AXIA IAS ACADEMY

DAILY NEWS ANALYSIS

JULY 17

CONSISTENT COMPREHENSIVE AND CREDIBLE

UNIQUE AND BEST IN QUALITY

Kudankulam 'data breach' not connected to nuclear activity at plant, says govt.

Jacob Koshy
NEW DELHI

Union Minister of State for Atomic Energy Jitendra Singh on Thursday downplayed concerns regarding the data breach involving electronic files linked to the Kudankulam nuclear power plant in Tamil Nadu.

"This [the breach] has nothing to do with the nuclear plant or nuclear security," he told *The Hindu* on the sidelines of a press conference. "There's no need for any immediate review because what has happened is not linked to nuclear activity."

The nuclear establishment, on the face of it, does not seem perturbed by the incident. A senior official of Nuclear Power Corporation of India Ltd. (NPCIL) – the plant operator – told *The Hindu* that the organisation was not, at present, contemplating a formal police investigation. "Right now, we aren't contemplating an FIR because it is Reliance's data that has been breached – in fact, Reliance could take such action if they wished to. From our perspective, no data regarding safety has been shared [with Reliance Infrastructure Limited]. Such kind of information on BoP (Balance of Plant) is shared with many companies," Prateek Agrawal, Executive Director (CP &CC), NPCIL, told *The Hindu*.

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>
> **JITENDRA SINGH**
> Union Minister of State for Atomic Energy

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Contract data

NPCIL said in a statement late on Wednesday that the drawings and technical documents reportedly leaked relate only to the Engineering, Procurement and Construction (EPC) contract for the Common Services-Balance of Plant (BoP) package of Kudankulam Nuclear Power Project (KKNPP) Units 3 and 4, which was awarded to Reliance Infrastructure Ltd. through a public tender in 2018. The corporation stressed that these facilities are conventional in nature, comparable to those used in thermal power plants and other process industries, and are not connected to nuclear safety or nuclear security systems. BoP refers to supporting infrastructure, auxiliary systems, and components required to make the plant operational and excludes the core generating equipment.

The State-run utility said it had shared only indicative drawings and technical specifications with bidders as part of the tendering process. Based on these inputs, Reliance Infrastructure prepared detailed engineering drawings in consultation with the original equipment manufacturers (OEMs), which were subsequently reviewed and accepted by NPCIL after verifying that they met the project's technical specifications.

After commissioning two 1,000 Mwe VVER reactors, the KKNPP is constructing four more similar units with Russian technical know-how at Kudankulam, which is all set to house India's biggest nuclear park with reactors generating 6,000 MW nuclear power.

According to a *Reuters* report, over 19,000 highly sensitive files dating between 2016 and mid-2025 and linked to KKNPP's engineering blueprints on control, cooling, and ventilation systems, list of vendors and suppliers supplying equipment, operational files on meeting records, reviews of joint inspection by the Indian and Russian engineers, insurance policies, etc., had been accessed by well-known ransomware group World Leaks.

The leak reportedly originated from a server hosted by third party provider, Yotta, belonging to the plant's contractor Anil Ambani's Reliance Group.

- **Key Terms and Explanations**
- **Critical Information Infrastructure (CII):** Think of this as the digital backbone of a nation. The IT Act of 2000 defines CII as any computer resource whose incapacitation or destruction would have a debilitating impact on national security, economy, or public health. Nuclear plants, power grids, and banking systems fall squarely into this category.
- **Balance of Plant (BoP):** In power generation, this refers to all the supporting infrastructure, auxiliary systems, and components necessary to make a facility operational, but it strictly excludes the core generating equipment (like the nuclear reactor itself). It includes cooling systems, ventilation, and power supply.
- **Engineering, Procurement, and Construction (EPC) Contract:** This is a prominent form of contracting agreement in the construction industry. The EPC contractor is made responsible for all the activities from design, procurement, construction, to commissioning and handover of the project to the end-user or owner.
- **Third-Party Vendor Risk:** This is the vulnerability introduced into a secure system by outside contractors or service providers. Even if a core facility is highly secure, a breach in a vendor's less-secure network (like a third-party server hosting engineering blueprints) can expose sensitive operational data.
- **Ransomware:** A type of malicious software designed to block access to a computer system or publish proprietary data until a sum of money is paid. Groups operating these are increasingly targeting industrial control systems and their supply chains.
- **Air-Gapping:** A critical security measure where a secure computer network is physically isolated from unsecured networks, such as the public internet or an unsecured local area network. It is the primary defense mechanism for core nuclear operations.

- **Main Arguments and Substantive Parts**
- When analyzing incidents involving data leaks related to strategic facilities, the core debate usually revolves around the categorization of data and the perimeter of accountability.
- **The Perimeter of Core Safety vs. Ancillary Data:** A primary argument presented by state utilities is the strict compartmentalization of data. The assertion is that data handled by external contractors—even detailed technical specifications and blueprints—relates to conventional, non-core infrastructure and does not compromise the actual nuclear safety or security systems.
- **The Supply Chain Vulnerability:** The central thesis of the security concern is that modern infrastructure projects cannot be built in isolation. They require sharing vast amounts of technical data (like meeting records, inspection reviews, and engineering drawings) with private enterprise. The weakest link in national security is often the cybersecurity posture of these private contractors.
- **Jurisdictional and Accountability Gray Areas:** When data belonging to a private contractor working on a government project is breached on a third-party hosting server, accountability becomes fragmented. State utilities may argue that the onus of filing legal complaints (like an FIR) or securing the data rests entirely on the private entity, potentially leading to a lack of coordinated state response to national security probes.

- **Historical Evolution of the Issue**
- **The Era of Physical Security (Pre-2000s):** Historically, protecting strategic assets like power plants was purely a matter of physical guarding. Cybersecurity was non-existent because facilities were entirely analog and manually operated.
- **Digitization and Early Vulnerabilities (2000–2010):** As facilities began adopting Supervisory Control and Data Acquisition (SCADA) systems to automate processes, they inadvertently opened doors to digital interference. The defining global moment was the Stuxnet worm (2010), a malicious computer worm that targeted Iranian nuclear centrifuges, proving that cyberattacks could cause massive physical destruction.
- **Institutional Awakening in India (2013–2014):** Recognizing the shift in warfare, India drafted the National Cyber Security Policy in 2013. Following this, the National Critical Information Infrastructure Protection Centre (NCIIPC) was established under the NTRO in 2014 to specifically protect assets like power, energy, and defense from cyber threats.
- **The Era of Supply Chain and Ransomware Attacks (Present):** Today, direct attacks on air-gapped core systems are incredibly difficult. Therefore, state-sponsored actors and cybercriminal syndicates have pivoted to targeting the ecosystem surrounding the facility. Recent years have seen a surge in attacks on healthcare infrastructure and energy grids, proving that exploiting third-party vendors is the new frontline of cyber warfare.

- **Way Forward**
- **Implementation of Zero-Trust Architecture:** Government utilities must move away from the assumption that internal networks or trusted vendors are inherently secure. A "Zero Trust" model requires strict identity verification for every person and device trying to access resources, regardless of whether they are sitting within the network perimeter or accessing it remotely.
- **Stringent Vendor Risk Management (VRM):** Security protocols cannot stop at the boundary of the state utility. EPC contracts must include legally binding, non-negotiable clauses requiring private contractors to maintain specific cybersecurity standards, subject to regular, unannounced audits by bodies like CERT-In.
- **Creation of a Specialized Cyber-Nuclear Cadre:** Just as the CISF protects the physical perimeters of critical assets, there is a need for a highly specialized, dedicated cadre of cybersecurity professionals under the NCIIPC whose sole mandate is to continuously simulate and defend against attacks on energy grids and nuclear facilities.
- **Mandatory Incident Reporting and State Oversight:** Relying on private entities to independently file complaints when government project data is breached is a systemic flaw. Policies should mandate immediate, automatic reporting of any breach involving state utility data to central agencies, allowing the state to take the lead in legal and forensic investigations.

'Frame policy for release of aged, terminally ill inmates'

The Supreme Court orders States and U.T.s to draft uniform policy for premature release of such prisoners within three months in coordination with the respective State Legal Services Authorities

Aaratrika Bhaumik
NEW DELHI

The Supreme Court on Thursday directed all States and Union Territories to put in place, within three months, a uniform policy governing the premature release of elderly and terminally ill prisoners, observing that such inmates are entitled to a humane and time-bound mechanism for remission or early release on compassionate grounds.

A Bench comprising Justices Vikram Nath and Sandeep Mehta directed that every State policy must clearly lay down the eligibility criteria and procedural framework governing such releases.

"All States and Union Territories shall, within a period of three months from the date of this judgment, formulate and notify a comprehensive policy for early or premature release of prisoners who are of advanced age and/or are terminally ill. Such policy shall be framed in consultation with the respective State Legal Services Authorities so as to ensure institutional coordination and effective identification of eligible prisoners," the Bench said.

Joint approach: The policy must ensure institutional coordination to identify eligible prisoners, the court said. ISTOCK

NALSA petition

The directions were issued while hearing a petition filed by the National Legal Services Authority (NALSA), which, based on inspections conducted in prisons across the country, pointed to the lack of a common framework for the premature release of aged and terminally ill prisoners. The petition contended that facilitating the release of such inmates would not only address a humanitarian concern but also help reduce overcrowding in prisons.

The court directed that every policy must incorporate a clear and uniform definition of "terminal illness". It permitted the authorities to draw upon the definition contained in the *Handbook on Prisoners with Special Needs* published by the United Nations Office on Drugs and Crime (UNODC), which describes terminal illness as "a condition where there is no reasonable medical possibility that the patient's condition will not continue to degenerate and result in death".

It also directed the States and Union Territories to constitute independent medical boards to assess and certify cases of terminal illness or advanced medical vulnerability in accordance with uniform eligibility criteria while considering applications for remission of prison sentences.

To facilitate the implementation of its directions, the Bench directed the Union government, in coordination with the National Informatics Centre (NIC), to provide the States and Union Territories with technical assistance, digital infrastructure, software support and training.

Compliance affidavits

The Bench directed the Centre, States and Union Territories to file compliance affidavits within six months, detailing the number of prisoners identified under the policy, those granted premature release, and those whose cases remain under consideration. The matter has been listed on January 19, 2027.

