Prelims Exam Topics

THE ARITHMETIC OF DISASTER: WHY THE 16TH FINANCE COMMISSION'S FORMULA FAILS RISK-PRONE STATES

Context

Despite being India's most disaster-vulnerable state, Odisha has faced the largest reduction in disaster funding share due to a flawed allocation metric adopted by the 16th Finance Commission.

The 16th Finance Commission on Disaster Funding

- The 16th Finance Commission (FC) increased the State Disaster Response Fund (SDRF) corpus by nearly 60%, reaching ₹2,04,401 crore. To distribute this, it shifted from an "additive" approach to a multiplicative Disaster Risk Index (DRI):

  DRI = Hazard * Exposure * Vulnerability

- **The Intent:** Risk only exists when a hazard (like a cyclone) intersects with people (exposure) who lack the means to cope (vulnerability).

Flaws in the 16th Finance Commission's Disaster Allocation Formula

- **Conflating Population with Exposure:** By using **total state population** as a proxy, the formula treats all citizens as equally at risk.
  - This mathematically favors populous, topographically "safe" inland states over smaller states where the entire population is concentrated in high-risk coastal or hilly belts.
- **Income as a False Proxy for Resilience:** Using **per capita NSDP** (Net State Domestic Product) measures a state's *fiscal capacity* rather than its *physical vulnerability*. High-income states (like Kerala) remain physically susceptible to extreme climate events but are penalized with lower vulnerability scores due to their relative wealth.
- **The "Multiplicative Trap":** Because the formula is multiplicative, a low score in any one category (specifically **demographic size**) drastically pulls down the total. This allows states with lower hazards but massive populations to "out-score" states facing the highest actual risks.
- **Invisibility of Multi-dimensional Fragility:** The formula overlooks non-monetary factors like the share of **kutcha housing**, density of health infrastructure in hazard zones, and tribal marginalization.
- **Disincentivizing Disaster Investment:** States like **Odisha**, which have spent decades building "near-zero mortality" infrastructure (cyclone shelters, early warning systems), are seeing their funding slashed.
  - The formula effectively prioritizes "headcounts" over the actual intensity and frequency of the hazards a state must manage.

Suggested Measures for a Risk-Based Future

- **Refining 'Exposure':** Move away from total population to **hazard-zone population**. This can be achieved by cross-referencing the *BMTPC Vulnerability Atlas* with Census enumeration blocks to count only those living in floodplains or earthquake zones.
- **Composite Vulnerability Index:** Replace per capita income with a multidimensional index. This should include: Share of **kutcha housing** (temporary structures), Density of **health infrastructure** in high-hazard districts, **Crop insurance penetration** and early warning reach.

- **Institutionalizing Data:** The **National Disaster Management Authority (NDMA)** should be mandated to publish an annual **State Disaster Vulnerability Index**. This would provide a standardized, scientific input for future Finance Commissions, ending the reliance on "contested metrics."

NALANADA UNIVERSITY

Context

Addressing the second convocation ceremony of Nalanda University, the Indian President emphasised that the restoration of Nalanda signifies the beginning of an intellectual and cultural renaissance for the entire world.

