

THE DAILY UPSC BRIEF

HIGH-YIELD DAILY SOURCES & ANALYSIS | 24 SEPTEMBER 2026

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HOW TO READ THIS BRIEF

- ☐ Why in News / Target Prelims MCQ ☐ How to Use in UPSC Mains ☐ Mains Practice / Case Study Question
☒ Correct Answer

GS PAPER 1: Geography & Disaster Management

Super El Niño to Add 15,800 Heat Deaths in India

Why in news: A Climate Impact Lab report projects about 15,800 additional heat-related deaths in India between September 2026 and February 2027, as a Super El Niño drives unusually high temperatures even as the monsoon withdraws with a rainfall deficit.

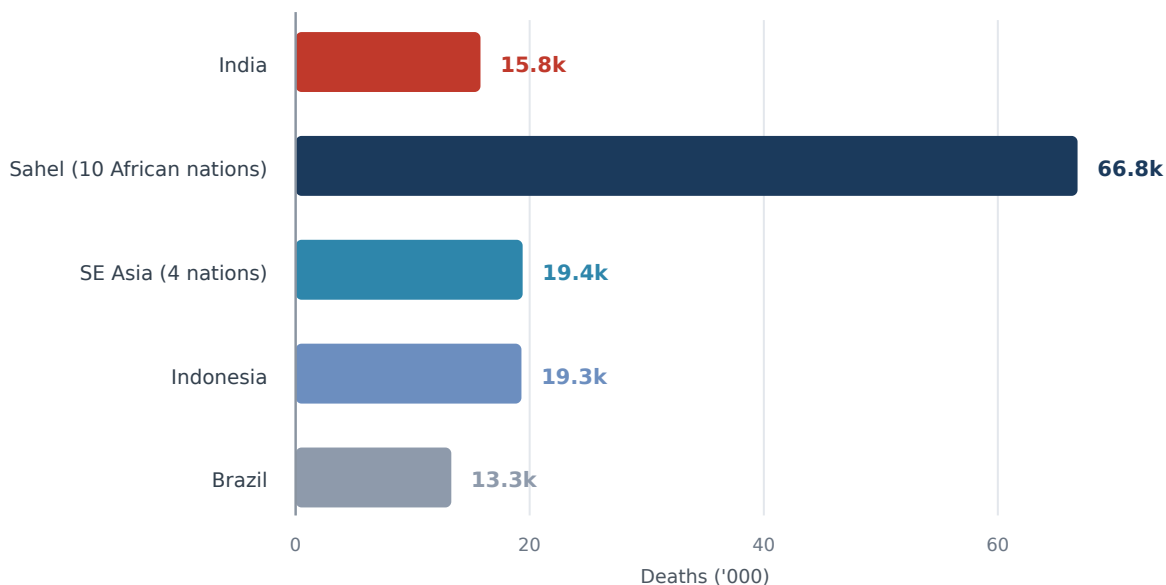
Key Details:

- **What counts as El Niño:** Unusual warming of sea-surface temperatures in the central and eastern equatorial Pacific, now over 3°C above normal; the IMD tracks it via the Niño 3.4 index, declaring an event once anomalies exceed +0.5°C for five overlapping three-month periods.
- **A 'Super' event:** Forecasts show a greater than 90% chance of an exceptionally strong El Niño; the report calls it a “postcard from our future,” delivering warming that climate change would otherwise take 20 more years to produce.
- **India's monsoon hit:** The southwest monsoon entered its withdrawal phase with the national rainfall deficit at 15% below normal as of September 22, with sharper shortfalls in southern and eastern India.
- **Energy strain:** Heat-driven electricity demand is rising even as nearly 40% of India's coal-fired power plants report critically low fuel stocks, tightening the power-supply margin.

Data/Facts/Example:

- **India's toll:** 15,800 additional heat deaths projected (give or take 1,600) for September 2026–February 2027, part of a global estimate of 4,51,000 additional heat deaths in the event's first six months.
- **Worst-hit regions:** The Sahel (about 10 African nations) faces an estimated 66,800 additional deaths; Indonesia 19,300; the Philippines, Vietnam, Thailand and Cambodia together 19,400; and Brazil 13,300.
- **Sea-surface anomaly:** Eastern equatorial Pacific sea-surface temperatures are already more than 3°C above normal, reshaping global rainfall and wind patterns well beyond the Pacific rim.
- **Adaptive value:** The report is designed to let decision-makers act on emergency measures now, since it converts a future climate-change scenario into today's actionable, region-specific heat-mortality estimates.

Projected Additional Heat Deaths, Sept 2026-Feb 2027



How to use in UPSC Mains: Frame this as anthropogenic climate change amplifying a natural ENSO cycle (GS1 Geography/GS3 Disaster Management), and link it to India's Heat Action Plans and NDMA heat-wave guidelines when answering on climate-linked public-health risk.

TARGET PRELIMS MCQ

Q. With reference to El Niño, consider the following statements:

1. It refers to unusual warming of sea-surface temperatures in the central and eastern equatorial Pacific Ocean.
2. El Niño years are typically associated with a stronger-than-normal southwest monsoon over India.
3. The IMD uses the Niño 3.4 index to track El Niño conditions.

Which of the statements given above is/are correct?