The petition had pointed out that India's prisons had an occupancy rate of 131% as of December 31, 2022, and that terminally ill and elderly inmates often require specialised care that prison authorities are ill-equipped to provide.

- **Key Terms and Explanations**
- **Premature Release / Remission:** In the legal realm, remission implies reducing the period of a sentence without changing its character. For example, reducing a rigorous imprisonment of 10 years to 8 years. Premature release often occurs through remission mechanisms (under Sections 432/433 of the CrPC or the new BNSS), differing from a 'pardon' which completely absolves the individual of the conviction.
- **Terminally Ill:** Within the context of penal administration, this refers to a medical condition where there is no reasonable possibility of recovery, and the illness will progressively degenerate, ultimately resulting in death. It marks a shift from penalizing the convict to providing palliative dignity.
- **NALSA (National Legal Services Authority):** Constituted under the Legal Services Authorities Act, 1987, NALSA provides free legal services to the weaker sections of society and organizes Lok Adalats. Its mandate stems directly from Article 39A of the Directive Principles of State Policy (Equal justice and free legal aid).
- **Prison Occupancy Rate:** This metric defines the ratio of the actual number of inmates to the sanctioned capacity of the penal institution. An occupancy rate exceeding 100% signifies overcrowding. For instance, an occupancy rate of 131% indicates severe infrastructural and administrative strain.
- **Compassionate Grounds:** This is an administrative or judicial rationale for decision-making based on empathy, human rights, and the constitutional right to dignity, recognizing that strict adherence to punitive measures may cause unjustifiable suffering to the aged or dying.

- **Main Arguments and Substantive Parts**
- When we conceptualize the need for specialized policies for vulnerable prisoners, several core arguments emerge that challenge the traditional, rigid structures of our penal system.
- **The Imperative for Uniformity:** A major systemic flaw is the lack of a standardized framework across different States and Union Territories. Because 'Prisons' is a State subject, the criteria for releasing aged or dying inmates vary wildly, leading to unequal application of justice. A uniform, institutionalized approach ensures constitutional parity.
- **Human Rights and Dignity in Incarceration:** The core thesis rests on the constitutional guarantee that a prisoner does not shed their fundamental rights at the prison gate. Terminally ill and geriatric prisoners require specialized medical care that standard prison dispensaries are ill-equipped to provide. Continuing their incarceration under such conditions violates the right to life with dignity.
- **Decongestion as an Administrative Relief:** The discourse strongly argues that releasing inmates who no longer pose a threat to society is a pragmatic solution to severe prison overcrowding. Decongestion eases the burden on state exchequers, allowing resources to be redirected toward reforming younger, reformable inmates.
- **The Necessity of Institutional Synergy:** A successful policy cannot exist in silos. The arguments highlight the need for robust coordination between State Legal Services Authorities (SLSAs), independent medical boards, and technology partners (like the National Informatics Centre) to ensure transparency and prevent arbitrary executive decisions.

- **Historical Evolution of the Issue**
- **Colonial Era Retribution:** The foundational law, the Prisons Act of 1894, was drafted by the British with a purely deterrent and retributive mindset. It focused heavily on maintaining discipline and order, largely ignoring the rehabilitative or humanitarian aspects of prisoner care.
- **Post-Independence Awakening (1980s):** The Supreme Court of India, through landmark judgments like *Sunil Batra vs. Delhi Administration*, initiated the era of prison jurisprudence, emphasizing that Article 21 (Right to Life) extends to prisoners.
- **The Mulla Committee (1980-1983):** This committee marked a watershed moment. It recommended comprehensive prison reforms, explicitly highlighting the need for humane conditions, better medical facilities, and the segregation of different categories of prisoners.
- **Modern Legislative Milestones (2016-Present):** The drafting of the Model Prison Manual in 2016 introduced specific chapters on the care of elderly and sick prisoners. More recently, the Ministry of Home Affairs introduced the Model Prisons and Correctional Services Act, 2023, shifting the nomenclature and focus from "prisons" to "correctional facilities," paving the way for structured remission policies.

- **Way Forward**
- **Standardized Medical Protocols:** States must constitute permanent, independent Medical Boards at the district level, free from political interference, to assess and certify terminal illnesses using universally accepted UNODC parameters.
- **Leveraging Digital Infrastructure:** Utilize the National Informatics Centre (NIC) to integrate all state prisons onto a centralized 'e-Prisons' dashboard. This would create an automated trigger system to flag inmates who cross a certain age threshold or medical vulnerability for immediate review.
- **Adoption of the Model Act:** State legislatures should be incentivized by the Centre to swiftly adopt the Model Prisons and Correctional Services Act, 2023, which provides a modern statutory backing for grievance redressal and remission.
- **Sensitization and Capacity Building:** Prison administrators and custodial staff must undergo mandatory training on human rights and palliative care sensitization, shifting their self-perception from "jailers" to "correctional officers."
- **Community Integration Plans:** Release should not mean abandonment. SLSAs and NGOs must coordinate to ensure that released terminally ill inmates have access to hospices or family care, preventing destitution upon release.

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COMPREHENSIVE ANALYSIS: PREMATURE RELEASE OF AGED OF & TERMINALLY ILL INMATES

FOUNDATION & CONTEXT

KEY TERMS & DEFINITIONS

- **Section 432 CrPC vs Remission;** Proper eligibility definition
- **Terminally Ill:** definition of critical conditions
- **NALSA role:** Promoting legal services, preventing injustice
- **Prison Occupancy Rate:** Prison overcrowding

MAIN ARGUMENTS & EVIDENCE

- **Overcrowding (131%),** and burden of numbers
- **Specialized care gap:** Specialized healthcare gap
- **Human Dignity:** Recognizing human dignity

JUDICIAL DIRECTIVE: UNIFORM POLICY FOR COMPASSIONATE RELEASE

MULTIDIMENSIONAL ANALYSIS

Social
- Restoration of family bonds
- Reduced social burden of care
- Community integration of release

Political
- State List power limitations
- Federal coordination
- Clemency powers (Article 72/161)

Economic
- Reduce prison health
- Freeing up prison resources
- Private care sector options

Legal
- Prevent abuse of remission
- Standardizing release protocols
- Judicial oversight

International
- Nelson Mandela Rules (SMR)
- Global standards of prisoner care
- UNODC Guidelines

Ethical
- State duty to the elderly
- Compassion for terminal cases
- Balancing justice with mercy

HISTORICAL & PHILOSOPHICAL EVOLUTION

- Prisons Act 1894 — 1894
- Mulla Committee (1983) — (1983)
- Model Prison Manual — (2016)
- Model Act (2023) — (2023)
- **RESTORATIVE JUSTICE PRINCIPLES** Compassion for incapacitated inmates

CONNECTIONS & FUTURE ROADMAP

NCERT LINKAGES
- Class 8 Civics
- Class 11 Pol Sci (Article 21)

UPSC/APSC SYLLABUS
- GS II (Vulnerable Sections)
- GS III (Internal Security /Overcrowding)
- GS IV (Ethics & Compassion)

WAY FORWARD
- Digital dashboards (NIC)
- Standardized protocols
- Community integration

PYQ SNIPPETS (UPSC & APSC)
[Pre: Parole Rights vs Rules | Mains: GSII Prison Reforms, Ethics Case Studies]

‘Third language should start in Class 6 and stop in Class 9’

SC asks Centre to not bring a third language in Class 9 as part of three-language scheme; T.N. govt. says schools under Centre’s Navodaya scheme are incompatible with two-language policy in State

Krishnadas Rajagopal
NEW DELHI

Supreme Court judge, Justice B.V. Nagarathna, made an oral appeal in open court to the government to not introduce a third language (R3) in Class 9 as part of the three-language scheme, saying it would be too stressful for children with Board exams just a year away.

She said a third language should be introduced in Class 6 and stopped in Class 9. “Third language should stop in Class 9, not start in Class 9,” Justice Nagarathna, heading a Division Bench, said. The pressure of the Class 10 Board exam starts as early as in Class 8, she added.

“Tell the Union of India to please not do this... Tell the government not to do it. Why introduce third language in Class 9? That is stressful. Why not Class 6?” Justice Nagarathna said.

Tell the Union of India to please not do this... Why introduce third language in Class 9? That is stressful for children with Board exams just a year away. Why not Class 6?

JUSTICE B.V. NAGARATHNA
Supreme Court judge

The judge, who is in line to become the first woman Chief Justice of India as per the seniority norm, recalled how, while she was in school, the teaching of lessons meant for Class 10 would begin in Class 8 itself. “And this was in 1976. You can just imagine what the pressure would be on children now,” she remarked.

‘Backdoor’ ploy

The Supreme Court was hearing petitions filed on the introduction of Navodaya schools in Tamil Nadu. The State government, during the previous Dravida Munnetra Kazhagam (DMK) regime, had maintained that the schools envisioned under the Jawahar Navodaya Vidyalaya Scheme were “fundamentally incompatible” with the two-language policy followed in Tamil Nadu.

The State had, in earlier hearings, argued that the Navodaya scheme based on the three-language formula was a deviation from the mandate of the Tamil Nadu Tamil Learning Act, 2006.

The State had submitted that the three-language formula was considered a core pedagogical and administrative framework of the Navodaya scheme.

It required compulsory instruction in Hindi, English, and the mother tongue/regional language.

The Tamil Nadu government had maintained that the imposition of the scheme was a “backdoor” ploy to make Hindi compulsory.

The apex court suggested that Tamil Nadu could have its “own education system” without denying children the option of enrolling in Navodaya schools.

Justice Nagarathna pointed out that Hindi was not compulsory under the three-language scheme. “...All other States have Navodaya schools, then why not have them for the children of Tamil Nadu?” the judge asked senior advocate Hsaripriya Padmanabhan, Additional Advocate General for Tamil Nadu.

While the earlier DMK regime was of the opinion that the implementation of the Navodaya scheme was unnecessary in Tamil Nadu, which already provided quality residential education to meritorious students from rural and economically weaker sections, Ms. Padmanabhan adopted a cautious tone, saying the new government was engaged in talks about the Navodaya school scheme and needed some time to chalk out its course of action.

