public authorities" under the Right to Information Act to enforce absolute financial transparency and public accountability.
4. **Establish a National Election Fund:** Implement former CEC T.S. Krishnamurthy's proposal for an independent, state-managed fund that distributes corporate and public donations based on objective metrics like vote share.
5. **Reinstate Corporate Contribution Caps:** Restore the 7.5% net-profit ceiling on corporate donations to strictly limit business interference in legislative policymaking.
6. **Adopt Partial State Funding:** Operationalize the 2nd ARC recommendations for partial, in-kind state subsidies (e.g., free media airtime, transport logistics) to reduce reliance on illicit private capital.
7. **Enhance Inter-Agency Digital Tracking:** Mandate real-time digital integration between the EC, Income Tax Department, and Enforcement Directorate to proactively monitor and penalize financial anomalies within political entities.

Conclusion

A robust democracy cannot function optimally if its electoral mandate is overshadowed by opaque financial transactions. Comprehensive reforms—ranging from empowering the Election Commission to enforcing RTI compliance—are imperative to cleanse political finance, ensuring governance remains a true reflection of the public will.

Q. To enhance the quality of democracy in India the Election Commission of India has proposed electoral reforms in 2016. What are the suggested reforms and how far are they significant to make democracy successful? 15 Marks

2.1.4. RECONCILING INDIA'S GLOBAL SPORTING AMBITIONS WITH INSTITUTIONAL INTEGRITY

Context

India faced renewed global scrutiny after at least **13 athletes tested positive** for banned substances ahead of the Commonwealth and Asian Games, resulting in squad exclusions. With the **Athletics Integrity Unit (AIU)** categorizing India as a **high-risk doping nation**, structural reforms in enforcement and compliance have become an urgent priority.



Introduction

Doping violates the core tenets of **fair play**, threatens **athlete health**, and erodes national sporting credibility. While India introduced the **National Anti-Doping (Amendment) Act, 2025** to empower domestic oversight, eliminating performance-enhancing drugs (PEDs) requires addressing **fiscal constraints, supply chain trafficking**, and **institutional autonomy**.

What is Doping?

- **Doping** is the use of prohibited substances (e.g., **anabolic steroids, hormones, stimulants**) or prohibited methods (e.g., **blood doping, gene doping**) to artificially enhance athletic performance.
- It encompasses diverse **Anti-Doping Rule Violations (ADRVs)**, including test evasions, sample tampering, possession, and illicit substance trafficking.
- Beyond competitive distortion, doping induces severe **cardiovascular disorders, hormonal imbalances**, and permanent organ toxicity.

Legislative and Institutional Basis

- The **National Anti-Doping Act, 2022** provided India's first statutory framework, recently reinforced by the **National Anti-Doping (Amendment) Act, 2025**.
- The legislation aligns domestic enforcement with the **World Anti-Doping Agency (WADA) Code** and the **UNESCO International Convention against Doping in Sport**.
- It establishes a two-tiered statutory hierarchy: the **National Board for Anti-Doping in Sports** as the policy and supervisory body, and the **National Anti-Doping Agency (NADA)** as the primary enforcement authority.
- Provides legislative sanction for **out-of-competition testing**, intelligence gathering, investigation, and disciplinary appeals.

Significance of a Robust Anti-Doping Architecture

1. Upholding Sporting Ethics and Fair Play

- It protects natural athletic merit by ensuring a **level playing field** free from pharmacologically manipulated outcomes.
- This preserves the foundational spirit of sports and restores public trust in domestic competitive tournaments.

2. Athlete Welfare and Health Security

- Strict deterrence prevents athletes from suffering long-term, irreversible **cardiovascular and physiological damage**.
- It shifts the ecosystem's focus toward **scientific training**, proper nutrition, and medical safety.

3. Boosting National Soft Power and Hosting Credentials

- Clean sporting credentials enhance India's international standing as an aspiring host for mega-events like the **Commonwealth Games** and **Olympics**.
- Eliminating systemic doping prevents embarrassing international disqualifications and downgrades.

4. Compliance with International Obligations

- A credible framework fulfills mandatory commitments under the **UNESCO Convention** and **WADA standards**.
- It prevents Indian sports bodies from facing global sanctions, bans, or neutral-flag restrictions.

5. Safeguarding Grassroots Talent

- It prevents honest, clean athletes—particularly from economically vulnerable backgrounds—from being sidelined by peers using illicit substances.
- Promotes equitable socio-economic mobility through fair, transparent sports recruitment quotas.

Challenges Associated with Anti-Doping Regulation in India

1. Deficit of Functional Autonomy

- Continued administrative and executive reliance on government departments limits **NADA's operational independence**.
- True deterrence requires an arm's-length regulatory separation similar to statutory financial and market watchdogs.

2. Institutional and Fiscal Under-Resourcing

- NADA remains **chronically understaffed**, curtailing sample collection across India's vast geography.
- Rising testing costs coupled with recent **budgetary cuts** restrict widespread testing at district and state levels.

3. Distorted Cash-Incentive Frameworks

- Massive, front-loaded **state cash awards** and secure government jobs for medalists incentivize athletes and coaches to take shortcuts.
- High financial stakes create a high-reward environment that outweighs the perceived risk of getting caught.

4. Unregulated Illicit Supply Chains

- India has emerged as a major consumption and transit hub for **black-market PED syndicates**.
- Inadequate inter-agency coordination between drug control departments and border customs facilitates cheap availability.

5. Apathy of National Sports Federations (NSFs)

- Federations frequently lack internal monitoring mechanisms and show administrative reluctance to expose violations.
- Support staff, personal coaches, and medical practitioners often escape accountability while individual athletes bear the entire burden of penalties.

Global Best Practices

1. United States – The Rodchenkov Anti-Doping Act

- Extends **extraterritorial criminal jurisdiction** over international doping conspiracies that affect major competitions involving U.S. athletes or sponsors.
- Criminalizes the **illicit support ecosystem** (doctors, trainers, and officials) rather than punishing only the athletes.

2. Kenya – Inter-Agency Enforcement and Border Interdiction

- Deploys specialized police intelligence units working alongside anti-doping authorities to crack down on the **unauthorized importation of PEDs**.
- Imposes strict custodial sentences and criminal liabilities on pharmaceutical distributors supplying banned substances to competitors.

Way Forward

1. Operationalize the 2025 Statutory Mandates

- Strictly enforce the investigative powers under the **National Anti-Doping (Amendment) Act, 2025** to conduct intelligence-led search and seizure operations.
- Ensure that the National Board for Anti-Doping functions as an effective appellate and supervisory mechanism.

2. Insulate Institutional Independence

- Grant statutory, financial, and operational autonomy to **NADA**, insulating it from sports ministry and federation influence.
- Institute dedicated, non-lapsable funding lines to meet escalating **accredited laboratory testing expenditures**.

3. Criminalize PED Trafficking and Networks

- Enact targeted legal provisions to impose **criminal liability on suppliers, handlers, and coaches** facilitating doping networks.
- Integrate state law enforcement and the **Central Drugs Standard Control Organisation (CDSCO)** into anti-doping supply audits.

4. Restructure Athletic Incentive Frameworks

- Shift medal incentives toward **phased endowments, pensions, and long-term training grants** rather than one-time cash windfalls.
- Condition incentive disbursements on consecutive, post-competition negative dope tests over multi-year windows.

5. Enforce NSF Accountability Audits

- Link public funding, tax exemptions, and government recognition of **National Sports Federations** directly to their anti-doping compliance records.
- Mandate independent integrity officers inside every recognized national sports body.

6. Institutionalize Grassroots Education

- Scale values-based educational campaigns like **#PlayTrue** across youth sports academies, rural school meets, and district championships.
- Educate young competitors on the dangers of tainted supplements, inadvertent ingestion, and contaminated medication.

Conclusion

India's emergence as a premier global sporting power depends on institutional integrity alongside medal tallies. Eradicating systemic doping requires combining the statutory powers of the **2025 Amendment** with **uncompromising regulatory autonomy**, relentless supply interdiction, and cultural reform across the athletic ecosystem.

Q. The National Anti-Doping (Amendment) Act, 2025, aims to strengthen institutional autonomy and align India with global anti-doping standards. Discuss its key provisions and the associated challenges in eradicating doping from Indian sports. 15 Marks

2.1.5. UNIFORM CIVIL CODE: CONSTITUTIONAL BALANCE BETWEEN EQUALITY AND DIVERSITY

Context

The UCC debate has gained momentum with **Uttarakhand implementing its UCC from 27 January 2025**, while questions remain over gender justice, religious freedom and cultural diversity.



Introduction

The Uniform Civil Code seeks to establish common civil laws governing personal matters, aiming to reconcile **gender equality and equal citizenship** with India's rich religious, cultural and customary diversity.

What is Uniform Civil Code?

1. **Meaning:** UCC envisages a **common secular framework** for marriage, divorce, maintenance, adoption, custody and inheritance, irrespective of religion.
2. **Constitutional mandate:** **Article 44** directs the State to endeavour towards a UCC; being a **Directive Principle**, it is non-justiciable but constitutionally significant.
3. **Legal foundation:** **Concurrent List, Entry 5** enables Parliament and States to legislate on marriage, divorce, adoption and succession, while existing personal laws govern these matters.
4. **Constitutional balance:** UCC must reconcile **equality and gender justice** with **religious freedom, cultural diversity and individual dignity**, making reform legally and socially sensitive.

Constitutional framework

1. **Article 44:** Directs the State to endeavour to secure a UCC throughout India, but its placement in **Part IV makes it non-justiciable**.
2. **Article 14:** Requires equality before law, providing a constitutional basis for removing discriminatory personal-law provisions.
3. **Article 15(1):** Prohibits discrimination on grounds including religion and sex, strengthening the case for gender-neutral family laws.
4. **Article 25:** Protects freedom of conscience and religious practice, subject to **public order, morality, health and other Fundamental Rights**.

5. **Article 29:** Protects the right of sections of citizens to conserve their distinct culture, creating concerns about cultural autonomy.
6. **Concurrent List, Entry 5:** Parliament and State Legislatures can legislate on marriage, divorce, adoption, succession and related family matters.

Laws/Provisions Supporting UCC-Oriented Reform

1. **Special Marriage Act, 1954:** Provides a **religion-neutral legal framework for marriage and divorce**, demonstrating that common civil regulation across religious communities is already possible within Indian law.
2. **Hindu Marriage Act, 1955 & Hindu Succession Act, 1956:** Codified Hindu personal laws and introduced statutory regulation of **marriage, divorce and inheritance**, showing how personal-law codification can advance legal reform.
3. **Anand Marriage Act, 1909 (amended 2012):** Enables legal registration of **Sikh marriages**, illustrating how community-specific laws coexist within India's broader civil-law framework.
4. **Muslim Personal Law (Shariat) Application Act, 1937:** Statutorily applies Muslim personal law to specified matters, highlighting the **existing plurality of personal laws** that a UCC seeks to harmonise.

Important reports and judicial perspective

1. **Law Commission Consultation Paper, 2018:** Considered a UCC "neither necessary nor desirable at this stage" and preferred reform of discriminatory provisions within existing family laws.
2. **Law Commission approach:** Emphasised "**equality within communities**" between men and women rather than merely "equality between communities."
3. **Ambedkar's approach:** During Constituent Assembly debates, Dr. B.R. Ambedkar envisaged the possibility of making a UCC initially **voluntary**, allowing citizens to opt into it.
4. **Shah Bano case (1985):** Highlighted the intersection of personal law, maintenance rights and gender justice, keeping UCC within constitutional discourse.
5. **Shayara Bano case (2017):** The Supreme Court invalidated **instant triple talaq**, demonstrating that discriminatory practices within personal laws can face constitutional scrutiny.

Significance of UCC

1. **Gender justice:** Common rules could establish equal rights in marriage, divorce, maintenance, adoption, custody and inheritance irrespective of religion.
2. **Legal uniformity:** A common framework could reduce differences in personal laws and simplify civil-law administration.
3. **Constitutional morality:** Reform can strengthen substantive equality where customary or personal-law practices disadvantage women.
4. **National integration:** Supporters argue that common civil obligations can reinforce equal citizenship while retaining freedom of religious belief.
5. **Existing precedent:** The Supreme Court has repeatedly examined discriminatory personal-law practices through the lens of **Articles 14, 15 and 21**.

Social and constitutional concerns

1. **Religious freedom:** Communities may perceive externally imposed personal-law reform as interference with religious practices protected under Article 25.
2. **Cultural diversity:** India's plural society contains diverse customary practices, particularly among tribal communities, making a single framework difficult to design.
3. **Uniformity versus equality:** Identical rules do not automatically guarantee substantive equality if the social consequences differ across communities.
4. **Tribal autonomy:** Exemptions for protected tribal communities can create a tension between preserving customary institutions and achieving nationwide uniformity.
5. **Federal dimension:** Personal-law reform requires careful coordination between Parliament and States because **Entry 5 is in the Concurrent List**.

Way forward

1. **Rights-based reform:** Prioritise gender equality, dignity and non-discrimination rather than uniformity for its own sake.
2. **Wide consultation:** Involve religious groups, women's organisations, tribal communities, States and legal experts before nationwide implementation.
3. **Incremental harmonisation:** Reform discriminatory provisions across personal laws while progressively creating common minimum standards.
4. **Uttarakhand as a case study:** Its UCC, operational since **27 January 2025**, provides an important governance experience for evaluating implementation challenges.
5. **Constitutional safeguards:** Any UCC should reconcile **Articles 14, 15, 21, 25, 26, 29 and 44** rather than treating any single provision in isolation.

Conclusion

A sustainable UCC should emerge as **constitutional reform rooted in equality, dignity and consultation**, harmonising India's plural traditions with the Fundamental Rights framework.

Q. What are the challenges to our cultural practices in the name of secularism? 10 Marks (2019)

2.1.6. THE FCRA AMENDMENT BILL 2026: REGULATING FOREIGN AID AND CIVIL SOCIETY

Context

The proposed **Foreign Contribution (Regulation) Amendment Bill, 2026** mandates immediate state vesting of NGO assets upon registration cancellation. This legislative tightening coincides with the voluntary withdrawal of international donors, shifting the survival burden onto India's emerging **domestic philanthropy** sector.



Introduction

Enacted in 1976 to shield domestic institutions from **foreign destabilisation**, the **FCRA** faces a modern overhaul to curb allegedly opaque financial networks. This stringent regulatory approach raises acute concerns over balancing strict **national security** measures with the uninterrupted delivery of vital **grassroots welfare services**.

What Does the FCRA Amendment Bill 2026 Propose?

1. **Vesting on Cancellation:** All **foreign contributions** and created assets immediately vest in a government **designated authority** upon certificate cancellation, surrender, or lapse.
2. **Provisional vs. Permanent Vesting:** Assets are returned if registration is restored within a prescribed period; otherwise, they undergo **permanent government vesting**.
3. **Asset Liquidation:** Unrestored assets may be sold or transferred, with proceeds credited directly to the **Consolidated Fund of India**.
4. **Statutory Remedies:** Provides a formal legal recourse mechanism via explicit **appeals to the District Judge**.

Why Are Tighter Controls Being Proposed?

1. **Opaque Financial Channels:** The government flags thousands of crores in unmonitored capital entering under the guise of **social welfare**.
2. **Bypassing State Oversight:** Significant capital inflows deliberately evade official **state accounting mechanisms** and fiscal scrutiny.
3. **Targeted Diversion:** Intelligence suggests funds are redirected toward **politically charged advocacy**, selective protests, and aggressive **religious conversion networks**.

Significance of the Foreign Funding Debate

1. **Safeguarding National Security:** Precludes adverse foreign powers from using unaccounted capital to influence **domestic policy** and political stability.
2. **Operational Flexibility:** Foreign aid offers crucial **flexible operational expenditure** that is tailored directly to specific local NGO needs.
3. **Frontline Welfare:** Sustains non-profit schools, hospitals, and care homes that function as **sole service providers** in remote tribal regions.
4. **Mobilising Domestic Philanthropy:** Promotes indigenous alternative funding, with mandatory corporate **CSR spending** reaching ₹22,563 crore in FY25.

Challenges to the FCRA Amendment Bill, 2026

1. **Vesting Precedes Adjudication:** Immediate asset confiscation occurs prior to the judicial hearing of statutory appeals by the **District Judge**.
2. **Disruption of Essential Services:** Abrupt takeovers force clinics and schools to halt operations, penalizing **vulnerable beneficiaries** before culpability is established.
3. **Irreversibility of Liquidated Funds:** Sale proceeds entering the **Consolidated Fund of India** cannot be refunded administratively, even if registration is eventually restored.

4. **Domestic Philanthropy Mismatch:** Expanding domestic donors and tech philanthropists disproportionately prioritize **higher education and ecosystem building**, starving traditional grassroots welfare.

Way Forward

1. **Suspend Premature Vesting:** Defer the vesting of assets until statutory appeals are fully adjudicated, utilizing an **interim court-appointed receiver** in the interim.
2. **Ring-Fence Frontline Assets:** Allow district administrations to temporarily manage operational schools and clinics to prevent the shutdown of **essential public services**.
3. **Dedicated Escrow Accounts:** Retain asset liquidation proceeds in independent **escrow mechanisms** outside the Consolidated Fund until judicial finality is reached.
4. **Permit Regulated Sub-Granting:** Reintroduce structured, traceable sub-granting frameworks under a **light-touch regulatory regime** to support small grassroots bodies.
5. **Channel CSR to Traditional Welfare:** Formulate policy incentives encouraging corporate donors to deploy **CSR capital** into basic rural healthcare, primary education, and disability care.

Conclusion

Balancing **national sovereignty** with a vibrant civil society requires institutional safeguards that strictly preserve the operational autonomy of genuine non-profit entities. As global capital recedes, fostering an enabling and flexible **domestic philanthropy** ecosystem is crucial to sustain India's vital **grassroots developmental architecture**.

Q. Examine critically the recent changes in the rule governing foreign funding of NGOs under the Foreign Contribution (Regulation) Act (FCRA), 1976. 15 Marks (2015)

2.1.7. THE CONSTITUTIONAL FRAMEWORK OF THE ELECTION COMMISSION

Context

Recent parliamentary discussions regarding a potential impeachment motion against the Chief Election Commissioner (CEC) have brought the constitutional safeguards and internal administrative functioning of the Election Commission of India (ECI) into focus.



Introduction

The Election Commission of India is a vital constitutional body mandated to conduct free and fair elections. To insulate the institution from executive pressure and partisan politics, the Constitution deliberately sets an extraordinarily high bar for the removal of the CEC, granting the office procedural parity with a Judge of the Supreme Court to ensure operational autonomy.

Structure of the Election Commission

- **Composition:** The Commission operates as a multi-member body comprising three members: the Chief Election Commissioner and two Election Commissioners.

- **First Among Equals:** The CEC does not hold a hierarchically superior rank over the other Commissioners; the office functions as "first among equals," possessing equal voting power in all institutional decisions.
- **Consensus-Driven Governance:** Statutory conventions mandate that institutional decisions be taken unanimously as far as possible, making any formal internal dissent administratively significant.

Appointment Process

- **Statutory Baseline:** Appointments are governed under Article 324 of the Constitution and the *CEC and Other Election Commissioners (Appointment, Conditions of Service and Term of Office) Act, 2023*.
- **Selection Architecture:** The President appoints the CEC and ECs upon the binding recommendation of a three-member Selection Committee consisting of the Prime Minister, the Leader of the Opposition (LoP) in the Lok Sabha, and a Union Cabinet Minister.
- **Eligibility & Tenure:** Candidates must be persons of integrity who have previously held Secretary-level positions in the Government. Appointees serve for a fixed term of six years or until reaching 65 years of age, whichever occurs earlier.
- **Judicial Parity in Service:** The CEC enjoys the same monetary compensation and service benefits extended to Supreme Court Judges.

Grounds for Removal

- **Constitutional Parity:** Under Article 324(5) of the Constitution and Section 11(2) of the 2023 Act, the CEC can be removed from office only *"in like manner and on the like grounds as a Judge of the Supreme Court."*
- **Grounds for Removal:** Borrowed directly from Article 124(4), removal can occur exclusively on the grounds of "proved misbehaviour" (corrupt practices, abuse of authority) or "incapacity" (physical or mental inability to perform duties).
- **Asymmetric Protection:** While the CEC enjoys judicial-style protection, other Election Commissioners or Regional Commissioners can be removed by the President solely on the recommendation of the CEC.

Impeachment Steps

- **Notice of Motion:** A motion alleging proved misbehaviour or incapacity must be formally submitted, requiring the signatures of at least 100 MPs in the Lok Sabha or 50 MPs in the Rajya Sabha.
- **Presiding Officer's Discretion:** The Speaker of the Lok Sabha or the Chairman of the Rajya Sabha evaluates the motion and holds absolute discretion to either admit or reject the notice.
- **Statutory Investigation:** Upon admission, a three-member inquiry committee is constituted to investigate the charges and formulate an evidentiary report.
- **Parliamentary Special Majority:** If the committee establishes misbehaviour or incapacity, the motion must be passed in each House by a two-thirds majority of members present and voting, along with a majority of the total membership.
- **Mandatory Presidential Order:** Once passed by Parliament, the President formally issues the removal order.

Historical Precedent

- **Historical Precedent:** No Chief Election Commissioner has ever been impeached or removed from office in India's constitutional history.
- **Previous Attempts:** Past parliamentary motions aiming to initiate the removal process have historically been rejected at the admission stage by the respective Presiding Officers.

The Strategic Significance of Constitutional Removal Safeguards

- **Insulation from Political Pressures:** The rigorous removal procedure prevents incumbent governments from using the threat of arbitrary dismissal to compromise electoral neutrality.
- **Preservation of Electoral Integrity:** Security of tenure enables the CEC to make unbiased decisions during high-stakes elections without fear of executive retribution.
- **Equivalence to Judicial Stature:** Aligning the removal threshold with that of the higher judiciary underlines that free and fair elections are an essential part of the Constitution's basic structure.
- **Safeguard Against Partisan Majorities:** The requirement for special majorities across both Houses prevents a simple legislative majority from removing an inconvenient constitutional regulator.
- **Institutional Stability:** A near-insurmountable removal barrier shields the election machinery from frequent disruptions, maintaining institutional continuity.

Key Challenges Confronting the Impeachment Framework

- **Absolute Discretion of Presiding Officers:** The ability of Speakers and Chairpersons to reject impeachment motions without stating formal reasons can preempt legitimate parliamentary debate.
- **Insurmountable Voting Threshold:** The requirement of a special two-thirds majority makes actual removal nearly impossible in politically fractured legislatures.
- **Definitional Ambiguity:** The Constitution leaves terms like "proved misbehaviour" uncoded, creating room for subjective, politically driven interpretations.
- **Intra-Commission Asymmetry:** Denying the other two Election Commissioners the same constitutional removal safeguards leaves them more vulnerable to external influence.
- **Risk of Politicization:** Impeachment motions run the risk of being utilized primarily for partisan posturing, which can erode public confidence in the electoral system.

Strategic Way Forward for Institutional Reform

- **Codify Presiding Officers' Discretion:** Introduce statutory guidelines that require Presiding Officers to state objective, recorded reasons when deciding on impeachment notices.
- **Equalize Constitutional Protections:** Amend Article 324(5) to extend judicial-style removal protections to all Election Commissioners, ensuring the entire multi-member bench operates fearlessly.
- **Institutionalize Internal Dissent Protocols:** Formulate clear procedural rules for multi-member deliberations, establishing transparent mechanisms to record and resolve internal administrative differences.

- **Codify 'Proved Misbehaviour':** Enact precise statutory rules defining specific ethical violations and administrative abuses that constitute "proved misbehaviour."
- **Establish Transparent Inquiry Timelines:** Mandate fixed timeframes for inquiry committees to prevent removal notices from lingering unresolved during active election cycles.
- **Depoliticized Accountability:** Position parliamentary impeachment strictly as an extraordinary measure of last resort, utilizing independent administrative reviews to address operational disputes.

Conclusion

The constitutional mechanism for removing a Chief Election Commissioner is deliberately arduous, serving as a critical safeguard for democratic stability. Balancing this highly stringent threshold with transparent, consensus-driven internal governance remains essential for preserving public faith in the neutrality and unimpeachable credibility of India's electoral machinery.

Q. *Examine the constitutional safeguards and statutory provisions governing the independence and removal of the Chief Election Commissioner. Discuss the delicate balance between institutional autonomy and accountability in India's electoral governance. 15 Marks*

2.2. INTERNATIONAL RELATION

2.2.1. INDIA'S CENTRAL ASIA OUTREACH

Context

Prime Minister Narendra Modi's **August 29–September 1, 2026 visit to Uzbekistan and the Kyrgyz Republic** comes at a time when Central Asia is emerging as a critical arena of **India-China strategic competition, connectivity politics, energy security and post-Afghanistan regional security.**

Introduction

Central Asia is India's **extended neighbourhood** and a strategic bridge between South Asia, Russia, China and Europe. India's engagement seeks to combine **security, connectivity, energy, economic interests and civilisational diplomacy** while maintaining strategic autonomy.



Evolution of India–Central Asia Relations

- **Post-1991 (Initial Engagement):**
 - India promptly recognized the independence of all five Central Asian Republics (Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan, and Uzbekistan) following the Soviet dissolution.
 - Early diplomatic efforts centered on establishing missions, conducting goodwill visits, offering technical assistance, and fostering cultural ties.
- **The 2000s (Phase of Limited Engagement):**
 - Bilateral relations stagnated due to geographical barriers, weak regional connectivity, and low economic engagement.