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

Answer: (b) 1 and 3 only

Explanation: El Niño is unusual warming in the central/eastern equatorial Pacific and is tracked via the Niño 3.4 index, so 1 and 3 are correct. It is historically associated with a weaker, deficient southwest monsoon over India, not a stronger one, so 2 is incorrect.

Related PYQ: UPSC Prelims 2011: "La Niña is suspected to have caused recent floods in Australia. Consider the statements: 1. La Niña is characterised by unusually cold ocean temperature in the equatorial Indian Ocean whereas El Niño is characterised by unusually warm ocean temperatures in the equatorial Pacific Ocean. 2. El Niño has an adverse effect on the south-west monsoon of India, but La Niña has no effect on the monsoon climate. Which of the statements given above is/are correct?" — Answer: (d) Neither 1 nor 2 (La Niña involves cooling in the equatorial Pacific, not the Indian Ocean, and both phenomena affect India's monsoon).

■ **[Abbreviations & Terminology]:** IMD: India Meteorological Department | ENSO: El Niño-Southern Oscillation | NDMA: National Disaster Management Authority

GS PAPER 2: Polity, Governance & International Relations

SC's Split Verdict: Why the CEC Selection Panel 'Fails the Perception Test'

Why in news: In a split verdict on the 2023 law governing the appointment of the CEC and ECs, Justice Dipankar Datta held that replacing the CJI with a Union Minister on the selection panel fails the "perception test," and separately defended the judicial Collegium against the government's criticism.

Key Details:

- **The panel today:** The CEC and Other ECs (Appointment, Conditions of Service and Term of Office) Act, 2023 fixed a 3-member selection panel of the PM, the LoP in the Lok Sabha, and a Union Cabinet Minister nominated by the PM, replacing the CJI.
- **'Patina of suspicion':** Justice Datta held that since "the umpire is picked by the captain of one side," the panel carries "the patina of suspicion" regardless of whether its choices are correct, invoking Article 75(3)'s collective-responsibility bar on a Minister acting independently of the PM.
- **No majority direction:** Justice Satish Chandra Sharma, on the same Bench, favoured referring the question to a Constitution Bench; Justice Datta did not find that necessary, leaving a split verdict with no majority direction for now.
- **Same opinion, wider target:** In the same opinion, Justice Datta rejected the "myth" that "judges appoint judges," blaming the Union government's "piecemeal approvals" for letting Collegium recommendations "gather dust for years."

Data/Facts/Example:

- **Origin of the panel:** The panel followed the SC's Anoop Baranwal (2023) ruling, which placed the CJI on it only as an interim arrangement "until Parliament enacts a law" — Parliament then did so later that year.
- **Dissent inside the EC:** ECs Sukhbir Singh Sandhu and Vivek Joshi recorded formal dissenting notes at least 14 times over 10 months, including over centralising the electoral-roll database; the EC calls this normal "deliberation."
- **A comparative check:** Some democracies build in cross-party review: the UK's Electoral Commissioners are cleared by a cross-party Speaker's Committee on the Electoral Commission before appointment, unlike India's executive-dominated panel.
- **On judicial appointments:** Justice Datta noted that every judicial appointment "bears the imprimatur of the President," rejecting any suggestion that the Collegium alone decides who becomes a judge.

Selection Panel for CEC/ECs: Before vs After the 2023 Act

Member	Anoop Baranwal (2023) interim scheme	CEC Act, 2023 (current)
Chair	Prime Minister	Prime Minister
Member 2	Leader of Opposition, Lok Sabha	Leader of Opposition, Lok Sabha
Member 3	Chief Justice of India	A Union Cabinet Minister nominated by the PM

How to use in UPSC Mains: Use for the 'basic structure' test of ECI independence (Article 324) — that an institution must not just be independent but must appear independent — and for the tension between parliamentary sovereignty (the 2023 Act) and judicial review (Anoop Baranwal).

TARGET PRELIMS MCQ

Q. With reference to the appointment of the Chief Election Commissioner (CEC) and Election Commissioners (ECs) in India, consider the following statements:

1. The Supreme Court's Anoop Baranwal (2023) judgment held that the Chief Justice of India must permanently sit on the selection panel.
2. The CEC and Other ECs Act, 2023 provides for a three-member selection panel comprising the Prime Minister, the Leader of Opposition in the Lok Sabha, and a Union Cabinet Minister.
3. Under Article 324(5) of the Constitution, an EC other than the CEC cannot be removed from office except on the recommendation of the CEC.

Which of the statements given above is/are correct?

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

Answer: (c) 2 and 3 only

Explanation: The Anoop Baranwal direction placing the CJI on the panel was only an interim measure “until Parliament enacts a law,” not a permanent arrangement, so 1 is incorrect. The 2023 Act's panel composition (2) and Article 324(5)'s removal safeguard for ECs (3) are both correct.

Related PYQ: UPSC CSE Mains 2025, GS Paper 2 (15 marks): "Discuss the evolution of collegium system in India. Critically examine the advantages and disadvantages of the system of appointment of the Judges of the Supreme Court of India and that of the USA."

■ **[Abbreviations & Terminology]:** CEC: Chief Election Commissioner | EC: Election Commissioner | ECI: Election Commission of India | LoP: Leader of Opposition | CJI: Chief Justice of India | PM: Prime Minister

Anti-Defection Law and the Speaker's 'Amphibious' Role

Why in news: The Supreme Court declined to fix a timeline for Lok Sabha Speaker Om Birla to decide disqualification pleas against 20 rebel Trinamool MPs, reviving the debate on the Speaker's dual role under the Tenth Schedule.