Acknowledging the intricacies of a “change of guard” in the State, the court gave time till August 11, the next date of hearing.

- **Key Terms and Explanations**
- **The Three-Language Formula (TLF):** A cornerstone of Indian educational policy formulated in the 1960s. Conceptually, it mandates that students learn three languages: their mother tongue or regional language, the official language of the Union (Hindi), and a modern Indian or European language (usually English). For Hindi-speaking states, the third language is meant to be a language from another region (often South Indian), though implementation has historically been skewed.
- **The Two-Language Policy:** A counter-model adopted fiercely by certain states, most notably Tamil Nadu. It completely bypasses the inclusion of Hindi as a compulsory subject. Students are instructed primarily in their regional language (e.g., Tamil) and English, ensuring global and regional competence while resisting perceived linguistic homogenization.
- **Jawahar Navodaya Vidyalayas (JNVs):** These are premier, co-educational, residential schools established by the Central Government. Their core mandate is to unearth and nurture talented children predominantly from rural areas, regardless of their socio-economic background. Crucially, they operate under the framework of the Three-Language Formula, which often puts them at odds with states observing a two-language policy.
- **Cognitive Overload in Pedagogy:** A psychological and educational concept referring to the mental strain placed on a student when too much information is introduced at an inappropriate developmental stage. Introducing a completely new language just before high-stakes board examinations is a classic example of pedagogical cognitive overload.
- **Linguistic Sub-nationalism:** The phenomenon where a regional community deeply ties its political and cultural identity to its native language, often viewing the promotion of a dominant national language as an existential threat to its heritage.

- **Main Arguments and Substantive Parts**
- When we strip away the immediate context and look at the conceptual arguments shaping this debate, several substantive pillars emerge.
- **The Pedagogical Argument on Timing and Stress:** A major focal point is the psychological well-being of the student. Educational experts and the judiciary frequently note that introducing a third language in Class 9—just a year before the foundational Class 10 Board exams—is counterproductive. The argument champions a "Class 6 to Class 8" window for the third language. This allows students to acquire linguistic skills without the looming anxiety of board exams, ensuring education remains an enriching process rather than a stressful burden.
- **The Federal Friction over Educational Architecture:** Education lies in the Concurrent List (Entry 25), meaning both the Centre and States can legislate on it. However, friction arises when Central schemes (like JNVs) carry mandated frameworks (like the TLF) that directly contradict state-level legislations promoting a Two-Language policy. The core argument here is about administrative compatibility versus regional autonomy.
- **The 'Backdoor Imposition' Thesis:** Regional governments often view the establishment of central educational institutions with mandatory Hindi provisions not just as schools, but as Trojan horses. The argument is that while the three-language formula looks balanced on paper, in practice, it acts as a mechanism for the subtle, systemic imposition of Hindi on non-Hindi speaking populations.
- **The Trade-off Involving Educational Equity:** A highly compelling counter-argument questions the ethics of state stubbornness. By blocking institutions like Navodaya Vidyalayas due to linguistic politics, are states inadvertently denying brilliant, economically marginalized rural children access to world-class, free education? This argument posits that the welfare of the child must supersede political posturing.

- **Historical Evolution of the Issue**
- **Pre-Independence Era (1920s-1940s):** The Indian National Congress fundamentally organized itself along linguistic lines in the 1920s to better connect with the masses. However, leaders like Mahatma Gandhi also heavily promoted Hindustani as a unifying *lingua franca* for a diverse subcontinent fighting a common colonial power.
- **Constituent Assembly Debates (1946-1949):** The question of a national language nearly broke the Assembly. The compromise was the "Munshi-Ayyangar formula," which made Hindi in Devanagari script the Official Language, but allowed English to continue for official purposes for a period of 15 years.
- **The Explosive 1960s and Official Languages Act:** As the 15-year deadline (1965) approached for phasing out English, massive and violent anti-Hindi agitations erupted in Southern India. Consequently, the Official Languages Act of 1963 was amended to guarantee the continued use of English alongside Hindi, effectively cementing a bilingual status quo at the Union level.
- **Kothari Commission (1964-66):** It was this commission that formally birthed the Three-Language Formula to create a linguistic bridge across India. However, it largely failed in its true spirit because North Indian states rarely implemented the teaching of South Indian languages, treating Sanskrit as the third language instead.
- **National Education Policy (NEP) 2020:** The latest policy continues to endorse the Three-Language Formula but introduces a crucial caveat: "flexibility." It explicitly states that no language will be imposed on any state, attempting to soften the rigid central mandates of the past.

- **Way Forward**
- **Pedagogical Re-alignment:** Accept the consensus that a third language should act as a bridge, not a burden. Introduce it strictly between Classes 6 and 8. Make the assessment formative (conversational and cultural appreciation) rather than summative (high-stakes written exams).
- **Cooperative and Asymmetric Federalism:** The Centre should embrace the flexibility mentioned in NEP 2020. If a state has a rigid, legally mandated two-language policy, the Centre could create an exception for Navodaya Vidyalayas in that specific state, dropping the Hindi mandate so that rural children do not lose out on quality education.
- **Promote Reciprocity:** The Three-Language Formula failed because it was rarely implemented in Hindi-speaking states. To build trust, Northern states must genuinely introduce languages like Tamil, Telugu, or Malayalam into their curriculum, transforming the formula from a tool of imposition to a genuine exchange of cultures.
- **Leveraging Technology:** Instead of forcing language acquisition for administrative or economic reasons, the government should heavily invest in AI-driven real-time translation tools, standardizing educational materials in regional languages, thus decoupling linguistic proficiency from economic survival.

Robust infrastructure forms backbone of military operations: Rajnath Singh

Saurabh Trivedi
NEW DELHI

Union Defence Minister Rajnath Singh and Director General, Border Roads, Lt. Gen. Harpal Singh at the Strategic Infrastructure Conclave organised by Border Roads Organisation in New Delhi on Thursday. ANI

Defence Minister Rajnath Singh on Thursday underlined the critical role of strategic infrastructure in future conflicts, asserting that roads, tunnels, airfields and ports will remain indispensable despite the induction of advanced weapons and cutting-edge military platforms into the armed forces.

Addressing the Border Roads Organisation (BRO) Strategic Infrastructure Conclave in New Delhi, Mr. Singh said that while military prowess, precision capabilities and modern technologies shape the outcome of wars, robust infrastructure forms the backbone of military operations.

"Sometimes, the first front of a war is not at the border itself, but on the road that leads our soldiers to the front line. The person who builds that road is as vital a guardian of national security as the soldier who stands at the border," he said.

Highlighting the organisation's transformation over the past six-and-a-half decades, the Minister said the BRO has evolved from a road construction agency into one of the world's leading strategic infrastructure organisations.

Mr. Singh cited landmark projects such as the Atal Tunnel, Umling La Pass road and the Sela Tunnel as examples of the agency's engineering capabilities and commitment under some of the world's harshest conditions.

- **Key Terms and Explanations**
- **Strategic Infrastructure:** This goes far beyond standard civilian roadways. It encompasses highly specialized roads, all-weather tunnels, advanced airfields, and deep-water ports that are specifically designed to facilitate rapid military deployment and sustain logistical supply chains during conflicts ``.
- **Border Roads Organisation (BRO):** Serving as a critical pillar of India's security apparatus, this organization has evolved over the past six-and-a-half decades from a rudimentary road construction agency into one of the world's premier strategic infrastructure bodies ``. It operates in the harshest terrains to ensure connectivity.
- **Civil-Military Fusion in Logistics:** This is a modern security concept where civilian engineering marvels (like high-altitude passes and bridges) are seamlessly integrated into military strategy. It acknowledges that the person building the road is as vital to national security as the soldier stationed at the border ``.
- **Atal Tunnel & Sela Tunnel:** These are landmark engineering feats ``. For an aspirant, these aren't just tunnels; they represent "all-weather connectivity," meaning they bypass snow-bound passes to ensure troops and supplies can move year-round without seasonal blockades.
- **Umling La Pass:** Recognized as the highest motorable road in the world, this is a prime example of engineering under extreme conditions ``. Geopolitically, it provides a massive tactical advantage for troop movement in the sensitive Eastern Ladakh sector.

- **Main Arguments and Substantive Parts**
- When we analyze the conceptual basis of modern warfare and defense preparedness, several core arguments emerge that reshape how we view national security.
- **Infrastructure as the Backbone of Defense:** A central thesis in modern strategic thought is that while precision capabilities, cutting-edge military platforms, and modern technologies are crucial for shaping the outcome of a war, robust physical infrastructure remains the absolute backbone of all military operations ``. You cannot fight effectively if you cannot reach the battlefield.
- **The Redefinition of the "Frontline":** There is a profound paradigm shift in military strategy which posits that the first front of a war is not actually at the border itself, but rather on the road that leads our soldiers to that frontline ``. If the road fails, the frontline collapses.
- **Indispensability of Physical Assets:** Despite the rapid induction of advanced, over-the-horizon weapons and cyber warfare capabilities, traditional physical assets like roads, tunnels, and airfields will remain indispensable ``. Technology augments warfare, but geography and terrain still dictate its fundamental rules.
- **The Builder as a Guardian:** The narrative heavily elevates the status of infrastructure workers. Building in the world's harshest conditions requires immense sacrifice, making the engineer and the laborer essential guardians of national sovereignty, standing shoulder-to-shoulder with the armed forces ``.

- **Historical Evolution of the Issue**
- **The British Era (Pre-1947):** The colonial strategy was largely defensive. The British treated the Himalayan frontiers as natural buffer zones. Through mechanisms like the Inner Line Permit, they intentionally kept border areas underdeveloped to prevent adversaries (like Tsarist Russia or Imperial China) from finding easy routes into the Indian heartland.
- **The Period of Neglect (1950s - 1990s):** Post-independence, India largely continued this defensive mindset. There was a prevailing, albeit flawed, strategic thought that building roads near the Chinese border would be detrimental, as enemy forces could use those very roads to advance into Indian territory during an invasion.
- **The Turning Point and Formation of BRO:** The stark realities of the 1962 war exposed the massive logistical nightmare caused by this lack of infrastructure. This catalyzed the strengthening of the Border Roads Organisation, shifting its mandate to aggressively secure and connect the North and North-East ``.
- **The Modern Proactive Era (2000s - Present):** Today, India has moved from defensive neglect to assertive development. Driven by aggressive infrastructure build-ups on the other side of the Line of Actual Control (LAC), India is executing rapid construction of tunnels, bridges, and the Vibrant Villages Programme to physically and demographically secure its frontiers.