About Nalanda University

- Nalanda, located in present-day Bihar, flourished for over 700 years (5th century CE to 12th century CE).
- **Foundation:** Established during the **Gupta Empire**, specifically under the patronage of **Kumara Gupta I** (427 CE)
    - Subsequent rulers like Harshavardhana of Kannauj and the Pala kings continued to support it.
- Built in the **Kushana/Gupta style** using red bricks; featured distinct *Viharas* (monasteries) and *Chaityas* (temples).
- It was the world's first residential university, housing over 10,000 students and 2,000 teachers. It drew scholars from China, Korea, Japan, Tibet, Mongolia, and Southeast Asia.
- Known as **Dharmaganja** ("Treasury of Truth"), it comprised three massive buildings: *Ratnasagara*, *Ratnodadhi*, and *Ratnaranjaka*.
- **Invasion of Bakhtiyar Khalji (c. 1193 CE)**: The most catastrophic event in Nalanda's history was its sack by Bakhtiyar Khalji, a general of the Mamluk dynasty under Qutb-ud-din Aibak.
- **Traveller Accounts: Xuanzang** (7th century) and **I-tsing** (late 7th century).
- **Eminent Scholars of Nalanda:** The university was headed by a Chancellor (Abbot), usually the most senior monk. Notable figures include:
    - **Aryabhata:** Often associated with the university, the legendary mathematician and astronomer is believed to have headed the institution at one point.
    - **Dharmapala and Shilabhadra:** Shilabhadra was the teacher of the Chinese traveler Xuanzang and was renowned for his mastery of all Buddhist sutras.
    - **Xuanzang (Hiuen Tsang):** The famous Chinese traveler who stayed for several years, documenting the university's rigorous entrance exams and academic life in his book *Si-Yu-Ki*.
    - **Nagarjuna:** A primary philosopher of the **Madhyamaka** (Middle Way) school of Mahayana Buddhism.
    - **Atisa:** A key figure in the propagation of the Sarma lineages of Tibetan Buddhism.
- **Academic and Cultural Contributions**
    - **Curriculum:** The "Five Sciences" were taught: Grammar, Logic, Philology, Medicine, and Metaphysics. It also covered the Vedas, Mathematics, Astronomy, and Fine Arts.
    - **The Nalanda Bronze School:** It was a major center for metal casting. The "Nalanda Bronzes" influenced art styles across Southeast Asia, particularly in the Srivijaya Empire (Indonesia).

- **Spread of Buddhism:** Nalanda was the epicenter for the spread of **Mahayana and Vajrayana Buddhism** to Tibet and East Asia.
  - The Tibetan script itself was heavily influenced by the scripts used in the Nalanda region.
- **Legacy of Logic (Pramana):** It refined the Indian system of logic and epistemology, which remains a cornerstone of Buddhist philosophy today.

- **Contemporary Status**
  - Declared a **World Heritage Site** in 2016.
- **Re-established in 2014 near the old ruins in Rajgir, as an international project with the support of East Asia Summit member countries.**

QUANTUM ENTANGLEMENT IN HELIUM ATOMS

Context:

- Scientists recently demonstrated **momentum entanglement in helium atoms**, showing that massive particles can exist in **two quantum paths simultaneously while remaining correlated** (published in *Nature Communications*).

Steps of the Helium Atom Entanglement Experiment

- **BEC Formation:** Ultra-cold **helium atoms cooled into a Bose–Einstein Condensate (BEC)** so atoms behave like a single quantum wave.
- **Laser Splitting: Laser pulses split the atomic wave into different momentum states**, creating multiple possible quantum paths.
- **Atomic Collision:** Separated atomic waves **collide and produce paired atoms moving in opposite directions**, forming **entangled momentum states**.
- **Detection:** A **plate detector records the arriving atoms and their correlated momentum**, confirming **quantum entanglement between the pairs**.

About Quantum Entanglement

Quantum entanglement is a phenomenon where **two or more particles share a single quantum state**, so measuring one instantly determines the state of the other.

- **Non-Locality:** Entangled particles remain correlated **even when separated by large distances** (quantum **non-local behaviour**).
- **Einstein's Term: Albert Einstein** called entanglement **"spooky action at a distance"** (because it contradicts classical intuition).
- **Particles Involved:** Initially observed in **photons and electrons**, but now demonstrated in **atoms, ions, superconducting circuits, and helium atoms**.
- **Quantum Superposition Link:** Entanglement arises when particles exist in **superposition of states simultaneously**.
- **Momentum Entanglement:** Recent experiments show **entanglement in particle motion (momentum)**, not just internal properties like spin.
- **Quantum Teleportation:** Transfers **quantum information between entangled particles**, not

matter itself.

Significance of the Discovery

- **Quantum–Gravity Link:** Shows quantum behaviour in **massive particles under gravity**, enabling experiments to study the **relationship between quantum mechanics and gravitational physics**.
- **Testing Fundamental Physics:** Allows improved **Bell inequality tests**, helping verify the **non-local foundations of quantum mechanics**.
- **Understanding Decoherence:** Provides a platform to study **decoherence (loss of quantum behaviour due to environmental disturbance)**.
- **Precision Quantum Sensors:** Entangled atoms can improve **atom interferometers and quantum sensors** (applications: **navigation systems, gravitational measurements, dark matter detection**).
- **Quantum Technologies:** Supports future **quantum computing, quantum communication, and quantum teleportation systems** (entanglement is the fundamental resource).
- **Testing Equivalence Principle:** Future experiments could test the **weak equivalence principle** (gravity affects all masses equally) in a **quantum regime**.
- **Advancing Quantum Networks:** Atom-based entanglement may complement **photon-based quantum networks**, enabling more robust **quantum information transfer**.