- India's strategic focus was diverted toward South Asia, major global powers (US, Russia, EU), and implementing domestic economic reforms.
- **2012 (The Strategic Pivot):**
 - India launched the "**Connect Central Asia Policy**".
 - This framework aimed to comprehensively deepen political, economic, security, and cultural cooperation.
- **2015 (Assertive Outreach):**
 - India initiated a highly assertive diplomatic phase, undertaking comprehensive outreach to all five Central Asian nations to signal a renewed and stronger political prioritization.
- **2019 & 2022 (Institutionalization):**
 - Relations were officially institutionalized with the launch of the **India–Central Asia Dialogue** in 2019.
 - The relationship reached a strategic peak with the first **India–Central Asia Summit** in 2022, creating a structured, high-level platform dedicated to advancing regional connectivity, security, and trade.

Significance of Central Asian Region for India

1. **Geostrategic significance:** Central Asia comprising **Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan and Uzbekistan** occupies a pivotal location between Russia, China, Afghanistan, Iran and the Caspian region, making it vital for India's continental strategy.
2. **Extended neighbourhood:** India considers Central Asia its "**extended neighbourhood**", complementing its maritime engagement in the Indo-Pacific with a stronger continental presence.
3. **Strategic competition:** The region has emerged as an arena of competition among **China, Russia, Türkiye, Iran, the EU and India**, making sustained Indian engagement important for preserving strategic space.
4. **Countering excessive Chinese influence:** China's expanding **Belt and Road Initiative (BRI)** presence makes deeper Indian engagement necessary to prevent excessive dependence of Central Asian states on a single external power.
5. **Strategic autonomy:** India's objective should not be limited to countering China but should involve offering Central Asian countries credible alternatives in **connectivity, technology, healthcare, education and capacity building**, consistent with India's policy of strategic autonomy.
6. **Afghanistan and regional security:** Instability in Afghanistan creates risks of **terrorism, radicalisation, narcotics trafficking and cross-border extremism**, making Central Asia important for India's security interests.
7. **Counter-terrorism cooperation:** Cooperation with Central Asian states can strengthen intelligence-sharing and collective action against **ISIS-K and other extremist networks** threatening the wider region.
8. **Critical minerals and uranium:** Central Asia possesses significant **uranium and strategic mineral resources**, particularly Kazakhstan, making the region relevant to India's **energy security and critical-mineral strategy**.

9. **INSTC:** The **International North-South Transport Corridor (INSTC)** can connect India with Iran, the Caspian region, Russia and Central Asia, thereby strengthening India's Eurasian connectivity.
10. **Chabahar–INSTC integration:** Greater integration of Chabahar with the INSTC can reduce transportation barriers and improve the commercial viability of India's engagement with Central Asia.
11. **Ashgabat Agreement:** India's participation in the **Ashgabat Agreement** provides another framework for developing multimodal transport connectivity with Central Asian countries.

Importance of Shanghai Cooperation Organisation (SCO)

1. **Institutional platform:** India became a full member of the **SCO in 2017**, providing an institutional mechanism to engage Central Asia, Russia and China simultaneously.
2. **Central Asian outreach:** The SCO provides India with an important multilateral platform for sustained engagement with the **Central Asian republics**, complementing bilateral diplomacy.
3. **Counter-terrorism:** The organisation provides a platform for cooperation against **terrorism, separatism and extremism**, which is particularly important in the context of Afghanistan and extremist networks.
4. **Afghanistan:** The SCO enables India to participate in regional discussions on **Afghanistan's security situation**, particularly its implications for terrorism, radicalisation and regional stability.
5. **Engagement with Russia and China:** The organisation allows India to engage both **Russia and China within the same institutional framework**, supporting dialogue while managing strategic competition.
6. **Strategic autonomy:** Participation in the SCO strengthens India's **multi-alignment and strategic autonomy** by preventing its Eurasian engagement from becoming dependent on any single major power.
7. **Connectivity:** The SCO provides a platform for discussing **regional connectivity and economic cooperation**, complementing India's bilateral initiatives such as Chabahar and the INSTC.
8. **2026 Bishkek Summit:** Prime Minister Modi's participation in the **26th SCO Council of Heads of State meeting in Bishkek** reinforces India's renewed engagement with Central Asia and the wider Eurasian region.
9. **SCO+ format:** The expanding **SCO+ format** provides India an opportunity to engage a broader group of Eurasian and regional actors and strengthen its multilateral diplomacy.
10. **Managing geopolitical competition:** The SCO allows India to maintain dialogue with China and Russia even amid geopolitical differences, thereby supporting **conflict management and diplomatic engagement**.

Major Challenges for India

1. **Connectivity deficit**
 - The absence of direct land connectivity through Pakistan remains the biggest obstacle to expanding India-Central Asia trade.
2. **Chinese economic dominance**
 - China has greater geographical proximity, financial resources and infrastructure presence, making it difficult for India to compete purely through large-scale infrastructure investment.

3. Limited economic scale

- Despite political goodwill, India's trade with Central Asian states remains below its potential because of **high transportation costs, limited connectivity and inadequate private-sector penetration**.

4. Russia's continuing influence

- Russia retains substantial historical, military and economic influence in Central Asia.
- India must therefore deepen engagement without being perceived as attempting to displace Moscow.

5. Regional instability

- Afghanistan, terrorism, extremism, border disputes, water disputes and political instability can affect the region's economic integration.

Way Forward

1. Make connectivity commercially viable

- India should accelerate the integration of **Chabahar-INSTC-Central Asian transport networks** and focus on reducing logistics costs rather than merely announcing corridors.

2. Move from diplomacy to economic delivery

- High-level visits should translate into **business-to-business partnerships, investment projects, banking mechanisms and easier trade procedures**.

3. Build critical-mineral partnerships

- India should establish long-term supply chains for **uranium and critical minerals** through investment, technology partnerships and processing cooperation.

4. Strengthen digital diplomacy

- India can offer Central Asian countries cooperation in **UPI-like payment systems, digital identity, fintech, e-governance and digital public infrastructure**.

5. Expand security cooperation

- Intelligence-sharing, counter-terrorism training, cyber-security cooperation and joint exercises should be strengthened to address threats emanating from Afghanistan.

6. Leverage civilisational soft power

- India should expand **Buddhist, Sufi, educational, cultural and tourism diplomacy** to build deeper societal connections.

9. Use SCO strategically

- India should utilise the SCO to promote a **rules-based, terror-free and economically connected Eurasian region**, while resisting attempts to turn the organisation into an instrument of bloc politics.

10. Institutionalise Central Asian engagement

- India should move from episodic summit diplomacy towards **regular India-Central Asia institutional mechanisms**, with measurable targets for trade, connectivity, investment, education and security.

Conclusion

India's Central Asian strategy must evolve from **high-level diplomatic outreach to sustained economic and strategic delivery**. By combining connectivity, critical-mineral partnerships, counter-terrorism, digital cooperation and civilisational diplomacy, India can secure its interests while respecting Central Asia's strategic autonomy.

Q. Critically analyse India's evolving diplomatic, economic and strategic relations with the Central Asian Republics (CARs), highlighting their increasing significance in regional and global geopolitics. 15 Marks

2.2.2. INDIA-BELGIUM RELATIONS

Context:

Belgian PM Bart De Wever's India visit, the first by a Belgian PM in nearly two decades, has revitalised bilateral ties. India and Belgium agreed to deepen cooperation in defence, intelligence, trade, fintech, semiconductors, renewable energy and maritime security, signalling a shift from trade-centric ties to a broader strategic and technology partnership.



Introduction

For over a century, **Antwerp's diamonds connected Belgium with Mumbai-Surat**. Today, the relationship is moving beyond diamonds towards **defence, semiconductors, fintech, maritime security and renewable energy**, making Belgium an important partner in India's wider **Europe strategy and pursuit of strategic autonomy**.

Historical Foundations & Shared Legacy

- **WWI Legacy:** India remembers the sacrifice of **9,000+ Indian soldiers in Flanders Fields**; institutional links connect the Flanders Fields Museum with India's CAFHR.
- **Early Diplomatic Ties:** Belgium was among the **earliest European countries to establish diplomatic relations with India in 1947**.
- **People-to-People Connect:** Historical ties have evolved into enduring **cultural, academic and diaspora linkages**.
- **Institutional Continuity:** Historical cooperation provides a foundation for expanding today's **economic, defence and strategic partnership**.

From Economic Partnership to Strategic & Technology Cooperation

1. Economic & Trade Partnership

Partnership So Far

- **Strong trade ties:** Bilateral trade reached around **US\$13.01 billion in 2025-26**, with Belgium being an important European economic partner for India.

- **Diamond value chain:** Belgium's **Antwerp** and India's **Mumbai–Surat** form a complementary global diamond-trading, cutting and polishing ecosystem.

Current Agreement / New Direction

- **Trade diversification:** Both sides aim to **double bilateral trade over the next five years**, moving beyond dependence on diamonds.
- **New sectors:** Focus is expanding towards **fintech, semiconductors, manufacturing, renewable energy and advanced technology**.

2. Defence & Defence-Industrial Cooperation

Partnership So Far

- Belgium possesses specialised capabilities in **ammunition, drones, radar, electro-optical systems, naval technologies and mine-countermeasure systems**.
- Indian and Belgian defence industries have already explored cooperation in **ammunition, rockets, counter-drone systems, sensors and autonomous maritime systems**.

Current Agreement / New Direction

- **Letter of Intent:** Both sides agreed to establish structured cooperation covering **military exchanges, training, R&D, joint exercises and defence-industrial cooperation**.
- **Co-development:** Around **15 Belgian defence companies** engaged with Indian industry, signalling greater emphasis on **joint production, technology transfer and manufacturing**.

3. Maritime Security

Partnership So Far

- Cooperation is emerging around **naval technologies, autonomous systems and mine-countermeasure capabilities**.
- Belgian expertise complements India's requirement for advanced **underwater systems, sensors and maritime technologies**.

Current Agreement / New Direction

- Greater focus on **mine countermeasures, underwater robotics and autonomous maritime systems**.
- Cooperation can help protect **ports, subsea cables, pipelines and maritime trade routes**, strengthening supply-chain resilience.

4. Intelligence & Internal Security

Partnership So Far

- Growing security engagement reflects the increasing importance of **European cooperation in combating transnational threats**.
- Belgium's location within Europe provides opportunities for cooperation against **cross-border criminal networks**.

Current Agreement / New Direction

- Both sides agreed to strengthen **intelligence-sharing and cooperation between security agencies**.

- Focus includes combating **transnational crime, organised crime, terror financing and emerging security threats**.

5. Semiconductors & Strategic Technology

Partnership So Far

- India and Belgium possess **complementary technological and industrial strengths**, creating scope for deeper technology cooperation.
- Semiconductors are increasingly important for **electronics, automobiles, AI, defence and digital infrastructure**.

Current Agreement / New Direction

- Both sides agreed to deepen cooperation in **semiconductors and related technology ecosystems**.
- This can support India's efforts to build **resilient domestic semiconductor supply chains** and reduce excessive dependence on concentrated global sources.

6. Fintech & Digital Economy

Partnership So Far

- India's strength lies in its **Digital Public Infrastructure, digital payments and large fintech ecosystem**.
- Belgium and the wider European ecosystem provide opportunities for **financial expertise, innovation and regulatory cooperation**.

Current Agreement / New Direction

- Cooperation is being expanded among **financial institutions, fintech companies and regulators**.
- Potential areas include **digital payments, financial inclusion, RegTech and cross-border financial services**.

7. Renewable Energy & Green Transition

Partnership So Far

- Energy transition has emerged as a promising area for India–Belgium economic and technological cooperation.
- Belgium's technological capabilities can complement India's growing **renewable-energy market and manufacturing capacity**.

Current Agreement / New Direction

- Both sides are working towards a **renewable-energy partnership/pact**.
- Cooperation can cover **clean-energy technologies, renewable energy and green industrial solutions**.

8. Institutional & EU-Level Cooperation

Partnership So Far

- The **India–Belgium–Luxembourg Economic Union Joint Commission**, established in **1997**, provides an institutional mechanism for economic cooperation.

- Belgium's position as an **EU member and major European economic hub** gives the bilateral relationship wider strategic relevance.

Current Agreement / New Direction

- Belgium can serve as an important **gateway for strengthening India–EU economic, technological and strategic cooperation**.
- The expanding bilateral agenda creates opportunities to connect **India's interests with broader European supply chains, technology and security frameworks**.

Geopolitical & Strategic Significance of India–Belgium Relations

1. Gateway to the European Union

- As an important **EU member**, Belgium can facilitate India's wider engagement with the **EU on trade, FTA, technology and resilient supply chains**.
- It strengthens India's access to the broader **European strategic and economic ecosystem**.

2. Strategic Autonomy & Diversification

- Cooperation reflects India's approach of **diversifying economic, technological and strategic partnerships** amid geopolitical fragmentation and supply-chain vulnerabilities.
- It supports India's goal of **strategic autonomy without alignment with any single bloc**.

3. Issue-Based Strategic Convergence

- Despite differences over issues such as the **Russia–Ukraine conflict**, India and Belgium continue to deepen cooperation.
- This demonstrates that **strategic partnerships do not require complete geopolitical convergence**, reflecting India's preference for **issue-based alignment over alliance-based foreign policy**.

Challenges in India–Belgium Relations

1. Limited Scale of Trade

- Bilateral trade remains relatively modest compared with India's major European and global trading partners.
- Greater diversification into **technology, manufacturing and services** is needed to unlock the full economic potential.

2. Diamond Concentration

- India–Belgium trade has traditionally been heavily linked to the **diamond industry**, creating sectoral concentration.
- Expanding cooperation into **fintech, semiconductors, technology and green energy** is essential for a more resilient partnership.

3. EU Regulatory Barriers

- Differences in **standards, regulations and market-access norms** can increase compliance costs for Indian exporters.
- Greater regulatory coordination is needed to facilitate **trade and deeper India–EU economic integration**.

4. Technology Transfer

- Defence cooperation will be meaningful only if it results in **technology transfer and domestic capability building**.
- India needs greater emphasis on **co-development, joint production and strengthening indigenous defence manufacturing**.

5. Geopolitical Differences

- India and Belgium/Europe may differ on issues such as **Russia, China and wider strategic priorities**.
- Managing these differences through **issue-based cooperation and strategic dialogue** is essential.

6. Implementation Gap

- MoUs and Letters of Intent can have limited impact if they do not translate into **actual investments and joint projects**.
- Effective implementation requires **clear timelines, private-sector participation and institutional monitoring**.

Way Forward for India–Belgium Relations

1. Diversify Economic Relations

- Move beyond the traditional **diamond-centric trade model** towards semiconductors, fintech, renewable energy and advanced manufacturing.
- Promote greater **investment, services trade and technology partnerships** to build a balanced economic relationship.

2. Promote Defence Co-development

- Shift from defence procurement towards **joint R&D, technology transfer and joint production**.
- Increase **Indian value addition and private-sector participation** to strengthen domestic defence capabilities.

3. Leverage the India–EU FTA

- Use the FTA to improve **market access and reduce trade barriers** for Indian businesses.
- Integrate Indian firms into **European value chains**, particularly in manufacturing and technology.

4. Build Resilient Supply Chains

- Develop partnerships in **semiconductors, critical technologies, clean energy and defence**.
- Reduce excessive dependence on concentrated global supply chains through **diversification and trusted partnerships**.

5. Strengthen Maritime Cooperation

- Expand cooperation in **underwater robotics, autonomous systems, mine countermeasures and maritime-domain awareness**.
- Jointly protect critical infrastructure such as **ports, subsea cables and pipelines** to enhance maritime resilience.

6. Deepen Technology & Green Cooperation

- Expand collaboration in **semiconductors, fintech, renewable energy and other emerging technologies**.
- Combine **Belgian/European technological expertise with India's market, talent and manufacturing capabilities**.

7. Preserve Strategic Autonomy

- India should maintain **multi-alignment**, engaging with Europe, Russia, the US, Japan and other partners based on national interests.
- Differences on geopolitical issues should be managed through **issue-based cooperation rather than rigid bloc politics**.

Conclusion

India–Belgium relations are evolving from a **transactional partnership to a more strategic and future-oriented engagement**. The growing convergence reflects India's effort to **diversify partnerships, strengthen resilience and deepen its presence in Europe**.

Q. India–Belgium relations are evolving beyond traditional trade and investment towards a broader strategic and technology partnership. Discuss the significance of this transformation for India's strategic autonomy and engagement with Europe. 15 Marks

2.2.3. BRICS POWER: INDIA'S PRESIDENCY AND THE EMERGING GLOBAL ORDER

Context

Ahead of the **18th BRICS Summit in New Delhi on September 12–13, 2026**, BRICS is being projected as a platform for **Global South cooperation**, centred on **POWER—Principle, Openness, Win-Win, Engine and Responsibility**, while India seeks to balance **strategic autonomy, multipolarity, economic cooperation and complex China ties**



Introduction

The **18th BRICS Summit** in New Delhi comes amid **multipolarity, geopolitical fragmentation and growing mistrust in global institutions**. As BRICS expands its Global South footprint, India's presidency offers an opportunity to turn its growing economic and political weight into **effective, inclusive and development-oriented multilateralism** through the framework of **POWER—Principle, Openness, Win-Win, Engine and Responsibility**.

BRICS: From Economic Grouping to Global South Platform

1. Evolution of BRICS

- BRIC was coined by Jim O'Neill in 2001.
- Formal cooperation began in 2006, with the first summit in 2009.
- South Africa joined in 2010, making it BRICS.
- Subsequent expansion has widened its Global South representation.

2. Expanding Global South Footprint

- New members include Egypt, Ethiopia, Iran, UAE and Indonesia.
- The partner-country framework further broadens engagement with developing economies.
- This enhances BRICS' representativeness and bargaining power.

3. Institutionalising Cooperation

- NDB: Provides financing for infrastructure and sustainable development.
- CRA: Acts as a financial safety net against external liquidity pressures.
- Cooperation has also expanded into food security, science & technology and digital cooperation.

4. From Economic Bloc to Global South Platform

- BRICS has moved beyond economic cooperation to address global governance and development concerns.
- It seeks to strengthen the voice, bargaining power and strategic autonomy of the Global South.
- Thus, BRICS is increasingly becoming a platform for multipolar and inclusive global governance.

India's BRICS Strategy: The POWER Framework

1. P – Principle: Defending a Rules-Based Order

BRICS seeks to uphold international law and sovereign equality while promoting peaceful dispute resolution. For India, this aligns with Article 51 and the vision of a rules-based international order.

- UN Charter principles: Sovereign equality, non-interference, peaceful settlement of disputes and respect for international law.
- Indian approach: Given internal geopolitical divergences, India should pursue issue-based convergence rather than ideological uniformity.

2. O – Openness: Resisting Protectionism

Amid rising protectionism, tariffs and supply-chain disruptions, BRICS can promote an open and resilient global economy. India can combine global integration with protection of strategic interests.

- Economic cooperation: Strengthen trade, infrastructure, energy, critical minerals and resilient supply chains.
- India's approach: Promote strategic and calibrated openness while supporting a reformed, WTO-centred trading system.

3. W – Win-Win: Development at the Centre

BRICS' strongest common ground is development cooperation rather than military alignment. It can provide developing countries greater access to finance, technology and resilient economic systems.

- Development agenda: Focus on SDGs, food and energy security, climate finance, health and technology sharing.
- India's contribution: Leverage DPI, digital payments, healthcare and agriculture to strengthen South-South cooperation.

4. **E – Engine: Driving Global Growth**

BRICS' large population, markets, resources and manufacturing base give it the potential to become a major engine of global growth. Emerging technologies can provide the next phase of cooperation.

- Growth sectors: AI, digital economy, smart manufacturing, green technology and new industrialisation.
- India's opportunity: Position itself as a bridge between technology, development and the Global South.

5. **R – Responsibility: From Representation to Leadership**

BRICS must move beyond demanding greater representation and demonstrate its capacity to deliver global public goods. India's presidency provides an opportunity to advance responsible Global South leadership.

- Global responsibilities: Address peace, food-energy security, sustainable development and global crises.
- India's vision: Promote reformed multilateralism, rather than turning BRICS into another competing geopolitical bloc.

BRICS and India: Strategic Autonomy & the China Factor

1. **BRICS as an Instrument of Strategic Autonomy:** India uses BRICS to pursue multi-alignment, engaging simultaneously with BRICS, QUAD, SCO, G20 and Indo-Pacific platforms without permanently aligning with any power bloc.
2. **Diversifying Strategic Partnerships:** BRICS enables India to engage China and Russia, strengthen Global South leadership, diversify economic partnerships and access alternative development financing.
3. **BRICS ≠ Anti-Western Alignment:** India's BRICS participation is not a rejection of the West. Rather, it reflects India's effort to retain strategic flexibility and bargaining power across competing global power centres.
4. **China: Partner as well as Competitor:** India and China converge on Global South cooperation, multilateralism and global governance reform, but remain divided over borders, trade imbalance, the Indo-Pacific and China's regional influence.
5. **India's Approach: Engage, but Safeguard Interests:** China's support for India's BRICS presidency offers a diplomatic opening. India should pursue structured engagement with China through BRICS while firmly protecting its sovereignty, security and economic interests.

Major Challenges Before BRICS

1. **Geopolitical Divergence:** Members have competing strategic interests and foreign-policy priorities, making consensus and coordinated action difficult.
2. **Economic Asymmetry:** China's dominant economic weight can create concerns over unequal influence and power imbalance within the grouping.
3. **Expansion–Cohesion Dilemma:** Expansion enhances Global South representation, but greater diversity of interests can make consensus-building and decision-making slower.

4. **Institutional & Implementation Weakness:** Institutions such as the NDB and CRA remain limited compared with the IMF and World Bank. Frequent changes in presidency can also create a gap between summit declarations and actual implementation.
5. **De-dollarisation & Strategic Positioning:** Local-currency settlements and payment interoperability can strengthen financial autonomy, but a common BRICS currency is difficult due to divergent economies and monetary systems. BRICS should therefore prioritise practical financial cooperation over premature currency ambitions, while avoiding becoming an anti-Western bloc.

Way Forward: From Summitry to Delivery

1. **Strengthen Institutional Architecture:** Create a lean, technocratic permanent BRICS Secretariat to ensure continuity, coordinate priorities and monitor implementation beyond annual summits.
2. **Deepen Financial Cooperation:** Expand NDB financing, local-currency lending and cross-border payments. Interoperable systems such as BRICS Pay can gradually enhance financial autonomy.
3. **Build Resilient Supply Chains:** Cooperation in critical minerals, pharmaceuticals, food, energy, semiconductors and logistics can reduce vulnerability to geopolitical disruptions.
4. **Ensure Food & Energy Security:** Initiatives such as a BRICS Grain Exchange can strengthen food-market resilience, while greater energy cooperation can address supply shocks.
5. **Democratise Technology & Strengthen Global South Voice;** Develop partnerships in AI, DPI, biotechnology, healthcare and green technology, while working with the AU, ASEAN and other Global South platforms to build a coordinated voice.
6. **Institutionalise Crisis Diplomacy:** Create mechanisms for dialogue, mediation and conflict management, enabling BRICS to contribute to resolving crises rather than merely issuing summit declarations.

Conclusion

BRICS must convert **collective weight into collective action** through Principle, Openness, Win-Win, Engine and Responsibility. For India, it is a platform to combine **strategic autonomy, multilateralism and Global South leadership**. The goal is a **more inclusive, representative and effective global order—not an anti-Western bloc**.

Q. "BRICS is evolving from an economic grouping into an important platform for Global South leadership and a more multipolar world order." In this context, examine the opportunities and challenges before BRICS, and discuss how India can leverage its presidency to advance strategic autonomy and reformed multilateralism. 15 Marks

2.2.4. INDIA–CHINA RELATIONS AMID STRATEGIC COMPETITION

Context

Chinese President **Xi Jinping's India visit after seven years**, ostensibly for the BRICS Summit, assumes wider significance amid **post-2020 LAC stabilisation, persistent strategic distrust, China–Pakistan convergence, trade asymmetry and competing visions of BRICS**.



Introduction

Xi Jinping's visit presents India with a delicate diplomatic opportunity: **stabilise India–China relations without compromising national security**, while ensuring that BRICS remains an inclusive Global South platform rather than becoming an anti-Western or China-dominated bloc.

Why Xi Jinping's visit is significant for India

1. First India visit after seven years

- Xi's visit marks his **first visit to India since 2019**, making it diplomatically significant after bilateral relations deteriorated sharply following the **2020 eastern Ladakh crisis**.
- The visit provides an opportunity to assess whether **cautious normalisation can progress towards sustainable stabilisation** in India–China relations.

2. Opportunity to consolidate post-2020 normalisation

Recent bilateral steps indicate limited improvement in relations:

- **Resumption of direct flights** can restore economic, tourism and people-to-people connectivity that was disrupted during the period of heightened tensions.
- **Resumption of the Kailash Mansarovar Yatra** can revive an important civilisational and religious dimension of India–China relations.