- **Way Forward**
- **Budgetary and Technological Augmentation:** Organizations tasked with border infrastructure must see sustained, non-lapsable budgetary support. We must aggressively adopt modern tech like 3D concrete printing for rapid bridge deployment, drone-assisted surveying, and trenchless tunneling to speed up projects.
- **Ecological Sensitivity (Green Roads):** The Himalayas are ecologically fragile. The way forward requires adopting "Green Highway" guidelines—using geo-textiles, utilizing plastic waste in road construction, and ensuring proper slope stabilization to prevent catastrophic landslides during the monsoons.
- **Public-Private Partnerships (PPP):** While security is paramount, non-sensitive peripheral infrastructure can be outsourced to private construction giants. This allows state engineering corps to focus exclusively on highly classified, zero-error strategic projects at the immediate frontlines.
- **Holistic Border Management:** Infrastructure must not just be military. The integration of 5G connectivity, optical fiber networks, and civilian helipads must happen concurrently with road building to ensure comprehensive socio-economic development of border outposts.

Bills on FCRA, *Vande Mataram* listed for Monsoon Session

The Hindu Bureau
NEW DELHI

The government has listed five new Bills for the Monsoon Session, set to begin on July 20

The Prevention of Insults to National Honour (Amendment) Bill, 2026, which seeks to amend the 1971 law to make the intentional insult of, or disruption during, the singing of the National Song *Vande Mataram* a punishable offence is among the five new Bills listed by the government for the coming Monsoon Session of Parliament.

Apart from these, the government has listed the Foreign Contribution (Regulation) Amendment Bill, which was introduced during the Budget Session of Parliament, and the Viksit Bharat Shiksha Adhisthan Bill, 2025, which is currently under the consideration of a Joint Committee of both Houses.

The other four new Bills listed by the government are the Registration of Births and Deaths (Amendment) Bill, which proposes stricter provisions for delayed registration; the Income Tax (Amendment) Bill, 2026; the Supreme Court (Number of Judges) Amendment Bill, 2026; and the Micro, Small and Medium Enterprises Development (Amendment) Bill, 2026.

Legislative agenda

The legislative agenda circulated among parliamentarians does not include the 130th Constitutional Amendment Bill, which seeks the automatic removal from public office of any person, including the Prime Minister and Chief Ministers, who has been jailed for 30 days, and the 131st Constitutional Amendment Bill, which proposed the delimitation of Lok Sabha seats to facilitate the implementation of women's reservation.

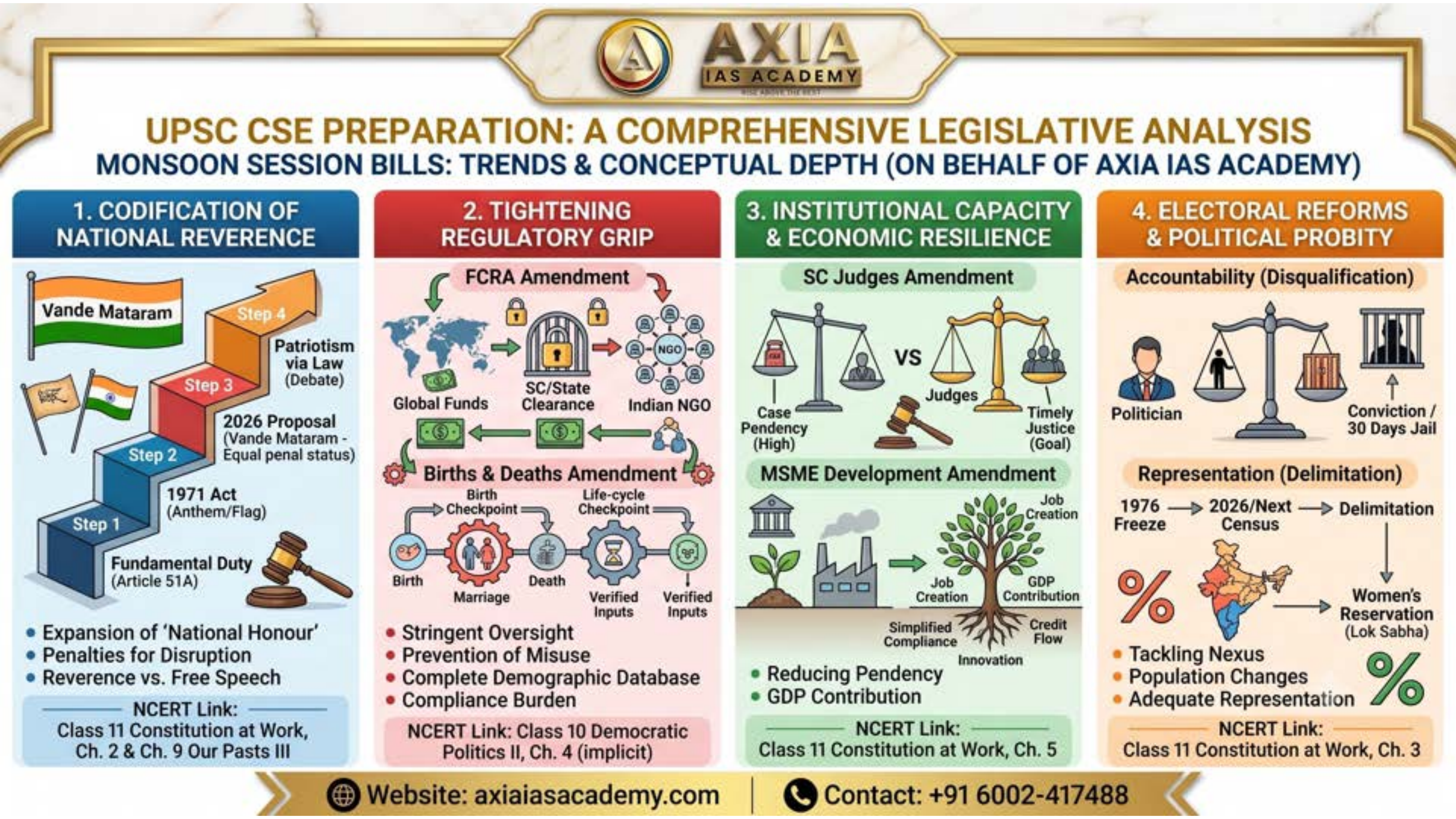
The Centre has not formally confirmed or denied reports that it may introduce a revised version of the Bill during the session.

- **Key Terms and Explanations**
- **Prevention of Insults to National Honour Act, 1971:** A parliamentary act designed to prevent the desecration of or insult to the country's national symbols, including the National Flag, the Constitution, and the National Anthem. The current discourse revolves around expanding this protection to the National Song, *Vande Mataram*.
- **Foreign Contribution (Regulation) Act (FCRA):** A law enacted to regulate the acceptance and utilization of foreign contributions or hospitality by individuals and NGOs. **Delimitation:** The act or process of fixing limits or boundaries of territorial constituencies in a country to represent changes in population. It ensures the fundamental democratic principle of "One Vote, One Value."
- **Constitutional Amendment Bill:** A proposed law seeking to change the text of the Constitution of India. Depending on the nature of the amendment, it requires either a special majority in Parliament or, in some cases (like those affecting federal structures), ratification by half of the state legislatures.
- **Joint Committee of Parliament:** A committee constituted by drawing members from both the Lok Sabha and the Rajya Sabha to examine a specific bill or issue in detail before it is put to vote. It represents a crucial step in legislative scrutiny.

- **Main Arguments and Substantive Parts**
- Looking conceptually at the legislative agenda, several core themes regarding governance, national identity, and democratic reform emerge. Here is a breakdown of the primary substantive parts:
- **Codification of National Reverence:** There is a clear move to elevate the legal standing of the National Song, *Vande Mataram*, bringing the penalties for insulting or disrupting it on par with the National Anthem. This reflects a legislative push to formalize and enforce respect for national symbols.
- **Tightening the Regulatory State:** The inclusion of amendments to the FCRA and the Registration of Births and Deaths indicates a governance model leaning toward stricter surveillance and formalization. Tighter FCRA rules suggest ongoing concerns regarding foreign interference in domestic affairs, while stricter birth/death registration points toward building a more robust, foolproof national demographic database.
- **Judicial and Economic Capacity Building:** Proposed amendments concerning the Supreme Court's judge strength and MSME development suggest an acknowledgment of institutional bottlenecks. Increasing judicial capacity aims to tackle pendency, while MSME reforms target the backbone of India's grassroots economy.
- **The Debate on Political Accountability:** The conceptual framework touches upon automatic disqualification for lawmakers jailed for 30 days. Though heavily debated, this represents the ongoing struggle against the criminalization of politics and the quest for probity in public life.
- **Electoral Representation and Gender:** The linkage between delimitation and women's reservation highlights a massive upcoming structural shift in Indian democracy, where reshaping electoral boundaries is seen as a prerequisite for ensuring adequate female representation in the Lok Sabha.

- **Historical Evolution of the Issue**
- **National Symbols and the Law:** *Vande Mataram*, penned by Bankim Chandra Chatterjee, became the battle cry of the Swadeshi Movement (1905). However, post-independence, the Constituent Assembly adopted *Jana Gana Mana* as the Anthem and gave *Vande Mataram* equal status as the National Song. The 1971 Act initially focused on the Flag and Constitution, leaving the National Song in a gray area regarding penal provisions for insults, a gap the current discourse seeks to close.
- **The Trajectory of FCRA:** Born during the Emergency in 1976 to curb foreign interference in Indian politics, the FCRA was overhauled in 2010 to regulate NGOs strictly. The 2020 amendments further tightened the screws by prohibiting the transfer of foreign funds between NGOs and capping administrative expenses, reflecting the State's evolving security calculus.
- **Criminalization of Politics:** The fight for electoral probity gained momentum with the Vohra Committee Report (1993), which highlighted the politician-criminal nexus. The Supreme Court's landmark *Lily Thomas* judgment (2013) struck down Section 8(4) of the RPA, enabling immediate disqualification upon conviction. The current discussions around a 30-day jail term for automatic removal represent the next aggressive frontier in this historical timeline.
- **Delimitation and Demography:** Historically, delimitation was frozen in 1976 (during the 42nd Amendment) to 1971 census figures to encourage population control, preventing states that successfully controlled their populations (mostly Southern states) from losing political representation. With the freeze set to expire, the linking of women's reservation to the next delimitation exercise reopens a decades-old north-south political debate.