Key Details:

- **The plea:** TMC leader Abhishek Banerjee's plea alleged the Speaker was delaying disqualification proceedings against 20 rebel MPs who had aligned with the NCPI; the Centre argued judicial monitoring was unnecessary.
- **'Amphibious' role:** Justice Joymalya Bagchi termed the Speaker's role “amphibious” — concerning both the House and, separately, a Tribunal under the Tenth Schedule — and said the three-month limit suggested in Keshab Meghachandra Singh applied only to “complete inaction,” not routine delay.
- **More time granted:** The rebel MPs, who had already received six weeks, were given four more weeks to file their replies; the case returns thereafter, extending a pattern of long timelines in defection cases.
- **Political backdrop:** The dispute stems from a rebellion within the Trinamool Congress parliamentary party; the rebel MPs have since been treated as an NCPI group in Parliament.

Data/Facts/Example:

- **Constitutional basis:** The Tenth Schedule, inserted by the 52nd Amendment Act, 1985, names the Speaker or Chairman as the sole authority to decide disqualification for defection.
- **Judicial review, limited:** In Kihoto Hollohan (1992), the SC upheld the Speaker's tribunal role but subjected it to judicial review on limited grounds such as mala fide action or violation of natural justice.
- **A non-binding benchmark:** In Keshab Meghachandra Singh (2020), the SC suggested Speakers ideally decide defection pleas within three months — a recommendation, not a binding mandate, as this case shows.
- **An unheeded reform:** The Dinesh Goswami Committee (1990) on electoral reforms had recommended shifting the power to decide defection disputes from the Speaker to the President or Governor, acting on the ECI's advice — a change Parliament has never adopted.

How to use in UPSC Mains: Use to critique the Speaker's conflict of interest as a ruling-party nominee adjudicating defection pleas, and cite reform proposals (Dinesh Goswami Committee, Law Commission's 170th Report) for shifting this power to an independent body.

TARGET PRELIMS MCQ

Q. With reference to the Tenth Schedule of the Constitution of India, consider the following statements:

1. It was inserted by the 52nd Constitutional Amendment Act, 1985.
2. It empowers the Speaker or Chairman of the House to decide questions of disqualification on the ground of defection.
3. The Supreme Court has held that the Speaker's decision under the Tenth Schedule is not subject to judicial review on any ground.

Which of the statements given above is/are correct?

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

Answer: (a) 1 and 2 only

Explanation: The Tenth Schedule was indeed inserted by the 52nd Amendment (1985) and names the Speaker/Chairman as the deciding authority, so 1 and 2 are correct. Statement 3 is false: Kihoto Hollohan (1992) allows limited judicial review, e.g., for mala fide action or breach of natural justice.

Related PYQ: UPSC Prelims 2014: "Which one of the following Schedules of the Constitution of India contains provisions regarding anti-defection?" Options: (a) Second Schedule (b) Fifth Schedule (c) Eighth Schedule (d) Tenth Schedule — Answer: (d) Tenth Schedule.

■ **[Abbreviations & Terminology]:** TMC: Trinamool Congress | NCPI: National Citizens' Party of India | SC: Supreme Court | ECI: Election Commission of India

India and the EU Finally Set a Date: FTA Signing on December 16

Why in news: India and the European Union will sign their long-negotiated Free Trade Agreement on December 16, 2026, in Brussels — a deal both sides call the “mother of all deals.”

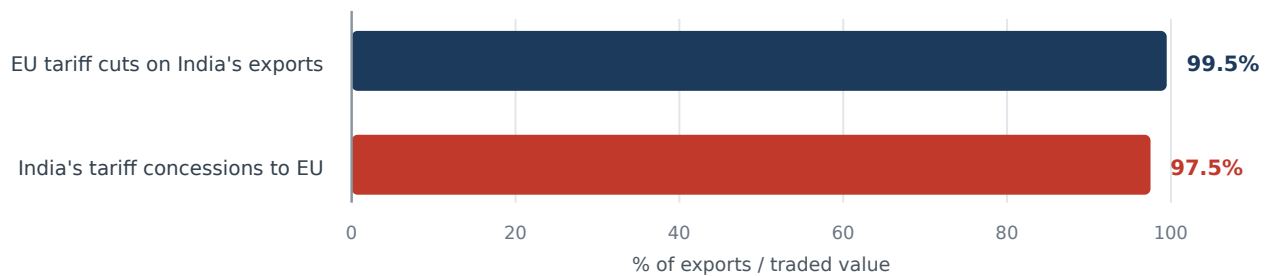
Key Details:

- **The tariff deal:** The EU will drop tariffs on 99.5% of India's exports, many immediately to 0%; India gives tariff concessions on 97.5% of the traded value, keeping about 30% of its import lines outside the cuts.
- **Skiping national ratification:** Because the deal has “majority support” in Europe, it will not need separate ratification by each of the EU's member-states once the European Council gives its go-ahead — only European Parliament passage.
- **The PM's December run:** PM Modi is expected to visit Canada around December 12 for the G20 Summit in Miami before the Brussels signing; the FTA's roll-out is expected in “early 2027” after European Parliament passage.
- **A deliberate design choice:** Negotiations, restarted in June 2022 after a long hiatus and substantively concluded in January 2026, deliberately left out contentious issues — both sides agreed not to “make the best the enemy of the good.”