3. Opportunity to restore strategic communication

- Xi's visit can provide an opportunity for both leaderships to establish **clear political communication channels** to prevent bilateral disagreements from escalating into military crises.
- Regular political, diplomatic and military-level dialogue can help rebuild **minimum strategic trust** that was severely weakened after 2020.

4. Reinforcing peace and tranquillity along the LAC

- The visit can strengthen the understanding that **peace and tranquillity along the border are essential for the overall development of bilateral relations**.
- India can use the engagement to push for continued implementation of existing border-management mechanisms and greater predictability in military deployments.

Challenges in India–China relations

1. Unresolved Boundary Dispute and LAC Tensions

- The **unresolved boundary question** remains the central structural challenge, with periodic standoffs and differing perceptions of the LAC continuing to create instability.
- The legacy of **Depsang, Chumar, Doklam and the 2020 eastern Ladakh crisis** demonstrates the persistent vulnerability of the border to military confrontation.

2. Erosion of Strategic and Political Trust

- The **2020 Galwan crisis** severely damaged the political and strategic trust that had developed through earlier bilateral engagement.
- India increasingly evaluates Chinese economic and diplomatic initiatives through a **security lens**, making comprehensive normalisation difficult.

3. Growing Chinese Economic, Military and Technological Power

- China's transformation from an emerging economy into a major global power has created a significant **power asymmetry** between the two countries.
- China's economic strength, military modernisation, technological capabilities and diplomatic outreach have increased its ability to shape the regional and global strategic environment.

4. Increasing Chinese Assertiveness in the Neighbourhood

- China's assertive behaviour in the **South China Sea, Indo-Pacific, Taiwan Strait and along the India–China border** reflects its expanding geopolitical ambitions.
- Its growing economic and strategic presence in South Asia also challenges India's traditional influence in its neighbourhood.

5. China–Pakistan Strategic Nexus

- China's close defence, economic and strategic partnership with Pakistan adds another layer of complexity to India's security environment.
- Projects such as the **China–Pakistan Economic Corridor (CPEC)** and China's broader strategic engagement with Pakistan have implications for India's territorial and security interests.

Recent steps taken to improve India–China bilateral relations

1. **Border disengagement and restoration of peace along the LAC:** Following the **October 2024 patrolling arrangement**, both sides completed disengagement at key friction points and have since worked through military and diplomatic mechanisms to maintain **peace and tranquillity along the border**, creating conditions for broader normalisation.
2. **Strengthening border-management mechanisms:** In the **25th Special Representatives' talks in August 2026**, India and China agreed to establish **additional military meeting points and hotline channels** in the Eastern and Middle sectors, thereby improving crisis communication and reducing the risk of unintended escalation.
3. **Resumption of direct air connectivity and visa facilitation:** Both countries have taken steps to restore **direct flights and facilitate visas**, with direct air services resuming from October 2025 and further connectivity being expanded in 2026. This aims to revive business, tourism, academic and people-to-people exchanges.
4. **Revival of people-to-people and religious exchanges:** The **Kailash Mansarovar Yatra resumed in 2025 after nearly five years**, continued in 2026, and the two sides have also reopened designated border trading points. These measures seek to rebuild societal confidence alongside diplomatic normalisation.
5. **Renewed economic and strategic dialogue:** India and China have resumed **functional dialogues on trade, investment and economic issues**, while recent discussions have focused on **market access, trade imbalance, supply-chain predictability and investment barriers**. This reflects an attempt to pursue **economic engagement without compromising national-security concerns**.

Opportunities BRICS creates for India–China relations

1. **Provides a platform for strategic dialogue and trust-building:** BRICS enables **regular India–China engagement**, helping manage the **trust deficit** and prevent bilateral tensions from escalating.
2. **Promotes issue-based cooperation:** Both countries can cooperate on **Global South concerns**, including climate change, energy security, development finance and **multilateral reforms**, despite bilateral differences.
3. **Helps India manage Chinese influence:** India can work with other BRICS members to prevent **Chinese dominance** and promote BRICS as a **non-Western rather than anti-Western** platform, consistent with strategic autonomy.
4. **Creates scope for economic and geopolitical engagement:** BRICS provides opportunities for cooperation on **trade, supply chains, investment and global economic governance**, while allowing India and China to maintain their wider strategic partnerships.

Way forward

1. Make border peace the foundation of normalisation
India should insist that **peace and tranquillity along the LAC remain the prerequisite for sustained improvement in bilateral relations.**
2. Move beyond disengagement
The next phase should focus on:
Disengagement → De-escalation → De-induction → Long-term boundary management
rather than treating disengagement from individual friction points as the final objective.
3. Strengthen confidence-building mechanisms
 - Regular military commander-level dialogue.
 - Diplomatic consultations.
 - Functional hotlines.
 - Border-management mechanisms.
 - Greater transparency regarding military activities.
 These can reduce the probability of accidental escalation.
4. Continue boundary negotiations
India should continue negotiations through established mechanisms while recognising that **final boundary settlement may remain a long-term objective.**
5. Correct economic asymmetry
India should simultaneously pursue:
Export competitiveness + domestic manufacturing + reciprocal market access + supply-chain diversification.

Conclusion

Xi Jinping's visit offers a window for **cautious stabilisation, not strategic convergence**. India must combine border vigilance with selective cooperation, while shaping BRICS as an inclusive Global South platform and preserving strategic autonomy through diversified global partnerships.

Q. "The challenge for India is not to choose between confrontation and cooperation with China, but to manage competition while safeguarding its strategic interests." Examine. 15 Marks

2.2.5. BRICS & NEW DEVELOPMENT BANK (NDB)

Context

BRICS has gained substantial economic and membership weight but remains under-represented in global financial governance, while internal divisions persist between an anti-Western bloc-oriented approach and India's preference for non-Western multipolarity.



Introduction

BRICS embodies the changing world order—growing economic weight but limited geopolitical cohesion. For India, its value lies in leveraging the NDB for development, financial diversification and Global South cooperation, rather than anti-Western bloc politics.

Why BRICS Matters: World & India

For the World

- **Global Governance:** Pushes for greater representation of emerging economies in **IMF, World Bank and other institutions**.
- **Global South:** Provides a platform for **collective voice on development, trade and finance**.
- **Development Finance:** NDB expands financing for **infrastructure and sustainable development**.
- **Multipolarity:** Promotes a **more diversified global economic order** beyond traditional Western dominance.

For India

- **Strategic Autonomy:** Enables India to engage with both **Western and non-Western powers**.
- **Economic Gains:** Access to **NDB financing, markets and investment opportunities**.
- **Global South Leadership:** Strengthens India's role as a **bridge between developed and developing countries**.
- **China Balancing:** Provides space to **shape BRICS from within**, rather than allowing it to become China-centric.

Structural & Geopolitical Challenges Confronting BRICS

1. **Geopolitical Divergence:** China–Russia–Iran favour an **anti-Western orientation**, while India–Brazil–South Africa advocate **non-Western multipolarity**.

2. **De-dollarisation Dilemma:** Aggressive moves away from the dollar may **conflict with India's strategic and economic interests**.
3. **China-Centricity:** China's **economic and institutional weight** risks giving Beijing disproportionate influence within BRICS.
4. **Institutional Weakness:** Limited consensus and weak coordination can reduce BRICS' ability to **translate declarations into outcomes**.
5. **Expansion–Cohesion Trade-off:** Rapid membership expansion increases **economic and political diversity**, making consensus and collective action more difficult.

NDB: A Practical Solution for BRICS

- **Development over Geopolitics:** NDB can make BRICS more relevant through **infrastructure and sustainable-development finance**, rather than anti-Western politics.
- **Financial Multipolarity: Local-currency lending** can reduce excessive dollar dependence without pursuing abrupt de-dollarisation.
- **Global South Financing:** Expanding NDB membership and lending can provide **alternative development finance** to emerging and developing economies.
- **India's Strategic Leverage:** Strengthening NDB allows India to **benefit from BRICS while limiting China-centric financial dominance**.
- **Untapped Potential:** NDB needs **more capital, faster disbursement, wider membership and diversified currency financing** to match institutions like AIIB.

Key Structural & Strategic Challenges of the NDB

1. Capital Constraint

- **Limited capital base** restricts NDB's lending capacity.
- Equal voting shares require **proportionate capital contribution** by founders.
- **Russia's sanctions and financial constraints** make fresh capital mobilisation difficult.

2. Governance–Capital Dilemma

- New members can bring **fresh capital**, but founding BRICS members must retain at least **55% collective voting power**.
- Hence, expanding membership must balance **capital needs with founder control**.

3. Sanctions & Credit-Rating Constraint

- NDB halted new lending to Russia after **March 2022** to protect its **credit rating and access to global funding**.
- Shows that NDB remains constrained by the **global financial and sanctions architecture**.

4. De-dollarisation Contradiction

- BRICS advocates reduced dollar dependence, but NDB itself remains dependent on **dollar funding and global capital markets**.
- **Lesson:** India should promote **currency diversification**, not abrupt de-dollarisation.

5. China-centricity Risk

- Excessive reliance on **RMB-based financing** could increase China's financial influence.
- India should push for **greater use of the rupee and other member currencies**.

Way Forward: Strengthening NDB & BRICS

1. **Strengthen NDB's Capital Base:** Increase paid-up capital and induct **creditworthy developing economies** to expand lending capacity without weakening governance.
2. **Fast-track Rupee Financing:** Operationalise the **rupee bond** and promote local-currency lending to deepen India's bond market and reduce currency risks.
3. **Ensure Currency Diversification:** Promote a **multi-currency NDB**—Rupee, Real, Rand, Renminbi, etc.—rather than replacing dollar dependence with RMB dependence.
4. **Improve Lending Efficiency:** Reduce the gap between **project approval and disbursement** through faster appraisal, stronger project pipelines and better implementation monitoring.
5. **Safeguard Institutional Credibility:** Maintain prudent lending standards and **creditworthiness**, while navigating sanctions and global financial-market constraints.
6. **Expand Global South Outreach:** Increase financing for **infrastructure, climate action and sustainable development** across emerging and developing economies.
7. **Pursue Strategic Autonomy:** India should use BRICS and NDB to advance **multipolarity and Global South representation**, while avoiding both **Western bloc politics and China-centric financial dominance**.

Conclusion

India should seek neither a Western-dominated nor a China-dominated financial order. By transforming the NDB into a well-capitalised, efficient and genuinely multi-currency development bank, India can turn BRICS from a platform of geopolitical contestation into an instrument of constructive multipolarity.

Q. *The New Development Bank can provide India a way to deepen BRICS cooperation without turning the grouping into an anti-Western bloc. Discuss. 10 Marks*

2.2.6. FROM PRIVILEGE TO RESPONSIBILITY: REFORMING THE UNSC VETO ARCHITECTURE

Context

At the UN General Assembly, France and Mexico renewed their initiative to regulate the UN Security Council (UNSC) veto during mass atrocities, framing its use as an institutional "responsibility" rather than an absolute "privilege."

Introduction

Geopolitical rivalries among permanent members frequently paralyze the UN Security Council during severe humanitarian emergencies.



The renewed push for voluntary veto restraint offers a pragmatic mechanism for institutional discipline, bypassing the near-impossible legal task of formally amending the UN Charter.

The French-Mexican Initiative on Veto Restraint

- **Core Commitment:** Launched in 2015, it urges the P5 to voluntarily abstain from vetoing resolutions addressing genocide, crimes against humanity, and war crimes.
- **Charter-Bypassing:** Operates as an exercise in political self-restraint rather than a formal UN Charter amendment.
- **Growing Support:** Endorsed by 128 member states, including the UK, meaning two permanent members now formally support the principle.

Core Dimensions of the Veto Debate

- **Usage:** The foundational decision of whether to exercise the negative vote.
- **Accountability:** Requiring a state to publicly justify its veto before the international community.
- **Structural Reform:** Expanding membership categories and altering overall decision-making rules.

The Syrian Deadlock as a Reform Catalyst

- **Institutional Paralysis:** Persistent Russian and Chinese vetoes during the Syrian civil war paralyzed collective humanitarian intervention.
- **The Ghouta Trigger:** Following the 2013 Ghouta chemical attack, France proposed a code of conduct for P5 voluntary restraint during mass atrocities.

Alternative Accountability Mechanisms

- **Liechtenstein Initiative (2022):** Mandates a UNGA debate within 10 days of a veto, forcing the casting state to publicly defend its decision on the Assembly floor.
- **ACT Code of Conduct:** Urges all Security Council members (permanent and elected) to pledge against blocking credible humanitarian interventions.

Realpolitik and the Amendment Barrier

- **Textual Origin:** The word "veto" is absent from the Charter; it stems from Article 27(3) requiring the concurring votes of permanent members.
- **Amendment Hurdle:** Formal abolition under Article 108 requires a two-thirds UNGA majority and ratification by all P5 members.
- **Survival Constraint:** International organizations historically struggle to survive if they enforce decisions contradicting the core strategic interests of major global powers.

India's Stance on UNSC Reform

- **Group of Four (G4):** Coordinates with Brazil, Germany, and Japan to advance joint bids for permanent seats.
- **L.69 Coalition:** Aligns with developing nations from the Global South to demand comprehensive expansion across both categories.
- **Text-Based Negotiations:** Advocates shifting UN talks to a single consolidated text to achieve tangible outcomes.

Significance of Regulating the Veto

- **Alleviating Paralysis:** Enables urgent interventions and aid delivery in crisis zones like Sudan, Lebanon, and Gaza.
- **Normative Shift:** Redefines the veto from an unconditional sovereign entitlement into an accountable governance duty.
- **Feasible Alternative:** Achieves functional reform without triggering rigid Charter amendment barriers.
- **Global South Empowerment:** Mobilizes broad multilateral coalitions to exert moral and political pressure on major powers.

Challenges in Disciplining the Veto

- **No Legal Enforcement:** Voluntary declarations cannot legally bind states acting on overriding national interests.
- **Subjective Classification:** The Security Council lacks an objective mechanism to universally designate "mass atrocities."
- **Unenforceable Debates:** UNGA post-veto resolutions carry moral weight but lack enforcement teeth under Chapter VII.
- **Hegemonic Resistance:** Major powers consistently refuse to dilute an instrument central to their strategic defense.

Strategic Way Forward

- **Mandate Written Justifications:** Require formal written rationales in official UNSC records for any veto cast during a humanitarian crisis.
- **Independent Determinations:** Route atrocity classifications to independent bodies like the UN High Commissioner for Human Rights or the ICJ.
- **Actionable UNGA Follow-ups:** Pair mandatory post-veto debates with investigative instruments like fact-finding missions.
- **Universalize the ACT Code:** Encourage incoming non-permanent members to formally pledge against blocking humanitarian action.
- **Accelerate Text-Based Drafting:** Transition the Intergovernmental Negotiations (IGN) to formal drafting to integrate restraint protocols into broader reform packages.

Conclusion

Regulating the veto shifts UNSC reform from unattainable immediate abolition to pragmatic behavioral discipline. Ultimately, the true credibility of voluntary restraint will depend entirely on permanent members prioritizing global humanitarian protection over narrow national strategic interests.

Q. Evaluate the prospects of voluntary veto restraint during humanitarian crises and discuss the structural challenges hindering comprehensive Security Council reform. 15 Marks

2.3. SOCIAL JUSTICE

2.3.1. DECODING THE CREAMY LAYER CONUNDRUM

Context

The **Supreme Court** is reviewing the Centre's plea regarding the March 11 judgment on the **OBC creamy layer exclusion criteria**. The Centre argues that retrospective implementation of the **income/wealth test** from 2012 is extremely difficult and will cause a severe **cascading effect** across all civil service allocations, including the **Unreserved category**.



Introduction

The **creamy layer** concept emerged from the 1992 **Indra Sawhney** judgment to exclude privileged OBCs from reservation benefits. Recent judicial scrutiny highlights arbitrary interpretations by the **Department of Personnel and Training (DoPT)**, emphasizing the urgent need for equitable policy application between government and private/PSU employees to uphold the right to equal opportunity.

About Creamy Layer of OBC

The Creamy Layer refers to the **wealthier and better-educated segment** within the OBC category. These individuals are considered **socially advanced** and are subsequently excluded from reservation benefits in public jobs, education, and government welfare schemes meant for socially and educationally backward classes.

Eligibility Criteria for Creamy Layer (As of 2026)

- **Income Limit:** Annual family income exceeds **₹8 lakh**.
- **Categories Included:** Individuals holding **constitutional posts**, **Group A/Class I** and **Group B/Class II** government officers, **PSU employees**, professionals, businesspersons, and property owners.
- **Service-Based Criteria:** Children of Group A officers or those promoted to Group A before the age of 40. Similarly, if both parents are Group B direct recruits, their children are excluded.
- **Armed Forces Personnel:** Officers holding ranks above **Lieutenant Colonel** are classified under the creamy layer.

Non-Creamy Layer of OBC

The Non-Creamy Layer refers to the **economically and socially backward segment** of OBCs. This specific group genuinely qualifies for affirmative action and reservation benefits in education, employment, and targeted government schemes.

Eligibility Criteria for Non-Creamy Layer:

- **Income Limit:** Annual family income is strictly **less than ₹8 lakh**.
- **Employment Status:** Parents are not employed in **senior government posts** or high-earning private positions.

- **Certification Requirement:** Must officially obtain a **Non-Creamy Layer Certificate** to avail of reservation quotas.

Difference Between Creamy Layer and Non-Creamy Layer of OBC

The classification ensures an equitable distribution of reservation benefits. While SC/ST categories do not have a creamy layer restriction, OBCs are distinctly divided.

Aspect	Creamy Layer of OBC	Non-Creamy Layer of OBC
Eligibility for Reservation	Not eligible	Eligible
Annual Income Limit	Above ₹8 lakh	Below ₹8 lakh
Social Status	Economically and socially advanced	Economically and socially backward
Government Job Criteria	Parents in Group A/Group B jobs	Parents in lower categories or unemployed
Purpose of Classification	To exclude affluent OBCs from benefits	To provide benefits to the truly backward
Proof Required	No certificate needed	Must obtain a Non-Creamy Layer Certificate

Significance of the Supreme Court Ruling on the Income Test

1. Rectifies Hostile Discrimination

- Eliminates arbitrary treatment by ensuring OBC candidates with parents in **PSUs or the private sector** are not evaluated differently from those in government services.

2. Clarifies the 'Residual Filter' Concept

- Validates the **1993 Office Memorandum (OM)**, establishing that the **income/wealth test** must strictly act as a residual filter, explicitly leaving out salaries and agricultural income.

3. Protects Deserving Aspirants

- Prevents the unjust denial of reservation benefits to eligible candidates based solely on **gross parental income**, securing the rights of at least 50 candidates wrongfully excluded since 2015.

4. Upholds Constitutional Equality

- Ensures that similarly placed individuals are evaluated using **uniform metrics**, preventing equals from being treated unequally under the law.

5. Resolves Policy Ambiguities

- Invalidates the conflicting interpretations arising from the **2004 DoPT letter**, restoring the original intent of the exclusion criteria and standardizing non-government employment evaluations.

Challenges in Implementing the Supreme Court Directives

1. Retrospective Administrative Burden

- Revising settled **Civil Services Examinations (CSE)** allocations back to 2012 poses severe logistical nightmares and disrupts established bureaucratic frameworks.

2. The "Cascading Effect" on Seniority

- Adjusting existing service strengths by creating **supernumerary posts** will alter **seniority lists** and negatively impact promotional avenues for all candidates, including the **Unreserved category**.

3. Risk of Elite Capture

- The Centre argues that ignoring salary income entirely might allow highly affluent OBC candidates (e.g., parents earning up to **₹1 crore**) to exploit non-creamy layer status.

4. Disruption of Ongoing Recruitment

- Over **950 recommended candidates** for **CSE 2025** face immediate uncertainty, as their Foundation Course allocations were based on the older income test interpretation.

5. Surge in Judicial Litigation

- The March 11 judgment has triggered **22 new court orders** and **12 fresh cases** from previously unrepresented candidates, complicating final allocations and increasing the judicial burden.

6. Absence of Post Equivalence Data

- The foundational delay in establishing equivalence between **Central/State PSUs** and regular government services leaves the DoPT without a concrete metric to evaluate non-government dependents.

Way Forward

1. Establish Post Equivalence Urgently

- The government must immediately finalize the **equivalence of posts** between PSUs, the private sector, and government services to remove the core ambiguity in the income test.

2. Explore Prospective Application

- To protect the settled seniority of past civil service batches, the Judiciary and Executive should consider applying the ruling **prospectively** to safeguard existing administrative structures.

3. Revise Income Criteria Comprehensively

- Formulate a nuanced **wealth test** that balances the exclusion of basic salaries while introducing caps to prevent **elite capture** by extremely high earners.

4. Enhance Inter-Ministerial Coordination

- Establish synergy between the **DoPT** and the **Ministry of Social Justice and Empowerment** to formulate a unified, discrimination-free policy on reservations as per the Allocation of Business Rules.

5. Formulate a Clear Judicial Roadmap

- The newly constituted **Supreme Court Bench** must provide a precise, **step-by-step implementation guide** to aid the DoPT in navigating the current administrative gridlock.

6. Conduct Stakeholder Consultations

- Engage legal and administrative experts to systematically address the grievances of newly filing candidates without collapsing the **unreserved category** structure.

7. Fast-Track Redressal for Excluded Candidates

- Develop a dedicated, time-bound committee to review the claims of the 50 petitioners and the 12 new applicants to ensure rapid, targeted relief without disrupting the broader service grid.

Conclusion

Balancing **constitutional equality** with **administrative stability** remains paramount. A pragmatic policy resolution is essential to ensure that affirmative action reaches the truly marginalized **OBC segments** without destabilizing the foundational hierarchy of India's civil services.

Q. "The Supreme Court's mandate on the OBC creamy layer income test attempts to rectify 'hostile discrimination,' yet poses severe administrative challenges. Analyze the complexities and suggest measures to balance constitutional equality with administrative feasibility." 15 Marks

2.3.2. FOR NEWBORNS, THE ANSWER IS HOSPITAL AND HOME

Context

Three newborns died in a fire at a government hospital in Amravati, highlighting a recurring concern in public neonatal units—**overcrowding, infrastructure failures and inadequate safety preparedness**. The incident raises a larger question: how can India ensure that newborns receive **safe, timely and appropriate care without overburdening specialised hospitals**.



Introduction

India has made significant progress in maternal and child health, particularly through institutional deliveries and expansion of neonatal-care facilities. Yet, neonatal mortality remains a critical public-health concern, with the **Neonatal Mortality Rate (NMR) around 17 per 1,000 live births**.

The next phase of India's newborn-health strategy therefore requires a shift from simply expanding institutional capacity to ensuring **"the right care, at the right place, at the right time."**

Why Are Newborn Deaths Clustering in Government Neonatal Units?

1. Overcrowding of Neonatal Units

The expansion of institutional deliveries and referrals has increased the demand for Special Newborn Care Units (SNCUs). Overcrowding places pressure on beds, nurses and equipment, reducing individual attention and increasing the risk of infections.

2. Increasingly Complex Case Mix

Government hospitals often serve as referral centres for **premature, low-birth-weight and critically ill newborns**. Thus, the challenge is not merely rising admissions but a growing concentration of high-risk cases requiring specialised care.

3. Infrastructure and Safety Vulnerabilities

Neonatal units depend on uninterrupted **oxygen, electricity, ventilation and functioning medical equipment**. Poor maintenance, electrical faults, inadequate fire preparedness and oxygen-related risks can turn infrastructure deficiencies into life-threatening emergencies.

4. Human-Resource and Infection-Control Gaps

Shortages of pediatricians and trained neonatal nurses can result in inadequate nurse-to-baby ratios and insufficient monitoring. In overcrowded settings, weak infection-control practices further increase the vulnerability of newborns.

India's Broader Newborn-Health Context

India has made substantial progress in reducing mortality:

- **NMR** (Neonatal Mortality Rate): around 17 per 1,000 live births
- **IMR** (Infant Mortality Rate): around 25 per 1,000 live births
- **U5MR** (Under-5 Mortality Rate): around 28 per 1,000 live births
- **MMR** (Maternal Mortality Ratio): around 80 per lakh live births

However, the persistence of neonatal mortality shows that **survival alone is not enough; the quality, safety and continuity of newborn care also matter**.

The Gadchiroli Model: Evidence for Home-Based Newborn Care

- **Proven Community-Based Impact:** The Gadchiroli model showed that **trained community health workers can deliver effective newborn care at home**, contributing to a **62.2% reduction in neonatal mortality** through breastfeeding support, thermal care and early identification of danger signs.
- **HBNC as a Complement, Not Substitute:** Home-based care is appropriate for **stable and appropriately selected newborns**, while severe prematurity, respiratory distress, sepsis, shock or birth asphyxia require **immediate hospital-based care**.
- **Strengthen India's Existing System:** India already has **Home-Based Newborn Care (HBNC) through ASHAs**. The priority is to strengthen the system through **better training, supervision, institutional support and robust referral linkages**, rather than creating a parallel system.

Challenges in Building a Hospital + Home Model

1. **Shortage of Specialists:** Referral-level facilities, particularly in underserved areas, often lack adequate paediatricians and neonatal specialists, affecting timely diagnosis and specialised care.
2. **Shortage of Trained Nurses:** Inadequate nursing personnel create poor nurse-to-baby ratios, increase workload and limit continuous monitoring of vulnerable newborns.
3. **Inadequate Public-Health Financing:** Neonatal care requires sustained investment in **specialised equipment, infrastructure, staffing, maintenance and safety systems**. Limited resources can delay capacity expansion and essential upgrades.
4. **Weak Community-Level Capacity:** ASHAs require regular training, refresher programmes, supervision and institutional support to effectively undertake newborn-care responsibilities. Expanding responsibilities without adequate support can reduce effectiveness.