- **Way Forward**
- **Balancing Regulation and Civil Society:** While regulating foreign funds via FCRA is a legitimate security interest, the government must ensure that the compliance burden does not choke genuine philanthropic and developmental NGOs. A graded regulatory approach based on the sector of NGO operation could be a middle path.
- **Consensus on Delimitation:** Before initiating the delimitation exercise linked to women's reservation, a broad political consensus must be built through the Inter-State Council to assure Southern states that their success in population control will not be punished with a loss of political power at the Centre.
- **Objective Criteria for National Honour:** If penal provisions are expanded for the National Song, the legislature must clearly define what constitutes an "insult" to prevent misuse of the law against legitimate democratic dissent or artistic expression.
- **Systemic Judicial Reforms:** Increasing the number of Supreme Court judges is a welcome step, but it must be coupled with modernizing court infrastructure, adopting AI for case management, and establishing Regional Benches of the Supreme Court to genuinely tackle pendency and ensure access to justice.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UPSC CSE PREPARATION: A COMPREHENSIVE LEGISLATIVE ANALYSIS
MONSOON SESSION BILLS: TRENDS & CONCEPTUAL DEPTH (ON BEHALF OF AXIA IAS ACADEMY)
1. CODIFICATION OF NATIONAL REVERENCE
Vande Mataram
Step 4
Patriotism via Law (Debate)
Step 3
2026 Proposal (Vande Mataram - Equal penal status)
Step 2
1971 Act (Anthem/Flag)
Step 1
Fundamental Duty (Article 51A)
• Expansion of 'National Honour'
• Penalties for Disruption
• Reverence vs. Free Speech
NCERT Link: Class 11 Constitution at Work, Ch. 2 & Ch. 9 Our Pasts III
2. TIGHTENING REGULATORY GRIP
FCRA Amendment
Global Funds
SC/State Clearance
NGO
Indian NGO
Births & Deaths Amendment
Birth Checkpoint
Life-cycle Checkpoint
Birth
Marriage
Death
Verified Inputs
Verified Inputs
• Stringent Oversight
• Prevention of Misuse
• Complete Demographic Database
• Compliance Burden
NCERT Link: Class 10 Democratic Politics II, Ch. 4 (implicit)
3. INSTITUTIONAL CAPACITY & ECONOMIC RESILIENCE
SC Judges Amendment
VS
Case Pendency (High)
Judges
Timely Justice (Goal)
MSME Development Amendment
Job Creation
Job Creation
GDP Contribution
Simplified Compliance
Credit Flow
Innovation
• Reducing Pendency
• GDP Contribution
NCERT Link: Class 11 Constitution at Work, Ch. 5
4. ELECTORAL REFORMS & POLITICAL PROBITY
Accountability (Disqualification)
Politician
Conviction / 30 Days Jail
Representation (Delimitation)
1976 Freeze → 2026/Next Census → Delimitation
Women's Reservation (Lok Sabha)
• Tackling Nexus
• Population Changes
• Adequate Representation
NCERT Link: Class 11 Constitution at Work, Ch. 3
Website: axiaiasacademy.com
Contact: +91 6002-417488

SC verdicts say state has the duty to preserve life of a person on indefinite fast

NEWS ANALYSIS

Krishnadas Rajagopal
NEW DELHI

Multiple Supreme Court judgments and orders highlight the state's paternalistic duty of care to preserve the life of a person on a hunger strike without disrupting his right to dissent.

Yet the government has responded to activist Sonam Wangchuk's ongoing fasting at Jantar Mantar with silence for the past 19 days even as an alarmed Delhi High Court asserted on July 16 that the "life of any citizen is precious".

A series of orders of a Supreme Court Bench headed by Justice Surya Kant, currently the Chief Justice of India, have similarly stressed the constitutional duty and responsibility of the state to ensure that no harm is caused to the life of a person on an indefinite fast.

The orders were passed during periodic hearings held in the case of Punjab farmer leader Jagjit Singh Dallewal during the latter half of the year 2024. The septuagenarian Mr. Dallewal's hunger protest against the controversial farm laws had crossed 20 days at the time.

Hunger strikes are neither unconstitutional nor barred under any law in the country

The court had highlighted that both the Union of India and the State of Punjab must take into consideration the age, medical health issues, and the fact that Mr. Dallewal was a prominent citizen.

The Bench had held that it was the "bounden duty of the State of Punjab, the Union of India and other stakeholders to take all necessary measures to provide immediate adequate medical aid to Mr. Jagjit Singh Dallewal without forcing him to break his fast unless it is imperative to do so to save his life".

In the top court judgment in the *suo motu* case of *In Re: Ramlila Maidan Incident*, the court narrated instances of the then United Progressive Alliance government reaching out to Baba Ramdev to dissuade him from going on a hunger strike against corruption in 2011.

It recorded that the then Prime Minister, the late Dr. Manmohan Singh, had gone the "extra mile" to dissuade Baba Ramdev.

"On May 4, 2011, Baba Ramdev had written a letter to the PM stating his intention to go on fast to protest against the government's inaction against bringing back the black money. This was responded to by the PM on May 19, 2011 assuring him that the government was determined to fight with the problem of corruption... and asking him to drop the idea of going on a hunger strike till death," the judgment recorded.

It narrated how four senior Ministers of the UPA government had met Baba Ramdev at the airport when he arrived in Delhi in 2011 to persuade him against the hunger strike.

The court has discouraged the executive from taking a hostile view of persons who want to express their stand by fasting. It has held that the state cannot disrupt the right of expression unless there was a "genuine threat or reasonable bias of communal disharmony, social disorder and public tranquillity".

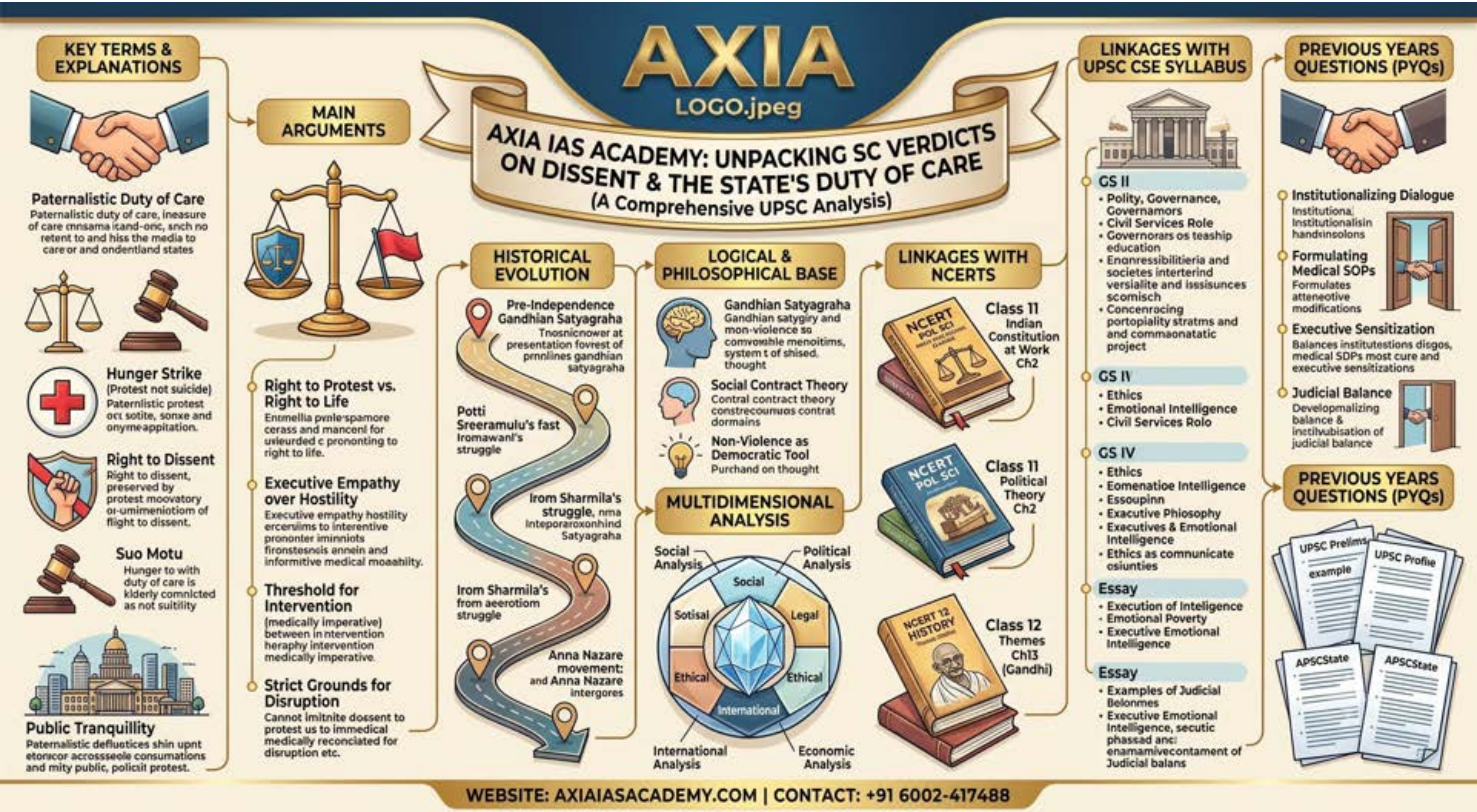
Hunger strikes are neither unconstitutional nor barred under any law. "It is a form of protest which has been accepted, both historically and legally in our constitutional jurisprudence," it said.