EMERGING TRADE OPPORTUNITIES FOR INDIA IN SOUTH ASIA

Context

- Recent **political transitions in South Asia—Bangladesh, Nepal and Sri Lanka's new leadership—create an opportunity for India to reset its neighbourhood policy through deeper economic engagement, especially trade**.

Recent Political Transition

- **Bangladesh:** New government led by **Tarique Rahman and the BNP (2026 elections)** emphasising **"Bangladesh First" policy**, signalling a shift toward pragmatic and interest-based foreign relations.
- **Nepal:** Rise of **Balendra Shah and the Rastriya Swatantra Party (RSP)** marks a **generational political shift**, moving beyond traditional party structures and old geopolitical alignments.
- **Sri Lanka:** Post-2024 leadership change has led to **pragmatic engagement with India**, reducing earlier political mistrust in bilateral relations.
- **Regional Trend:** Across South Asia, **younger leadership and nationalist domestic agendas** are replacing older dependency-based political frameworks.

Trade Opportunity for India

- **Market Integration:** India can expand **regional market access for Bangladesh, Nepal, and Sri Lanka exports** (India already runs **trade surplus with these countries**).
    - e.g. With return of tariffs, sanctions, and geopolitical competition, India can provide an alternate market.
- **Investment Linkages:** Greater **Indian investment in neighbouring economies** can deepen supply chains and create mutual economic gains.
- **Regional Economic Security:** Economic cooperation can help countries manage **external shocks (e.g., Gulf instability affecting remittances and energy supplies)**.

- **Strategic Balancing:** Stronger economic integration can reduce **overdependence of neighbours on China for trade and infrastructure financing**.
- **Connectivity Expansion:** Improving **border infrastructure and logistics networks** could unlock trade potential along the **4,000-km India-Bangladesh border and India-Nepal open border**.
- **Energy Cooperation:** India's **regional power grid and hydropower trade with Nepal and Bhutan** could strengthen energy integration in South Asia.

EARTH'S ORBITS ARE FILLING UP BECAUSE GOVERNANCE HASN'T KEPT PACE

Context

- The rapid expansion of satellite launches and mega-constellations (e.g., **Starlink**) has made **Earth's orbital environment increasingly crowded**, raising concerns about **space debris, collision risks, and weak global governance mechanisms**.

Issues in the Earth's Orbit

- **Orbital Congestion:** Rapid growth of satellites and mega-constellations increasing orbital crowding (over **10,000 active satellites; thousands launched annually**).
- **Space Debris:** Fragments from defunct satellites and collisions threaten active spacecraft (**>36,000 debris objects >10 cm tracked by ESA/NASA**).
- **Collision Cascades:** Even small debris travelling at **~28,000 km/h** can destroy satellites, generating thousands of new fragments (**Kessler Syndrome risk**).
- **Tracking Limitations:** Small debris and fragments often **cannot be consistently tracked**, increasing uncertainty in collision avoidance.
- **Uneven Data Access:** Orbital tracking data and space situational awareness information **unevenly shared across countries and operators**.
- **Uncertain Responsibility:** Difficulty in identifying **which satellite caused debris or damage**, complicating liability and accountability

Issues in Global Governance

- **Poor Monitoring:** Regulators often rely on **operators' pre-launch promises rather than verified compliance after deployment**.
- **Outdated Treaties:** Existing frameworks like the **Outer Space Treaty (1967)** were designed for **state-led space activity**, not today's commercial space economy.
- **Weak Debris Regulations:** Debris mitigation guidelines (e.g., **UN COPUOS guidelines**) remain **voluntary with limited enforcement**.
- **Private Sector Expansion:** Growing role of **private companies launching mega-constellations** without globally harmonised regulatory oversight.
- **Regulatory Fragmentation:** Different countries impose **varying licensing requirements**, leading companies to operate under **more permissive jurisdictions**.
- **Lack of Duty-of-Care Standards:** No global agreement defining **acceptable orbital congestion or long-term stewardship obligations**.