5. Weak Referral and Urban Coverage: Home-based care cannot function effectively without **timely emergency transport and accessible referral facilities**. At the same time, HBNC needs greater adaptation for urban poor, slum and migrant populations.

Way Forward: Building an Integrated “Hospital + Home” Model

1. Strengthen Home-Based Newborn Care (HBNC)

- **Improve community-level care:** Strengthen HBNC through better ASHA training, refresher programmes, standard clinical protocols and regular postnatal visits to ensure quality newborn care at home.
- **Reduce unnecessary hospitalisation:** Stable and low-risk newborns can be managed closer to home, allowing specialised hospitals to focus on critically ill babies.

2. Strengthen Hospital-Based Neonatal Care

- **Create safe and functional neonatal units:** The focus should shift from merely increasing beds to ensuring adequate specialists, trained nurses, equipment, oxygen and electricity.
- **Improve quality of care:** Better nurse-to-baby ratios, infection control and uninterrupted services can improve survival outcomes and reduce hospital-acquired infections.

3. Make Neonatal Units Intrinsically Safe

- **Institutionalise safety standards:** Mandatory fire, electrical and oxygen safety norms should be implemented in all SNCUs and NICUs.
- **Promote preventive safety culture:** Regular maintenance, safety audits, emergency drills and equipment checks can prevent avoidable disasters.

4. Build an Integrated Referral and Reverse-Referral System

- **Ensure timely access to specialised care:** A seamless chain—**ASHA → Ambulance → Health Facility → SNCU/NICU**—can reduce delays in emergency treatment.
- **Reduce burden on tertiary hospitals:** Stabilised babies can be shifted back to lower facilities or supervised home care through an effective reverse-referral system.

5. Strengthen Human Resources and Supervision

- **Expand skilled workforce:** Increase the availability of paediatricians, neonatal nurses and trained frontline workers, especially in underserved areas.
- **Provide supportive supervision:** Cluster-level mentoring, observed visits and skill assessment can improve ASHA performance and service quality.

6. Establish a National Newborn Safety and Financing Framework

- **Create measurable standards:** National norms for staffing, infection control, equipment maintenance and safety systems should guide neonatal care.
- **Ensure adequate financing:** Dedicated funds are needed for infrastructure, workforce development and regular safety upgrades.

7. Use Data for Need-Based Capacity Planning

- **Promote evidence-based decision-making:** District-level data on occupancy, mortality, infections and staffing should guide resource allocation.

- **Focus on outcomes, not admissions:** Success should mean fewer unnecessary hospitalisations while ensuring timely care for critical newborns and continued reductions in neonatal mortality.

Conclusion

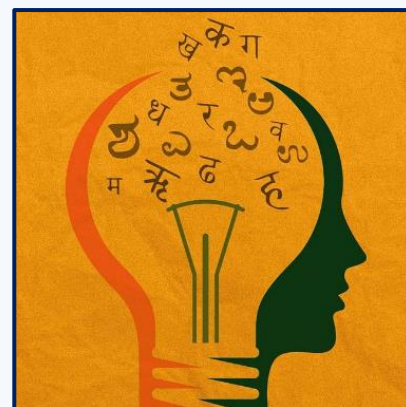
The next frontier of India's newborn-health strategy is not to place every baby in a hospital bed, but to ensure that every newborn receives the right level of care, at the right place, at the right time.

Q. In order to enhance the prospects of social development, sound and adequate health care policies are needed particularly in the fields of geriatric and maternal health care. Discuss. 10 Marks

2.3.3. TEACHERS AS MULTIPLIERS OF HUMAN CAPITAL

Context

Teachers are the **critical link between educational infrastructure and actual learning outcomes**, transforming knowledge into capabilities and skills into employability. They also nurture **values, responsible citizenship and social inclusion**, enabling greater social mobility. With **10.12 million school teachers in 2024–25**, their collective impact on India's human capital is immense. **Thus, the quality of India's human capital depends substantially on the quality of its teachers.**



Significance of Teachers in Human Development and Nation-Building

1. Builders of Human Capital

- **Transform education into capabilities:** Teachers convert schooling into knowledge, skills, problem-solving ability and employability, thereby improving productivity and the quality of human capital.
- **Enable personalised learning:** With **10.12 million teachers** and an overall pupil-teacher ratio of about **24** in 2024–25, effective teacher availability can facilitate individual attention and early identification of learning gaps.

Teacher → Learning → Skills → Productivity → Human Capital → Growth

2. Improving Learning Outcomes

- **Shift from access to learning:** India's challenge is increasingly not merely getting children into school but ensuring that they actually learn. ASER 2024 found only **23.4% of Class 3 government-school children** could read a Class 2-level text.
- **Strengthen foundational learning:** Teachers are central to remedial teaching, foundational literacy and numeracy, activity-based learning and continuous assessment.

The real measure of educational expansion is not enrolment, but what children are actually able to understand and apply.

3. Agents of Social Justice

- **Break inherited disadvantage:** Teachers can help children facing poverty, caste, gender, disability and geographical disadvantages acquire capabilities necessary for upward mobility.

- **Convert equality into opportunity:** By providing additional support to disadvantaged learners, teachers can help translate **constitutional equality into substantive equality of opportunity**.

Good Teacher → Better Learning → Capability → Opportunity → Social Mobility

4. Drivers of Women Empowerment

- **Challenge gender stereotypes:** Teachers can encourage girls to pursue STEM, sports, leadership and higher education while challenging discriminatory classroom practices.
- **Build agency and participation:** Gender-sensitive education can strengthen confidence, decision-making and capabilities, contributing to women's economic and social empowerment.

Education → Capability → Agency → Economic Participation → Empowerment

5. Builders of Constitutional Citizenship

- **Internalise constitutional values:** Teachers can translate the Preamble's ideals of **justice, liberty, equality and fraternity** from textbook principles into everyday behaviour.
- **Develop responsible citizens:** By encouraging respect for diversity, rights, duties and democratic participation, teachers strengthen constitutional culture and democratic resilience.

Constitutional Values → Civic Behaviour → Social Trust → Democratic Resilience

6. Promoters of Social Cohesion

- **Transform diversity into learning:** Classrooms bring together children across caste, religion, language, region and socioeconomic backgrounds, creating opportunities for mutual understanding.
- **Challenge inherited prejudices:** Teachers can cultivate empathy, dialogue, tolerance and cooperation, preventing social divisions from being reproduced across generations.

The classroom can become India's first laboratory of fraternity.

7. Cultivators of Scientific Temper

- **Develop rational inquiry:** Teachers encourage students to question claims, examine evidence, distinguish fact from opinion and develop a spirit of inquiry.
- **Build resilience against misinformation:** In the age of fake news, deepfakes and AI-generated content, critical thinking enables citizens to verify information before accepting or sharing it.

Article 51A(h) — scientific temper, humanism and the spirit of inquiry and reform.

8. Builders of Character and Ethical Citizens

- **Develop ethical values:** Teachers cultivate integrity, empathy, fairness, discipline, responsibility and compassion through classroom practices and interactions.
- **Lead by example:** A teacher who demonstrates fairness, honesty and accountability converts abstract ethical principles into lived behaviour that students can internalise.

Values are transmitted most effectively when they are practised, not merely preached.

Role Model → Internalisation of Values → Ethical Behaviour → Public Good

9. Converters of Demographic Potential into Dividend

- **Build employability:** Teachers transform India's young population into skilled, adaptable and productive human resources.
- **Promote innovation:** By nurturing creativity, problem-solving and entrepreneurship, teachers help convert **population advantage into productivity advantage**.

Young Population → Education → Skills → Employment → Productivity → Growth

10. Human Anchors in the Age of AI

- **AI can augment learning:** Artificial intelligence can provide personalised content, information, feedback and learning assistance, enabling teachers to focus more on higher-order learning.
- **Teachers provide the human dimension:** Empathy, mentorship, contextual judgement, motivation and ethical guidance remain central to meaningful education.

Technology can personalise learning, but teachers humanise education.

Challenges Before Teachers

1. Uneven Teacher Distribution

- Despite **10.12 million teachers in 2024–25, 1,04,125 schools** remain single-teacher schools.
- This particularly affects rural, remote and disadvantaged areas by limiting subject diversity and individual attention.

2. Large Student–Teacher Gaps

- Single-teacher schools together serve around **3.38 million students**, indicating that teacher availability remains uneven despite improvements in aggregate numbers.
- The challenge is therefore not only “**how many teachers?**” but “**where are they located?**”

3. Poor Learning Outcomes

- **ASER 2024:** Only **23.4% of Class 3 government-school children** could read a Class 2-level text.
- This shows that expansion in enrolment has not automatically translated into **foundational learning**.

4. Administrative Burden

- Teachers often undertake substantial **non-teaching and administrative responsibilities**, reducing the time available for classroom teaching, assessment and mentoring.
- This weakens the teacher's role as a **learning facilitator**.

5. Inadequate Professional Development

- Rapid changes in pedagogy, technology and AI require continuous teacher training.
- Gaps in professional development can limit teachers' ability to address **diverse learning needs and new technological challenges**.

6. Digital, Regional and Linguistic Inequalities

- Rural–urban disparities, the **digital divide and multilingual classrooms** make uniform teaching approaches difficult.

- Teachers often have to bridge differences in access, language, learning levels and socioeconomic background.

7. Rote Learning and Examination Pressure

- Excessive focus on examinations can incentivise **memorisation over critical thinking, creativity and application**.
- This creates the core contradiction: **India has expanded educational access faster than it has ensured uniformly high-quality learning**.

Way Forward: Transforming Teachers into Nation-Building Assets

1. Shift from Enrolment to Learning Outcomes

- **Focus on foundational learning:** Move from *Attendance* → *Learning* → *Application* → *Capability*, with foundational literacy and numeracy as the first priority.
- **Outcome-based teaching:** Regular assessment and remedial support should identify and close learning gaps.

2. Strengthen Continuous Teacher Development

- **Continuous professional development:** Regular training in pedagogy, assessment, inclusive education, digital tools and AI literacy.
- **Peer learning:** Encourage teacher communities, mentoring and sharing of classroom practices.

3. Reduce Non-Teaching Burden

- **Protect teaching time:** Minimise administrative and non-academic duties so teachers can focus on teaching, assessment and mentoring.
- **Strengthen support systems:** Use administrative staff and digital systems for routine documentation and reporting.

4. Ensure Equitable Teacher Distribution

- **Rational deployment:** Match teacher availability with student needs and subject requirements, particularly in rural, tribal and remote areas.
- **Incentivise difficult postings:** Provide suitable incentives, housing and infrastructure to attract and retain teachers in underserved regions.

5. Move from Rote Learning to Critical Thinking

- **Experiential pedagogy:** Use projects, discussions, experiments, field-based learning and problem-solving.
- **Develop higher-order skills:** Move from **Rote Learning** → **Understanding** → **Application** → **Critical Thinking**.

6. Use Technology and AI as Enablers

- **Augment teachers:** Use AI and digital platforms for personalised learning, identifying learning gaps and generating teaching resources.
- **Retain the human element:** Technology should reduce repetitive work while teachers remain central to **mentorship, empathy, ethics and social-emotional learning**.

7. Restore Teacher Professional Dignity

- **Empower professionals:** Provide greater autonomy, continuous development, adequate infrastructure and supportive working conditions.
- **Balance autonomy with accountability:** Teachers should have freedom to innovate while being evaluated on meaningful learning outcomes.

Conclusion

A nation's strength ultimately depends on the **capabilities and character of its people**. India's one crore-plus teachers are therefore crucial nation-building assets. **Investing in teachers means investing in human capital, social justice, ethical citizenship and India's democratic future.**

Q. "Quality education can become an instrument of social justice only when teachers are empowered to address social and educational inequalities." Examine. 10 Marks

2.4. HEALTH

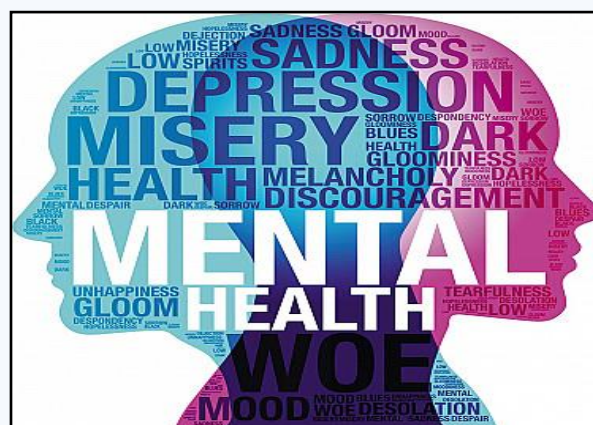
2.4.1. MAINSTREAMING MENTAL HEALTHCARE FOR A RESILIENT VIKSIT BHARAT

Context

India's "Healthcare for All" vision under Viksit Bharat 2047 emphasizes primary and preventive care, yet achieving true economic resilience requires urgently mainstreaming mental health into the core public health agenda.

Introduction

Historically marginalized as a niche welfare issue, mental wellness is now recognized as a core pillar of public health. To transform India's healthcare ecosystem, policymaking must shift from a purely clinical approach to a community-driven, rights-based framework that addresses the massive underlying psychological burden.



What is Mental Health?

- Mental health refers to an individual's emotional, psychological, and social well-being that directly influences daily behavior and stress management.
- The World Health Organization defines it as a state of well-being enabling people to realize their abilities and contribute meaningfully to their communities.

Current Scenario in India

- Approximately 10.6% of Indian adults suffer from mental disorders, translating to nearly 200 million people living with a diagnosable condition.
- Urban areas exhibit a significantly higher prevalence of 13.5% compared to the 6.9% recorded in rural regions.
- Suicide has become a leading cause of death among Indian youth, with the national rate reaching 12.6 per 100,000.

- Over 60% of patients visiting primary care facilities present a diagnosable mental disorder that worsens chronic physical conditions.

Drivers of the Crisis

- High-stakes exam systems and a low tolerance for failure trigger severe psychological strain among students.
- High youth unemployment, family conflicts, and societal expectations breed chronic frustration and despair.
- Deep-rooted social stigma prevents open dialogue, causing emotional suffering to be internalized until a crisis point is reached.

Key Government Initiatives

- The Mental Healthcare Act (2017) decriminalized suicide and legally guaranteed the right to affordable psychiatric care.
- The Tele-MANAS initiative launched in 2022 provides a free 24x7 mental health counseling helpline across 20 Indian languages.
- The Ayushman Bharat scheme converts primary health centers into Arogya Mandirs to offer basic counseling at the grassroots.
- The government has established 25 Centres of Excellence and upgraded 47 PG Departments to train mental health specialists.

Significance of Integrating Mental Healthcare

- Integrating universal depression screening into primary care could generate massive net annual savings equivalent to 0.32% of the GDP.
- Proactive psychiatric care actively reduces the incidence and severity of non-communicable diseases to lower national healthcare costs.
- Addressing workplace burnout and job stress preserves the demographic dividend by preventing a projected USD 1.03 trillion economic loss by 2030.
- Transitioning mental health from isolated clinical wards to community support networks significantly fosters grassroots societal empathy.
- Mainstreaming this care fulfills the anti-discrimination mandates of the UNCRPD and protects the fundamental constitutional right to health.

Challenges in the Ecosystem

- More than 84.5% of individuals requiring care remain entirely untreated due to an absence of accessible facilities in underserved regions.
- India faces a critical human resource deficit with only 0.75 psychiatrists per 100,000 people against the WHO standard.
- Mental health receives barely 1% of the total national health budget despite an estimated policy requirement of ₹93,000 crore.
- There is a stark execution gap between the ambitious aims of the National Mental Health Policy and actual ground-level resource allocation.
- The majority of existing funds and infrastructure remain skewed toward urban tertiary institutions rather than decentralized community centers.

Way Forward

- The government must train and incentivize India's one million ASHA workers to identify and refer common disorders at the village level.
- Policymakers should systematically fund proven peer-support interventions like Atmiyata to affordably bridge the awareness-to-treatment gap.
- The State must extend robust outpatient mental health benefits under the PMJAY and enforce strict medical insurance parity.
- The health ministry needs to establish an autonomous coordinating body modeled on NACO to streamline resources and evidence-based interventions.
- The education department must integrate early intervention programs for anxiety and behavioral issues directly into school curriculums.
- The government should accelerate specialist capacity building by offering targeted scholarships in clinical psychology and psychiatric social work.

Conclusion

The Supreme Court's landmark verdict rightfully elevates mental health to an integral component of the right to life under Article 21. By prioritizing decentralized care, dismantling social stigma, and ensuring robust financial protection, India can guarantee that mental well-being serves as the resilient foundation of a truly inclusive nation.

Q. "Evaluate India's mental health crisis and its impact on human capital. Suggest systemic reforms to integrate mental healthcare into the broader public health infrastructure." 15 Marks

2.4.2. PROTEIN IN INDIA: FROM NUTRITIONAL NEED TO SOCIAL-MEDIA FAD

Context

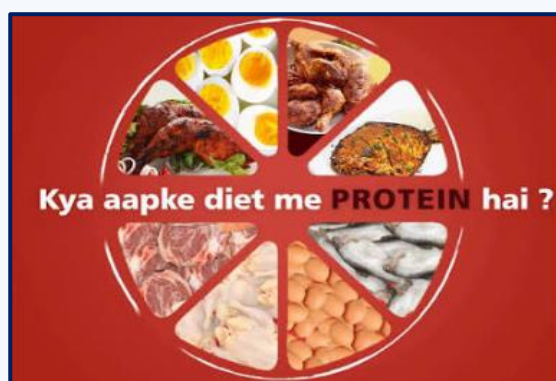
Protein is increasingly promoted on social media through **shakes, high-protein foods and "proffee" (protein + coffee)**, shifting the focus from **overall diet quality to protein quantity**. The concern is not protein itself, but its **reduction to a marketing number and social-media trend**.

Introduction

In the age of fitness influencers, protein shakes and "high-protein" labels, protein has moved from the kitchen table to the centre of India's nutrition discourse. Yet, the growing obsession with counting grams risks overlooking a more fundamental question, whether people are consuming a diverse, affordable and wholesome diet.

Why is Protein Important?

- **Growth and development:** Supports growth and development of body tissues, especially during childhood.
It is crucial during adolescence when the body undergoes rapid physical development.



- **Muscle maintenance and repair:** Helps build, maintain and repair muscles after physical activity. Its importance increases with regular exercise and ageing.
- **Immunity:** Provides building blocks for antibodies and other immune-related proteins. Adequate protein intake therefore supports an effective immune response.
- **Healing and recovery:** Supports tissue formation and repair after injury, illness or surgery. It also aids faster recovery by providing essential amino acids.
- **Enzymes and hormones:** Proteins form enzymes and certain hormones that regulate body functions. They are essential for metabolism, growth and other physiological processes.
- **Satiety:** Protein promotes greater and longer-lasting feelings of fullness. This can help regulate appetite and support healthy dietary patterns.

India's Protein Requirement

- **Recommended intake:** ICMR–NIN (Indian Council of Medical Research - National Institute of Nutrition) recommends around **0.83 g protein/kg body weight/day** for a healthy Indian adult. This provides the baseline protein requirement for maintaining normal body functions.
- **For a 60-kg adult:** A 60-kg healthy adult requires roughly **50 g of protein per day**. Actual needs may vary depending on age, activity level and health status.
- **Children and adolescents:** Require relatively higher protein intake to support rapid growth and development. Their needs vary with age, body weight and stage of development.
- **Pregnant and lactating women:** Have increased protein needs to support foetal growth and milk production. Adequate intake is important for maternal and child health.
- **Sportspersons:** May require higher protein intake due to increased muscle activity and tissue repair. Requirements depend on the type, intensity and duration of training.
- **Older adults:** May need greater attention to protein intake to reduce age-related muscle loss. Adequate protein supports muscle maintenance and physical function.
- **Illness and recovery:** Protein needs may increase during recovery from illness, injury or surgery. It supports tissue repair, healing and restoration of body functions.

Protein requirements are individualized not one-size-fits-all.

Protein: Beyond the Hype

- **Protein deficiency:** The concern in India is often **low dietary diversity and protein adequacy**, rather than complete absence of protein.
- **Protein anxiety:** Social media promotes the misconception that **more protein is always better** and supplements are essential for everyone.
- **Protein quality:** Plant proteins can meet amino-acid needs when consumed through a **varied and balanced diet**; specific combinations at every meal are not essential.
- **Social-media influence:** Influencer-driven content can **oversimplify nutrition and promote commercial products**, replacing evidence-based dietary advice with protein-centric trends.
- **Supplements with caution:** Whole foods should remain the foundation, while supplements may be useful for **specific needs such as athletes, illness or GLP-1 users**.

What Constitute Wholesome Nutrition

- **Wholesome meal:** A balanced plate should combine **carbohydrates, protein, fibre, healthy fats and micronutrients** rather than prioritising one nutrient.
- **Indian dietary approach:** Traditional meals like **rice–dal, roti–chana and idli–sambar** can be strengthened through greater dietary diversity and balance.
- **Adequacy:** Nutrition should provide **sufficient nutrients to meet the body’s physiological requirements**.
- **Individualisation:** Dietary needs should be tailored to **age, activity, health status, medical history and lifestyle**.
- **Avoidance of excess:** Excess intake of one nutrient **cannot compensate for deficiencies in others** and may create nutritional imbalance.
- **ABCDE approach:** Effective nutrition assessment considers **anthropometric, biochemical, clinical, dietary and exercise-related factors** before designing a diet.

Way Forward: Towards Holistic and Evidence-Based Nutrition

1. **Shift from nutrient-centric to diet-centric nutrition:** Promote **balanced, diverse and wholesome diets** rather than focusing excessively on individual nutrients.
2. **Promote affordable and diverse protein sources:** Encourage **pulses, millets, eggs, dairy, soy, nuts, seeds and locally available foods** to improve protein adequacy.
3. **Strengthen nutrition literacy:** Equip citizens to understand **protein requirements, food labels, serving sizes and the difference between evidence and marketing claims**.
4. **Ensure targeted nutritional guidance:** Develop **age, activity and disease-specific** dietary advice, particularly for children, elderly, pregnant women and people with chronic conditions.
5. **Regulate nutrition misinformation and marketing:** Strengthen **evidence-based communication, responsible health advertising and food-labelling standards** to counter misleading claims.
6. **Integrate nutrition with healthy lifestyles:** Promote **adequate nutrition, regular physical activity and resistance exercise** as a combined strategy for long-term health.
7. **Revitalise India’s traditional food systems:** Modernise and diversify **traditional Indian meals** to improve nutritional quality without replacing them with ultra-processed or highly marketed products.

Conclusion

The protein debate reflects a larger transformation in India’s food culture—from **traditional dietary wisdom to quantified, market-driven nutrition**. Protein is indispensable, but **health cannot be measured in grams of protein alone**. The goal should not be a “high-protein diet”, but a **high-quality, diverse and affordable diet in which protein is one essential component of a wholesome meal**.

Q. “Protein is increasingly being promoted as a nutritional solution in India, yet the real challenge lies not merely in protein deficiency but in the quality and diversity of diets.” Discuss. 15 Marks

2.4.3. BRIDGING THE GAP: REFORMING INDIA'S PUBLIC HEALTHCARE SYSTEM AND FINANCING

Context

The government health expenditure stands at **1.43% of GDP** (2022–2023), significantly below the **2.5% target** set by the **National Health Policy 2017**. While visible inputs like medical colleges, the **AIIMS network**, and the **Ayushman Bharat** programme have expanded, a recent **Parliamentary Standing Committee** report highlights a system still struggling with basic capacity, affordability, and regulatory oversight.



Introduction

India's healthcare expansion has largely been measured through countable inputs—such as institutional seats and insurance cards—rather than actual health outcomes. The core unresolved tension is that the public system is expected to deliver universal care on inadequate financing, forcing a reliance on an under-regulated private sector. This dynamic leaves families financially exposed, underscoring that genuine reform must begin with robust public financing.

Structure of the Public Healthcare System

1. **Constitutional Mandate:** Public health and hospitals are a **State subject** under the Seventh Schedule, with the Centre functioning primarily through centrally sponsored schemes.
2. **Tiered Delivery Network:** Rural healthcare operates across three tiers: **sub-centres**, **primary health centres (PHCs)**, and **community health centres (CHCs)**, backed by district and medical college hospitals.
3. **Shifting Disease Burden: Non-communicable diseases (NCDs)** now account for approximately 66% of total deaths, predominantly driven by cardiovascular and chronic respiratory diseases.
4. **Primary Care Scale:** Over **1,85,000 Ayushman Arogya Mandirs** (formerly health and wellness centres) are currently operational across the country.

Significance of Recent Healthcare Expansions

1. Infrastructural Growth

The number of **medical colleges has increased to 818**, raising undergraduate medical seats to 1,28,875 to address the overall doctor-to-population ratio.

2. Financial Protection for the Vulnerable

Ayushman Bharat has functioned as one of the world's largest publicly funded health insurance programs, helping millions afford essential hospital care.

