UPSC with SAURABH KAUSHIK

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The Hindu · Indian Express | 11 Topics | GS 2 · 3 + Prelims + Mapping

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GS PAPER 2 — International Relations · Polity · Governance

1. Modi Highlights Two-State Solution for Israel-Palestine in Jakarta

[TH] Page 1

GS 2: International Relations: India's Israel-Palestine position; two-state solution; Gaza war; Modi's Indonesia visit; India's West Asia policy.

- During his Jakarta visit (Indonesia, July 6-8), PM Modi explicitly raised the Israel-Palestine conflict and India's position on the two-state solution — a more prominent articulation of this position than India has made in recent years.
- Context: Modi made the statement at a joint press conference with Indonesian President Prabowo Subianto; Indonesia is the world's largest Muslim-majority country and has been deeply concerned about Gaza; Modi's statement of India's two-state solution position was partly responsive to Indonesian sentiment.

‣ India's precise formulation: 'India has consistently supported the two-state solution to the Israel-Palestine issue. We want an early resumption of dialogue and direct negotiations between the two sides. Civilians must be protected. India stands ready to contribute to peace efforts.'

‣ Significance: India's support for the two-state solution is longstanding (since 1947 at the UN); India voted for the 1947 Partition Plan creating Israel; but India was the first non-Arab country to recognise the PLO (1974) and the first to grant it state status (1988). The current Gaza war (since October 7, 2023) has put India in an uncomfortable position — deep Israel defence ties vs. large Muslim population's concerns vs. Gulf state diplomatic relationships.

- India's balancing in the Gaza conflict: India has: abstained on most UNGA resolutions on Gaza (not endorsing Israel's military operations but also not joining the bloc that calls them genocide); criticised Hamas's October 7 attack unequivocally; called for 'immediate cessation of hostilities'; repeatedly called for a two-state solution; condemned attacks on civilians. This multi-directional position maintains Israel defence ties + Gulf relations + domestic political compulsions simultaneously.
- The UN Commission's 'genocidal intent' finding (June 26, covered earlier): The UN CoI's finding of 'genocidal intent' has increased international pressure on India to take a clearer stance; Modi's Jakarta articulation of the two-state solution may be India's attempt to signal that it is not a passive observer while still avoiding the ICJ/ICC alignment that would damage Israel ties.
- Indonesia's pressure: Indonesia has no diplomatic relations with Israel; Prabowo Subianto's election platform included strong pro-Palestinian positions; for India to build the comprehensive strategic partnership with Indonesia (covered July 7), India needed to articulate Palestinian solidarity in a way that Indonesia could receive as genuine, not merely pro-forma.

UPSC ANGLE

• The two-state solution: The international consensus position that the Israel-Palestine conflict should be resolved through: (1) A Palestinian state in the West Bank (including East Jerusalem as capital) + Gaza Strip; (2) Alongside Israel within its pre-1967 borders; endorsed by UNGA Resolution 3236 (1974); UNSC Resolutions 242 (1967) and 338 (1973). Currently blocked by: Israeli settlement expansion in the West Bank; Palestinian political split (Fatah in West Bank vs. Hamas in Gaza); Israeli government's refusal to engage with a Hamas-connected Palestine.

- **Two-State Solution** — International consensus position for Israel-Palestine peace: Palestinian state (West Bank + Gaza, capital East Jerusalem) + Israel (pre-1967 borders); endorsed by UNSC Res. 242 (1967), Res. 338 (1973), UNGA Res. 3236 (1974); India's position since 1947 (first non-Arab state to recognise PLO, 1974); currently blocked by Israeli settlement expansion + Palestinian political division.

2. Gujarat HC Upholds Death Sentence for 38 Ahmedabad Blasts Convicts

[TH] Page 1

GS 2: Polity: Capital punishment; death penalty; High Court death sentence confirmation; Indian Penal Code (BNS); terrorism; Gujarat blasts 2008.

‣ The Gujarat High Court confirmed the death sentence for 38 convicts in the Ahmedabad serial bomb blasts case (July 26, 2008) — the largest mass death sentence confirmation in a single case in Indian judicial history.

‣ The crime: On July 26, 2008, a total of 21 bomb blasts were set off in Ahmedabad within 70 minutes; 56 people were killed and 200+ injured; the blasts targeted hospitals, bus stops, and crowded public spaces; the Indian Mujahideen (IM) claimed responsibility; the blasts were one of a series of coordinated attacks in multiple Indian cities in 2008.

‣ The Sessions Court verdict (2022): A Ahmedabad Sessions Court had sentenced 38 persons to death and 11 to life imprisonment in February 2022 — in India's largest terrorism-related death sentence in a single verdict.

‣ HC confirmation requirement: Under the Code of Criminal Procedure (now Bharatiya Nagarik Suraksha Sanhita — BNSS), every death sentence pronounced by a Sessions Court MUST be confirmed by the High Court before it can be executed; the HC can: confirm (upheld here for all 38), commute to life imprisonment,

or acquit. The HC's July 2026 confirmation is a necessary procedural step before the sentences can go to the Supreme Court.