Opportunity for India

- **Norm-Setting Role:** India can shape **global norms on space sustainability and orbital responsibility** while drafting its national space legislation.
- **Responsible Space Governance:** Embedding **debris mitigation, collision avoidance, and end-of-life satellite disposal** into national licensing systems.
- **Leadership in Space Sustainability:** Promoting **international standards for space situational awareness and debris monitoring**.
- **Technology Development:** Investing in **debris tracking systems, space traffic management, and active debris removal technologies**.
- **Diplomatic Influence:** Leveraging platforms like **UN COPUOS, G20, and Quad space initiatives** to promote rules-based space governance.

RBI EXPORT REALISATION TIMELINE EXTENSION AMID GLOBAL DISRUPTION

Context

The RBI has extended the export realisation timeline and credit period to support exporters amid global disruptions and West Asia tensions.

Export Realisation and Export Credit in India

- Export realisation refers to the process by which Indian exporters receive payment in foreign exchange for goods and services exported.
- Timely realisation is critical for maintaining foreign exchange inflows and ensuring external sector stability.
- Under the Foreign Exchange Management Act (FEMA), exporters are required to realise and repatriate export proceeds within a specified time frame.
- Export credit is another key component of trade finance. It includes:
    - **Pre-shipment credit,** which is provided before goods are exported to finance production and packaging.
    - **Post-shipment credit,** which supports exporters after goods are shipped until payment is received.
        - The Reserve Bank of India regulates both timelines and credit conditions to ensure liquidity, financial stability, and export competitiveness.

Role of RBI in Export Regulation

- The RBI plays a central role in managing India's external sector.
- It sets timelines for export realisation and repatriation.
- It regulates export credit duration and interest norms.
- It intervenes in foreign exchange markets to maintain stability.
- These measures help balance export promotion with macroeconomic stability, especially during global uncertainties.

Need for Relaxation in Export Timelines

- Global disruptions, especially geopolitical tensions, have significantly affected international trade flows.
- Shipping routes have become riskier and costlier.
- Logistics delays have increased transit time.
- Payment cycles have lengthened due to uncertainty.
- In such a scenario, strict timelines for export realisation can create liquidity stress for exporters.
- Therefore, policy flexibility becomes essential to sustain export momentum.

Implications for India's Economy

- **Liquidity Support:** Exporters get more time to realise payments, reducing financial stress.
- **Trade Continuity:** Helps sustain exports despite logistical disruptions.
- **Forex Stability:** Ensures a steady inflow of foreign exchange in the long term.
- **Cost Management:** Allows exporters to manage higher freight and insurance costs.
- However, prolonged delays in realisation may temporarily affect foreign exchange inflows and balance of payments dynamics.

GLOBAL TENSIONS AND INDIA'S ECONOMY

Context

Rising geopolitical instability particularly in energy-rich West Asia is casting a long shadow over India's macroeconomic landscape. With oil prices surging, the rupee under pressure, and fiscal buffers thinning, the interconnectedness of global conflicts and domestic economic health has never been more apparent.

Core Vulnerability: Energy Dependence

- India imports over 85% of its crude oil, making it structurally exposed to any disruption in global energy markets.
- The Indian crude basket recently touched $156.29 per barrel — a level that sends ripple effects across the entire economy.
- Every $10 rise in crude prices tightens the current account deficit, pushes up transport and production costs, and stokes broader inflationary pressures.

How Global Shocks Reach India's Doorstep

Currency and Reserves Under Strain

- The rupee has depreciated to a record ₹95 per dollar, amplifying import costs and deepening inflationary stress.
- The Reserve Bank of India has intervened by drawing on foreign exchange reserves, which have slipped to approximately $709 billion.
- Simultaneously, foreign portfolio investors have pulled capital out of Indian markets, adding further pressure on external stability.

Fiscal Burden of High Oil Prices

- When oil prices rise, the government faces a twin squeeze: expenditure climbs through higher fertiliser and LPG subsidies, while revenue shrinks as it cuts fuel taxes to shield consumers. Earlier rounds of excise

duty reductions resulted in significant revenue losses even as subsidy bills expanded sharply. A sustained period of elevated oil prices could widen the fiscal deficit considerably.