Data/Facts/Example:

- **Trade at stake:** EU-India trade in goods and services is worth roughly €185 billion a year (about €118 billion in goods, €67 billion in services), making the EU one of India's largest trading partners.
- **A template deal:** The signing follows the India-New Zealand FTA (in force October 20, 2026), where India secured duty-free access on 100% of its exports while keeping dairy out of the deal.
- **Manufacturing mix:** India's capital-intensive exports to the EU/NZ basket include pharmaceuticals, nuclear-reactor parts, vehicle components and iron and steel, alongside labour-intensive textiles and gems.

India-EU FTA: Share of Trade Getting Duty-Free Access



How to use in UPSC Mains: Use as a case study on bilateral FTAs versus stalled mega-regional deals (contrast with India's RCEP exit), and on India diversifying export markets in response to U.S. tariff and sanctions pressure.

TARGET PRELIMS MCQ

Q. With reference to India's recent Free Trade Agreements (FTAs), consider the following statements:

1. The India-European Union FTA is scheduled to be signed in December 2026, after negotiations that restarted in 2022.
2. The India-New Zealand FTA gives India duty-free access on 100% of its exports to New Zealand.
3. India kept its dairy sector outside the tariff concessions under the India-New Zealand FTA.

Which of the statements given above is/are correct?

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

Answer: (d) 1, 2 and 3

Explanation: All three statements are correct: the India-EU FTA signing is set for December 16, 2026; the India-New Zealand FTA gives India 100% duty-free export access; and India excluded dairy from that deal despite New Zealand's demand.

■ **[Abbreviations & Terminology]:** FTA: Free Trade Agreement | EU: European Union | NZ: New Zealand | RCEP: Regional Comprehensive Economic Partnership

India Rejects OIC Group's Remarks on Kashmir

Why in news: India categorically rejected references to Jammu and Kashmir in a joint communiqué of the OIC's Contact Group on J&K, calling the group's remarks "politically motivated propaganda."

Key Details:

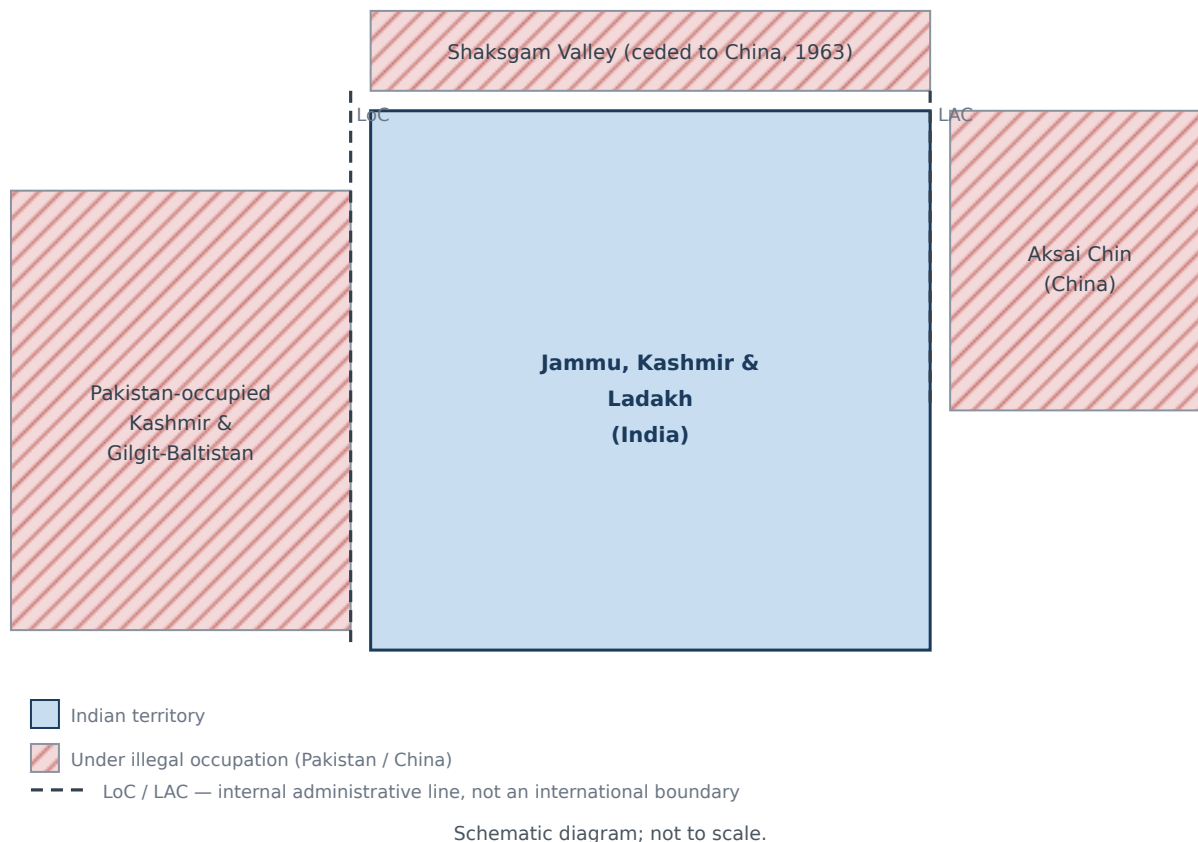
- **The trigger:** The OIC Contact Group — Azerbaijan, Pakistan, Saudi Arabia and Türkiye — expressed "deep concern" over the India-Pakistan conflict of May 2025 and termed India's counter-terror strikes inside Pakistan "unlawful."
- **India's response:** India's MEA said the OIC "has no locus standi to pronounce on matters strictly internal to India," asserting J&K and Ladakh are "integral and inalienable" parts of the country.
- **Turning it on Pakistan:** India advised the OIC to counsel Pakistan instead, alleging Islamabad "supported and sponsored terrorism," rather than repeat "motivated narratives" on Kashmir.
- **The legal basis:** New Delhi's position rests on J&K's 1947 accession to India and the 1972 Shimla Agreement, under which any India-Pakistan issue is a strictly bilateral matter, closed to third-party or multilateral fora.