Capital Punishment in India: The Legal Framework

- Death penalty in India: India retains capital punishment for the 'rarest of rare cases' (established in Bachan Singh v. State of Punjab, 1980, SC 5-judge bench); capital punishment is permissible under the Indian Penal Code (now Bharatiya Nyaya Sanhita) for murder, terrorism resulting in death, rape followed by death, dacoity with murder, and certain other offences.
- Mandatory High Court confirmation: Section 366 CrPC (now Section 413 BNSS): When a Sessions Court pronounces a death sentence, the proceedings are submitted to the HC for confirmation; the HC holds an independent review (not merely rubber-stamping); the HC can enhance, maintain, reduce, or reverse the Sessions Court's sentence.
- 'Rarest of rare' doctrine (Bachan Singh, 1980): The Supreme Court held that death penalty should be imposed ONLY when life imprisonment would be 'completely inadequate' given the crime's nature and the criminal's character; the Court identified aggravating factors (multiple deaths, premeditation, particular cruelty, public impact) vs. mitigating factors (age, mental condition, lack of prior criminal record, possibility of reformation); the 38 Ahmedabad blasts convicts satisfy the aggravating factors (56 deaths, coordinated terrorist attack on civilians).
- Macchi Singh guidelines (1983): Refined 'rarest of rare' into 5 categories where death penalty is warranted: (1) manner of murder (extreme brutality or depravity); (2) motive for murder (greed, heinousness); (3) anti-social or socially abhorrent nature; (4) magnitude of crime (multiple murders); (5) vulnerability of victim (women, children, helpless persons). The Ahmedabad blasts satisfy categories 1, 3, 4, and 5.

The Road Ahead

- SC review mandatory: After HC confirmation, the convicts must be given opportunity to file Special Leave Petition (SLP) before the Supreme Court; the SC will independently review the death sentences; the SC's review is the final judicial check before execution; in terrorism cases, the SC has historically been less likely to commute death sentences.
- Presidential clemency: After exhausting all judicial remedies, the convicts can petition the President of India for mercy under Article 72; the President exercises this power on the advice of the Cabinet (Home Ministry recommendation); in terrorism cases, the Council of Ministers has generally declined clemency petitions.

UPSC ANGLE

• India's death penalty statistics: India has carried out very few executions in recent decades; last multiple executions: Yakub Memon (Mumbai 1993 blasts, executed 2015) and Afzal Guru (Parliament 2001 attack, executed 2013); Nirbhaya convicts (2012 Delhi gang rape-murder, executed March 20, 2020 — 4 executions). Most death sentences in India are commuted to life imprisonment during SC review or Presidential clemency.

• Indian Mujahideen (IM): A domestic Islamist terrorist group; responsible for multiple 2008 bombings (Jaipur, Ahmedabad, Delhi); believed to have links to LeT and SIMI; severely degraded by NIA and state police action 2010-2014; several leaders arrested (including Yasin Bhatkal, nabbed 2013 from Nepal border); the Ahmedabad blasts were their largest operation.

- **Bachan Singh v. State of Punjab (1980)** — Landmark SC 5-judge bench ruling; upheld constitutional validity of death penalty; established 'rarest of rare cases' doctrine; death penalty warranted ONLY when life imprisonment is 'completely inadequate'; identified aggravating vs. mitigating factors; the governing legal standard for death penalty in India.
- **Section 413 BNSS (formerly Section 366 CrPC)** — Mandatory HC confirmation of every Sessions Court death sentence; HC holds independent review; can confirm, commute, or reverse; the Gujarat HC's July 2026 confirmation of 38 death sentences in Ahmedabad blasts is the procedural next step before SC review.

3. Can Judges Avoid Impeachment by Resigning? The Justice Yashwant Varma Case

[IE] Page Online

GS 2: Polity: Judicial accountability; impeachment; Judges Inquiry Act 1968; Articles 124(4) and 217; resignation vs. removal; Monsoon Session 2026.

- The IE analysis examines whether Justice Yashwant Varma's resignation (April 9, 2026) effectively shields him from further accountability proceedings — a question of profound constitutional importance as the three-member inquiry committee's report is to be tabled in Lok Sabha during the Monsoon Session (starting July 20, 2026).
- Background: Justice Yashwant Varma (then of the Delhi HC, later transferred to Allahabad HC): On March 14-15, 2025, during a fire at his official residence at 30 Tughlak Crescent, Delhi, stacks of half-burnt cash were allegedly found in a storeroom. CJI Sanjiv Khanna ordered an in-house inquiry; Justice Varma was transferred to Allahabad HC; over 140 Lok Sabha MPs + 63 Rajya Sabha MPs backed motion for removal; Lok Sabha Speaker constituted a 3-member inquiry committee (August 2025) under the Judges Inquiry Act 1968; Justice Varma resigned April 9, 2026, claiming procedural unfairness.
- The constitutional question: Does resignation prevent Parliament from completing its inquiry and formally censuring or declaring 'proved misbehaviour'? The strict legal answer: Since the purpose of impeachment is REMOVAL from office, and the judge is no longer in office, Parliament cannot vote to 'remove' him. However, Parliament CAN still: table the report; debate it; and pass a declaratory resolution — even without the formal removal vote.
- The Monsoon Session plan: Lok Sabha Speaker Om Birla has stated the committee's report will be tabled in the Lok Sabha Monsoon Session (starting July 20, 2026); Parliament can debate the report and adopt a resolution noting 'proved misbehaviour' — creating a permanent legislative record of the findings — even if Justice Varma cannot be formally removed.

The Constitutional Framework for Judge Removal

- Articles 124(4) and 124(5): These provisions (applicable to Supreme Court judges; made applicable to HC judges through Article 217) specify that a judge 'shall not be removed from his office except by an order of the President passed after an address by each House of Parliament supported by a majority of the total membership of that House and by a majority of not less than two-thirds of the members of that House present and voting, and presented to the President in the same Session for such removal.'
- Judges Inquiry Act 1968: Governs the Parliamentary procedure for investigating judge removal; the act provides for a 3-member committee to investigate 'proved misbehaviour or incapacity'; the committee's report is presented to the President and to each House; each House then votes (simple majority of total membership + 2/3 of those present and voting) — only THEN does the President issue the removal order. Justice Varma resigned before the committee completed its report, so Parliament never reached the voting stage.
- Precedents: (1) Justice Soumitra Sen (Calcutta HC, 2011): Rajya Sabha voted for impeachment (by 189-17); he resigned before the Lok Sabha vote; Lok Sabha dropped the motion as 'infructuous'; (2) Justice P.D. Dinakaran (Sikkim HC Chief Justice, 2011): Resigned while Rajya Sabha inquiry was ongoing; the committee was wound up without completing the inquiry; (3) Justice V. Ramaswami (1993): Rajya Sabha inquiry completed (found misbehaviour); Lok Sabha vote failed (Congress abstained, vote didn't reach 2/3 majority) — he was NOT removed despite 'proved misbehaviour' finding; this is the most troubling precedent.
- The 1978 Constitution Bench ruling: A 5-judge Constitution Bench held that the resignation of a High Court judge is a UNILATERAL constitutional act — it takes effect immediately upon receipt by the President, without requiring acceptance; once effective, the judge's office is vacant and the removal proceeding's purpose (removing from office) becomes academic. However, the inquiry for declaratory purposes can continue.