Revenue System Built on Transactions

- India's tax architecture has grown increasingly dependent on consumption-driven revenues.
- GST collections have risen to ₹22.8 lakh crore, reflecting buoyant economic activity — but this is also a source of fragility.
- Any shock that dampens consumption directly erodes government finances, making fiscal resilience harder to maintain during crises.

Household Squeeze

- Private consumption contributes roughly 61.4% of GDP, making household financial health central to overall economic performance. Yet household liabilities have climbed to over 41% of GDP, leaving families with limited cushion against income and price shocks.
- Rising energy costs eat into disposable incomes, reduce discretionary spending, and weaken the consumption engine that drives growth. Disruptions in LPG supply chains have added a further layer of hardship for ordinary households.

Industry and Investment: A Mixed Picture

- India's industrial sector presents a tale of two economies. Capital-intensive manufacturing is holding up well, and government capital expenditure remains robust.
- However, labour-intensive industries continue to lag, private investment remains hesitant, and only a fraction of announced projects are reaching completion — a sign of broader caution in the business environment.
- Small enterprises and informal-sector workers bear the sharpest brunt of these disruptions, as reduced demand and supply-chain stress lead to closures and job losses.

Macro Paradox

- India finds itself in an unusual position: GDP growth of around 8.1% and strong infrastructure investment sit alongside weak household income growth, rising debt levels, and mounting external vulnerabilities. This divergence exposes a fundamental tension in the current growth model — infrastructure-led expansion builds long-term capacity, but does not automatically translate into stronger wages, broader employment, or improved consumption for the majority.

Way Forward

Addressing these vulnerabilities requires a deliberate shift in strategy:

- Diversify energy sources to reduce the outsized dependence on crude oil imports
- Strengthen income-led demand through sustained employment generation and wage growth
- Broaden the tax base to reduce over-reliance on transaction-based revenues that are sensitive to consumption shocks
- Build fiscal buffers to manage future crises without compromising essential public expenditure

Conclusion

India's growth story remains compelling, but sustaining it through an era of heightened global uncertainty demands a more resilient, inclusive, and balanced economic framework — one that protects households as much as it builds highways.

SUPREME COURT'S SOP TO COMBAT HUMAN TRAFFICKING

Context

The Supreme Court of India has stressed the urgent need for a clear and workable system to handle human trafficking cases, especially missing persons.

About human trafficking

Human trafficking is the transportation, recruitment of people through force, deception or fraud with an intention of exploitation. The Constitution under Article 23 prohibits trafficking in human beings and forced labour. A violation to this provision is an offence punishable by law, however instances of trafficking are on a rise.

Key directions of the court

- **Call for a uniform SOP (Standard Operating Procedure):** The Court has asked for a simple, ground-level procedure that police stations can follow immediately, rather than theoretical frameworks.
- **Time-sensitive action**: The Court highlighted that the first few hours after a missing person report are crucial, and delay can reduce chances of rescue.
- **Continuous investigation:** Authorities must not treat cases as routine; investigation should continue actively until the person is found.
- **Multi-level consultation**: The Union Home Secretary, State Home Secretaries, and police heads have been asked to work together and consult field-level officers.
- **Role of expert committee:** A committee of experts (including senior police and legal professionals) will assist in drafting effective procedures.
- **Police-level implementation:** The SOP should clearly guide police stations on steps to be taken immediately after receiving a complaint.
- **Priority to missing persons cases**: Missing persons, especially children and vulnerable groups, must be treated as potential trafficking cases from the start.

Reasons for rise in instances of trafficking despite its prohibition under Article 23

- **Gender parity:** Due to differential access to resources, education, food and housing, women and girls are trafficked by people who avail advantage over their vulnerabilities.
    - **Eg: Out of 6,500 victims of human trafficking in 2022, 60% of them were women and girls. (NCRB)**
- **Demand for cheap labour:** With a demand for cheap labour in India, traffickers tend to exploit people through trafficking into forced labour.
- **Migration:** To seek better opportunities, Indian cities face large-scale migration and traffickers take advantage of the situation by luring migrants with future employment promises.
- **Poverty:** Socio-economic disparity and prejudices exacerbate the problem of tracking in humans.
- **Trafficking hotspots:** Various states in India have become destinations for trafficking.