3. Digital and Remote Access

The **Ayushman Bharat Digital Mission** ensures portable health records, while the **eSanjeevani** telemedicine service connects remote primary facilities to urban specialists.

4. Affordable Medicines

The **Pradhan Mantri Bhartiya Janaushadhi Pariyojana** provides low-cost generic drugs, directly targeting the high medicine-related out-of-pocket expenses for households.

Challenges in the Healthcare Sector

1. Stagnant Public Financing

Health spending is stuck at **1.43% of GDP**. Furthermore, only about 40% of public health funds reach primary care, missing the two-thirds target set by the National Health Policy 2017.

2. The "Missing Middle" and High OOP

Over **40 crore Indians** fall into the "missing middle"—too wealthy for government schemes but too poor for private insurance. Consequently, **Out-of-Pocket (OOP) spending** remains high at 43.4% of total health expenditure.

3. Skewed Infrastructure and Staffing

Public capacity is highly urbanized, with **73% of public hospital beds in urban areas**. Conversely, rural CHCs face massive **specialist shortages of 70 to 80%**, and 17,788 sub-centres lack their own buildings.

4. Commercialization and Weak Regulation

With over **60% of hospitalizations** managed by the private sector, the lack of national cost-capping mechanisms allows prices to soar. Insurance pays these bills but fails to control the underlying inflation of healthcare costs.

5. Misallocation of Health Cesses

Revenue generated specifically for health often fails to reach its intended destination. The CAG reported a **Rs 43,000 crore gap** in the transfer of health cess funds to the **Pradhan Mantri Swasthya Suraksha Nidhi**.

Way Forward

1. Ring-Fence Primary Care Financing

The government must legally ring-fence a rising share of the health budget strictly for **primary and preventive care**, ensuring compliance with the two-thirds allocation target through annual reporting.

2. Outcome-Linked Central Transfers

Instead of rewarding mere expenditure, central health transfers should be tied to **state-level outcome indicators**, encouraging actual capacity building (e.g., adapting models like Kerala's decentralized system).

3. Address Rural Specialist Deficits

Make rural service a mandatory condition for subsidized medical education, linking postings directly to **districts that lack specific medical specialties**.

4. Automate Health Cess Transfers

Ensure the automatic and transparent transfer of collected health cesses to dedicated funds, mandating the disclosure of closing balances in annual budget documents.

5. Enforce Strict Private Sector Regulation

States must strictly enforce the **Clinical Establishments (Registration and Regulation) Act, 2010** to implement published standard treatment guidelines and establish rational rate ranges for high-cost private procedures.

Conclusion

True healthcare reform relies on robust public financing rather than merely counting institutional inputs. Achieving universal healthcare requires shifting focus from passive insurance coverage to an adequately funded, strictly regulated, and equitably distributed public health infrastructure.

Q. *In a crucial domain like the public healthcare system, the Indian State should play a vital role to contain the adverse impact of marketisation of the system. Suggest some measures through which the State can enhance the reach of public healthcare at the grassroots level. 15 Marks (2024)*

Scan to attempt more questions...



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GENERAL STUDIES 3

3.1. ECONOMY

3.1.1. THE GDP PARADOX: STATISTICAL INTEGRITY AND THE QUEST FOR JOB-LED GROWTH

Context

The government reported a strong 7.8% GDP growth for the first quarter. A controversy started when it was claimed this growth was artificially boosted by mixing data from the old base year (2011-12) with the new one (2022-23). However, this claim is mathematically incorrect.



Introduction

A transparent statistical system is the bedrock of effective policymaking. While updating the GDP base year is a routine and necessary step to capture true economic realities, such transitions must be methodologically clear. For India, ensuring the integrity of national data is crucial not just for good governance and maintaining global trust, but also for diagnosing and addressing core developmental challenges like jobless growth.

Why there is a Change in Base Year?

A base year sets a fixed price level to help measure *real* economic growth without the distraction of inflation. Globally, base years are updated every five years to include new businesses (like the digital economy) and changing consumer habits. Shifting to the 2022-23 base year was a much-needed step to keep India's GDP estimates accurate and relevant.

Why the Data Manipulation Claim is Wrong

The claim that actual growth was just 2.6% is mathematically flawed.

1. **Wrong Comparison:** It divides new data (2022-23 base) by old data (2011-12 base). Since the two series use completely different data sources, they cannot be compared.
2. **Timeline Proof:** The government lowered the baseline estimates months before the Q1 results were even calculated, proving the numbers were not reverse-engineered to look good.

The Core Issue: Lack of Clear Data Breakdown

While there was no data manipulation, the shift to the new base year created genuine confusion that needs to be addressed:

1. **Unexplained Drop in Value:** The shift to the 2022-23 base year suddenly wiped out roughly Rs 11 lakh crore from previous nominal GDP estimates.
2. **Missing 'Reconciliation Bridge':** The government has not provided a detailed, rupee-by-rupee breakdown explaining *why* this massive drop happened.
3. **Unclear Reasons:** It remains unknown if this reduction is due to newly added data sources, revised tax accounting, or completely new calculation methods.

4. **Broken Data Chain:** The old data series was stopped abruptly. Without a proper overlap, economists are struggling to compare current growth accurately with past years.

Why Accurate GDP Data Matters

1. **Better Policy Making:** Accurate data helps the RBI set the right interest rates and the government plan its budget effectively.
2. **Reflecting the Real Economy:** It brings the informal sector and new-age digital businesses into the official accounting system.
3. **Global Trust & Investment:** Transparent numbers build confidence among foreign investors and rating agencies, boosting Foreign Direct Investment (FDI).
4. **Fair Resource Sharing:** The Finance Commission relies on accurate national and state income data to distribute taxes fairly among states.
5. **Measuring True Health:** It separates true production growth from fake growth caused purely by rising prices (inflation).

Challenges in Measuring India's GDP

1. **Missing Informal Sector Data:** A massive part of India's economy is unorganized. Their output is often guessed using outdated proxies instead of actual, real-time tracking.
2. **Flawed Calculation Methods:** Older methods sometimes artificially boost manufacturing growth on paper when raw material prices fall, painting an inaccurate picture.
3. **No Historical Comparison:** The new base year was launched without a matched "back-series" (older data recalculated to the new base), making it impossible to compare current growth with past decades.
4. **Politicization of Data:** Economic statistics are often used for political point-scoring, which overshadows real technical and economic discussions.
5. **The Jobless Growth Reality:** High GDP numbers hide a harsh truth—the economy is growing, but it is not creating enough formal jobs for the youth.

Way Forward

1. **Provide Clear Explanations:** The government must release a detailed breakdown explaining the recent downward revisions to build trust among economists.
2. **Release Past Data (Back-Series):** A fully recalculated historical back-series must be published immediately so researchers can analyze long-term trends.
3. **Track the Informal Economy:** Link government surveys with live GST and MSME (Udyam) portals to accurately count the output of small businesses.
4. **Upgrade Calculation Methods:** Shift entirely to advanced methods (double deflation) to prevent the artificial inflation of manufacturing numbers.
5. **Ensure Institutional Freedom:** Give the National Statistical Commission (NSC) the freedom to work independently and stick to fixed, predictable data release dates.
6. **Focus on Jobs, Not Just Output:** Economic policies must shift focus from simply increasing GDP to promoting labor-intensive manufacturing and creating quality jobs.

Conclusion

A credible and independent statistical system is essential for India's developmental goals. While updating the GDP base year is a welcome reform, full transparency is required to resolve methodological doubts and prevent unnecessary controversies. Ultimately, true economic success is measured not merely by high GDP growth percentages, but by translating those numbers into quality jobs and inclusive development for citizens.

Q. Explain the difference between computing methodology of India's Gross Domestic Product (GDP) before the year 2015 and after the year 2015. 10 Marks

3.1.2. A DECADE OF INFLATION TARGETING: EVALUATING INDIA'S MONETARY COMPASS

Context

India recently completed a decade of Flexible Inflation Targeting (FIT) under the Reserve Bank of India (RBI). However, empirical data reveals a growing disconnect between this theoretical framework and India's macroeconomic realities, prompting the need for a critical statutory review.



Introduction

The RBI is legally mandated to maintain retail inflation at 4% ($\pm 2\%$). While FIT initially stabilized price volatility, recent analyses suggest its reliance on orthodox Western economic models risks compressing industrial output and employment without effectively resolving India's structural inflation.

What is Inflation Targeting?

Inflation Targeting is a monetary policy framework where a central bank explicitly sets a publicly announced target for the inflation rate. Acting as a "compass for price stability," it uses monetary tools—primarily the policy interest rate (repo rate)—to steer the economy, ensure predictable prices, and anchor public economic expectations. It is a globally recognized mechanism adopted by nations like the UK, Australia, and Canada.

History of Inflation Targeting in India

India's monetary policy has undergone significant structural evolution:

- **1960s to Mid-1980s:** Governed by "credit planning," where policy operated primarily through Statutory Liquidity Ratio (SLR) and Cash Reserve Ratio (CRR).
- **Mid-1980s to Late 1990s:** Shifted to a "monetary targeting with feedback" model, aligning broad money supply with projected GDP growth (targeting 5-7% inflation).
- **2014:** The Urjit Patel Committee recommended transitioning to Flexible Inflation Targeting (FIT).
- **2015–2016:** Institutionalized via a Monetary Policy Framework Agreement and a formal amendment to the RBI Act, establishing the Monetary Policy Committee (MPC) and giving IT a statutory mandate.

Successes of Inflation Targeting in India

Before analysing its flaws, the framework's macroeconomic stabilization benefits must be acknowledged:

- **Lowered Inflation Volatility:** It successfully reduced the historical inflation average (which stood around 7.5% since the 1980s) to a more manageable regime.
- **Market Stability:** The framework reduced volatility in the exchange rate, stock market, and yields on government debt.
- **Enhanced Credibility:** By establishing a predictable policy path, it improved central bank credibility, fostered a stable climate for long-term corporate investments, and shielded Indian markets from global financial spill-overs.

Pros and Cons of Inflation Targeting

Pros	Cons
Enhanced Credibility: Anchors public expectations and fosters investor confidence.	Transmission Lags: Delayed policy impact on ground-level retail inflation.
Policy Predictability: Ensures transparency for long-term corporate investment planning.	Supply-Side Inefficacy: Ineffective against structural shortages and supply-driven shocks.
Systemic Resilience: Shields the domestic economy from external financial shocks.	Growth Constraints: Rigid rate hikes risk stifling GDP growth and industrial employment.

Why the Current Model Fails in India?

- **The Flat Phillips Curve:** Data from the Index of Industrial Production (IIP) and CPI (2012–2026) reveals India's NKPC is flat. Output and inflation simply do not move together in the way the theory assumes.
- **The Missing Wage Spiral:** Unlike Western economies, 92% of India's workforce is informal. They are "price-takers" with zero bargaining power. Wages do not naturally rise with output, rendering the RBI's theoretical model completely void.
- **Expectation Disconnect:** RBI surveys show that household inflation expectations consistently run 4 percentage points above the RBI's projections. Consumers form expectations from their daily grocery bills, not RBI policy statements.

Significance of Inflation Targeting

1. **Exposes Imported Policy Flaws:** It highlights the systemic dangers of force-fitting Western macroeconomic models onto a developing economy dominated by informal labor.
2. **Growth Protection:** Mathematically proves that blind demand compression via repo rate hikes sacrifices industrial output and jobs without actually buying disinflation.
3. **Focus on Informality:** Brings the structural vulnerability of the 92% unorganized workforce to the forefront of national monetary policy debates.
4. **Data-Driven Realignment:** Emphasizes formulating monetary decisions based on actual IIP and survey data rather than theoretical macroeconomic assumptions.

5. **Stagflation Warning:** Warns policymakers that continuing this framework without reform pushes the economy toward stagflation—stagnant growth coupled with high prices.

Challenges in the Current Framework

1. **Supply-Side Dominance:** Headline CPI is heavily weighted toward volatile food and fuel. A repo rate hike cannot lower vegetable prices during a supply shock.
2. **Outdated Statistical Base:** The current CPI relies on a 2011-12 base year containing obsolete consumption items, failing to reflect modern household expenditure patterns.
3. **Weak Transmission Lags:** While rate changes quickly impact external-benchmark retail loans, transmission remains sluggish for older loan books and deposit rates.
4. **Unmeasured Employment Cost:** The statutory objective prioritizes price stability but provides no instrument to measure or mitigate the jobs foregone during a tightening cycle.
5. **Unanchored Sentiments:** Because everyday consumers are disconnected from central bank communications, the RBI lacks the practical tools to effectively anchor retail inflation expectations.

Way Forward

1. **Formulate Indigenous Macro-Models:** The RBI must develop localized economic models that explicitly factor in India's informal, price-taking labor market rather than relying on the imported Phillips Curve.
2. **Shift to Core Target:** Set the operational monetary stance against *core inflation* (excluding volatile food/fuel) while managing food spikes via buffer stock releases and import duties.
3. **Revise Statistical Metrics:** The government must urgently update the CPI base year to capture current consumption patterns accurately.
4. **Publish Employment Trade-offs:** Mandate the MPC to publish an official estimate of the output and employment costs alongside every repo rate decision to ensure democratic accountability.
5. **Deepen Policy Transmission:** Extend the mandatory linking of loans to external benchmarks across a broader spectrum of the credit market to ensure faster real-economy transmission.
6. **Broaden Expectation Surveys:** Redesign the Inflation Expectations Survey to report by income group and publish its methodology, making the RBI's communication strategies testable and localized.

Conclusion

A decade of data demonstrates that the theoretical mechanisms of Flexible Inflation Targeting are fundamentally misaligned with India's labour and structural realities. Force-fitting an orthodox model risks economic stagnation over price stability. The upcoming statutory review must shift towards a localized, supply-sensitive monetary strategy to successfully balance inflation control with essential employment and growth.

Q. *What are the causes of persistent high food inflation in India? Comment on the effectiveness of the monetary policy of the RBI to control this type of inflation. 10 Marks*

3.1.3. THE UPI MDR RECALIBRATION: ANATOMY OF DIGITAL PAYMENT MONETIZATION

Context

The government and NPCI have mandated a **0.4% Merchant Discount Rate (MDR)** on **person-to-merchant (P2M) UPI transactions** exceeding ₹2,000, shifting from a complete zero-charge regime to a self-sustaining payment architecture.



Introduction

The **Unified Payments Interface (UPI)** is India's foundational **Digital Public Infrastructure (DPI)** for instant payments. Transitioning from public subsidies to a commercial revenue model ensures the long-term operational health, capacity scaling, and security of payment operators.

NPCI and UPI Merchant Discount Rate (MDR)

1. NPCI: Institutional Framework

- Premier umbrella organisation for India's retail payment and settlement systems.
- Incorporated in **2008 as a Section 8 non-profit company** under the joint initiative of **RBI and IBA**.
- Promoted by a consortium of major commercial banks.

2. Key Digital Payment Infrastructure

- Operates major payment platforms such as **UPI, RuPay, IMPS, Bharat BillPay, FASTag (NETC) and AePS**.
- Supports the development of **accessible, interoperable and nationwide digital payment infrastructure**.

3. UPI MDR: Meaning & Applicability

- **Merchant Discount Rate (MDR)** is the transaction fee charged to merchants for processing digital payments.
- It is applicable to **merchant (P2M) transactions**, while **P2P UPI transactions generally do not attract MDR**.
- The rate and applicable limits depend on the **payment instrument and prevailing regulatory framework**.

4. Purpose & Revenue Distribution

- MDR compensates participants in the payment ecosystem, including **acquiring banks, payment intermediaries and network/payment infrastructure providers**.
- It is a **payment-processing/network fee, not a government tax**, intended to support the functioning of the digital payments ecosystem.

Why has NPCI Introduced MDR on UPI Transactions?

- **Escalating Operational Demands:** Processing billions of monthly transactions requires continuous heavy capital for **cloud storage**, server bandwidth, and low-latency networks.

- **Cybersecurity Mitigations:** Advanced threat landscapes and **AI-driven fraud vectors** consume over a fifth of annual budgets, requiring dedicated defense funding.
- **Subsidy Unsustainability:** Long-term reliance on **state budgetary incentives** is fiscally inadequate to finance future hardware and software capacity upgrades.
- **Market Incentivization:** A predictable commercial revenue model attracts **private sector innovation** and encourages healthy market competition.

Significance of MDR on UPI Transactions

- **Financial Viability:** Secures a dependable revenue stream to cover the structural **maintenance costs** of participating financial institutions.
- **Consumer Protection:** Safeguards everyday users and micro-vendors by keeping low-ticket retail purchases up to **₹2,000** completely charge-free.
- **Technological Resilience:** Injects vital capital to upgrade **real-time anti-fraud architectures** against automated cyber attacks.
- **Commercial Viability:** Replaces unviable zero-cost mandates with a **self-sustaining business framework** that spurs tech development.
- **DPI Strengthening:** Fortifies the structural resilience of India's **Digital Public Infrastructure** against outages during peak transaction volumes.

Challenges

- **Cost Pass-Through:** The persistent risk that merchants may unlawfully add **covert surcharges** onto retail buyers despite official advisories.
- **Behavioral Friction:** Potential consumer resistance causing a temporary contraction in **large digital payments** or a reversion to cash.
- **Regulatory Enforcement:** Administrative hurdles in auditing millions of **dispersed semi-urban merchants** against unauthorized fees.
- **Intermediary Margin Compression:** Heavy operational and compliance costs impacting the profitability of **mid-sized fintech aggregators**.
- **Inclusion Trade-Off:** Navigating the complex policy balance between **revenue generation** and sustaining universal digital adoption.

Way Forward

- **Strict Statutory Penalties:** Enforce strict punitive actions against merchants who **unlawfully transfer MDR costs** to retail consumers.
- **Turnover-Based Safeguards:** Retain explicit fee exemptions for **micro-enterprises** with annual turnovers below the ₹50 crore threshold.
- **Transparent Digital Receipts:** Mandate payment aggregators to display **itemized transaction invoices** to prevent hidden markups.
- **Dedicated Security Pooling:** Channel a fixed portion of collected MDR into a **national cybersecurity and anti-fraud fund**.
- **Hybrid Technical Support:** Provide targeted public grants to assist **regional and cooperative banks** with core processing upgrades.

- **Targeted Awareness Drives:** Conduct nationwide literacy campaigns clarifying that **P2P transfers and essential daily purchases remain charge-free.**

Conclusion

The calibrated implementation of the UPI MDR balances commercial sustainability with consumer affordability. By establishing a transparent, self-funded ecosystem, policymakers guarantee that India's digital public infrastructure remains resilient, secure, and financially inclusive.

Q. *Examine the rationale behind introducing the Merchant Discount Rate (MDR) on UPI transactions. How can policymakers balance digital infrastructure sustainability with consumer inclusion? 15 Marks*

3.1.4. THE SOVEREIGN DEBT CONUNDRUM: ANATOMY OF THE GLOBAL BOND YIELD SURGE

Context

Over the past few months, government bond yields across major economies have surged to multi-year highs. This global rise in borrowing costs is increasing fiscal pressure on governments and tightening financial conditions worldwide.

Introduction

A government bond is a debt instrument issued to fund fiscal deficits, with its yield representing the sovereign cost of borrowing. Because government bonds are treated as the safest assets, changes in their yields set the benchmark interest rate for the entire economy.



What Are Bonds?

- **Definition:** A bond is a formal debt instrument where an investor lends capital to a government or corporation for a defined period.
- **Face Value:** The stated principal amount that the borrower promises to repay upon maturity.
- **Tenure:** The fixed lifespan of the borrowing, ranging from short-term treasury bills to multi-decade bonds.
- **Coupon:** The fixed or variable interest amount paid by the borrower to the investor at scheduled intervals.

Relationship Between Bond Prices, Yields, and Interest Rates

- **Inverse Price-Yield Link:** Because a bond's coupon payment is fixed in absolute terms, a higher market price lowers its effective yield, while a falling price increases its yield.
- **Impact of Policy Interest Rates:** When central banks increase benchmark rates, newly issued bonds offer higher returns. As a result, older bonds with lower rates lose value, causing their prices to drop until their yields align with current market rates.

Why Are Bond Yields Rising?

- **High Government Debt:** Sizable fiscal deficits—notably in the US, where national debt exceeds \$40 trillion—have led to heavy bond issuances, requiring higher yields to attract investors.

- **Persistent Inflation:** Geopolitical conflicts, especially in West Asia, alongside trade tariffs have kept energy and logistics costs high, reducing the real value of fixed bond payouts.
- **Prolonged Monetary Tightening:** Central banks have held interest rates high and delayed cuts to ensure inflation moves back to targets.
- **Loss of Policy Credibility:** Market interventions, unconventional debt buybacks, and questions over central bank independence have prompted investors to demand higher risk premiums.

Impact on Stock Markets

- **Shift to Safer Assets:** Higher bond yields provide attractive, guaranteed returns, encouraging investors to shift funds out of risky equities and into bonds.
- **Lower Equity Valuations:** Rising yields increase the discount rate applied to future corporate earnings, which depresses stock valuations.
- **Higher Corporate Borrowing Costs:** As benchmark rates climb, companies face higher loan expenses, which reduces profit margins and slows private business expansion.

Significance

- **Squeezed Government Budgets:** Higher interest obligations consume a larger portion of tax revenues, reducing public spending on healthcare, education, and infrastructure.
- **Costlier Consumer Loans:** Sovereign yields determine overall loan rates, raising borrowing costs on home, auto, and commercial loans.
- **Capital Flight from Emerging Markets:** Attractive US bond yields pull foreign portfolio investments away from emerging economies toward developed debt markets.
- **Currency Pressure and Imported Inflation:** Capital outflows cause local currencies to depreciate, raising the landed cost of imported goods like crude oil.
- **Tighter Global Liquidity:** Higher yields increase external financing expenses, making it harder for companies to refinance foreign debt.

Challenges

- **The Growth-Inflation Dilemma:** Raising rates to fight inflation slows economic growth, whereas lowering rates can entrench inflation and push yields higher.
- **Debt Traps:** Refinancing older, low-cost debt at current elevated interest rates compounds overall government debt burdens.
- **Limited Fiscal Room:** High debt-to-GDP levels leave sovereign nations with little budgetary space to support their economies during downturns.
- **Pressure on Forex Reserves:** Emerging market central banks must spend foreign currency reserves to defend their exchange rates against rapid depreciation.
- **Rebuilding Market Trust:** Restoring investor confidence after policy missteps requires sustained fiscal discipline, which is difficult to achieve quickly.

Way Forward

- **Credible Fiscal Consolidation:** Governments must contain fiscal deficits through responsible spending curbs, targeted subsidies, and stronger tax compliance.

- **Clear Inflation Targeting:** Central banks should maintain firm, transparent commitments to their official inflation targets to keep long-term yields steady.
- **Boosting Productive Growth:** Expanding the real economy through productivity-enhancing structural reforms helps reduce debt-to-GDP ratios naturally.
- **Deepening Domestic Bond Markets:** Emerging economies must expand their domestic investor base to reduce vulnerability to external capital shifts.
- **Careful Debt Maturity Management:** Sovereign debt managers should extend borrowing tenures during market dips to reduce short-term rollover risks.
- **Easing Geopolitical Tensions:** Diplomatic resolutions to ongoing global conflicts are essential to stabilize energy supply chains and ease worldwide inflation.

Conclusion

The global rise in bond yields signals an end to the era of cheap money and debt-heavy public spending. Restoring stability will require strict fiscal discipline, central bank credibility, and productivity-led growth across major economies.

Q. Analyze the key factors driving the recent surge in global sovereign bond yields. How does this trend impact macroeconomic stability in emerging economies like India? 15 Marks

3.1.5. THE STRATEGIC BLUEPRINT OF THE INDIA-NEW ZEALAND FREE TRADE AGREEMENT

Context

The India-New Zealand Free Trade Agreement (FTA) will enter into force on October 20, aiming to double bilateral trade to ₹35,000 crore in five years. The pact grants unprecedented tariff eliminations for Indian exports while simultaneously shielding vulnerable domestic farm segments.



Introduction

Against a backdrop of escalating global tariff volatility, the India-New Zealand FTA offers a pragmatic diplomatic template. It strategically diversifies market access for India's labor-intensive enterprises while resolutely insulating domestic agricultural livelihoods from foreign competition.

What is a Free Trade Agreement (FTA)?

- **Definition:** A legally binding international treaty designed to reduce or eliminate trade barriers, such as tariffs and quotas, facilitating seamless cross-border commerce.
- **Core Mechanisms:** FTAs establish comprehensive preferential architectures governing intellectual property, investment protections, customs facilitation, and dispute resolution to integrate participating economies.

Bilateral Economic Landscape and Complementarities

- **Macroeconomic Scale & Ties:** New Zealand is India's second-largest trading partner in Oceania, with bilateral goods and services trade reaching \$2.24 billion in 2025–26 (including \$1.3 billion in merchandise trade). The relationship is anchored in shared Commonwealth heritage, democratic values, and sporting ties.

- **Diaspora Bridge:** Over 300,000 resident Indians form nearly 5% of New Zealand's population, acting as a vital cultural and institutional link.
- **Structural Complementarity:** India serves as New Zealand's 9th largest export market, supplying labor-intensive goods (textiles at 14%, gems at 5%) alongside capital products (pharmaceuticals, vehicular parts). Conversely, New Zealand exports essential industrial raw materials like timber, wool, and specialized machinery.