The Constitutional Gap This Case Reveals

- The system has no mechanism for: (a) Post-resignation continuation of parliamentary inquiry for declaratory censure purposes; (b) Criminal prosecution of judges for conduct while in office (they lose judicial immunity on resignation, but criminal proceedings require standard evidence-gathering which is difficult after the fact); (c) Prevention of the resigned judge from re-entering legal practice (Justice Varma reportedly revived his Bar Council enrolment after resignation).
- Reforms needed: (1) An Amendment to the Judges Inquiry Act to allow the inquiry to continue post-resignation for declaratory purposes; (2) A 'judicial accountability tribunal' that can continue proceedings

regardless of the judge's service status; (3) A bar on re-entry to legal practice for judges who resign during impeachment proceedings.

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• The cash amount: Media reported approximately Rs 2-3 crore in cash found at the residence (some sources say Rs 4-6 crore); the inquiry committee reportedly found the cash was in 'covert and active' management by the judge's family; 17 people including his daughter were at the residence the night of the fire; the storeroom was secured and accessible only to the judge's immediate family.
• The Monsoon Session significance: Starting July 20, 2026; Parliament will table the inquiry report; if Parliament passes a resolution noting 'proved misbehaviour,' it will be the first time India's Parliament formally censures a judge by name for misconduct (even without removal) — a landmark in judicial accountability.

- **Judges Inquiry Act 1968** — Governs parliamentary procedure for judge removal; 3-member inquiry committee (SC judge + HC Chief Justice + senior advocate) investigates 'proved misbehaviour'; committee report presented to Houses; then Parliament votes (majority of total membership + 2/3 of those voting); then President issues removal order; Justice Varma resigned before voting stage.
- **Articles 124(4) and 124(5)** — Constitutional provisions for removal of SC judges (and through Article 217, HC judges); requires Parliamentary motion supported by: majority of total membership of each House AND 2/3 majority of members present and voting in each House; presented to President in the SAME Session; then President orders removal; no other method of removal available.

GS PAPER 3 — Economy · Science and Technology · Environment

4. Contact Lost with Drishti — World's First OptoSAR Satellite (GalaxEye)

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GS 3: Science and Technology: NewSpace India; OptoSAR; synthetic aperture radar; electro-optical imaging; satellite technology; space weather.

‣ Bengaluru-based space startup GalaxEye has confirmed that contact with Mission Drishti — the world's first OptoSAR (Optical + SAR) satellite — has been lost, with low probability of recovery.
‣ What happened: The satellite was operational for approximately 2 months after launch (May 3, 2026, aboard SpaceX Falcon 9, Vandenberg SFB); a geomagnetic solar storm caused radiation effects that impacted a critical onboard system; communication became intermittent, then was lost entirely.
‣ What Drishti was: India's largest privately built satellite (190 kg); world's first to combine Synthetic Aperture Radar (SAR) + Electro-Optical (Multispectral) sensors on a SINGLE platform; designed for all-weather, day-and-night Earth observation; orbit: ~500-600 km LEO.
‣ What it achieved before loss: Completed major phases of Launch and Early Orbit Phase (LEOP); validated attitude control, onboard computing, communications, mission operations infrastructure; demonstrated India's private sector capability to design, build, launch, and operate advanced space systems.

OptoSAR: What Makes It a Breakthrough Concept

- The individual sensor problem: (1) SAR (Synthetic Aperture Radar) — uses microwave radar pulses; works in ALL weather and day/night; not affected by clouds, rain, or darkness; but SAR images are harder to interpret (grayscale, complex backscatter data); (2) Electro-Optical (EO) sensors — capture images in visible, near-infrared, short-wave infrared light; high-resolution, colour-interpretable images; but cannot work through clouds or at night.
- The fusion advantage: OptoSAR combines both sensors on a SINGLE satellite, allowing fusion of SAR and EO data in a SINGLE PASS over a target area; the combined image provides: cloud-penetrating detection capability (SAR) with high-resolution visual context (EO); useful for: disaster damage assessment (floods, cyclones — when cloud cover prevents EO imaging); agricultural crop monitoring

(SAR detects soil moisture even under crops; EO detects crop health); urban surveillance; military intelligence.

- The geomagnetic storm cause: The July 2026 solar geomagnetic storm (a G3 or G4 class event, likely associated with a large coronal mass ejection — CME) caused radiation dose to the satellite's electronics in LEO; solar energetic particles (SEPs) and trapped radiation belt particles can cause: single-event upsets (SEUs) in memory; latch-up conditions (causing components to malfunction permanently); degradation of solar panels.
- GalaxEye's response: CEO Suyash Singh: the company is moving supply chain, manufacturing, and satellite development in-house (reducing dependence on external components); plans to launch two next-generation OptoSAR satellites within 24 months incorporating Drishti's lessons; the full 10-satellite constellation (designed for 2-day global revisit time) remains the long-term plan.