- **Eg: Maharashtra has recorded the highest number of cases of 1,392 persons** in five years, followed by Telangana and Andhra Pradesh.

Legal measures to curb instances of human trafficking

- **Legislations:** Various legislations prohibit bonded and forced labour in India.
  - **Eg: Juvenile justice act or the Bonded labour abolition act.**
- **Immoral trafficking prevention act:** Trafficking for commercial sexual exploitation is penalised under IMPA with an added penalty of seven years of imprisonment.
- **Indian penal code: Section 366(A) and Section 372 of IPC** prohibit kidnapping and selling minors into prostitution with a penalty of ten years imprisonment.
- **Juvenile Justice Act, 2015:** The act entails a provision of ensuring care and protection of a child trafficked and is suffering from handicaps stated in Section 2 of the Act.
  - **Eg: Section 23,24,25,26** of the Act deals with various forms of exploitation of children declared as **cognizable offences under the Act.**

Other initiatives to curb instances of human trafficking

- **Anti-trafficking cell (ATC):** The cell was launched in 2006 under the aegis of Ministry of Home Affairs to act as a common centre for communicating actions taken by state governments to combat incidences of human trafficking.
- **Operation AAHT:** It is a pan India drive by the railway protection force to take effective actions in cases of human trafficking via rail.
- **Anti-Human trafficking units (AHTUs):** The government of India provides financial assistance to states to set up AHTUs at district level.
  - **Eg: Proposal for setting up AHTUs in all districts of states/UTs has been approved under the Nirbhaya fund**
- **International initiatives:** UN Convention on Transnational organised crime has been ratified by India which includes protocol on human trafficking.
  - **Eg: India enacted the Criminal law amendment act, 2013 on its lines.**

Conclusion

Therefore, with initiatives by the government, international organisations, civil-society groups amongst others can help curb instances of trafficking in India and to make it a reality, the scheme of **Mission Vatsalya** was introduced.

Mains Exam Topics

REMOVAL OF THE CHIEF ELECTION COMMISSIONER

Context

The Opposition's impeachment move against the Chief Election Commissioner of the Election Commission of India is largely symbolic, reflecting deep mistrust. Though unlikely to succeed, it signals rising tensions, where a constitutional authority is increasingly viewed as a political adversary rather than a neutral body.

Appointment process

The 2023 Legislative Change

- Parliament enacted the Chief Election Commissioner and Other Election Commissioners (Appointment, Conditions of Office and Terms of Office) Act, 2023.
- The law provides that the President appoints Election Commissioners based on the recommendation of a selection committee comprising:
    - Prime Minister
    - A Union Minister
    - Leader of Opposition

Judicial background

- In **Anoop Baranwal v. Union of India**, the Supreme Court had earlier suggested inclusion of the Chief Justice of India in the selection panel.
- The omission of the judicial member in the 2023 law has generated debate on institutional independence.
- The law is under challenge in Jaya Thakur v. Union of India, with further hearings expected.

Constitutional Foundation of the Election Commission

Article 324: Core Mandate

- Article 324 establishes a permanent Election Commission of India.
- It vests the Commission with powers of:
    - Superintendence
    - Direction
    - Control of elections to the President, Vice-President, Parliament, and State legislatures.
- This constitutional status provides the primary structural guarantee of independence.

Tenure Protection

- Under the 2023 Act, the CEC holds office for six years or until age 65, whichever is earlier.
- Service conditions cannot be altered to the disadvantage of the CEC during tenure.

Removal Safeguards

Removal of the Chief Election Commissioner

- Article 324(5) provides that the CEC can be removed only in the same manner as a Supreme Court judge under Article 124(4).
- Grounds are limited to:
    - Proven misbehaviour

- Incapacity

- This high threshold is designed to prevent arbitrary executive interference.

Removal of Other Election Commissioners

- Other Election Commissioners may be removed by the President on the recommendation of the CEC.
- In **Vineet Narain v. Union of India,** the Supreme Court clarified that the CEC's advice should not be given suo motu.
- The arrangement attempts to balance executive authority with institutional autonomy.