Data/Facts/Example:

- **A large but exclusive bloc:** The OIC, founded in 1969, is the world's second-largest inter-governmental organisation after the UN with 57 member-states — yet India, home to the world's second-largest Muslim population, has never joined.
- **An old snub:** India was formally invited to the OIC's founding 1969 Rabat summit, but its delegation was eased out under Pakistani pressure before it could address the gathering — an episode New Delhi has not forgotten.

- **A standing structure:** The OIC's Contact Group on J&K was set up in 1994 specifically to coordinate the bloc's position on Kashmir and includes Pakistan as a permanent member — a structural reason India treats it as partisan.

Jammu, Kashmir & Ladakh: India's Position



How to use in UPSC Mains: Cite this as India's 'no third-party mediation' doctrine on Kashmir (rooted in the Shimla Agreement, 1972), and contrast India's rejection of the OIC as a bloc with its parallel bilateral outreach to individual OIC members such as the UAE and Saudi Arabia.

TARGET PRELIMS MCQ

Q. With reference to the Organisation of Islamic Cooperation (OIC), consider the following statements:

1. It was established in 1969 and is headquartered in Jeddah, Saudi Arabia.
2. India is a founding member of the OIC.
3. The OIC's Contact Group on Jammu and Kashmir includes Pakistan as a member.

Which of the statements given above is/are correct?

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

Answer: (b) 1 and 3 only

Explanation: The OIC was founded in 1969 and is headquartered in Jeddah (1 correct); its Contact Group on J&K includes Pakistan (3 correct). India is not an OIC member — its delegation was eased out of the 1969 founding summit under Pakistani pressure — so 2 is incorrect.

■ **[Abbreviations & Terminology]:** OIC: Organisation of Islamic Cooperation | MEA: Ministry of External Affairs | J&K: Jammu and Kashmir | LoC: Line of Control | LAC: Line of Actual Control

Delhi's Coaching-Centre and PG Ecosystem: A Governance Blind Spot

Why in news: A Vidhi Centre analysis flags how Delhi's crowded Paying-Guest (PG) and coaching-centre ecosystem operates in a regulatory grey zone, with no dedicated safety standards despite repeated infrastructural tragedies.

Key Details:

- **A three-way mismatch:** Delhi's regulatory framework is split across the MPD, the UBBL and the Education Ministry's 2024 coaching-centre guidelines — together, they create a mismatch between the law on paper and how it functions on the ground.
- **PGs fall through the cracks:** The MPD does not specifically mention PG accommodations, while the UBBL treats coaching centres as ordinary “educational buildings,” ignoring their high-footfall, commercial character.
- **Guidelines without teeth:** The 2024 coaching-centre guidelines set only broad infrastructure norms and lack binding enforcement teeth, unlike municipal building bye-laws that apply to schools or hostels.
- **No one owns the gap:** Both the DDA and the MCD lack a mechanism to identify or regulate these hybrid, “mixed-use” establishments, which have shifted from residential to commercial use without formal reclassification.

Data/Facts/Example:

- **The precedent:** Three civil-services aspirants drowned when a coaching-centre basement library flooded in Rajinder Nagar in July 2024 — the tragedy that first exposed this regulatory gap nationally.
- **Repeat locations:** Rajinder Nagar, Mukherjee Nagar and Satya Niketan are named as the worst-affected localities, hosting the bulk of Delhi's coaching-centre and PG clusters; Satya Niketan saw a similar flooded basement more recently.
- **The proposed fix:** The analysis calls for a dedicated mixed-use land category, binding minimum safety standards (fire exits, floor area, capacity), and a State-level safety task force to conduct periodic compliance audits.

Instrument	What It Covers	Key Gap
Master Plan of Delhi (MPD)	City-wide land-use zoning	No distinct category for PG accommodations
Unified Building Bye-Laws (UBBL)	Treats coaching centres as ordinary educational buildings	No PG-specific safety norms (fire exits, floor area, capacity)
Education Ministry Guidelines, 2024	Broad infrastructure norms for coaching centres	No binding enforcement teeth; weak on-ground compliance

How to use in UPSC Mains: Link this to the 74th Constitutional Amendment's incomplete devolution of planning powers to urban local bodies, and to the wider governance gap between static master plans and fast-changing land use in Indian cities.