- **Key Terms and Explanations**
- **Paternalistic Duty of Care:** This concept stems from the doctrine of *Parens Patriae* (parent of the nation). It implies that the State acts as a guardian for its citizens, inherently responsible for protecting their lives and well-being, even when a citizen intentionally puts their own life at risk during a protest. Think of it as the State stepping in as a caretaker when a fasting protestor's health reaches a critical, life-threatening stage.
- **Indefinite Fast / Hunger Strike:** Unlike a standard physical protest, a hunger strike is a method of non-violent resistance where a person voluntarily refuses food. Legally and historically in India, it is viewed not as a suicide attempt, but as a deeply personal form of political or social dissent aimed at awakening the conscience of the authority.
- **Right to Dissent:** Flowing from Article 19(1)(a) (Freedom of Speech and Expression), this is the democratic right to disagree with government policies. It forms the bedrock of a functioning democracy, allowing citizens to express dissatisfaction peacefully.
- **Suo Motu:** A Latin legal term meaning "on its own motion." In our context, it refers to instances where higher judiciary (High Courts or the Supreme Court) takes up a matter of public importance regarding a citizen's life or rights without a formal petition being filed by a party.
- **Public Tranquillity:** This refers to the peace and order of society. It is one of the "reasonable restrictions" under Article 19(2). The State can only legitimately disrupt a peaceful protest if there is a concrete, genuine threat to communal harmony or public order, rather than just an administrative inconvenience.

- **Main Arguments and Substantive Parts**
- The core debate here lies at the fascinating intersection of a citizen's fundamental right to protest and the State's constitutional mandate to protect human life. It is a classic constitutional balancing act.
- **The Right to Protest vs. The Right to Life:** A hunger strike is an accepted legal and historical tool of dissent in Indian constitutional jurisprudence. However, this right to protest (Article 19) operates concurrently with the State's paramount duty to preserve life (Article 21). The judiciary consistently holds that the State cannot simply watch a citizen die, nor can it crush their dissent prematurely.
- **Executive Empathy over Hostility:** Administrative machinery is often discouraged from taking a hostile or adversarial stance against fasting protestors. The constitutional expectation is that the State must engage, dialogue, and even go the "extra mile" to dissuade individuals from fasting, reflecting democratic responsiveness rather than ego-driven apathy.
- **Threshold for Intervention:** The State is mandated to provide immediate and adequate medical aid to a fasting protestor. Crucially, the State cannot force a protestor to break their fast *unless* it becomes absolutely medically imperative to save their life. The age, health profile, and public stature of the protestor are vital variables in determining this threshold.
- **Strict Grounds for Disruption:** A peaceful fast cannot be dismantled arbitrarily. The State's power to forcibly end or disrupt such an expression of dissent is strictly limited to scenarios where there is a genuine, demonstrable threat to communal harmony, social order, or public tranquillity.

- **Historical Evolution of the Issue**
- **Pre-Independence Roots:** The hunger strike was refined as a political weapon by Mahatma Gandhi. He undertook numerous fasts (like the Epic Fast of 1932 against separate electorates) to invoke moral pressure rather than physical force. Similarly, revolutionary freedom fighters like Jatin Das famously fasted for 63 days in Lahore Jail demanding rights for political prisoners, eventually attaining martyrdom.
- **Post-Independence State Reorganization:** One of the most consequential fasts in modern Indian history was by Potti Sreeramulu in 1952. His indefinite fast for the creation of a separate Telugu-speaking state, and his subsequent death, forced the Government of India to create Andhra State, triggering the wider linguistic reorganization of Indian states.
- **The Struggle against Armed Forces Special Powers Act (AFSPA):** Irom Sharmila, the "Iron Lady of Manipur," undertook a 16-year-long hunger strike demanding the repeal of AFSPA. Her struggle highlighted the tension between state security apparatuses and individual civil liberties, bringing global attention to the issue.
- **Modern Legislative Accountability:** In the 21st century, mass fasts by figures like Anna Hazare (India Against Corruption movement in 2011) forced the political establishment to enact the Lokpal and Lokayuktas Act. These historical milestones prove that fasting remains a potent tool to force executive and legislative accountability.

- **Way Forward**
- **Institutionalize Dialogue Mechanisms:** Governments should establish standard, high-level negotiation committees to engage with protestors early on. Ignoring a protest until it reaches a medical crisis point reflects poor governance. Early engagement prevents situations from escalating to life-or-death thresholds.
- **Develop Medical Standard Operating Procedures (SOPs):** The Health and Home Ministries should formulate clear SOPs for medical intervention during hunger strikes. These guidelines must clearly define the clinical threshold at which life-saving intervention becomes constitutionally mandated, ensuring police and doctors are not caught in legal gray areas.
- **Sensitization of the Executive:** Civil servants and police personnel must undergo training in constitutional morality. They need to view protestors not as adversaries or law-and-order problems, but as citizens exercising their fundamental rights, requiring a response grounded in empathy rather than hostility.
- **Judicial Restraint and Proactiveness:** While courts must protect lives, they should also avoid excessive interference in executive functioning. However, courts must remain highly proactive in acting *suo motu* when state apathy threatens human life, ensuring the constitutional machinery does not fail the dissenting citizen.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AXIA IAS ACADEMY: UNPACKING SC VERDICTS ON DISSENT & THE STATE'S DUTY OF CARE
(A Comprehensive UPSC Analysis)
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NITI Aayog suggests ₹50,000-crore fund for biotech growth

Jacob Koshy
NEW DELHI

A NITI Aayog road map has proposed creating a ₹50,000-crore BioEconomy Growth Fund, a dedicated production-linked incentive (PLI) scheme for biomanufacturing and six national biotechnology missions as part of an ambitious strategy to transform India into one of the world's top three biotechnology powers by 2035.

The report, "Roadmap for building India as a leading bioeconomy powerhouse by 2035", released on Thursday, says India should move beyond the broad framework laid out under the Biotechnology for Economy, Environment and Employment (BioE3) policy and adopt a mission-mode execution strategy backed by new financing, regulatory reforms and cross-ministerial governance. It targets expanding India's bioeconomy from \$195.3 billion in 2025 to \$691 billion by 2035 and \$2.6 trillion by 2047, while creating over 30 million high-value jobs.

"The goal is not to just research but to build globally competitive biotechnology companies," said Debjani Ghosh, Distinguished Fellow, NITI Aayog, at the launch.

The centrepiece of the recommendation is a proposed ₹50,000-crore fund for 2026-35 to bridge the biotechnology sector's "valley of death" – the gap between proof-of-concept research and commercial-scale manufacturing. The fund would provide blended finance, equity-risk instruments, viability-gap funding and infrastructure support for biomanufacturing, advanced therapeutics, synthetic biology, fermentation technologies and diagnostics.

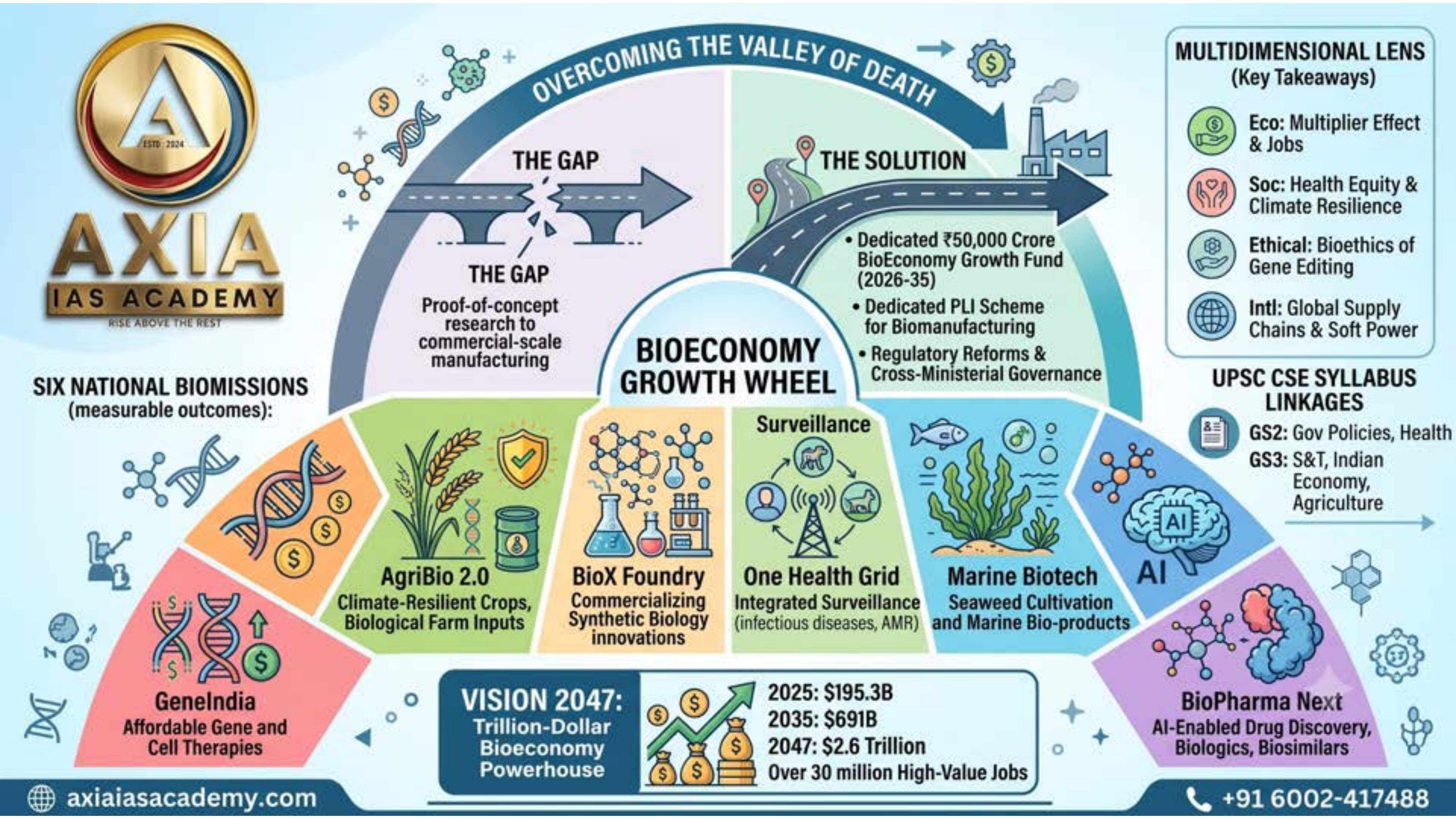
The roadmap also recommends launching six National BioMissions with clearly identified lead Ministries and measurable outcomes by 2035. These include GeneIndia for affordable gene and cell therapies, AgriBio 2.0 for climate-resilient gene-edited crops and biological farm inputs, BioX Foundry to commercialise synthetic biology innovations, One Health Grid for integrated surveillance of infectious diseases and antimicrobial resistance, Marine Biotechnology to expand seaweed cultivation and marine bioproducts, and BioPharma-Next to establish India as a global hub for biologics, biosimilars and AI-enabled drug discovery.