UPSC ANGLE

• Space weather risk in NewSpace: Small satellites in LEO (below 600 km) face less trapped radiation than medium-earth orbit (where Van Allen Belts concentrate radiation); but energetic solar particle events (associated with solar flares and CMEs) can temporarily create enhanced radiation environments even in LEO; satellite radiation hardening (using radiation-tolerant electronics) adds to cost but reduces this risk; GalaxEye's satellite may have used commercial-off-the-shelf (COTS) electronics which have lower radiation tolerance than military-grade hardened electronics.

• India's NewSpace sector context: Drishti's loss is a setback but not a failure — space ventures worldwide face first-generation satellite losses; ISRO's early INSAT and IRS satellites also had anomalies; the Indian private space sector has IN-SPACe enabling regulatory support; investors (GIC, Peak XV) supporting through first-generation challenges; space hardware iteration is faster than it was for first-generation ISRO satellites.

- **SAR (Synthetic Aperture Radar)** — Active microwave radar sensor on satellites; works through clouds, rain, and darkness; uses microwave pulses bounced off Earth's surface; produces backscatter images (used for flood mapping, displacement detection, soil moisture monitoring, ship detection, military surveillance); RISAT-2 and Cartosat-3's SAR variant are Indian examples.
- **OptoSAR (GalaxEye Drishti)** — World's first satellite combining SAR + Electro-Optical sensors on a single platform; 190 kg; launched May 3, 2026; contact lost July 7, 2026 (2+ months of operation); world's first in this category; geomagnetic storm caused radiation-induced onboard failure; GalaxEye plans two next-generation successors within 24 months.

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5. On the Method for Caste Enumeration — Census Column Debate

[TH] Page 10

GS 2: Governance: Census methodology; caste enumeration; self-report vs. verified list; OBC identification; Mandal Commission legacy.

‣ Following the revelation that the Census 2026 rehearsal has an 'open column' for caste, the debate on the CORRECT METHOD for caste enumeration has intensified — this is fundamentally a methodological challenge, not just a political one.

‣ The fundamental choice: (1) OPEN COLUMN (self-report without a predetermined list): What Drishti rehearsal has; respondents declare their caste in any name they choose; produces highly granular but difficult-to-standardise data (the same OBC community may report 50+ different names across districts); (2) CLOSED LIST (select from a predetermined caste list, like the SC/ST lists): Manageable data but the list would itself be contested — which bodies should be included in the national OBC list? States have different OBC lists from the Central list; (3) HYBRID: A structured list with an 'other — specify' category.

‣ The 2011 SECC problem: The 2011 Socio-Economic and Caste Census used an open-column approach and received approximately 46 lakh unique caste names from 1.47 crore households surveyed — an unmanageable data cleaning challenge; the data was never officially released partly for this reason.

‣ The Bihar caste survey (2023) as model: Bihar used a structured list approach (the state's OBC list) + an open column for castes not on the list; Bihar's survey produced 215 distinct caste groups (manageable); but Bihar's OBC list may not map cleanly onto the national OBC lists or other states' lists.

- The Mandal Commission legacy: The Mandal Commission (1980) identified 3,743 OBC communities nationally (based on 1931 census and local data); this list was the basis for 27% OBC reservation

implemented in 1990; the list is now 45+ years old; many communities have been added or removed; some communities appear in both OBC and SC lists in different states (castes that got SC status in some states but not others); a new Census caste enumeration would need to reconcile all these overlapping lists.

- OBC sub-categorisation: The Supreme Court (Pankaj Punia case, 2024) ruled that states CAN sub-categorise OBCs within the 27% reservation for awarding greater benefits to more backward among OBCs; this sub-categorisation requires data on WHICH OBC communities are most disadvantaged — which requires precisely the kind of census data that India lacks.
- The enumerator training challenge: Even if a structured list is provided, enumerators need to correctly identify which category a respondent's reported caste falls under; linguistic and spelling variations (Kurmi vs. Koeri vs. Kunbi — are these the same or different castes? In different states, the answer varies); this requires enumerator training that far exceeds standard Census training.

UPSC ANGLE

• The political economy: An 'open column' that produces chaotic data may be politically convenient — the data exists but is so complex that it cannot easily be used for reservation reform, delimitation calculation, or political mobilisation; some analysts suggest the 'open column' is a deliberate design choice that allows the government to claim it conducted caste enumeration without producing actionable, politically usable data.

• Indra Sawhney v. Union of India (1992): Landmark SC verdict upholding OBC reservations (Mandal Commission); established 50% cap on total reservations; directed creation of the creamy layer exclusion; identified the need for periodic revision of OBC lists based on contemporary data — data that has never been fully available because of the absence of a caste census.

- **Indra Sawhney v. Union of India (1992)** — Landmark SC 9-judge bench ruling (Mandal Commission case); upheld 27% OBC reservation; established 50% total reservation cap; introduced 'creamy layer' exclusion (wealthier OBCs excluded from reservation); directed periodic OBC list revision based on contemporary socio-educational data; the most important reservation-related judgment.
- **Socio-Economic and Caste Census (SECC) 2011** — Conducted simultaneously with Census 2011 as a separate exercise; collected caste/community data using open-column approach; resulted in 46 lakh+ unique caste names (unmanageable); only socio-economic data (housing, income) officially released; caste data never publicly released; methodological failure that informed the current census debate.

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6. India's Cooperative Sector as a Worker-Centric Development Model

[TH] Page 8

GS 3: Economy: Cooperative sector; Article 19(1)(c); 97th Constitutional Amendment; PACS; cooperative federalism.

‣ With the Ministry of Cooperation (created July 2021, Amit Shah as Minister) actively reforming India's cooperative sector, a debate has emerged about whether cooperatives can serve as India's distinctive worker-centric development model.