MAINS PRACTICE QUESTION

Q. Discuss the regulatory gaps that allow paying-guest accommodations and coaching centres in Indian cities to operate as de facto commercial establishments without commensurate safety standards. Suggest institutional reforms to close this gap. (250 words)

■ **[Abbreviations & Terminology]:** MPD: Master Plan of Delhi | UBBL: Unified Building Bye-Laws | DDA: Delhi Development Authority | MCD: Municipal Corporation of Delhi | PG: Paying Guest

Explainer: How Motor Accident Compensation Is Computed

Why in news: With India recording the world's highest road fatalities, a Hindu explainer breaks down how Motor Accidents Claims Tribunals compute “just” compensation under a formula the Supreme Court built through Sarla Verma (2009) and Pranay Sethi (2017).

Key Details:

- **Who can claim, and where:** Section 166 of the MV Act lets an injured person, or a deceased's legal representatives, claim compensation before a MACT constituted under Section 165; an appeal lies to the High Court under Section 173.
- **Four heads of compensation:** A death claim aggregates loss of income/dependency, loss of estate, funeral expenses, and loss of consortium — the last three are fixed “conventional” sums, enhanced 10% every three years.
- **A no-fault fallback:** A separate no-fault liability route pays ₹5 lakh for death and ₹2.5 lakh for grievous hurt without the claimant having to prove negligence at all.
- **Recognising unpaid care:** The Supreme Court's Shishu Pal (2026) ruling fixed a minimum notional income of ₹30,000 a month for a homemaker's death, creating a new head for “loss of domestic care.”

Data/Facts/Example:

- **Scale of the crisis:** India recorded 4,87,707 road accidents in 2024, killing 1,77,175 people — about 485 deaths a day — and injuring 4,71,441, per the Road Transport Ministry.
- **Economic cost:** Road crashes are estimated to cost India around 3.14% of GDP annually, beyond the human toll borne by dependants of the dead and disabled.
- **A global outlier:** India accounts for barely 1% of the world's registered vehicles yet roughly 10% of global road-crash deaths, per World Bank estimates — the starkest measure of the safety gap.

The Sarla Verma (2009) Multiplier: Compensation Years by the Deceased's Age

Age at Death	Multiplier
15–25 years	18
26–30 years	17
31–35 years	16
36–40 years	15
41–45 years	14
46–50 years	13
51–55 years	11
56–60 years	9
61–65 years	7
66–70 years	5

How to use in UPSC Mains: Cite Sarla Verma (2009) and Pranay Sethi (2017) as judicial law-making filling a legislative gap in 'just compensation' under Section 168, and link to GS3's road-safety theme via the Sundar Committee's recommendations.

TARGET PRELIMS MCQ

Q. With reference to compensation for motor accident deaths in India, consider the following statements:

1. A claim under Section 166 of the Motor Vehicles Act, 1988 can be filed only by a legal heir who was financially dependent on the deceased.
2. The 'no-fault liability' route under the Act does not require the claimant to prove negligence.
3. The conventional heads of compensation, such as loss of estate and funeral expenses, are periodically enhanced as directed by the Supreme Court.

Which of the statements given above is/are correct?

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

Answer: (b) 2 and 3 only

Explanation: Legal representatives, including earning sons and daughters, can claim compensation “regardless of financial dependency,” per Jitender Kumar (2025), so 1 is incorrect. The no-fault route (2) and the 10%-every-three-years enhancement of conventional heads directed in Pranay Sethi (3) are both correct.

■ **[Abbreviations & Terminology]:** MV Act: Motor Vehicles Act, 1988 | MACT: Motor Accidents Claims Tribunal

GS PAPER 3: Economy, Science & Technology

Quality Control Orders: Balancing Standards with MSME Manufacturing

Why in news: A CSEP study finds that Quality Control Orders on intermediate inputs like chemicals lift large firms' output but cut smaller firms' profitability by nearly half, as the government weighs the next phase of QCO rationalisation.

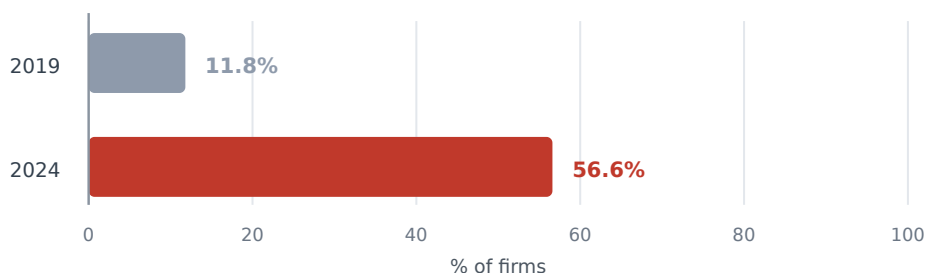
Key Details:

- **What a QCO does:** A QCO, issued under the BIS Act, 2016, makes conformity to a specified Indian Standard mandatory; the count of QCO-covered products rose from 88 (2019) to 765 (December 2024) before the pace of expansion slowed.
- **A relief valve:** The new Transition Facilitation (Quality Control) Order, 2026 (DPIIT, June 25, 2026) lets eligible firms in select sectors — toys, footwear, air conditioners — temporarily source from BIS Scheme-II-licensed suppliers.
- **Diverging impact by firm size:** A CSEP study on chemical-using firms found input QCOs raise larger firms' production by 9.6% but cut their gross value added by 37%, while smaller firms see no output gain but a 47.6% profitability decline.
- **What's left to fix:** More than 600 QCO-covered products, including critical intermediate inputs across chemicals, steel, textiles and electronics, still await reassessment for their supply-chain effects.