Comprehensive Trade Liberalisation

- **Total Tariff Elimination:** Erases import levies on 100% of Indian goods entering New Zealand, dismantling historical tariffs of up to 10% on automobiles, ceramics, and apparel.
- **Calibrated Inbound Concessions:** Permits 95% of New Zealand's export lines into India either tariff-free or at substantially reduced duty rates to lower manufacturing input costs.

Strategic Protection of Sensitive Domestic Sectors

- **Insulating the Dairy Economy:** India excluded the highly competitive dairy sector entirely from the pact to protect local livelihoods.
- **Preserving Agricultural Negative Lists:** Nearly 30% of India's total tariff lines remain outside concessions, safeguarding vulnerable farm produce such as almonds, chickpeas, peas, artificial honey, sugar, and onions.

Long-Term Investment and Financing Commitments

- **The FDI Mandate:** New Zealand formally committed to facilitating \$20 billion in direct investment into India over the next 15 years, targeting startups, advanced manufacturing, and national infrastructure.
- **External Sector Stability:** This legally tethered investment commitment ensures predictable foreign exchange inflows, aiding long-term balance-of-payments management.

Agricultural Productivity and Technology Partnerships

- **Collaborative Technology Transfer:** Replaces direct commercial competition with technological synergy, utilizing New Zealand's capabilities in apiculture and kiwifruit farming to elevate Indian yields.
- **Joint Global Manufacturing:** Encourages New Zealand firms facing domestic labor shortages to leverage India's cost-effective scale and intellectual property protections for global exports.

Labour Mobility and People-to-People Bridges

- **Service and Mobility Windows:** Secures enhanced visa provisions for Indian students and skilled professionals across IT, healthcare, and engineering, providing alternative migration routes amid Western immigration restrictions.
- **Professional Market Access:** Creates a platform for Indian companies to expand their international footprint across 118 sectors, including professional services, construction, and tourism.

The Strategic Significance of the Agreement

1. **Insulation Against Global Shocks:** Mitigates the fallout of rising Western protectionism by nimbly rerouting supply chains to favorable alternative destinations.

2. **Empowerment of MSMEs:** Delivers immediate price parity to micro, small, and medium enterprises, and handloom weavers who constitute a massive portion of the export ecosystem.
3. **A Non-Compromise Agrarian Template:** Proves that high-standard trade agreements can be concluded with competitive agricultural economies without sacrificing the domestic farm sector.
4. **Counter-Cyclical Capital Inflows:** Anchors long-term foreign capital at a juncture when broader emerging-market direct investment flows face tightening global liquidity.
5. **Deepening the Indo-Pacific Footprint:** Strengthens strategic reach across Oceania, complementing parallel negotiations with partners like Canada and Chile.

Key Challenges Confronting Implementation

1. **Limited Macroeconomic Scale:** Because bilateral commerce currently accounts for under 1% of India's aggregate international trade, the immediate growth impulse to national GDP remains constrained.
2. **Backloaded Investment Realization:** The multi-decade horizon for promised capital inflows makes near-term balance-of-payments relief modest and highly subject to macroeconomic stability.
3. **Strict Non-Tariff Barriers (NTBs):** Stringent sanitary and phytosanitary (SPS) standards in the destination market present severe compliance hurdles for agro-processing and pharmaceutical exporters.
4. **High Maritime Freight Overheads:** Significant geographical distances and transshipment bottlenecks in the South Pacific can erode the price advantages achieved through duty eliminations.
5. **Grassroots Technology Absorption Deficits:** Translating high-tech foreign horticultural techniques to fragmented, smallholder Indian farms requires extensive extension machinery that state agencies currently lack.

Strategic Way Forward

1. **Accelerate MSME Export Integration:** Conduct targeted export-readiness clinics to ensure small enterprises swiftly operationalize zero-duty access.
2. **Establish a Dedicated Fast-Track Investment Cell:** Create a specialized FDI Desk under Invest India to streamline promised funds into capital-intensive manufacturing.
3. **Harmonize Standards via Mutual Recognition Agreements (MRAs):** Expedite bilateral conformity assessments to prevent non-tariff barriers from impeding pharmaceutical and engineering shipments.
4. **Institutionalize Agri-tech Centers of Excellence:** Build joint research stations in domestic agricultural hubs to commercialize imported apiculture technologies locally.
5. **Optimize Oceania Shipping Logistics:** Explore cooperative transshipment agreements via Southeast Asian maritime hubs to lower logistics overheads and transit times.
6. **Replicate the Targeted Negotiation Model:** Institutionalize this framework—securing industrial duty elimination while ring-fencing sensitive farm lines—across pending FTAs with other mid-sized trading partners.

Conclusion

The India-New Zealand FTA proves that targeted deals with mid-sized economies yield strategic dividends far beyond their immediate trade volume. By insulating vulnerable farmers, opening zero-duty markets for MSMEs, and anchoring long-term foreign investment, the pact creates a robust, multi-track template for navigating an increasingly fragmented global trade environment.

Q. Evaluate the strategic and economic significance of the India-New Zealand Free Trade Agreement in strengthening India's export resilience amidst rising global trade protectionism. 15 Marks

3.1.6. INDIA–EU FTA: COPYRIGHT PROVISIONS AND INDIA'S DIGITAL POLICY FLEXIBILITY

Context

The EU has moved towards formalising the India–EU FTA after negotiations concluded in January 2026. Its IP chapter has raised concerns that stronger copyright enforcement could narrow India's existing digital copyright exceptions.



Introduction

The India–EU FTA brings intellectual property to the centre of trade diplomacy. The challenge is to strengthen protection for creators and investors while preserving India's copyright flexibilities for education, research, digital innovation and public access to knowledge.

Significance of Intellectual Property Rights (IPR)

1. Promotes Innovation and Creativity

- **Incentivises innovation:** IPR grants creators and innovators legally enforceable rights, enabling them to derive economic returns from their inventions and creative works.
- **Encourages R&D:** Patents and other IPR mechanisms provide incentives for investment in **research and development**, particularly in technology-intensive sectors.

2. Supports Economic Growth

- **Creates economic value:** IPR enables the commercialisation of knowledge and converts innovation into **products, services, enterprises and employment opportunities**.
- **Strengthens knowledge economy:** Strong IPR frameworks support high-value sectors such as **IT, pharmaceuticals, biotechnology, electronics and creative industries**.

3. Facilitates Foreign Investment and Trade

- **Improves investor confidence:** Predictable IPR protection provides greater certainty to foreign investors regarding ownership and commercial exploitation of innovations.
- **Facilitates technology transfer:** Well-defined IPR regimes can encourage **licensing, joint ventures and technology partnerships** across countries.

4. Protects Consumers and Businesses

- **Prevents counterfeiting:** Trademarks and other IPR mechanisms help distinguish genuine products from counterfeit goods.

- **Protects brand identity:** Trademark protection enables businesses to establish and maintain consumer trust in their products and services.

5. Promotes Technological Development

- **Encourages technological advancement:** Patent protection enables innovators to invest in developing new technologies by providing temporary exclusive rights.
- **Supports software innovation:** Copyright protection provides legal protection to computer programmes and digital creations.

What is the Issue?

1. **Copyright provisions in the FTA:** The draft IP Chapter contains detailed obligations concerning copyright, enforcement, technological protection measures and rights-management information, thereby potentially affecting India's existing copyright framework.
2. **WCT and National Treatment:** The article highlights the concern that the WIPO Copyright Treaty (WCT) is omitted from the National Treatment clause even while certain WCT-related enforcement obligations remain relevant.
3. **Potential legislative implications:** According to the article's assessment, this asymmetry could require changes to the **Copyright Act, 1957**, particularly provisions protecting lawful digital uses.
4. **Current status:** The European Commission has published the negotiated FTA texts, but has explicitly stated that they may still undergo legal revision and become binding only after completion of the required internal procedures.

Why is the WIPO Copyright Treaty Important?

1. **Digital-era copyright:** The WCT was developed to address copyright protection in the digital environment, particularly for software, databases and digitally transmitted works.
2. **Balance between rights and exceptions:** The treaty framework recognises that copyright protection must coexist with limitations and exceptions serving legitimate public interests.
3. **Indian legal connection:** India amended its Copyright Act in 2012 partly to bring it into conformity with the WCT and WIPO Performances and Phonograms Treaty (WPPT).
4. **National Treatment principle:** National Treatment generally requires protected works from another contracting country to receive treatment comparable to that provided to domestic works.

Importance of India's Existing Copyright Flexibilities

1. Education and Research

- **Fair dealing:** Section 52 provides exceptions for specified legitimate uses, helping educational institutions and researchers use copyrighted material within statutory boundaries.
- **Software research:** Sections 52(1)(ab) and (ac), as highlighted in the article, provide space for lawful activities involving software interoperability and security-related research.

2. Technological Protection Measures

- **Section 65A:** India regulates circumvention of technological protection measures while recognising specified exceptions.
- **Policy significance:** The provision attempts to balance protection against digital piracy with legitimate activities such as research and other legally permitted uses.

3. Libraries and Archives

- Digital preservation increasingly requires libraries and archives to reproduce or format-shift material protected by **Digital Rights Management (DRM)**.
- Excessively restrictive anti-circumvention rules could therefore make legitimate preservation activities legally difficult.

4. Internet Service Providers

- The article highlights concerns regarding temporary copies created in **RAM, caches and routine electronic transmission**.
- If such transient technical copies receive broader copyright liability, intermediaries could face increased litigation and compliance costs.

Broader Significance for India

1. Digital Sovereignty

- Copyright rules increasingly determine who can access, reproduce, modify and transmit digital knowledge, making them an important component of **digital sovereignty**.

2. Innovation Ecosystem

- Start-ups, software developers, cybersecurity researchers and academic institutions depend upon reasonable exceptions for experimentation and interoperability.

3. Knowledge Economy

- Excessively restrictive copyright rules can increase the cost of accessing educational and research material, particularly for developing economies.

4. Trade and Investment

- Stronger IP protection can improve investor confidence and facilitate trade in innovative and creative goods and services; the EU itself identifies IP protection as a significant component of the FTA.

5. India–EU Strategic Partnership

- The issue illustrates the broader challenge of deepening economic integration with the EU while preserving India's regulatory autonomy in areas involving **education, technology and public interest**.

Key Challenges

1. Protection–Access Imbalance

- Excessive emphasis on enforcement may strengthen rightsholders while weakening legitimate exceptions required for education, research and preservation.

2. DRM versus Statutory Exceptions

- Digital locks can potentially prevent users from exercising rights that domestic copyright law otherwise permits, creating tension between **technological control and legal exceptions**.

3. Chilling Effect on Research

- Students and cybersecurity researchers may become more cautious about legitimate software testing if anti-circumvention rules are interpreted broadly.

4. Burden on Digital Intermediaries

- Expanded liability for temporary copies could increase compliance costs and litigation exposure for ISPs and other intermediaries.

5. Parliamentary Policy Space

- If international commitments require amendments to domestic copyright law, India must ensure that negotiated obligations do not unintentionally reduce the policy choices already enacted by Parliament.

Constitutional and Governance Dimensions

1. Right to Education and Knowledge

- Copyright policy intersects with broader public objectives of **access to education, research and knowledge**, requiring a balance between private intellectual property and societal interests.

2. Freedom of Expression

- Copyright exceptions can facilitate criticism, research, scholarship and transformative uses, thereby indirectly supporting a democratic knowledge ecosystem.

3. Legislative Sovereignty

- International trade commitments should remain consistent with Parliament's authority to determine the domestic balance between copyright protection and public-interest exceptions.

4. Good Governance

- Major trade commitments affecting domestic legislation require **transparency, stakeholder consultation and parliamentary scrutiny**.

Way Forward

1. Recalibrate the National Treatment Provision

- India should seek clarity and, where necessary, targeted revision so that the WCT's relevant limitations and exceptions are not unintentionally excluded.

2. Preserve Section 52 Flexibilities

- The FTA should explicitly protect legitimate exceptions relating to **education, research, libraries, archives, software interoperability and technological processes**.

3. Safeguard Section 65A

- Anti-circumvention obligations should contain adequate safeguards so that lawful research and other statutory exceptions remain meaningful.

4. Protect Transient Network Copies

- The treatment of temporary copies generated during routine digital transmission should be clearly defined to prevent disproportionate liability for ISPs.

5. Conduct Regulatory Impact Assessment

- Before final ratification, India should assess the consequences for **students, universities, libraries, start-ups, researchers, ISPs and digital platforms**.

Conclusion

India's objective should be neither unrestricted copyright enforcement nor weakened IPR protection. The India-EU FTA should establish a balanced framework that rewards creators, facilitates digital commerce and innovation, while preserving essential exceptions for education, research and public access.

Q. Discuss the implications of the proposed India-EU FTA copyright provisions for India's digital copyright flexibilities. *10 Marks*

3.2. ENVIRONMENT

3.2.1. FROM HAZARDOUS SCRAP TO STRATEGIC ASSET

Context

- **Rapid Digital Transformation:** Frequent IT hardware upgrades have severely accelerated the generation of **electronic waste (e-waste)**.
- **The Dual Challenge:** Discarded electronics pose severe **hazardous risks** if mismanaged, while simultaneously offering a massive, untapped domestic reserve of **strategic critical minerals**.



Introduction

- **Concept of Urban Mining:** It involves recovering valuable secondary raw materials from end-of-life electronics, serving as a sustainable alternative to extracting virgin ores from the earth.
- **Required Paradigm Shift:** Realising this potential requires moving public and private decision-making away from the short-term **lowest-price principle** toward comprehensive **life-cycle costing**.

Significance of Urban Mining and E-Waste Recycling

1. Secures Strategic Raw Materials

- Recovers high-value elements including **copper, gold, silver, palladium**, and rare **critical minerals**.
- Transforms mountains of discarded electronics into a dependable domestic raw material reserve for the digital economy.

2. Reduces Virgin Mining and Import Dependence

- Minimises ecological degradation and carbon emissions caused by traditional, resource-intensive **virgin mining**.
- Strengthens domestic supply chains, directly insulating the nation from volatile global markets and **import dependence**.

3. Mitigates Environmental and Public Health Hazards

- Ensures certified and environmentally sound containment of toxic, heavy metal **hazardous components**.

- Prevents environmental contamination that eventually re-emerges as expensive public **health-care expenditures**.

4. **Prevents Cybersecurity and Data Breaches**

- Integrates certified and verifiable **secure data destruction** into the core recycling protocol.
- Eliminates vulnerabilities where discarded storage devices cause severe **cybersecurity risks** and reputational harm.

5. **Fosters Long-Term Industrial Competitiveness**

- Builds early domestic capabilities in high-tech recycling and **advanced manufacturing ecosystems**.
- Yields long-term economic advantages and scale efficiency, mirroring early strategic investments in **solar power**.

Challenges in Implementing Advanced Urban Mining

1. **Lowest Visible Cost Bias in Procurement**

- Public and corporate procurement overwhelmingly favours the **lowest visible cost**, prioritising quick resale margins and minimal disposal fees.
- Strategic imperatives such as **critical mineral recovery** and ecological safety are omitted because they do not appear on immediate invoices.

2. **High Upfront Infrastructure and Technology Costs**

- Establishing compliant processing facilities, advanced material recovery plants, and **traceable supply chains** requires high capital outlay.
- Entities often mistake lower upfront disposal bids for actual savings, overlooking the superior durability of advanced recycling.

3. **Superficial Extended Producer Responsibility (EPR) Markets**

- Compliance markets frequently incentivise producers to buy the cheapest available paper certificates rather than funding physical recycling.
- This framework rewards low-cost informal aggregators instead of incentivising recyclers with high **recovery efficiency**.

4. **Cybersecurity Vulnerabilities from Substandard Disposal**

- Selecting recyclers solely based on maximum salvage value compromises **data sanitisation** protocols.
- Improperly handled data storage units cause permanent leakage of sensitive organisational assets and national security data.

5. **Externalised and Delayed Economic Costs**

- Pollution, resource depletion, and lost domestic capability do not hit immediate corporate balance sheets.
- These deferred liabilities ultimately shift heavy fiscal burdens onto citizens via remedial taxes and lower economic productivity.

Way Forward

1. Adopt Life-Cycle Costing Frameworks

- Replace the rigid lowest-acquisition-cost model with **life-cycle costing** across all public procurement policies.
- Evaluate bids by factoring in avoided import costs, secondary material yields, and long-term public value.

2. Implement Value-Based Public Procurement

- Utilise state purchasing power as an explicit tool of **industrial policy** to scale domestic advanced recycling industries.
- Prioritise technology vendors that guarantee certified circular take-back loops and **traceable supply pipelines**.

3. Overhaul Extended Producer Responsibility (EPR) Standards

- Restructure EPR guidelines to penalise paper trading and actively reward **traceability** and material recovery rates.
- Provide tax incentives and preferential market access to recyclers investing in deep **critical mineral extraction**.

4. Institutionalise Dual Balance Sheet Accounting

- Mandate organisations to evaluate major asset retirements on both an immediate **financial balance sheet** and an open-ended **strategic balance sheet**.
- Track organisational contributions to resource resilience, carbon mitigation, and **domestic mineral security**.

5. Enforce Mandatory Secure Data Sanitisation Standards

- Institute strict statutory mandates that require certified, irreversible **data destruction** prior to physical dismantling.
- Treat end-of-life IT disposal as a matter of national **cybersecurity governance** rather than simple scrap liquidation.

6. Build Domestic Scale through Targeted Industrial Support

- Replicate the scale-driven policy interventions deployed successfully in the **renewable energy sector**.
- Provide capital subsidies and viability gap funding for high-tech **urban mining hubs** to lower unit processing costs.

Conclusion

- Transitioning to **urban mining** through **life-cycle costing** ensures discarded electronics become resilient **strategic assets** rather than hazardous liabilities.
- This approach secures India's technological autonomy with the smallest unpaid economic and environmental bill.

Q. "Examine the role of urban mining and life-cycle costing in managing India's e-waste and securing critical minerals." 10 Marks

3.2.2. THE CHANGING PARADIGM OF VULTURE CONSERVATION IN INDIA

Context

India's vulture population crashed by **99.5%** due to the toxic veterinary drug **diclofenac**. While strict drug bans succeeded in containing this chemical crisis, **lethal avian electrocution** from rapidly expanding **power grids** has emerged as a severe new threat, forcing vultures to abandon their historical nesting sites.



Introduction

Vultures are ecologically indispensable **apex scavengers** acting as nature's primary sanitation engine. Their near-extinction in the 1990s triggered a severe **public health crisis** by causing **feral dog populations** and **rabies** to proliferate. Today, their **wide wingspans** make them highly vulnerable to uninsulated power lines, making **infrastructural mitigation** an urgent ecological and economic imperative.

Features of Vulture

India hosts nine species of vultures, including the White-rumped, Slender-billed, Red-headed, Egyptian, Himalayan, Bearded, Griffon, Cinereous, and the **Indian Vulture**.

1. About Indian Vulture

- **Scientific Identity:** Scientifically known as *Gyps indicus*, it is an **Old World vulture** closely related to the Griffon vulture.
- **Historical Decline:** Its population crashed abruptly in the late 1990s due to **renal failure** caused by consuming livestock treated with toxic painkillers.

2. Indian Vulture Habitat and Distribution

- **Geographic Range:** Primarily endemic to **India, Pakistan, and Nepal**, highly concentrated in the Central and Peninsular regions.
- **Nesting Preferences:** They predominantly nest on **crag, high rocky cliffs**, and ruined monuments.
- **Current Shift:** Due to infrastructural disturbances, they now nest at only **50% of their historical sites**, increasingly restricting themselves to **Protected Areas**.

3. Indian Vulture Features

- **Physical Traits:** A medium-sized bird with a pale body and contrasting **dark flight feathers**.
- **Anatomy:** Characterized by a bald head and **very broad wings** adapted for soaring on thermal currents.
- **Foraging Mechanism:** They rely heavily on **exceptional eyesight** rather than a sense of smell to locate carrion.

4. Indian Vulture Conservation Status

- **IUCN Red List:** Listed globally as **Critically Endangered (CR)**.
- **Wildlife Protection Act (WPA), 1972:** Listed under **Schedule I**, granting the highest degree of legal protection.

- **CITES:** Placed in **Appendix II** to regulate international trade.

Significance of Vultures in the Ecosystem

1. **Zoonotic Disease Buffers:** Their highly acidic gastric juices safely digest virulent pathogens like **Anthrax** and **Cholera**, halting environmental contamination.
2. **Competitive Exclusion of Pests:** Rapid consumption of carcasses denies a food base to **opportunistic scavengers** (feral dogs), minimizing **human-wildlife conflict**.
3. **Nutrient Cycling Catalyst:** They act as **biological incinerators**, accelerating the return of critical minerals into the soil to sustain the **terrestrial food web**.
4. **Economic Savings:** Their natural disposal services save billions of dollars annually in **carcass incineration** and **public health management**.
5. **Landscape Bio-indicators:** The demographic health of these scavengers serves as an **early-warning system** for the toxicological safety of a habitat.

What are the Vulture Conservation Efforts Taken by India?

1. **Action Plan for Vulture Conservation (2020-2025):** Launched by the **MoEFCC**, mandating regular population monitoring and strict regulation of veterinary **NSAIDs**.
2. **Veterinary Drug Bans:** Following the ban on Diclofenac (2006), the government banned **Aceclofenac** and **Ketoprofen** in 2023, promoting safer alternatives like **Meloxicam**.
3. **Vulture Conservation Breeding Centres (VCBCs):** Established alongside the **Bombay Natural History Society (BNHS)**, including the world's largest facility in Pinjore.
4. **Vulture Safe Zones (VSZs):** Demarcating **100 km radius areas** free from toxic drugs to provide safe natural habitats for wild populations.
5. **International Collaboration:** Active participation in **SAVE (Saving Asia's Vultures from Extinction)** for transboundary conservation.

Challenges in Mitigating the Threat

1. **Incompatible Grid Architecture:** Narrow phase-to-phase gaps on modern pylons fail to account for the **large wingspans** of raptors, causing simultaneous **wire bridging** and electrocution.
2. **Habitat Overlap:** In landscapes depleted of tall trees, electrical towers serve as fatal, artificial substitutes for **roosting and scanning**.
3. **Unplanned Waste Geographies:** Unregulated dumping of livestock carcasses directly beneath transmission lines pulls flocks into **immediate high-risk zones**.
4. **The Medium-Voltage Blind Spot:** Conservation focus ignores ubiquitous **11kV and 33kV distribution lines**, which are equally lethal and vastly more widespread.
5. **Data Deficit:** The true scale of avian electrocution remains obscured because dead birds are swiftly consumed by **ground scavengers** before official recording.

Way Forward

1. **Spatial Segregation of Dumps:** Enforce strict **municipal zoning** to relocate livestock dumps at least **2.4 km away** from high-tension lines.
2. **Mandatory Conductor Insulation:** The MoEFCC must mandate the insulation of all overhead conductors passing through identified **vulture corridors**.

3. **Re-engineering Physical Grid Gaps:** Redesign future pylons to ensure the distance between energized components safely exceeds the **maximum raptor wingspan**.
4. **Avian-Safe Perches:** Retrofit existing towers with **non-conductive perching platforms** above live wires to safely accommodate natural roosting instincts.
5. **Inter-ministerial Synergy:** Establish a joint task force to conduct mandatory **Avian Impact Assessments** before approving new transmission lines.

Conclusion

- Preserving India's vultures requires a decisive shift from regulating **veterinary chemicals** to enforcing **avian-safe grid engineering**. Aligning rapid **infrastructure expansion** with strict **ecological preservation** is vital to ensure these keystone species can safely continue sanitizing our environment.

Q. The primary threat to India's vultures has transitioned from veterinary drugs to power infrastructure. Discuss the significance of vultures in the ecosystem and the challenges in mitigating this infrastructural menace. 15 Marks

3.2.3. FOREST RIGHTS VS. INFRASTRUCTURE DEVELOPMENT

Context

The Committee on Public Undertakings has proposed reducing the mandatory Gram Sabha consent requirement from absolute unanimity (100%) to a 70–75% majority. This move aims to expedite clearances for major infrastructure and energy initiatives, such as the long-stalled Teesta-IV project.



Introduction

Enacted to address historical injustices, the Forest Rights Act (FRA) empowers forest-dwelling communities through Gram Sabha consent in forest-land diversion. Easing these norms for macroeconomic goals risks weakening tribal autonomy, bypassing affected communities, and undermining decentralized governance.

About Forest Rights Act (FRA)

- **Core Objective:** Enacted in 2006 to legally recognize and vest forest rights in Forest Dwelling Scheduled Tribes (FDSTs) and Other Traditional Forest Dwellers (OTFDs).
- **Rights Recognized:** It grants Individual Forest Rights (IFR) for habitation and self-cultivation, alongside Community Forest Rights (CFR) for grazing, fishing, and minor forest produce collection.
- **Historical Correction:** It effectively dismantles the colonial-era legacy of centralized state control over natural resources by acknowledging customary tribal ownership.

Key Regulatory Authorities

- **Ministry of Tribal Affairs (MoTA):** The official nodal agency for implementing the FRA. Its recent reluctance to assert jurisdiction over consent rules has created a dangerous regulatory vacuum.