‣ India's cooperative sector scale: ~8.5 lakh cooperatives; 30+ crore members; largest cooperative network in Asia; covers: PACS (Primary Agricultural Credit Societies, 1.2 lakh+), dairy cooperatives (AMUL model), sugar cooperatives, fisheries cooperatives, housing cooperatives, consumer cooperatives (Kendriya Bhandar).

‣ The AMUL model as template: Gujarat Cooperative Milk Marketing Federation (GCMMF/AMUL) — the world's largest farmer-owned dairy cooperative; 36 lakh+ farmer-members; Rs 72,000+ crore annual turnover; operates on the principle of 'cooperative advantage' — pooling resources for competitive market access while distributing profits equitably to farmer-members.

‣ The Ministry of Cooperation's push: Since its creation, the Ministry has: computerised all PACS (Primary Agricultural Credit Societies); created the National Cooperative Database; launched NAFEX.in (NAFED digital marketplace); created a national cooperative 'Organics' brand; pushed cooperative exports through APEDA; announced Bharat Taxi (cooperative taxi service in Gujarat).

- The 97th Constitutional Amendment (2011): This amendment added Part IXB (Articles 243ZH to 243ZT) to the Constitution — provisions for 'Cooperative Societies'; made cooperative governance more democratic (elections, term limits for boards, government nominees limited to 1/5 of board); also added

'cooperative societies' to Article 19(1)(c) (right to form associations) — making the right to form cooperatives a fundamental right.

- PACS (Primary Agricultural Credit Societies): The ground-level credit cooperatives; 1.2 lakh+ across India; provide short-term credit to rural farmers (kharif and rabi credit); now being computerised and linked to Jan Dhan accounts; PACS could also become Multi-Purpose Primary Agriculture Credit Societies (MPACSs) — offering storage, processing, marketing, and input supply in addition to credit.
- The global cooperative economy: International Cooperative Alliance identifies 3 million+ cooperatives globally; the largest cooperatives are in agriculture (France, Netherlands, USA) and financial services (credit unions in US, Germany, UK); India's cooperative potential — with 8.5 lakh cooperatives and 30+ crore members — is underutilised due to political interference in cooperative governance.

UPSC ANGLE

• Vaikunth Mehta National Institute of Cooperative Management (VAMNICOM): Pune; national apex training and research institute for the cooperative sector; under Ministry of Cooperation; trains cooperative leaders and managers; connected to the Modi government's cooperative reform agenda.

• The 'cooperative federalism' dual meaning: In constitutional discourse, 'cooperative federalism' means Centre-State collaboration; in economic discourse, it increasingly also refers to the cooperative sector as a federated network of member-owned entities; the Ministry of Cooperation uses the term in both senses, creating a productive ambiguity in its communications.

- **97th Constitutional Amendment (2011)** — Added Part IXB (Articles 243ZH-243ZT) to Constitution; democratic governance provisions for cooperative societies (elections, term limits, limited government nominees); added cooperative societies to Article 19(1)(c) making right to form cooperatives a fundamental right; challenged before HC for violating state autonomy (cooperatives = State List, Entry 32).

7. WhatsApp Username Debate and Informational Privacy

[TH] Page 4

GS 2 / GS 3: Governance: WhatsApp username; DPDP Act 2023; informational privacy; data minimisation; phone number as personal data; TRAI.

‣ WhatsApp (under new Global CEO Kunal Shah) is reportedly planning to allow USERNAMES — allowing users to communicate without sharing their phone numbers; this feature, while user-friendly, has opened a significant privacy debate in India.

‣ The privacy paradox: (1) Pro-username argument: Hiding one's phone number from unknown contacts enhances privacy — you don't have to share your personal number with professional contacts, buyers, sellers, etc.; reduces phone number-based spam, stalking, and targeted attacks; (2) Anti-username argument: Phone numbers are linked to Aadhaar (via telecom KYC) and to real identities; usernames allow ANONYMITY which facilitates harassment, fraud, misinformation, and illegal content distribution without accountability.

‣ Informational privacy: The concept (rooted in K.S. Puttaswamy 2017) includes the right to control information about oneself; a user's phone number IS personal data under the DPDP Act 2023 (any data that can identify an individual); requiring users to share their phone number with all WhatsApp contacts could be argued to violate informational privacy (the contact doesn't NEED the phone number to communicate on WhatsApp — just the username suffices).

‣ TRAI's position (historical): The Telecom Regulatory Authority of India has previously considered regulating OTT (Over-The-Top) communication services like WhatsApp under the same KYC framework as telecom operators; under TRAI's earlier proposal, WhatsApp messages would require phone number linkage (as they currently do); a username system could complicate this regulatory linkage.

- Data minimisation principle (DPDP Act 2023): Section 5 — a data fiduciary shall collect ONLY as much personal data as is necessary for the specified purpose (data minimisation); sharing one's phone number with all WhatsApp contacts when a username would suffice violates data minimisation — the argument in favour of usernames from a DPDP perspective.
- Traceability vs. privacy: India's IT Rules 2021 (Intermediary Guidelines) require 'significant social media intermediaries' (platforms with 50 lakh+ users) to: implement a traceability mechanism for the 'originator' of content; end-to-end encryption (WhatsApp's core feature) conflicts with traceability; the username

debate compounds this — if usernames can replace phone numbers, law enforcement's ability to identify who originated criminal content is further complicated.

- The Kunal Shah angle: WhatsApp's new CEO has a background in India's fintech sector (CRED, FreeCharge); his understanding of India's digital ecosystem, regulatory environment, and consumer behaviour may shape how WhatsApp rolls out usernames in India differently from other markets — with privacy-protection justifications designed to satisfy DPDP requirements while also satisfying law enforcement traceability demands.
- 📌 **Data Minimisation (DPDP Act 2023)** — Section 5 of the Digital Personal Data Protection Act 2023; requires data fiduciaries to collect only as much personal data as necessary for the specified purpose; applies to WhatsApp's phone number collection from all users when usernames could achieve the same communication purpose with less personal data exposure.