Evolution of the Multi-Member Commission

- **Article 324** permits a Commission comprising the CEC and other Election Commissioners.
- Key developments:
  - **1989**: Commission briefly became multi-member.
  - **1990**: Additional posts were abolished.
  - **1993:** Multi-member structure was restored permanently.
- The Supreme Court upheld this structure in **T. N. Seshan v. Union of India case.**
- The CEC functions as Chairperson, ensuring coordinated and consensus-based decision-making.

Parliamentary Procedure for Removal

Initiation of Motion

- Removal proceedings follow the Judges (Inquiry) Act, 1968 framework.
- A motion requires:
  - At least 100 Lok Sabha members, or
  - At least 50 Rajya Sabha members.

Investigation Mechanism

- Upon admission, a three-member inquiry committee is formed comprising:
  - The Chief Justice of India or a Supreme Court judge
  - A Chief Justice of a High Court
  - A distinguished jurist
- Specific charges must be framed and communicated.

Principles of Natural Justice

- The CEC must receive:
  - Adequate time to respond
  - Opportunity to present a defence
- In cases of alleged incapacity, a medical examination may be ordered.
- These safeguards reflect adherence to the rule of fair hearing, a core constitutional value.

Institutional and Political Considerations

- Motions for removal require special parliamentary majorities, making success difficult without broad consensus.
- The ruling coalition's parliamentary strength often becomes a practical factor.
- The broader constitutional expectation is that all stakeholders respect the autonomy of independent bodies.

- Excessive politicisation of constitutional institutions may erode public confidence.

Analytical Perspective

- India's constitutional design provides substantial structural protections for the Election Commission.
- However, debates over appointments, voter roll management, and institutional perception highlight the importance of:
    - Transparency
    - Procedural fairness
    - Cross-party trust
- The durability of electoral credibility depends not only on formal safeguards but also on institutional culture and public confidence.

Conclusion

- The independence of the Election Commission remains central to India's democratic legitimacy.
- Constitutional safeguards, especially the rigorous removal process, provide strong formal protection.
- Going forward, maintaining both legal autonomy and public trust will be essential to preserving the integrity of India's electoral system.

HIGH MATERNAL DEATHS IN INDIA: LANCET STUDY

Context

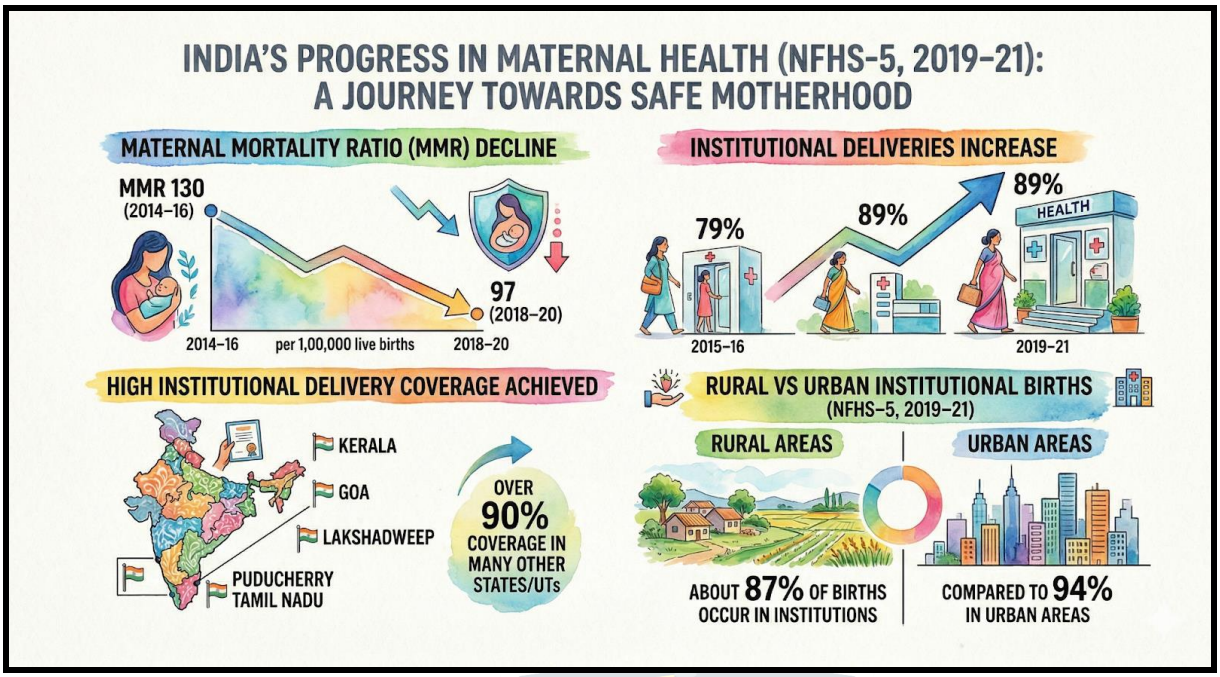
A study published in The Lancet highlights that India continues to rank among the countries with the highest number of maternal deaths worldwide.