- **Ministry of Environment, Forest and Climate Change (MoEFCC):** The body that oversees the procedural rules for the diversion of forested land for non-forest use, frequently prioritizing rapid infrastructure expansion.
- **Gram Sabha:** The decentralized, constitutionally protected democratic institution representing the inhabitants at the village level.

What is Gram Sabha Consent?

- It is a statutory veto power granted to the village assembly (Gram Sabha) under the FRA, 2006.
- It mandates absolute, unanimous approval before any forest land can be legally diverted for non-forest purposes, transferring decision-making from central bureaucracies directly to local communities.

The Proposed 70-75% Rule and its Impact

- **Fractional Consent Bypass:** Moving from absolute consensus to a majoritarian threshold (70-75%) allows developers to legally override the veto of deeply affected core communities.
- **The "Reservoir" Loophole:** Developers could secure No-Objection Certificates (NOCs) from minimally affected peripheral villages to manufacture a majority, completely bypassing the consent of a village facing total destruction (e.g., reservoir submergence).
- **Demographic Engineering:** Political attempts to arbitrarily alter the classification of tribal communities make it easier for the State to split village assemblies and artificially engineer the required fractional consent.
- **Regulatory Vulnerability:** Deferring to MoEFCC rules rather than MoTA's nodal authority leaves forest-dependent communities exposed to unilateral executive shifts.

Significance of Absolute Consent

1. Constitutional Safeguard

- Operationalizes participatory democracy at the grassroots level.
- Ensures assemblies function as decentralized constitutional protectors rather than procedural rubber stamps.

2. Shields Customary Rights

- Acts as the strongest legal barrier against arbitrary forced displacement.
- Protects the land-based livelihoods, ancestral heritage, and cultural identity of indigenous groups.

3. Prevents Engineered Approvals

- Stops project developers from exploiting demographic divisions.
- Prevents pitting less-affected villages against severely impacted ones to manufacture fraudulent majorities.

4. Acknowledges Ecological Stewardship

- Formally recognizes the vital environmental services provided by forest dwellers.
- Empowers communities that are crucial for meeting India's global climate commitments.

5. Upholds Statutory Intent

- Fulfills the core legislative mandate of democratizing forest governance.
- Ensures that decision-making power remains directly with the community rather than reverting to state bureaucracies.

Associated Challenges

1. Threat of Demographic Manipulation

- Political attempts to arbitrarily alter the classification of tribal communities can distort local populations.
- This makes it easier for the State to intentionally fracture village assemblies and engineer the required fractional consent.

2. Executive Overreach

- Altering substantive consent requirements through opaque bureaucratic guidelines undermines the legislative process.
- It effectively bypasses transparent parliamentary scrutiny.

3. Growth vs. Rights Asymmetry

- There is an aggressive prioritization of national energy and macroeconomic targets.
- Statutory tribal rights are increasingly viewed as administrative hurdles rather than non-negotiable protections.

4. Erosion of Core Village Autonomy

- The proposed fractional rule legally sanctions the destruction of the most highly impacted settlements.
- It completely nullifies the self-determination of a core village if a broader regional majority acquiesces.

5. Inter-Ministerial Apathy

- The reluctance of the nodal agency (MoTA) to actively defend its mandate leaves forest-dependent communities exposed.
- It allows for unilateral, infrastructure-focused environmental clearances by the MoEFCC.

Way Forward

1. Codify Unanimous Consent

- Legally mandate that No-Objection Certificates (NOCs) must be secured from all directly affected villages.
- Eliminate fractional majoritarian loopholes to prevent arbitrary and destructive project approvals.

2. Proactive MoTA Intervention

- The Ministry of Tribal Affairs must actively assert its jurisdiction as the statutory nodal agency.
- It must proactively prevent the dilution of the Act by other ministries or state governments.

3. Ensure Legislative Scrutiny

- Any modification to forest diversion rules must be debated openly in Parliament.

- Changes should never be enacted via executive fiat or inter-ministerial technicalities.

4. Harmonize Allied Legislations

- Strengthen and synchronize the protections conferred by the LARR Act, 2013 (Land Acquisition) and the PESA Act, 1996.
- This will ensure a watertight, comprehensive legal framework for tribal land rights.

5. Protect Demographics

- Institutionalize strict, independent safeguards against the political reclassification of tribal communities.
- Prevent administrative maneuvering designed solely to split village assemblies.

6. Empower Tribal Climate Action

- Elevate tribal communities from passive project victims to central stakeholders.
- Integrate indigenous knowledge into executing India's sustainable development and ecological goals.

Conclusion

The dilution of community consent threatens to unravel the democratic decentralization envisaged by the Constitution. Upholding absolute community approval is not an impediment to growth, but a strict prerequisite for inclusive governance and long-term environmental security.

***Q.** The proposed dilution of the Gram Sabha's absolute consent under the Forest Rights Act (FRA), 2006, reflects a growing tension between infrastructure expansion and tribal autonomy. Discuss its significance and associated challenges. 15 Marks*

3.2.4. INDIA'S EVOLVING DATA CENTRE ECOSYSTEM

Context

Google's decision to adopt air-cooling for its 1-GW Visakhapatnam hyperscaler, following civil society protests, highlights the growing conflict between digital infrastructure expansion and regional water security.



Introduction

India's data-centre capacity, currently at 1.4–1.6 GW, is projected to reach 5 GW by 2030, backed by a \$30 billion investment pipeline. However, this rapid computational boom presents a critical resource challenge: balancing aggressive technological growth with local ecological carrying capacities and urban drinking supplies.

Reasons for Data Centres Water Demand

1. Heat Generation

- High-density **Artificial Intelligence (AI) workloads** produce extreme thermal loads.
- With national IT capacity exceeding **1,500 MW**, constant and massive thermal dissipation is required to prevent hardware failure.

2. Evaporative Cooling Reliance

- Traditional **cooling towers** rely heavily on evaporation.
- These conventional systems consume approximately **1.5–2.5 litres of water per kWh** of energy used.

3. Scale of Consumption

- Due to the sheer scale of operations, a standard **20-MW facility** extracts roughly **1–1.2 million litres of water daily (MLD)**.

4. Quality Maintenance

- Continuous evaporation concentrates **dissolved salts**, risking hardware corrosion and scaling.
- This necessitates continuous injections of **high-quality freshwater** (make-up water) to flush the systems.

5. Seasonal Vulnerability

- Peak cooling demands coincide directly with hot, dry summer months.
- During these periods, clustered data centres risk consuming **5–10% of total municipal water supplies**.

Significance of Resource Conservation

1. Hydrogeological Protection

- Regulating water use curbs **groundwater over-extraction**.
- This prevents severe **aquifer depletion** and widespread borewell failures in IT hubs.

2. Urban Equity

- It ensures that industrial mega-projects do not monopolize **municipal drinking** and **agricultural supplies** during drought cycles.
- This balances corporate utility with fundamental human resource rights.

3. Circular Economy

- Promotes the reuse of urban sewage, given that **80% of urban water supply** returns as wastewater.
- This converts a major urban pollution externality into a valuable industrial resource.

4. Ecosystem Preservation

- Sustainable cooling limits the discharge of untreated **thermal and chemical effluents** into local water bodies.
- This protects sensitive micro-climates and aquatic biodiversity.

5. Technological Catalyst

- Resource constraints drive the domestic adaptation of advanced **closed-loop systems**.
- It accelerates the shift toward innovative solutions like **Direct-to-Chip (DTC)** and immersion cooling.

Government Initiatives

1. BIS Standards

- The **Bureau of Indian Standards (BIS)** introduced specific metrics for the sector.

- These include **Water Usage Effectiveness (WUE)**, Cooling Efficiency Ratio, and Carbon Usage Effectiveness.

2. BEE Guidelines (2023)

- The **Bureau of Energy Efficiency (BEE)** formally recommends utilizing **treated wastewater** for cooling-tower make-up.
- This aims to drastically reduce the sector's freshwater reliance.

3. Groundwater Regulation

- The **Ministry of Jal Shakti** mandates explicit permissions for industrial extraction.
- It also requires strict **conservation measures** for large-scale infrastructure projects.

4. EIA Safeguards

- Under **Environmental Impact Assessment (EIA)** rules, qualifying projects must document regional water balances.
- They are also required to submit comprehensive **greywater recycling plans**.

5. NITI Aayog Push (2025)

- A recent workshop actively promoted **treated wastewater reuse** for emerging industrial sectors.
- This aligns national policy with **circular water management** goals.

Key Challenges

1. The AI "Thermal Wall"

- Traditional air-cooling physically cannot manage the **extreme heat densities** of modern AI chips.
- This limits its standalone viability for next-generation hyperscalers.

2. Energy-Acoustic Penalty

- Exclusively using dry air-cooling to save water demands **massive grid electricity** for industrial fans.
- This strains the power grid and creates localized **noise pollution (up to 100 dB)**.

3. Infrastructure Deficit

- Most Indian municipalities lack the necessary **tertiary-treatment facilities**.
- This makes it difficult to supply high-quality, usable **greywater** to tech parks.

4. Disclosure Gap

- The sector lacks mandatory, standardized **public reporting**.
- There is a deficit of transparency regarding baseline water sources and actual **recycling rates**.

5. Planning Disconnect

- State industrial policies often prioritize **power and land subsidies** to attract investments.
- This approach frequently bypasses cumulative **city-level hydrological assessments**.

Way Forward

1. Mandate Wastewater Use

- Legally require all new facilities to utilize **treated municipal effluent** for cooling needs.

- This should emulate **Chennai's successful wastewater recycling model**.

2. Deploy Hybrid Cooling

- Incentivize pairing optimized air-cooling for basic enterprise servers with advanced **liquid cooling** for high-density AI nodes.
- This creates a balanced, "**water-positive**" infrastructure ecosystem.

3. Enforce Smart Budgets

- Make environmental clearances contingent upon **regional carrying-capacity assessments**.
- This is especially critical in water-stressed states like **Maharashtra and Tamil Nadu**.

4. Statutory Water Audits

- Transform voluntary BIS standards into **mandatory regulations**.
- Enforce real-time, public disclosure of **WUE metrics** to ensure corporate accountability.

5. Differential Pricing

- Price industrial **freshwater at a steep premium** across all states.
- Simultaneously, heavily subsidize **treated greywater** to drive behavioral change among operators.

6. Policy Alignment

- Synchronize state-level industrial policies with **central groundwater guidelines**.
- This will effectively establish and enforce data-centre-specific **extraction limits**.

Conclusion

To sustain its digital leadership, India must institutionalize **circular water management** and advanced **hybrid cooling technologies**. Aligning computational growth with **ecological limits** will ensure the sector remains fundamentally resilient and water-secure.

***Q.** India's rapid data-centre expansion threatens regional water security. Analyse the reasons for this high water demand and suggest sustainable mitigation strategies. 15 Marks*

3.2.5. PYGMY HOG CONSERVATION

Context

The pygmy hog's recovery in Assam demonstrates that species conservation cannot succeed through captive breeding alone; its long-term survival depends upon restoring dynamic alluvial grassland ecosystems.

Introduction

The pygmy hog (*Porcula salvinia*), the world's smallest wild suid, is **Critically Endangered** and confined to Assam, making its conservation an important test of ecosystem-based wildlife management.



Present Situation

1. **Extremely restricted distribution:** The species historically occupied tall, wet grasslands along the Himalayan foothills, but its wild distribution has contracted drastically, with **Manas National Park remaining its principal stronghold**.
2. **Small and difficult-to-monitor population:** Estimates have generally placed the wild population in the **150–250 range**, although precise enumeration remains difficult because the animal is secretive and inhabits dense grasslands.
3. **Captive breeding has created an insurance population:** The Pygmy Hog Conservation Programme (PHCP), launched in **1995**, developed captive-breeding facilities in Assam and subsequently reintroduced captive-bred individuals into protected grasslands.
4. **Significant recovery through reintroduction:** Between **2008 and 2023, around 170 captive-bred pygmy hogs were released** at different sites in Assam, demonstrating the feasibility of conservation breeding combined with habitat restoration.
5. **Recent rewilding continues:** In 2026, **15 captive-bred pygmy hogs were released into Kuribee grasslands of Manas**, returning the species to an area associated with its original conservation efforts.

Factors Responsible for the Threat

1. **Conversion of grasslands:** Alluvial floodplains have been converted for **agriculture, settlements, tea plantations and infrastructure**, reducing the continuous grassland habitat required by pygmy hogs.
2. **Flood-control interventions:** Embankments and other flood-control measures can modify the **natural flooding, sediment deposition and vegetation dynamics** of floodplains, thereby altering suitable grassland habitats.
3. **Invasive vegetation:** Invasive plants can replace native tall grasses, reducing food availability and the dense vegetation required for **foraging, nesting and concealment**.
4. **Unsustainable fire regimes:** Dry-season burning, when poorly timed or excessively extensive, can destroy the dense grass cover required by pygmy hogs; conversely, complete fire suppression can allow woody vegetation to invade grasslands.
5. **Habitat fragmentation:** Fragmentation isolates small populations, restricts dispersal and increases vulnerability to **local extinction and genetic erosion**.

Challenges Faced by the Ecosystem

1. **Grassland–forest succession:** Alluvial grasslands are naturally dynamic; excessive suppression of ecological processes can allow shrubs and trees to encroach, converting grassland into woodland.
2. **Balancing fire ecology:** Fire is an ecological process in many grasslands, but inappropriate timing, frequency or intensity can eliminate the vegetation structure needed by pygmy hogs and other grassland specialists.
3. **Multiple-species conservation dilemma:** Grassland management must simultaneously accommodate species such as the **Bengal florican, hispid hare, hog deer and greater one-horned rhinoceros**, rather than focusing exclusively on one flagship species.

4. **Small isolated populations:** Concentration of the remaining population in limited habitats increases vulnerability to **disease outbreaks, extreme floods, fires, demographic fluctuations and stochastic events**.
5. **Monitoring difficulty:** The animal's small size, secretive behaviour and dense habitat make conventional population estimation difficult, necessitating **camera traps, field signs, telemetry and genetic monitoring**.

Ecological Significance of the Pygmy Hog

1. **Indicator species:** The pygmy hog is closely associated with healthy **tall, wet alluvial grasslands**; therefore, its population trends can signal broader degradation of floodplain ecosystems.
2. **Umbrella-species potential:** Conserving its grassland habitat can simultaneously protect several threatened species, including the **Bengal florican, hispid hare and hog deer**, generating wider biodiversity benefits.
3. **Soil ecosystem functions:** Its rooting and foraging behaviour disturbs and aerates soil while searching for **roots, tubers, invertebrates and other food**, contributing to nutrient cycling.
4. **Seed dispersal:** Its feeding and movement behaviour can contribute to **seed dispersal**, thereby supporting vegetation dynamics within grassland ecosystems.
5. **Grassland conservation indicator:** Recovery of the pygmy hog therefore represents more than saving a rare mammal; it indicates progress towards restoring the ecological integrity of the **Brahmaputra–Terai alluvial grassland landscape**.

Government and Conservation Initiatives

1. **Pygmy Hog Conservation Programme (1995):** Established through collaboration involving conservation organisations and government agencies, the PHCP combines **research, captive breeding, habitat management, reintroduction and community participation**.
2. **Captive breeding:** Six wild pygmy hogs were brought into the breeding programme in the 1990s, establishing a founder population from which subsequent captive-bred animals were produced.
3. **Habitat restoration:** Conservation programmes have worked to create and restore open grasslands, including through **invasive-species removal and planting of native grasses**.
4. **Reintroduction programme:** Earlier releases included **116 captive-bred hogs across Sonai Rupai, Orang and Barnadi between 2008 and 2018**, demonstrating the use of multiple protected landscapes rather than relying exclusively on one site.
5. **Legal protection:** The pygmy hog receives **Schedule I protection under India's Wildlife (Protection) Act, 1972**, providing the highest level of statutory protection under the Act.

Way Forward

1. **Adopt ecosystem-first conservation:** Shift from merely increasing captive numbers towards restoring the **entire alluvial grassland–floodplain ecological process** on which wild populations depend.
2. **Restore habitat connectivity:** Reconnect fragmented grasslands and strengthen buffer zones around **Manas, Orang and Sonai Rupai**, enabling dispersal and reducing isolation.
3. **Restore native vegetation:** Establish nurseries for indigenous grass species and systematically remove invasive plants, as demonstrated by recent habitat-restoration work at Manas.

4. **Improve scientific monitoring:** Combine **camera trapping, radio/GPS telemetry, environmental DNA and genetic sampling** to obtain more reliable population estimates and understand dispersal.
5. **Landscape-level planning:** Integrate pygmy-hog conservation with management of **Bengal florican, rhino, hog deer and hispid hare**, converting species-specific programmes into grassland ecosystem restoration.

Conclusion

The pygmy hog symbolises the health of India's threatened floodplain grasslands; securing its future therefore requires moving beyond captive breeding towards landscape restoration, ecological connectivity and adaptive management.

***Q.** The conservation of the pygmy hog is inseparable from the conservation of India's threatened alluvial grassland ecosystems." Discuss the ecological significance of the pygmy hog, the threats to its survival, and the conservation measures required for its long-term recovery. 15 Marks*

3.2.6. THE ETHICAL AND ECOLOGICAL DIMENSIONS OF DEEP-SEA MINING

Context

As India accelerates its deep-sea exploration capabilities, a critical debate is emerging regarding the transition from scientific research to commercial seabed mining. The fundamental question is whether demonstrating technological capacity inherently mandates the exploitation of fragile marine ecosystems.



Introduction

Led by the **Ministry of Earth Sciences (MoES)**, India's ambitious push into Earth's final frontier seeks to unlock vast marine resources. While securing critical minerals is vital for the renewable energy transition, executing large-scale extraction without comprehensive ecological baselines risks irreversible environmental damage.

What is Deep Sea Mining?

1. **Core Definition:** The extraction of valuable mineral deposits and transition metals directly from the ocean's seabed.
2. **Extraction Categories:** Commercial operations target three primary formations: **polymetallic nodules** on abyssal plains, **massive seafloor sulfide deposits** near hydrothermal vents, and **cobalt crusts** stripped from underwater rocks.
3. **Strategic Value:** These deposits contain nickel, rare earths, and cobalt—indispensable for high-capacity batteries, electric mobility, and consumer electronics as onshore reserves rapidly deplete.

How is Deep Sea Mining Regulated?

1. **Jurisdictional Boundaries:** Individual nations hold sovereign rights to manage and extract resources within their own **Exclusive Economic Zones (EEZs)**.

2. **Global Governance:** The international seabed falls under the **United Nations Convention on the Law of the Sea (UNCLOS)**.
3. **Common Heritage Principle:** The treaty designates ocean floor minerals as the “**common heritage of mankind**,” mandating that the **International Seabed Authority (ISA)** oversee equitable economic sharing and strict marine environmental preservation.

Strategic Framework of the Deep Ocean Mission

1. **National Initiative:** A flagship mission recognized under the **Prime Minister’s Science, Technology, and Innovation Advisory Council (PMSTIAC)**.
2. **Financial Allocation:** Approved with a **₹4,077 crore** budget over five years, allocating ₹2,823.4 crore for the first operational phase (2021-2024).
3. **Geographical Scope:** Designed to sustainably harness resources across India’s **7,517 km coastline** and **2.37 million sq km EEZ**.

Core Components of the Deep Ocean Mission

1. **Ocean Climate Advisory Services:** Establishing robust observational networks and predictive climate models to provide insights into global oceanic changes.
2. **Biodiversity Conservation:** Advancing technologies to systematically study, document, and preserve uncharacterized deep-sea marine biology.
3. **Deep-Ocean Surveys:** Identifying potential mineralization sites for multi-metal hydrothermal sulphides along the mid-oceanic ridges.
4. **Oceanic Energy and Freshwater:** Developing innovative mechanisms to extract renewable power through **Ocean Thermal Energy Conversion (OTEC)** and generate potable freshwater.
5. **Advanced Marine Station:** Establishing a dedicated central facility to promote research and technological advancements in ocean biology and biotechnology.

Indigenous Deep-Sea Vehicles and Technologies

1. **MATSYA-6000 ('Samudrayaan'):** An indigenous titanium-alloy manned submersible developed by the **National Institute of Ocean Technology (NIOT)**. It can carry three aquanauts to a 6,000-meter depth for 12 hours (96 hours in emergencies).
2. **Remotely Operated Vehicles (ROVs):** Unmanned deep-sea systems jointly developed by NIOT and ISRO, equipped with HD cameras and robotic arms for mineral prospecting.
3. **Underwater Mining System ('Varaha'):** A heavy-duty seabed locomotion crawler that has successfully completed deep-water extraction trials at 5,270 meters.

Significance of the Deep Ocean Mission

1. **Catalyzing the Blue Economy:** Aims to double ocean-based industrial contributions (blue trade and manufacturing) from 5% to over **10% of India's GDP**.
2. **Unlocking Energy Reserves:** Secures access to vast underwater **gas hydrates**, offering potential energy equivalent to 1 lakh nuclear reactors.
3. **Enhancing Maritime Security:** Provides cutting-edge underwater engineering and communication capabilities that directly augment the operational domain of the **Indian Navy**.

4. **Climate Mitigation Leadership:** Supports evidence-based policymaking by mapping marine carbon dynamics, aligning with the **UN Decade of Ocean Science (2021-2030)**.

Major Environmental and Operational Challenges

1. **Destructive Sediment Plumes:** Pumping slurry and extracted sediments back into the sea creates massive sediment plumes that smother benthic creatures and severely harm filter-feeding species like deep-water corals and sponges.
2. **Pollution and Contamination:** Extraction machinery introduces unprecedented noise, vibration, and light pollution into entirely dark ecosystems, alongside the severe risk of toxic leaks and chemical fuel spills.
3. **Disruption of Marine Food Webs:** Mining impacts extend far beyond the seabed, threatening pelagic fish populations, marine mammals, and the deep ocean's essential function in regulating the global climate.
4. **Extreme Subsea Pressures:** Operating at 6,000 meters involves crushing pressure levels exceeding **60 Megapascals (MPa)**, demanding highly specialized materials to prevent equipment failure.
5. **Operational Friction:** Navigating soft, muddy seabeds poses a severe sinking risk for heavy machinery, while absolute darkness and the natural attenuation of electromagnetic waves heavily restrict remote navigation.
6. **The "Capability Equals Permission" Fallacy:** The dangerous assumption that demonstrating technical capacity inherently justifies the exploitation of fragile benthic habitats before global governance codes are finalized.

Way Forward for Sustainable Ocean Governance

1. **Marine Biomimetics:** Design submersibles and extraction equipment inspired by deep-sea organisms to naturally withstand extreme pressure, salinity, and corrosion.
2. **Sustainable Energy Innovations:** Harness tidal, wave, and OTEC technologies to power long-duration underwater missions sustainably.
3. **Advanced Sensor Integration:** Combine sonar, LiDAR, and AI-driven imaging technologies for comprehensive, non-invasive deep-sea mapping, overcoming severe visibility limitations.
4. **Strict "Necessity Testing":** Before sanctioning any commercial seabed mining, mandate empirical evidence demonstrating that virgin minerals are irreplaceable and alternatives cannot substitute them.
5. **Establish Protected Marine Zones:** Utilize environmental baseline data to formally declare vulnerable seamounts and hydrothermal vents as permanent, undisturbed conservation zones.
6. **Integrate Mission LiFE Principles:** Decouple scientific exploration from commercial exploitation by prioritizing circular economies and mindful utilization over continuous primary extraction.

Conclusion

India's mastery of deep-sea technology presents a unique civilizational test. By balancing strategic resource acquisition with stringent ecological precaution and circular consumption, the Deep Ocean Mission empowers India to set a global benchmark for responsible and truly sustainable ocean governance.

Q. Critically evaluate the ecological and strategic implications of India's Deep Ocean Mission. How can policymakers balance the acquisition of critical minerals with the necessity of responsible global environmental governance? 15 Marks

3.2.7. HIMALAYAN MONAL: CLIMATE CHANGE, NOISE POLLUTION AND HABITAT CONNECTIVITY

Introduction

The **Himalayan Monal** (*Lophophorus impejanus*), a high-altitude pheasant and the **state bird of Uttarakhand**, inhabits temperate, sub-alpine and alpine ecosystems of the Himalayas. Although globally classified as **Least Concern**, emerging research highlights how **climate change, anthropogenic noise and habitat fragmentation** can undermine its ecological security.



Ecological Significance of the Himalayan Monal

- **Indicator species:** Its dependence on high-altitude habitats makes it an indicator of the health of fragile montane ecosystems.
- **Ecosystem functions:** Ground-foraging and digging help in **soil aeration, nutrient cycling and seed-bank regeneration**.
- **Biodiversity value:** It represents the rich galliform diversity of the Himalayan ecosystem.
- **Cultural significance:** It is the **state bird of Uttarakhand** and is known as *Danphe* in Nepal.

Emerging Threats

A. Anthropogenic Noise & Behavioural Change

- **Noise exposure:** Roads, vehicles, tourism and pilgrimage increase acoustic disturbance.
- **Behavioural shift:** Monals in noisier areas show **higher-frequency and greater-amplitude calls**.
- **Acoustic masking:** Human noise can interfere with natural communication.
- **Reproductive concern:** Masked mating calls may affect **male-female communication**.
- **Social behaviour:** Altered vocalisation may also influence territorial and social interactions.
- **Research limitation:** Impact on actual **breeding success remains unestablished**.
- **New conservation dimension:** Habitat degradation includes **acoustic disturbance**, not just physical habitat loss.