8. India's Ethanol Transition vs. Brazil's Masterclass in Biofuels

[IE] Page Online

GS 3: Energy: Ethanol blending; Brazil's ProAlcool programme; E20; India-Brazil comparison; sugarcane; biofuel policy.

‣ India's ethanol blending programme has reached E14 (14% ethanol blend) but is hitting resistance as it attempts to move toward E25 (25% blend) — facing backlash from the automobile industry (engine compatibility concerns) and supply constraints; Brazil's ProAlcool programme offers lessons in how to do this right.

‣ Brazil's ProAlcool (National Alcohol Programme): Launched 1975 after the 1973 oil crisis; Brazil systematically developed: (a) feedstock supply (sugarcane cultivation expanded massively); (b) distillery capacity (dedicated ethanol distilleries, not just molasses-based); (c) vehicle technology (Flex-Fuel vehicles that run on any ethanol-petrol blend from E0 to E100 — introduced in 2003); (d) distribution infrastructure (ethanol pumps at all petrol stations); (e) long-term price stability (the government set ethanol prices to remain competitive with petrol).

‣ India's comparison: India focused on supply (incentivising distilleries to produce ethanol) without equally focusing on: (a) flex-fuel vehicles (Indian automakers still make fixed-ratio engines); (b) sustained price parity (ethanol prices fluctuated, making distillery economics uncertain); (c) feedstock diversification (India remains 90% sugarcane-dependent; Brazil is sugarcane + maize + agricultural waste).

‣ The E25 backlash: The automobile industry (Maruti Suzuki, Hyundai, Honda) is objecting to the jump to E25 — claiming current vehicles are not compatible; an E25 blend in vehicles designed for E10 could cause rubber seal corrosion, fuel pump damage, cold-start problems.

- Brazil's current status: Brazil today runs ~40% of its vehicle fleet entirely on E100 (pure hydrated ethanol) and the rest on E27+ (blended); Brazil is the world's 2nd largest ethanol producer (USA is 1st, uses corn); Brazil's energy security — it has virtually eliminated dependence on imported petroleum for road transport; the 2024 drought that affected Brazil's sugarcane crop caused domestic fuel price spikes, illustrating that even Brazil's model has vulnerabilities.
- The flex-fuel vehicle solution: India's government has been pushing automakers to develop flex-fuel vehicles; Bajaj Auto launched a flex-fuel two-wheeler (2023); Toyota Corolla flex-fuel demo (2023); but mass-market flex-fuel adoption requires: (a) fuel price signals (ethanol must be cheaper than petrol on energy-equivalent basis for consumers to choose it); (b) nationwide E100 pump availability (currently patchy); (c) consumer awareness.
- India's feedstock advantage: India is the world's 2nd largest sugarcane producer; FCI's surplus food grain stocks (FY26: 60+ million tonnes) can also be diverted to ethanol (grain-based ethanol); India's ethanol potential from these sources is ~800 crore litres annually (vs. current ~600 crore litres production); the gap is in distillery capacity, not feedstock.

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• The energy security argument at its strongest: If India achieves E25 by 2030 and E50 by 2040 (a stretch target), it would save $15-20 billion annually in oil import costs; reduce CO_2 emissions by 20-30% from the road transport sector; generate Rs 2-3 lakh crore in additional income for sugarcane farmers over the decade. The Brazil precedent shows this is achievable — but requires sustained policy commitment over 15-20 years, not 5-year plan cycles.

• NITI Aayog's stance: NITI Aayog's Committee on Biofuels (2021-22) recommended accelerating to E25 by 2025 (missed) and E30 by 2027; the Petroleum Ministry's actual rollout has been slower due to automobile industry objections; the 'backlash' from automakers is partly competitive (they want to sell EV-compatible vehicles, not older combustion engine vehicles modified for higher ethanol blends).

- **ProAlcool (Brazil)** — National Alcohol Programme; launched 1975; world's most successful biofuel programme; developed flex-fuel vehicles (E0 to E100 capable), distillery capacity, sugarcane cultivation expansion, price parity policy; Brazil now runs 40%+ vehicles on pure ethanol; the model India's ethanol programme aspires to replicate.
- **Flex-Fuel Vehicles (FFVs)** — Vehicles whose engines can run on any blend of ethanol and petrol from E0 to E100; the enabling technology for deep ethanol blending; Brazil mandated flex-fuel technology from 2003; India is in early stages of flex-fuel adoption (Bajaj launched in 2023); without flex-fuel vehicles, blending above E20 risks engine damage.

9. School Dropout Rate Falls Across Key Stages — ASER/UDISE Report

[TH] Page 6

GS 2: Governance: Education; school dropout; UDISE; NEP 2020; enrolment vs. learning outcomes.

‣ Government data (UDISE+ 2024-25 report): School dropout rate at the Primary level (Classes 1-5): 1.5% (down from 4.2% in 2019-20); Upper Primary (Classes 6-8): 3.1% (down from 4.1%); Secondary (Classes 9-10): 12.6% (down from 17.9%). All three stages show significant improvement.
‣ Transition rates improvement: The proportion of Class 5 students who enrol in Class 6 (primary-to-upper-primary transition) has improved to 96.3% (from 89.4% in 2018-19); Class 8 to Class 9 transition: 93.1% (from 87.6%).
‣ Drivers of improvement: Samagra Shiksha Abhiyan (integration of SSA, RMSA, TE into a unified scheme); NIPUN Bharat (foundational literacy-numeracy focus prevents primary dropout due to learning failure); midday meal programme (food incentive for attendance); social awareness campaigns (Beti Bachao Beti Padhao for female enrolment); girls' toilet construction (reduced girl dropout); NEP 2020's emphasis on inclusive education.