Data/Facts/Example:

- **Rising exposure:** The share of chemical-using firms exposed to input-side QCO regulation rose from 11.8% in 2019 to 56.6% in 2024, tracking the first chemical QCO's introduction in 2018.
- **A global pattern:** China's Compulsory Certification (CCC) mark, introduced in 2002, expanded similarly from a handful to over 100 product categories, showing mandatory certification is a common industrial-policy tool, not unique to India.
- **Flagged at the WTO:** The EU, the US and fellow BRICS members Brazil, China and Indonesia all raised India's QCOs as a non-tariff barrier at the WTO's eighth Trade Policy Review of India in July 2026.

Share of Chemical-Using Firms Facing Input-Side QCOs



How to use in UPSC Mains: Use as a trade-off between 'Make in India' quality upgrading and MSME competitiveness, and connect to repeated Economic Survey calls for calibrated, sector-specific QCOs rather than blanket coverage.

TARGET PRELIMS MCQ

Q. With reference to Quality Control Orders (QCOs) in India, consider the following statements:

1. A QCO makes conformity to a specified Indian Standard mandatory for a product.
2. QCOs are issued under powers granted by the Bureau of Indian Standards Act, 2016.
3. The Standard Mark of the BIS is mandatory for automotive tyres and tubes.

Which of the statements given above is/are correct?

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

Answer: (d) 1, 2 and 3

Explanation: All three statements are correct: a QCO mandates conformity to a specified Indian Standard, is issued under the BIS Act, 2016, and the BIS Standard Mark is indeed compulsory for automotive tyres and tubes.

Related PYQ: UPSC Prelims 2017: "Consider the following statements: 1. The Standard Mark of the Bureau of Indian Standards (BIS) is mandatory for automotive tyres and tubes. 2. AGMARK is a quality-certification mark issued by the Food and Agriculture Organisation (FAO). Which of the statements given above is/are correct?" — Answer: (a) 1 only (AGMARK is issued by India's own Directorate of Marketing and Inspection, not the FAO).

■ **[Abbreviations & Terminology]:** QCO: Quality Control Order | BIS: Bureau of Indian Standards | DPIIT: Department for Promotion of Industry and Internal Trade | MSME: Micro, Small and Medium Enterprises | CSEP: Centre for Social and Economic Progress

Railways Commission Kavach 4.0 for the First Time on South Central Railway

Why in news: Indian Railways rolled out its upgraded, indigenous Automatic Train Protection system, Kavach 4.0, for the first time on South Central Railway's Malkajgiri-Kamareddi section, a step toward network-wide safety modernisation.

Key Details:

- **Where it happened:** The 108-route-km Malkajgiri-Kamareddi section (Hyderabad Division, Telangana) was upgraded from Kavach version 3.2 to 4.0, layered atop South Central Railway's existing 1,465-route-km Kavach 3.2 network.
- **What's new in 4.0:** Version 4.0 adds sharper location accuracy, better signal information in large yards, an optical-fibre-cable station-to-station interface, and a direct electronic-interlocking interface over 3.2.
- **The safety benchmark:** Kavach must meet Safety Integrity Level-4 (SIL-4), the highest-reliability international benchmark for safety-critical railway signalling, comparable to European Train Control System standards abroad.
- **What Kavach does:** Kavach is India's own Automatic Train Protection system, developed indigenously under 'Make in India'; it automatically applies brakes to prevent collisions from signal overshoots or excess speed.

Data/Facts/Example:

- **Existing coverage:** South Central Railway had already deployed the earlier Kavach 3.2 version across 1,465 route km and 144-plus locomotives before this 4.0 upgrade began.
- **A national rollout:** Kavach 4.0 has separately been commissioned on stretches of the high-density Delhi-Mumbai and Delhi-Howrah trunk routes, making this a phased, nationwide programme rather than an isolated trial.
- **Who built it:** Kavach was developed by the RDSO with Indian public- and private-sector firms — no foreign collaborator was involved, unlike some past claims about the project.

How to use in UPSC Mains: Cite Kavach under 'indigenisation of critical safety technology' (Make in India, GS3 S&T), and pair it with recent train-collision debates on India's railway safety infrastructure gaps.

TARGET PRELIMS MCQ

Q. With reference to 'Kavach', consider the following statements:

1. It is an Automatic Train Protection system developed indigenously under the 'Make in India' initiative.
 2. It automatically applies the brakes of a train if the loco pilot fails to control its speed as per the signal.
 3. It requires Safety Integrity Level-4 (SIL-4) certification, an international benchmark for safety-critical systems.
- Which of the statements given above is/are correct?

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

Answer: (d) 1, 2 and 3

Explanation: All three statements are correct: Kavach is indigenously developed under Make in India, automatically applies brakes to prevent overspeeding or signal-overshoot collisions, and is certified to the SIL-4 safety standard.