- **Key Terms and Explanations**
- **Bioeconomy:** This represents the economic activity driven by research, innovation, and production in the biological sciences. It encompasses everything from agriculture and healthcare to industrial manufacturing where biological processes are utilized. Think of it as replacing traditional fossil-fuel-driven industrial processes with biology-driven ones.
- **The "Valley of Death" in Innovation:** A crucial concept in economics and R&D. It refers to the perilous funding gap that exists between successful "proof-of-concept" laboratory research and actual commercial-scale manufacturing. Many brilliant indigenous innovations fail here because investors hesitate to fund unproven commercial scaling.
- **Production-Linked Incentive (PLI):** A government scheme designed to boost domestic manufacturing and attract investments by offering companies incentives calculated on incremental sales of products manufactured in India. It effectively rewards companies for scaling up physical production.
- **Viability-Gap Funding (VGF):** A mechanism where the government provides capital grants to support infrastructure or manufacturing projects that are economically justified and strategically important but fall just short of financial viability for private investors.
- **Synthetic Biology (BioX):** The design and construction of new biological parts, devices, and systems, or the re-design of existing, natural biological systems for useful purposes. Unlike traditional genetic engineering, which moves a single gene, synthetic biology involves engineering complex biological systems from scratch.
- **One Health Approach:** An integrated, unifying approach that aims to sustainably balance and optimize the health of people, animals, and ecosystems. It recognizes that human health is intrinsically tied to the health of the environment and animal populations, a vital concept in combating zoonotic diseases and Antimicrobial Resistance (AMR).
- **Biologics and Biosimilars:** Biologics are complex medicines made from living organisms (like vaccines or gene therapies). Biosimilars are highly similar, more affordable generic versions of these complex biologics, analogous to how generic drugs relate to chemical pharmaceuticals.

- **Main Arguments and Substantive Parts**
- The core thesis of recent policy roadmaps is that India must transition from being a passive consumer of global biotech products to a proactive, leading bioeconomy powerhouse through targeted state intervention and strategic funding.
- **Bridging the Commercialization Gap:** The primary argument is that India has strong foundational R&D but lacks the capital to scale these innovations. Establishing a massive dedicated fund (such as the proposed ₹50,000-crore fund spanning 2026-35) is positioned as the essential bridge across the R&D "valley of death".
- **Exponential Economic Scaling:** The strategic vision targets aggressive, exponential growth metrics. The ambition is to expand the bioeconomy from an estimated $195.3 billion in 2025 to a staggering $2.6 trillion by the centenary of independence in 2047, alongside the creation of over 30 million high-value jobs.
- **Mission-Mode Execution:** The approach advocates shifting away from broad, generalized frameworks (like the overarching BioE3 policy) toward highly specific, mission-driven executions with measurable outcomes.
- **Targeted National Interventions:** This strategy is underpinned by proposing distinct national missions that tackle specific sectors:
  - Making advanced gene and cell therapies affordable.
  - Developing climate-resilient, gene-edited agricultural crops.
  - Commercializing synthetic biology innovations.
  - Establishing an integrated surveillance grid for infectious diseases and AMR.
  - Expanding the blue economy via marine biotechnology (like seaweed cultivation).
  - Positioning India as a global hub for AI-enabled drug discovery and biologics.
- **Blended Financial Instruments:** The argument emphasizes that traditional grants are insufficient. The ecosystem requires sophisticated tools like equity-risk instruments, blended finance, and infrastructure support to attract private capital into high-risk biomanufacturing ventures.

- **Historical Evolution of the Issue**
- **Pre-1980s (The Foundation Phase):** India's initial tryst with biological sciences was heavily focused on agricultural yield and fundamental biology, driven by institutions like the CSIR (Council of Scientific and Industrial Research) and ICAR (Indian Council of Agricultural Research) during the Green Revolution.
- **1986 (Institutional Recognition):** A watershed moment occurred when India became one of the first countries globally to establish a separate Department of Biotechnology (DBT) under the Ministry of Science and Technology, recognizing the strategic future of the sector.
- **1990s - 2000s (The Generic Biopharma & Bt Era):** This era saw India emerge as the "pharmacy of the world" primarily through generic drug manufacturing and vaccines. In agriculture, the controversial but economically impactful introduction of Bt Cotton marked the country's first major foray into commercial agricultural biotechnology.
- **2012 (Startup Ecosystem Push):** The establishment of BIRAC (Biotechnology Industry Research Assistance Council) marked a shift toward nurturing biotech startups and bridging the gap between academia and industry.
- **2020 - Present (Pandemic Catalyst & BioE3 Shift):** The COVID-19 pandemic proved India's biomanufacturing prowess (vaccine production). However, it also exposed dependencies on global supply chains for active pharmaceutical ingredients (APIs) and advanced therapeutics. The current shift, encapsulated by the BioE3 (Biotechnology for Economy, Environment and Employment) policy framework, marks a transition from generic replication to indigenous, cutting-edge innovation and global leadership.

- **Way Forward**
- **Regulatory Overhaul (Single Window System):** The "valley of death" is often widened by bureaucratic red tape. India needs a unified, single-window regulatory authority for biotechnology products (similar to the FDA's fast-track designations in the US) to ensure that safe innovations reach the market swiftly.
- **Industry-Academia Symbiosis:** The current siloed approach must end. Universities must revamp their curricula to focus on biomanufacturing and synthetic biology, creating a talent pool that is immediately employable by the industry.
- **Catalyzing Private Venture Capital:** Government funds alone cannot sustain the sector. The state's blended finance instruments must be structured to deliberately de-risk projects for domestic venture capitalists, thereby crowding in private investment rather than replacing it.
- **Robust Bioethical Frameworks:** Before scaling synthetic biology (BioX) and gene-edited crops, India must establish an independent bioethics commission. This body must create clear, transparent guidelines to ensure ecological safety and build public trust in genetically modified products.
- **Decentralization of Innovation Clusters:** Currently, biotech innovation is heavily concentrated in a few cities like Bengaluru, Hyderabad, and Pune. Establishing localized bio-parks that tap into regional biodiversity (e.g., marine biotech hubs in coastal states, agribio hubs in the Gangetic plains) will ensure inclusive, pan-India growth.


AXIA
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RISE ABOVE THE REST
OVERCOMING THE VALLEY OF DEATH
THE GAP
THE GAP
Proof-of-concept research to commercial-scale manufacturing
THE SOLUTION
• Dedicated ₹50,000 Crore BioEconomy Growth Fund (2026-35)
• Dedicated PLI Scheme for Biomanufacturing
• Regulatory Reforms & Cross-Ministerial Governance
BIOECONOMY GROWTH WHEEL
SIX NATIONAL BIOMISSIONS (measurable outcomes):
GeneIndia
Affordable Gene and Cell Therapies
AgriBio 2.0
Climate-Resilient Crops, Biological Farm Inputs
BioX Foundry
Commercializing Synthetic Biology innovations
Surveillance
One Health Grid
Integrated Surveillance (infectious diseases, AMR)
Marine Biotech
Seaweed Cultivation and Marine Bio-products
AI
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BioPharma Next
AI-Enabled Drug Discovery, Biologics, Biosimilars
VISION 2047:
Trillion-Dollar Bioeconomy Powerhouse
2025: $195.3B
2035: $691B
2047: $2.6 Trillion
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MULTIDIMENSIONAL LENS
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Eco: Multiplier Effect & Jobs
Soc: Health Equity & Climate Resilience
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Why is Maharashtra's Ladki Bahin scheme under scrutiny?

What do beneficiary cuts and CAG findings reveal about its implementation?

Vinaya Deshpande Pandit

The story so far:

Ahead of the 2024 Assembly elections, the Maharashtra government launched the Mukhyamantri Majhi Ladki Bahin Yojana. Under this scheme, eligible women in the State receive ₹1,500 every month through Direct Benefit Transfer (DBT). At its peak, the scheme covered 2.43 crore beneficiaries. However, successive rounds of verification over the past two years have led to the removal of lakhs of beneficiaries, bringing the total down to about 1.66 crore women.

The recent information about the removal of lakhs of women from the beneficiaries' list has sparked criticism, and the Comptroller and Auditor General (CAG) has raised concerns about the scheme.

Who is eligible to receive funds under the scheme?

Women who are residents of Maharashtra, aged between 21 and 65 years, with an Aadhaar-linked bank account, and belonging to a family with an annual income of less than ₹2.5 lakh are eligible to receive benefits under the scheme. Women of any marital status are eligible. However, only one woman per family can avail of the benefit.

The State government has said the scheme is aimed at promoting the economic independence of women. It also seeks to improve their health and nutritional status, and strengthen their role in family decision-making, according to the government. The scheme is implemented by the State's Women and Child Development Department.

What are the red flags raised by the CAG in the latest report?

The CAG said the implementation of the Mukhyamantri Majhi Ladki Bahin Yojana during 2024-25 was marked by "significant deficiencies in Budget estimation, expenditure control, and financial management." While the scheme was allocated ₹29,693.09 crore for the fiscal year, the government incurred an expenditure of ₹33,237.24 crore, resulting in an excess expenditure of ₹3,541.16 crore. The CAG described the excess expenditure as "unjustified" and said the Women and Child Development Department failed to provide any specific justification for the overspending. It also observed that funds for the scheme were mobilised by reappropriating allocations from other schemes. For instance, ₹3,490.75 crore was reappropriated from the Lek Ladki Yojana. The State's supplementary Budget also allocated ₹26,200 crore for the scheme.