- The learning outcome caveat: Low dropout rates are positive but not sufficient — ASER (Annual Status of Education Report) consistently shows that despite children being IN school, many cannot perform basic reading and arithmetic at grade-appropriate levels; the 'quality vs. access' challenge in Indian education; NEP 2020's 'foundational literacy and numeracy' (FLN) mission (NIPUN Bharat, by Class 3 all children read and compute) is the response.
- **UDISE+ (Unified District Information System for Education)** — Annual school education data collection system under DSEL (Department of School Education and Literacy); covers 14.7 lakh+ schools; data on enrolment, teachers, infrastructure, transition rates, dropout rates; the primary data source for national school education policy monitoring.

10. Big Tech Data Centres Driving Up US Rust Belt Electricity Bills

[TH] Page 13

GS 3: Economy: Data centres; AI energy demand; electricity grid; industrial electricity pricing; US power sector.

‣ Analysis: Microsoft, Google, Amazon, and Meta have been building massive data centres in the US Midwest (formerly the 'Rust Belt' of declining steel and auto manufacturing) to serve their AI computing needs — but the massive electricity demand from these data centres is crowding out industrial consumers and driving up electricity prices for factories.
‣ The mechanism: US electricity markets price electricity based on marginal cost; when data centres (with predictable, high, 24/7 electricity demand) sign long-term power purchase agreements with utilities, utilities

must build new generation; the amortised cost of this new generation is spread across ALL utility customers — including factories.

‣ Scale: A single large AI data centre uses 100-500 MW of electricity (equivalent to 50,000-250,000 homes); the US added 10 GW of data centre load in 2025 alone; projections suggest 50+ GW by 2030; this is causing utilities in Ohio, Pennsylvania, Indiana (Rust Belt states) to request massive rate increases.

‣ India relevance: India is building its own data centre capacity (Meta and Alphabet near Hyderabad; AWS, Azure, Google data centres in Mumbai, Pune, Chennai); India's power grid (with 1.6 million+ industrial consumers) will face similar electricity pricing pressures as AI data centres scale up; the Rs 10,371 crore IndiaAI Mission's 10,000 GPU cluster will also require significant power — India's pre-emptive policy for data centre electricity should learn from US mistakes.

- The renewable energy connection: AI data centres' 24/7 power demand is challenging to meet with intermittent solar/wind; Microsoft and Google have committed to 100% renewable energy but struggle to match data centre load schedules with renewable generation availability; this is driving massive pumped hydro storage and long-duration battery investment globally; India's Vidhyut Sanchar Nigam (renewable energy for data centres) scheme is the planned policy response.

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• India-specific concern: NTPC, Adani Power, and Tata Power are negotiating direct power purchase agreements with Meta (Facebook) and Alphabet (Google) for their Hyderabad-area data centres at guaranteed prices; industrial consumers in Telangana and AP worry this will raise electricity tariffs for the textile mills and other industries on the same grid — the same phenomenon as the US Rust Belt.

PRELIMS IN FOCUS

Justice Yashwant Varma + Judge Impeachment Framework	Background: Justice Yashwant Varma (Delhi HC → Allahabad HC after transfer); fire at official residence March 14-15, 2025 at 30 Tughlak Crescent, Delhi; allegedly Rs 2-6 crore cash found in storeroom; CJI Sanjiv Khanna ordered in-house inquiry; transfer to Allahabad HC. Parliamentary motion: 145 Lok Sabha MPs + 63 Rajya Sabha MPs moved removal motions (July 2025). Inquiry Committee (August 2025): 3-member under Judges Inquiry Act 1968; Justice Aravind Kumar (SC) + HC Chief Justice + senior advocate. Resignation: April 9, 2026 (while inquiry ongoing); 1978 Constitution Bench ruling: HC judge resignation = unilateral, takes effect immediately on receipt by President. Report: Finalised May 2026; to be tabled in Monsoon Session (starting July 20, 2026). Key precedents: Justice Soumitra Sen (Rajya Sabha voted removal, resigned before Lok Sabha vote → motion dropped); Justice PD Dinakaran (resigned, inquiry wound up); Justice V. Ramaswami (Lok Sabha vote failed despite misbehaviour finding). Constitution: Articles 124(4) and 124(5) → Article 217 (HC judges); requires 2/3 majority of each House + majority of total membership.
Ahmedabad Blasts Case + Death Penalty Framework	Ahmedabad serial blasts: July 26, 2008; 21 blasts in 70 minutes; 56 killed, 200+ injured; hospitals, bus stops, crowded public spaces; Indian Mujahideen claimed responsibility. Sessions Court verdict (Feb 2022): 38 death sentences + 11 life imprisonments; India's largest terrorism-related death sentence count in a single verdict. Gujarat HC (July 2026): Confirmed all 38 death sentences; mandatory confirmation under Section 413 BNSS (formerly Section 366 CrPC). Next steps: SC review (convicts can file SLP) → Presidential clemency (Article 72) → Execution. Death penalty framework: Bachan Singh v. State of Punjab (1980) — rarest of rare doctrine; Macchi Singh (1983) — 5 categories warranting death penalty; aggravating vs. mitigating factors. Death penalty statistics: Last Indian executions — Nirbhaya convicts (4, March 20, 2020); Yakub Memon (2015); Afzal Guru (2013). Indian Mujahideen: Domestic Islamist group; also bombed Jaipur, Delhi (2008); severely degraded by NIA/police action 2010-2014.
Drishti OptoSAR	GalaxEye: Bengaluru-based space startup; IN-SPACe authorised; backed by GIC (Singapore) + Peak XV (Sequoia India). Mission Drishti: World's first OptoSAR satellite; 190 kg; India's largest privately built satellite at launch. OptoSAR = SAR + Electro-Optical sensors on

Satellite + GalaxEye	SINGLE platform. Launch: May 3, 2026; SpaceX Falcon 9 rideshare; Vandenberg Space Force Base, California. Orbit: ~500-600 km LEO. Contact lost: July 7, 2026; cause: geomagnetic solar storm → radiation effects on critical onboard system. Status: Communication loss; low recovery likelihood; LEOP largely complete; key systems validated. SAR: Synthetic Aperture Radar; all-weather, day/night; microwave pulses. EO: Electro-Optical; high resolution, colour images; cloud/dark sensitive. Fusion advantage: SAR data + EO imagery in single pass. Recovery plan: 2 next-generation OptoSAR satellites within 24 months; 10-satellite constellation (2-day global revisit) remains long-term goal.