Related PYQ: UPSC Prelims 2025: "Consider the following statements: I. Indian Railways have prepared a National Rail Plan (NRP) to create a future-ready railway system by 2028. II. 'Kavach' is an Automatic Train Protection system developed in collaboration with Germany. III. 'Kavach' system consists of RFID tags fitted on track in station sections. Which of the statements given above are not correct?" — Answer: (a) I and II only (Kavach is indigenously developed under Make in India, not with Germany).

■ **[Abbreviations & Terminology]:** SIL-4: Safety Integrity Level-4 | RDSO: Research Designs and Standards Organisation

AI's Advance into Mathematics: Opportunity, Risk, and India's Place

Why in news: A wave of AI-generated proofs — including a solution to the Navier-Stokes Millennium Prize Problem — has forced mathematicians to confront how AI reasoning is reshaping scientific research and its governance.

Key Details:

- **A string of breakthroughs:** Frontier AI models solved several long-standing open problems in 2026, including a counterexample to the 87-year-old Jacobian conjecture, ten Erdős problems, and the Navier-Stokes Millennium Prize Problem, one of six carrying a \$1-million bounty.
- **Speed versus opacity:** Mathematicians credit AI's speed — described as “a grad-student army, a hundred times faster” — but flag that AI-generated proofs invent terminology and skip the intuitive steps humans learn the most from.
- **A voluntary code:** The June 2026 Leiden Declaration on AI and Mathematics, endorsed by Fields Medallist Terence Tao, sets voluntary guidelines for transparency and responsible AI use in mathematical research.
- **Unequal access:** OpenAI's free frontier-model access programme for scientists excluded Indian, Russian and Chinese institutions, citing “geopolitical tensions” — a reminder that AI-driven research capacity is unevenly distributed.

Data/Facts/Example:

- **Compute at scale:** OpenAI deployed 10,000 autonomous AI agents and found a Navier-Stokes solution in 88 hours; a similar effort earlier resolved Paul Erdős's 1946 planar unit-distance problem.
- **'Proof indigestion':** Mathematicians warn AI's proofs can be technically correct yet “so far removed from standard terminology” as to become nearly unreadable to humans — a phenomenon researchers call “proof indigestion.”
- **India's own stake:** India's IndiaAI Mission, approved with a ₹10,372-crore outlay, aims to build sovereign compute and foundation-model capacity — underscoring why exclusion from frontier-lab research access is a live domestic policy concern.

How to use in UPSC Mains: Use for GS3 essays on 'AI governance and scientific research' — balancing innovation incentives for AI labs against transparency, reproducibility, and equitable global access to frontier models.

MAINS PRACTICE QUESTION

Q. The rapid use of Artificial Intelligence in frontier scientific research raises questions of transparency, reproducibility and equitable access. Examine these challenges with reference to recent AI-assisted breakthroughs in mathematics, and suggest a governance framework for responsible AI use in research. (250 words)

■ **[Abbreviations & Terminology]:** AI: Artificial Intelligence

GS PAPER 4: Ethics, Integrity and Aptitude

A Judge's Resignation from Maharashtra's UCC Panel: Conscience vs Institutional Loyalty

Why in news: Retired Bombay High Court judge R.C. Chavan resigned from Maharashtra's Uniform Civil Code drafting panel, objecting to reducing complex social questions to a binary “yes/no” public-feedback format — a classic dilemma in public-service ethics.

Key Details:

- **The objection:** Justice Chavan said he understood the panel's task as building genuine public consensus, not collecting binary responses that flatten complex religious, social and personal-law questions.
- **Ripple effects:** An MLA cited the resignation as evidence the seven-member panel's credibility has been “undermined,” with no replacement yet named from the minority community it also lacked representation from.
- **The larger question:** Congress leader Jairam Ramesh linked the exit to whether the Constituent Assembly ever envisaged multiple, State-specific versions of a “uniform” civil code at all.
- **Institutional dilemma:** This is a genuine ethical dilemma under GS4's civil-service-values dimension — weighing institutional loyalty and collective responsibility against conscientious dissent and probity in how public consultations are conducted.

Data/Facts/Example:

- **The one working precedent:** Goa remains India's only State with an operational uniform civil code — a Portuguese-era common code retained after 1961 — often cited as the sole working precedent for Article 44's directive principle.
- **Expert opinion against haste:** The 21st Law Commission's 2018 Consultation Paper concluded a nationwide UCC was “neither necessary nor desirable at this stage,” favouring reform within existing personal laws instead.
- **The constitutional text:** Article 44, a Directive Principle, states that “the State shall endeavour to secure for the citizens a uniform civil code throughout the territory of India” — it is not judicially enforceable.

How to use in UPSC Mains: Use this case to discuss when resignation, internal reform, or public dissent-while-serving is the more ethical response to a flawed institutional process — a recurring GS4 theme in probity and public-service values.

MAINS CASE STUDY EXERCISE

Q. You are a domain expert appointed to a government committee tasked with building public consensus on a sensitive social reform. Midway through its term, you conclude that the committee's own working method — reducing complex, plural viewpoints to a simple 'yes/no' survey — will produce a report that misrepresents the very consensus it claims to reflect. Raising your concerns internally has not changed the process. Examine the ethical dilemma involved in choosing between resigning in protest, continuing to work from within to correct the process, and publicly dissenting while remaining a member. Which course of action would you adopt, and why? (250 words)

■ **[Abbreviations & Terminology]:** UCC: Uniform Civil Code | MLA: Member of the Legislative Assembly