Key Findings

- After a period of steady decline, the reduction in maternal deaths has slowed since 2015.
- Globally, nearly 2.4 lakh women died in 2023 due to complications related to pregnancy and childbirth.
- India accounted for about 24,700 of these deaths, placing it alongside high-burden countries such as Nigeria, Pakistan, and Ethiopia.
- Since 1990, maternal mortality has decreased considerably due to improved awareness, increased institutional deliveries, and government interventions, though disparities persist across states.
- States like Kerala and Tamil Nadu are close to achieving global targets, whereas Uttar Pradesh, Bihar, and Madhya Pradesh continue to report higher mortality levels.
- Most maternal deaths in India arise from preventable causes, including haemorrhage, hypertension-related complications, infections, and issues linked to pre-existing health conditions.

Understanding maternal mortality

- **Maternal Death**: Death of a woman during pregnancy or within 42 days of termination, due to causes related to or aggravated by pregnancy, excluding accidental or incidental causes.
- **Maternal Mortality Ratio (MMR)**: Number of maternal deaths per 1,00,000 live births.
- **Maternal Mortality Rate**: Number of maternal deaths among women aged 15–49 per lakh women in that age group, as per the Sample Registration System (SRS).
- **SDG Target (3.1)**: Reduce global MMR to below 70 per 1,00,000 live births by 2030.



Persisting Challenges

- **High Out-of-Pocket Expenditure (OOPE)**: Families still bear significant costs for medicines, diagnostics, and emergency care.
- **Sociocultural Barriers:** Limited decision-making power of women, low awareness, and social stigma delay timely healthcare access.
- **Increase in High-Risk Pregnancies**: Factors such as late pregnancies, obesity, hypertension, diabetes, and short birth intervals add to complications.
- **Weak Rural Infrastructure**: Inadequate emergency obstetric services, transport, and blood storage facilities in remote areas.

Government Initiatives

- **Janani Suraksha Yojana (JSY)**: Promotes institutional deliveries, especially among economically weaker sections.
- **Pradhan Mantri Matru Vandana Yojana (PMMVY):** Provides ₹5,000 maternity benefit for the first child, with additional incentives for a girl child under PMMVY 2.0.
- **Pradhan Mantri Surakshit Matritva Abhiyan (PMSMA):** Ensures free antenatal care on the 9th of every month.
- **LaQshya Programme**: Focuses on improving quality of care in labour rooms and maternity operation theatres.
- **Capacity Building Initiatives:** Training MBBS doctors in anaesthesia and emergency obstetric care to address specialist shortages.
- **Maternal Death Surveillance and Response (MDSR):** Tracks and reviews maternal deaths to improve care quality.
- **Village Health, Sanitation and Nutrition Day (VHSND):** Provides outreach services for maternal and child health.

- **Reproductive and Child Health (RCH) Portal**: Enables digital tracking of pregnant women and newborns for better service delivery.

Innovative Practices

- **Dastak Abhiyan (Madhya Pradesh)**: Community-based initiative for early detection of maternal health risks.
- **Tamil Nadu Model**: Strong referral systems ensuring timely emergency obstetric care.

Way Forward

India has achieved notable success in reducing maternal mortality, meeting the National Health Policy target of an MMR below 100 by 2020. However, sustained efforts are essential to meet the SDG target by 2030. Strengthening healthcare infrastructure, expanding access to maternal health services, and addressing socioeconomic and regional disparities will be crucial to further reduce maternal deaths.