Brazil ProAlcool + India Ethanol Programme Comparison	Brazil ProAlcool: Launched 1975 (post-1973 oil crisis); sugarcane-based ethanol; flex-fuel vehicles introduced 2003 (run E0 to E100); 40%+ vehicle fleet runs on pure ethanol; world 2nd largest ethanol producer. India EBP (Ethanol Blended Petrol): Current: E14 (national average, 2025-26); from E6 (2020-21); target: E20 (2025-26, partially delayed); E25 backlash from automobile industry (engine compatibility, rubber seal corrosion). Key difference: India lacks flex-fuel vehicles at mass scale; Bajaj Auto launched first Indian flex-fuel 2-wheeler (2023); Toyota Corolla demo. India feedstock: 90% sugarcane; FCI grain surplus also used. Targets: E25 being reconsidered (delay announced); economic savings if E25 achieved: $15-20B annually in crude import substitution. India's challenge: Supply side (distilleries) progressing faster than demand side (compatible vehicles, distribution infrastructure). NITI Aayog: Recommended E25 by 2025 (missed), E30 by 2027.

India's Two-State Solution Position + WhatsApp DPDP Angle	Two-state solution: Independent Palestinian state (West Bank + Gaza + East Jerusalem as capital) alongside Israel (pre-1967 borders); India's position since 1947; India first non-Arab state to recognise PLO (1974); India recognised Palestine as a state (1988). Gaza conflict context: India abstained on most UNGA Gaza resolutions; called for 'immediate cessation of hostilities' + two-state solution; deep Israel defence ties (Barak-8, Heron drones, etc.); large Gulf diaspora + domestic Muslim constituency considerations. Modi's Jakarta statement (July 7, 2026): Most explicit two-state articulation in recent years; responsive to Indonesian (world's largest Muslim-majority country) pressure. WhatsApp Username + DPDP Act: DPDP Act 2023 Section 5 = data minimisation principle; phone number is personal data under DPDP; username would reduce mandatory disclosure; traceability obligation (IT Rules 2021, Rule 4(2)) requires WhatsApp to identify 'first originator' of viral content — usernames complicate this. Kunal Shah (WhatsApp CEO from June 2026) likely to navigate India-specific regulatory requirements.

MAPPING — PLACES IN NEWS

Place	Why in News / Key Facts
Ahmedabad, Gujarat	Gujarat HC confirmed death sentence for 38 Ahmedabad serial bomb blasts convicts (July 26, 2008, 21 blasts, 56 killed, Indian Mujahideen); Gujarat HC is located here; Gujarat HC is among India's largest HCs by case load; Ahmedabad is Gujarat's largest city and commercial capital.
30 Tughlak Crescent, New Delhi	Site of the fire (March 14-15, 2025) at Justice Yashwant Varma's official Delhi HC residence where alleged cash was found; Tughlak Crescent is a leafy VIP residential area in central Delhi adjacent to Lutyens Delhi; official residences of Supreme Court and High Court judges are in this area.
Allahabad (Prayagraj), Uttar Pradesh	Justice Yashwant Varma was transferred to the Allahabad HC (India's oldest and largest High Court) after the cash controversy at his Delhi HC residence; resigned April 9, 2026; Allahabad HC is at Prayagraj (former Allahabad); established 1866 under British India.
Jakarta, Indonesia	PM Modi's bilateral with President Prabowo Subianto (July 6-8); Modi's two-state solution statement on Israel-Palestine was made here at joint press conference; responsive to Indonesian sentiment (largest Muslim-majority democracy, strong pro-Palestine position); Indonesia has no diplomatic relations with Israel.

Vandenberg Space Force Base, California, USA	Launch site of SpaceX Falcon 9 rideshare mission (May 3, 2026) that carried GalaxEye's Drishti OptoSAR satellite; Vandenberg SFB = US Space Force's Western Range launch facility; launches to polar and sun-synchronous orbits that cannot be achieved from Florida's Cape Canaveral (which launches to equatorial orbits).
Bengaluru, Karnataka	GalaxEye headquarters (the Drishti OptoSAR startup); the city is India's 'Sputnik space' for private space — also Skyroot Aerospace (Vikram-1), Pixxel (Earth observation), Dhruva Space; ISRO HQ + CABS (Netra AEW&C) + multiple DRDO labs; India's science, technology, and defence R&D capital.
ProAlcool Brazil (São Paulo, Rio Grande do Sul)	Brazil's ethanol heartland where ProAlcool (1975) transformed sugarcane cultivation into national energy security; São Paulo state produces 60%+ of Brazil's ethanol; Brazil lesson for India's E14-to-E25 transition struggles covered in the July 8 IE article.
Gaza Strip (and West Bank)	Context for Modi's two-state solution statement in Jakarta; Gaza Strip: 365 sq km; ~2.3 million population (blockaded since 2007); Hamas governance; Israel's military operations since October 7, 2023; West Bank: 5,655 sq km; Palestinian Authority governance; Israeli settlements; ICJ/ICC proceedings (covered earlier notes).

End of Notes · 8 July 2026 · UPSC with Saurabh Kaushik

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