B. Climate Change & Shifting Habitat

- **Seasonal migration:** Monals move **upward in summer** and descend during heavy winter snowfall.
- **Climate impact:** Warming can alter temperature, snowfall, vegetation and habitat suitability.
- **Habitat redistribution:** Existing suitable areas may decline while **new suitable habitats emerge elsewhere**.
- **Connectivity challenge:** New habitats are useful only if monals can **reach them**.

- **Fragmentation risk:** Roads and infrastructure can block **altitudinal movement**.
- **Adaptation barrier:** Fragmentation can prevent species from **tracking shifting climatic niches**.
- **Conservation principle:** Protect **habitat connectivity**, not merely individual habitat patches.

C. Infrastructure & Tourism Pressure

- **Road expansion:** Improves regional connectivity but fragments sensitive habitats.
- **Pilgrimage pressure:** Seasonal footfall increases disturbance in fragile ecosystems.
- **Vehicular traffic:** Adds **noise pollution and behavioural disturbance**.
- **Habitat fragmentation:** Roads can isolate previously connected populations.
- **Ecological trade-off:** Developmental connectivity can undermine **ecological connectivity**.
- **Governance need:** Infrastructure planning must incorporate **wildlife corridors and noise-sensitive zones**.

D. Other Landscape-Level Pressures

- **Alpine overgrazing:** Degrades meadows and potential nesting habitats.
- **Habitat fragmentation:** Isolates populations and restricts movement.
- **Historical poaching:** Male monals were targeted for their ornamental crest feathers.
- **Tourism infrastructure:** Increases human presence and habitat disturbance.
- **Cumulative pressure:** Multiple stressors can interact, increasing ecological vulnerability.
- **Conservation implication:** Requires **landscape-level management**, rather than species protection alone.

Existing Framework / Protection Measures

- **Wildlife (Protection) Act, 1972:** Himalayan Monal is listed under **Schedule I**, providing the highest level of statutory protection against hunting and trade.
- **CITES Protection:** Listed under **Appendix I**, restricting international commercial trade in wild-caught specimens and derivatives.
- **Protected-Area Framework:** Its habitat includes protected landscapes such as **Kedarnath Musk Deer Sanctuary**, providing in-situ conservation and habitat protection.
- **Eco-Sensitive Zone (ESZ) Regulation:** Activities around protected areas are regulated through the **ESZ framework**, providing scope to manage infrastructure, tourism and vehicular pressures.

Why Existing Protection Alone Is Insufficient

1. **Legal Protection is Not Sufficient:** Statutory protection regulates hunting and trade but does not necessarily address **habitat degradation, ecological disturbance and loss of breeding grounds**.
2. **Need for Landscape-Level Conservation:** Effective conservation requires protection of the **species along with its habitat, movement corridors, food resources and ecological processes**.
3. **Global Status May Mask Local Decline:** A **Least Concern** global classification may overlook **local population declines and habitat stress** in specific regions.

4. **From Species Protection to Ecosystem Security:** Conservation efforts must assess not only the **status of the species** but also the security of its **local populations, habitats and ecological processes**.

Governance Challenges

1. **Physical-Habitat Bias in EIAs:** Conventional EIAs emphasise **land-use and habitat impacts**, while acoustic disturbance and behavioural changes remain relatively under-assessed.
2. **Weak Regulation during Peak Tourism:** Seasonal surges in **pilgrimage, tourism and vehicular movement** can intensify noise and ecological stress in sensitive habitats.
3. **Fragmented Conservation Planning:** Protected areas may safeguard individual habitats but fail to ensure **ecological connectivity across altitudinal gradients and movement corridors**.
4. **Gaps in Local-Level Data:** Limited monitoring of local populations and behaviour may prevent timely detection of **population stress, habitat shifts and ecological disturbances**.
5. **Balancing Development and Conservation:** Mountain infrastructure supports **livelihoods, tourism and pilgrimage**, requiring regulated and ecologically sensitive development rather than blanket exclusion.

Way Forward

1. **Adopt Soundscape-Sensitive Conservation:** Integrate **noise pollution and acoustic disturbance** into ecological assessments and establish quiet zones near ecologically sensitive habitats.
2. **Promote Regulated and Sustainable Tourism:** Adopt **carrying-capacity-based tourism, seasonal traffic management and low-impact pilgrimage infrastructure** to minimise ecological stress.
3. **Protect Altitudinal Ecological Corridors:** Maintain **vertical habitat connectivity** and integrate wildlife corridors into infrastructure planning to enable species to adapt to shifting climatic conditions.
4. **Strengthen Scientific Monitoring:** Use **passive acoustic monitoring, GIS, species-distribution models and climate projections** to track population trends and behavioural changes.
5. **Promote Community-Based Conservation:** Involve local communities in **habitat protection, ecological monitoring and sustainable tourism**, while linking conservation with livelihood opportunities.
6. **Adopt a Landscape-Level Approach:** Integrate **species protection, habitat conservation, connectivity, soundscape management and climate adaptation** into a unified conservation framework.

Conclusion

For Himalayan biodiversity, the objective should not merely be to preserve where species live today, but to preserve where they may need to live tomorrow and their ability to reach it.

Q. *Climate change and anthropogenic disturbances are altering both the habitat and behaviour of Himalayan species. Discuss 15 Marks*

3.3. INTERNAL SECURITY

3.3.1. ANATOMY OF MANIPUR'S HILL-VALLEY FAULT LINES

Context

Following the end of **President's Rule** in February 2026 and the return of select tribal legislators to the Assembly, political channels have begun reopening; however, an outbreak of **Naga-Kuki-Zo clashes** has created a destabilizing second ethnic fault line in the hill districts.

Introduction

Internal security in multi-ethnic border states requires preserving institutional legitimacy alongside the **rule of law**. In Manipur, while the political divide between the valley and the hills shows tentative signs of thawing, resurgent territorial conflicts within the hills and severe **humanitarian crises** present a complex challenge to state capacity.



Transition Towards Political Normalcy

- **Restoration of Civilian Governance:** The revocation of **President's Rule** in February 2026 led to the installation of an elected government under a new Chief Minister, accelerating reconciliation efforts.
- **Abatement of Routine Violence:** Everyday physical clashes between the **Meitei and Kuki-Zo** communities have abated over the three years following the May 2023 unrest.
- **Reclaiming Constitutional Space:** Two Kuki-Zo MLAs attended the Assembly session, defying the boycott directive issued by the **Kuki Inpi Manipur** that demanded a separate administration prior to political re-engagement.
- **Institutional Dialogue:** The return of legislators reflects an acknowledgment that formal legislative platforms must function even while core ideological contestations persist.

Resurgence of Intra-Hill Conflict

- **Spread of Inter-Tribal Violence:** Localized disputes expanding across the hills since February resulted in the deaths of **15 Kuki-Zo persons, 11 Nagas, three security personnel, and a truck driver** by July, with casualties continuing to rise.
- **Role of Armed Militias:** Non-state armed groups claiming community mandates have actively revived hostilities, leading to the burning of villages and fresh displacement.
- **Echoes of the 1990s:** The clashes revive historic contestations regarding **territorial control of the hills** and the primacy of competing **customary laws**.

Humanitarian Distress and Blockades

- **Protracted Displacement:** Thousands of internally displaced persons are entering their fourth year in relief camps.
- **Relief Camp Mortality:** A reply under the **Right to Information Act, 2005** confirmed over **700 deaths** inside relief camps, caused primarily by acute deficits in basic healthcare and essential nutrition.

- **Weaponization of Supply Lifelines:** Partisan economic blockades along **National Highway 2 (NH-2)** and **National Highway 37 (NH-37)** have stranded essential drugs and rations, leaving hill medical centers dysfunctional and impacting the smaller Kuki-Zo population heavily.

Significance of Establishing Peace and Stability in Manipur

- **Restoration of Legislative Primacy:** Validates the authority of constitutional forums over uncompromising **civil society boycotts**.
- **Multi-Front Security Overstretch:** A triangular conflict dynamic (Meitei, Kuki-Zo, and Naga) severely strains central and state **peacekeeping resources**.
- **Strategic Border Vulnerability:** Instability in a frontier state impairs cross-border connectivity and exposes critical administrative fault lines.
- **Humanitarian Benchmark:** Emphasizes that peace-building cannot succeed through security operations alone without basic **human security**.
- **Efficacy of Special Provisions:** Highlights the necessity of activating mechanisms under **Article 371C** to resolve hill governance impasses.

Major Challenges Confronting the Restoration of Peace in Manipur

- **Unregulated Non-State Armed Groups:** Armed groups operating outside formal oversight undermine settlements, accentuated by disputes surrounding the **Suspension of Operations (SoO)** framework.
- **Weaponized Economic Blockades:** Recurrent disruptions on **NH-2 and NH-37** serve as coercive leverage, causing severe localized inflation and medical shortages.
- **Institutionalization of Relief Camps:** Prolonged camp stays create persistent public health and nutritional failures that standard welfare grants fail to mitigate.
- **Unsettled Land and Customary Jurisdictions:** Friction persists between statutory bodies under the **Manipur (Hill Areas) District Councils Act, 1971** and hereditary village chiefs exercising customary authority.
- **Narrow Electoral Timelines:** The upcoming Assembly elections risk incentivizing polarizing campaign rhetoric among competing ethnic constituencies.

Way Forward

- **Verifiable Militia Containment:** Condition security restraint on strict, verified encampment and total **weapons accounting** for all armed groups.
- **Securing Arterial Highways:** Designate **NH-2 and NH-37** as protected transit corridors, enforcing dedicated armed convoys and treating blockades as criminal offenses.
- **Dated Resettlement Roadmap:** Replace open-ended relief camp maintenance with a time-bound, secure **rehabilitation plan** for villages of return.
- **Harmonizing Customary and Statutory Laws:** Convene a statutory boundary and rights settlement process led by the **Hill Areas Committee (HAC)**.
- **Institutionalized Multi-Track Dialogue:** Establish a formal tripartite consultative platform involving Meitei, Naga, and Kuki-Zo stakeholders to defuse communal rhetoric.
- **All-Party Electoral Code:** Formulate binding ground rules among political parties to prohibit communal mobilization ahead of the Assembly elections.

Conclusion

Sustainable peace in Manipur requires the state to manage both the hill-valley divide and intra-hill contestations simultaneously. Lasting stability hinges on strict legal even-handedness, uniform enforcement of criminal law, and equitable protection of all citizens irrespective of ethnic identity.

Q. *What are the major challenges to internal security and peace process in the North-Eastern States? Map the various peace accords and agreements initiated by the government in the past decade. 15 Marks*

3.4. SCIENCE & TECHNOLOGY

3.4.1. THE WEAPONISATION OF SPACE: STRATEGIC REALITIES AND GLOBAL GOVERNANCE

Context

Although U.S. military doctrine has openly considered space control by 2025, recent admissions by defense officials regarding the deployment of "on-orbit space control weapons" to counter hostile actions have blurred the lines between defensive and offensive capabilities.



Introduction

Outer space is rapidly evolving from a domain of peaceful exploration into the "fourth frontier of war." With modern civilian and military infrastructures highly dependent on dual-use satellite systems, unregulated orbital weaponisation threatens global stability and exposes critical voids in international humanitarian law.

Strategic Importance of Space Capabilities

- Critical Infrastructure Backbone:** Space systems are indispensable for the continuous functioning of the global civilian economy, banking, and aviation.
- Military Force Multiplication:** Modern defense forces rely entirely on space architectures for real-time intelligence, surveillance, and reconnaissance (ISR).
- Strategic Deterrence:** Developing indigenous counter-space capabilities preserves national assets from unprovoked adversarial strikes and ensures strategic autonomy.
- Independent Treaty Verification:** Autonomous reconnaissance assets allow nations to independently monitor global compliance with nuclear and arms control treaties.
- Real-Time Border Security:** Advanced optical and radar imaging satellites enable continuous tracking of hostile troop movements and illegal maritime activities.

Militarisation vs. Weaponisation

- Militarisation:** The use of space-based assets to assist terrestrial armies via command, control, communication, surveillance, and reconnaissance.
- Weaponisation:** The transformation of outer space itself into a battlefield, involving the placement of orbital interceptors, direct-ascent missiles, or directed-energy weapons designed to attack enemy assets.

Why Space is a Security Domain

1. **Critical Infrastructure Reliance:** Civilian services such as telecommunications, weather forecasting, and disaster management run entirely on space-based networks.
2. **Dual-Use Ambiguity:** Commercial satellites frequently serve both civilian and military users, making them prime targets during geopolitical conflicts.
3. **Cyber & Electronic Vulnerabilities:** Ground stations and satellites face growing non-kinetic threats, including signal jamming, spoofing, and cyberattacks.

Major Types of Counter-Space Weapons

1. **Direct-Ascent ASAT Weapons:** Ground-launched missiles designed to physically intercept and destroy satellites in orbit.
2. **Co-orbital Weapons:** Systems placed into orbit capable of approaching, inspecting, or disabling another satellite.
3. **Electronic & Cyber Warfare:** Jamming and spoofing techniques that disrupt navigation signals without physically destroying the hardware.
4. **Directed-Energy Weapons:** High-powered lasers designed to blind satellite sensors or damage onboard systems.

Global Legal Architecture & Treaties

1. **Outer Space Treaty (1967):** Mandates peaceful use and prohibits deploying weapons of mass destruction (WMDs) in orbit or claiming national sovereignty over celestial bodies.
2. **Liability Convention (1972):** Establishes that the launching state is absolutely liable for damages caused by its space objects on Earth or to aircraft.
3. **Registration (1975) & Rescue (1968) Agreements:** Mandates the registration of space objects to improve transparency and requires states to assist astronauts in distress.
4. **Prevention of an Arms Race in Outer Space (PAROS):** A UN framework stressing the avoidance of an arms race and promoting peaceful space exploration.

India's Space Security Paradigm

1. **Institutional Evolution:** Transitioned from INCOSPAR (1962) to ISRO, and more recently established the **Defence Space Agency (DSA)** in 2019 to act as an aerospace command.
2. **Mission Shakti (2019):** Successfully demonstrated Anti-Satellite (ASAT) capabilities, making India the fourth nation globally to possess such deterrence.
3. **Space Situational Awareness (SSA):** Enhancing tracking capabilities for satellites and debris via **Project NETRA** and the **IS4OM** management system to ensure safe orbital operations.

Challenges of Space Weaponisation

1. **The Kessler Syndrome:** Destructive kinetic attacks generate massive, untrackable space debris, permanently threatening long-term orbital sustainability.
2. **Dual-Use Ambiguity and Law of War:** Because interconnected commercial satellites increasingly serve military functions, distinguishing legitimate targets under international humanitarian law is exceedingly difficult.
3. **Regulatory Voids:** The 1967 Outer Space Treaty prohibits WMDs but offers insufficient guardrails against modern conventional orbital weapons, cyberattacks, and AI-driven autonomous systems.

4. **Escalation and Miscalculation Risks:** Unclear definitions of "hostile action" combined with automated defensive satellite strikes create extreme instability, risking rapid terrestrial escalation.
5. **Orbital Monopolization:** Accelerated military deployment by advanced powers risks monopolizing limited orbital slots and radio frequencies, marginalizing developing nations' access.

Way Forward

1. **Define Multilateral Thresholds:** Governments must negotiate precise definitions of "hostile action" and escalation thresholds through the UN Open-Ended Working Group on PAROS.
2. **Modernize the Legal Framework:** Revisit existing treaties to explicitly address accountability for autonomous, AI-driven defensive strikes and commercial dual-use assets.
3. **Enhance Space Situational Awareness (SSA):** Nations must universally share unclassified tracking data to prevent accidental collisions and misinterpretations of proximity operations.
4. **Institute Transparency & CBMs:** Implement mandatory Confidence-Building Measures (CBMs), such as pre-launch notifications and direct hotlines, to mitigate mutual suspicion.
5. **Democratize Technology and Access:** Promote legitimate access to outer space and technology transfers to ensure orbital slots are not monopolized by a few hegemonic military powers.
6. **Integrate Cyber and Electronic Safeguards:** Prioritize the resilience of space networks and ground stations against non-kinetic threats like signal jamming and cyber-intrusions.

Conclusion

The weaponisation of space threatens to convert the ultimate global commons into a highly volatile theater of conflict. Ensuring stability requires robust Space Situational Awareness, responsible deterrence, and an urgently updated multilateral legal framework to preserve orbital space for peaceful human advancement.

Q. Critically analyse the strategic implications of space weaponisation on global security and evaluate India's preparedness to safeguard its orbital assets. 15 Marks

3.5. AGRICULTURE

3.5.1. ANATOMY OF INDIA'S GROUNDWATER CRISIS AND AGRARIAN INEQUALITY

Context

According to the 2025-26 Dynamic Groundwater Assessment, Punjab's extraction rate has surged to 152%, with 72% of its blocks categorized in the critically over-exploited 'red zone'. This severe depletion is transforming water access into a concentrated form of wealth, widening the economic divide between marginal and large-scale farmers.



Introduction

Groundwater constitutes the invisible bedrock of India's water security, fulfilling 62% of irrigation, 85% of rural, and 50% of urban water demands. However, policy-induced over-pumping and climate vulnerabilities are rapidly exhausting aquifers, necessitating an urgent shift toward decentralized, community-led management to protect ecological stability and agrarian equity.

Key Facts Regarding Groundwater

1. Groundwater is freshwater stored in subterranean layers called aquifers, comprising nearly 99% of Earth's liquid freshwater.
2. **National Extraction Status:** India extracts 245.64 Billion Cubic Meters (BCM) annually, representing a national extraction rate of 60.47%, keeping aggregate usage within the 446.90 BCM annual replenishment capacity.
3. **Punjab's Hydrological Deficit:** The principal consumer in the state is irrigation for rice and wheat, which accounts for nearly 25 BCM per year.
4. **Deepening Wells:** The fraction of observation wells with water dropping below 40 meters in the post-monsoon period grew by two percentage points between 2022 and 2025.
5. **Governance Mandate:** Water governance primarily rests with State Governments, supported technically by the Centre, directly aligning with Sustainable Development Goals 6 (Clean Water), 11, and 12.

What are the Key Factors Driving Groundwater Depletion in India?

1. **Distorted Economic and Policy Incentives:** Free agricultural electricity incentivizes unregulated pumping, while the Minimum Support Price (MSP) system heavily favors water-guzzling crops, eliminating the financial risk of over-extraction.
2. **Demographic and Urban Pressures:** Rapid population growth (reaching 1.45 billion between 2016–2023) and urbanization create impermeable "concrete sealing," blocking rainwater infiltration and causing severe cones of depression.
3. **Climate Change and Hydrological Disruption:** Increasing rainfall variability in the Southwest Monsoon reduces natural aquifer replenishment, while rising temperatures simultaneously elevate crop water demand.
4. **Archaic Legal Framework:** The Indian Easements Act, 1882, treats groundwater as a private property right linked to land ownership rather than a common-pool resource, paralyzing collective management.
5. **Institutional Fragmentation:** Agencies like the CGWB, CPCB, and Ministry of Jal Shakti operate in silos, compounded by the Water (Prevention and Control of Pollution) Act, 1974, which suffers from lax enforcement and regulatory loopholes.

How does groundwater depletion widen the gap between farmers?

1. **The Capital Gatekeeper:** As the water table plummets, only wealthier farmers can afford the substantial capital required to install deeper, high-capacity tube wells.
2. **Unregulated Dependencies:** Marginal landholders, despite using water more efficiently, are forced into purchasing water from larger landowners, systematically transferring their wealth upward.

3. **Inverse Productivity:** Studies in Sangrur and Barnala indicate that while larger farms earn higher overall returns, they actually record lower groundwater productivity for paddy compared to smaller farms.

What are the Key Government Initiatives for Groundwater Management and their Achievements?

1. **Regulatory Framework:** 21 States/UTs (including Bihar and Himachal Pradesh) have adopted the Model Groundwater Bill, 2017, coordinated by the National Interdepartmental Steering Committee (NISC).
2. **Nationwide Conservation Campaigns:** The Jal Sanchay Jan Bhagidari (JSJB) scheme completed 39,60,333 artificial recharge works by January 2026, working alongside Jal Shakti Abhiyan (JSA: CTR) for geo-tagging and borewell revitalization.
3. **Scientific Assessment & Planning:** NAQUIM 2.0 delivers granular, Panchayat-level aquifer maps, utilizing surveillance data from 43,228 CGWB monitoring stations.
4. **Community-Led Schemes:** Atal Bhujal Yojana promotes localized management in 7 stressed states, while Mission Amrit Sarovar targets the creation of 1-acre ponds (10,000 cubic meter capacity) across all districts.
5. **The Master Plan:** The Artificial Recharge to Groundwater-2020 envisions 1.42 crore terrain-specific structures to capture 185 BCM of additional recharge.

The Strategic Significance of Groundwater Security

1. **Foundation of Food Security:** Reliable, on-demand subterranean irrigation is the fundamental driver of the high-yield rice-wheat cropping system.
2. **Rural Livelihood Anchor:** Sustains the broader agricultural economy and allied sectors, acting as the primary income base for millions of farmers.
3. **Domestic Hydrological Backbone:** Directly meets the bulk of the nation's domestic drinking water and sanitation requirements, crucial for public health.
4. **Drought Resilience:** Acts as a vital subterranean buffer that mitigates the impacts of erratic monsoon rainfall and seasonal dry spells.
5. **Poverty Alleviation:** Equitable access to irrigation capital is directly correlated with poverty reduction and upward mobility among tenant cultivators.

Key Challenges Confronting Effective Aquifer Governance

1. **Pervasive Contamination:** Industrial effluents (e.g., Kanpur tanneries) and fertilizer runoff dangerously pollute aquifers with nitrates, fluoride, and heavy metals like chromium and uranium.
2. **Saline Intrusion:** Coastal over-pumping, compounded by sea-level rise, has permanently contaminated freshwater reserves across 28 out of 33 districts in Gujarat.
3. **Crop Switching Barriers:** Farmers hesitate to abandon monocultures due to unaddressed uncertainties in storage, alternative pricing, and processing infrastructure.
4. **Efficiency Overwhelmed by Scale:** Despite state interventions, overall extraction volumes continually outpace localized conservation efficiency gains, resulting in only a marginal reduction in over-exploited blocks.

5. **Voluntary Scheme Limitations:** Conservation initiatives like Punjab's 'Pani Bachao, Paisa Kamao' suffer from low enrollment because they rely on optional participation rather than default, mandatory integration.

Way Forward

1. **Water-Smart Agricultural Practices:** Accelerate the adoption of micro-irrigation and zero tillage by converging PMKSY with the Atal Bhujal Yojana in highly stressed regions.
2. **Institutional Re-engineering:** Replace colonial-era property laws with the public trust doctrine and empower local Aquifer Management Committees (AMCs) to enforce limits using NAQUIM 2.0 data.
3. **Digital Water Command System:** Establish a national IoT sensor network connected to the 'Bhu-Neer' AI platform for predictive analytics and real-time volumetric monitoring at the connection level.
4. **Financial Restructuring:** Shift to a Direct Benefit Transfer (DBT) model for electricity, paying farmers for unused pumping units, and implement a Groundwater Security Cess on industries.
5. **Scale Nature-Based Solutions:** Mandate urban Rainwater Harvesting (RWH) bylaws, recycle treated wastewater, and deploy Managed Aquifer Recharge (MAR) tailored to specific terrains (e.g., biochar filtration for agricultural runoff).
6. **Foster Climate Resilience:** Integrate climate-resilient crops (millets, pulses) into state procurement policies and provide communities with simplified Water Budgeting Tools to build local stewardship.
7. **Subsidize the Cultivator, Not Extraction:** Redirect welfare to directly support smallholders and tenant farmers to collectivize irrigation infrastructure, ensuring benefits follow the actual tiller rather than the pump owner.

Conclusion

Groundwater depletion has evolved from a purely ecological concern into a severe crisis of agrarian equity. Achieving long-term sustainability requires dismantling distorted power subsidies, embracing the public trust doctrine, and ensuring that conservation incentives directly empower the cultivator through localized, climate-resilient stewardship.

Q. *Examine the factors responsible for depleting groundwater in India. What are the steps taken by the government to mitigate such depletion of groundwater? 15 Marks*

Scan to attempt more questions...





PROF. (DR.) SAMIT RAY

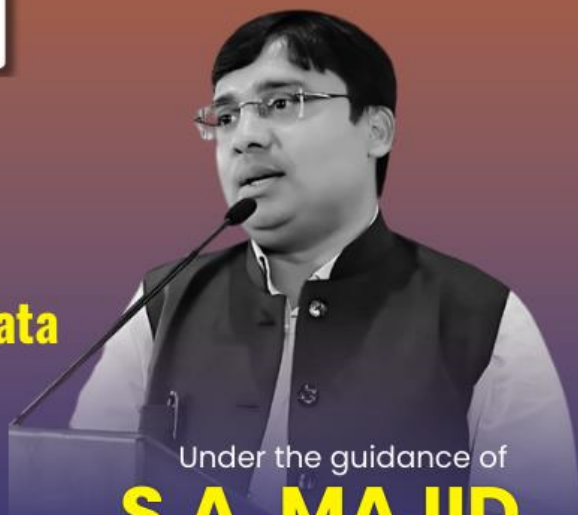
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