The CAG said that the scheme undermined the principles of budgetary discipline, financial propriety and legislative control over public finances. It said that "significant excess expenditure remained unexplained" and that large sums were drawn and parked in the Disbursing Officer's Virtual Personal Deposit Account (VPDA). "This indicates that the funds were not required for immediate utilisation and were drawn without actual expenditure needs, contrary to the principles of budgetary discipline and financial propriety," the CAG observed.

"A test check of vouchers exceeding ₹1,000 crore relating to the scheme, aggregating ₹29,732.01 crore, showed that ₹15,586 crore drawn between January and March 2025 was transferred to the Drawing and Disbursing Officer's VPDA," the report said.

Why have so many names been removed from the beneficiaries' list?

At its peak, the scheme had 2.43 crore beneficiaries. According to the Maharashtra government, the number of beneficiaries has fallen from 2.43 crore to 1.66 crore. The government said the names were removed after multiple rounds of verification found that some beneficiaries were no longer eligible. It maintained that there has been no change in the eligibility norms and attributed the reduction to the verification process.

The government also cited that the mandatory e-KYC requirement as a key reason for the drop in the number of beneficiaries, saying many women failed to complete the process. A Shiv Sena leader has now urged the State to extend the deadline for completing the e-KYC process. Meanwhile, the Opposition has accused the government of using the scheme to secure electoral gains. The Congress has demanded the immediate restoration of benefits for lakhs of women who were excluded over e-KYC-related issues, and called for an inquiry into the implementation of the scheme.

The Opposition has also criticised the government for failing to fulfil its promise of increasing the monthly assistance from ₹1,500 to ₹2,100 ahead of the State Assembly elections.

THE GIST

- The CAG described the excess expenditure as "unjustified" and said the Women and Child Development Department failed to provide any specific justification for the overspending.
- It also observed that funds for the <NO>Mukhyamantri Majhi Ladki Bahin Yojana<NO>scheme were mobilised by reappropriating allocations from other schemes.

- **Key Terms and Explanations**
- **Direct Benefit Transfer (DBT):** This is a governance mechanism where government subsidies or financial assistance are transferred directly into the bank accounts of the target beneficiaries, bypassing middlemen.
- **Comptroller and Auditor General (CAG):** A pivotal Constitutional Authority (Article 148) acting as the guardian of the public purse. The CAG audits all receipts and expenditures of the Union and State governments, ensuring financial accountability.
- **e-KYC (Electronic Know Your Customer):** A digital process used to verify the identity and address of a beneficiary or customer, typically linked to Aadhaar.
  - *Relevance:* It is meant to eliminate "ghost beneficiaries" but can inadvertently cause exclusion errors due to technical glitches.
- **Financial Propriety:** A core administrative principle mandating that public servants spend government funds with the same vigilance as a person of ordinary prudence would spend their own money. It strictly prohibits wasteful expenditure.
- **Budgetary Reappropriation:** The administrative process of transferring funds sanctioned for one specific purpose (or scheme) to another within the same financial year, usually requiring legislative or strict executive oversight.
- **Virtual Personal Deposit Account (VPDA):** A mechanism where funds are parked by disbursing officers. While meant for ease of transaction, parking funds here to avoid them lapsing at the end of the financial year without actual expenditure needs is considered a violation of budgetary discipline.

- **Main Arguments and Substantive Parts**
- When we analyze large-scale cash transfer schemes, especially those launched near election cycles, several core governance themes emerge. Let us break down the substantive arguments.
- **The Intent of Welfare vs. The Reality of Execution:** The primary argument for cash transfer schemes is the promotion of economic independence, better nutritional status, and enhanced decision-making power for vulnerable demographics, such as women. However, the execution often falters. The sudden removal of millions of beneficiaries highlights the friction between stringent verification norms (like e-KYC) and the reality of grassroots digital literacy.
- **Administrative Bottlenecks and Exclusion Errors:** A major substantive point is the reliance on mandatory e-KYC. While digital verification is vital for targeting, making it a rigid prerequisite often leads to massive dropouts. This raises the question of whether the state is prioritizing technological compliance over genuine human welfare.
- **The Breakdown of Financial Discipline:** The most critical governance argument revolves around fiscal responsibility. When a state incurs expenditure significantly beyond the allocated budget without explicit justification, it undermines the legislature's control over public finances.
- **Misallocation and Parking of Public Funds:** Diverting funds from pre-existing, crucial schemes (like child welfare) to fund new, high-visibility cash transfers indicates misplaced policy priorities. Furthermore, drawing large sums and parking them in Virtual Personal Deposit Accounts without immediate utilization requirements directly violates the principles of budgetary discipline.

- **Historical Evolution of the Issue**
- **Pre-Independence to Early Republic (1947–1980s):** Early welfare models were heavily reliant on physical distribution systems, most notably the Public Distribution System (PDS). Subsidies were largely universal or poorly targeted, leading to massive fiscal leakages and corruption, as famously noted by the Rajiv Gandhi administration (the "15 paise" remark).
- **The Era of Economic Reforms (1990s–2000s):** Post-liberalization, there was a strong push toward fiscal consolidation (culminating in the FRBM Act of 2003). Welfare shifted toward targeted approaches (BPL/APL categorizations), yet the leakage problem persisted due to a lack of robust identification mechanisms.
- **The Digital Welfare State (2010s):** The introduction of Aadhaar and the JAM Trinity (Jan Dhan, Aadhaar, Mobile) revolutionized state welfare. The focus shifted from in-kind subsidies to Direct Benefit Transfers (DBT), aiming to plug leakages and reach the intended beneficiaries directly.
- **Present Day (Competitive Welfarism):** In recent years, we have entered an era of "competitive populism." State governments frequently announce large-scale, unconditional or semi-conditional cash transfers right before election cycles. This has brought the role of the Election Commission and the CAG into sharp focus, as they attempt to balance democratic mandates with macroeconomic stability.

- **Way Forward**
- **Rationalizing e-KYC and Addressing the Digital Divide:** While e-KYC is necessary to plug leakages, it cannot be a tool for exclusion. The government must set up offline, localized grievance redressal camps (at the Gram Panchayat level) to manually verify genuine beneficiaries who fail digital authentication.
- **Strengthening Fiscal Responsibility Frameworks:** State governments must strictly adhere to their Fiscal Responsibility and Budget Management (FRBM) Act targets. Any massive new scheme must clearly define its revenue sources rather than arbitrarily reappropriating funds from existing capital or social infrastructure budgets.
- **Binding Nature of CAG Recommendations:** The Public Accounts Committee (PAC) of the state legislatures must take immediate, time-bound cognizance of CAG red flags regarding unjustified excess expenditures and the improper parking of funds in virtual accounts.
- **Election Commission Guidelines:** There is an urgent need for a broader consensus on the Supreme Court's directives regarding the declaration of "freebies." Political parties should be mandated to explain the financial viability and funding sources of major cash-transfer schemes announced in their manifestos.
- **Transition to Capacity Building:** Direct cash transfers are essential for immediate relief, but they are not a substitute for structural economic empowerment. State policies must gradually transition from purely redistributive cash doles to capacity-building measures, such as institutional credit for women self-help groups (SHGs) and skill development programs.

Govt floats CAFE-III with super credits, carbon trading

ROAD AHEAD. Draft norms retain fleet-average approach, tighten emission targets

S Ronendra Singh
New Delhi

A day after issuing draft amendments to the existing CAFE-II regulations, the Ministry of Power (MoP) on Thursday released the draft Corporate Average Fuel Economy (CAFE-III) norms for 2027 and invited comments from stakeholders. The new norms, which will replace CAFE-II after March 31, 2027, seek to progressively tighten fuel efficiency standards while retaining the fleet-average compliance approach.

The move comes after the implementation of CAFE-II, which had drawn mixed responses from automakers. While the industry broadly accepted stricter fuel-efficiency targets, it had expressed concerns over compliance costs and the pace of transition to cleaner technologies.

FLEET EMISSIONS

The proposed CAFE-III framework retains the government's emphasis on reducing overall fleet emissions, rather than regulating vehicles based on size. To reach net-zero goals, the framework introduces a market-based credit trading system, besides incentivising the shift to electric, hybrid and flex-fuel vehicles.

It also introduces a market-based credit trading mechanism that will allow manufacturers exceeding targets to earn tradable credits. The proposal, however, is likely to revive the debate over carbon credits, with critics arguing that such mechanisms could allow some manufacturers to continue emitting more by purchasing credits, instead of making technological improvements.

Tata Motors has opposed the Bureau of Energy Efficiency's (BEE) compliance credit mechanism, arguing that allowing BEE to directly sell carbon credits will compromise its neutral status and disrupt fair price discovery. According to the newly-released CAFE-III norms, manufacturers will continue to be regulated on the basis of annual fleet-average fuel consumption with progressively tighter standards.

TIMELINE OF EVENTS

- September 2025: Ministry of Power (MoP) proposes relief for sub-4-metre petrol cars, incentives for electric vehicles with range extenders
- April 2026: Removes vehicle size/category-wise incentives from draft
- April 2026: Blame game over CAFE-II dues stalls rollout of CAFE-III
- April 2026: Industry, government agree on final draft
- July 15, 2026: MoP invites automakers for suggestions/objections on amendments to CAFE-II
- July 16, 2026: MoP circulates draft CAFE-III for stakeholder consultation

MSIL to challenge Raipur consumer forum order

Maruti Suzuki India Ltd (MSIL) said it will challenge an order of the District Consumer Disputes Redressal Commission, Raipur, which directed the company to replace a customer's vehicle with a new E20 vehicle. The statement comes after the Commission asked the Maruti Suzuki dealer in Raipur to replace the vehicle — Grand Vitara Intelligent Electric (Strong Hybrid) Zeta Plus 1.5 CVT — bought by a doctor, which was E20-compliant, after holding that the dealer sold a vehicle made 16 months ago and failed to rectify recurring engine problems despite repeated repairs.

See p2

- **Key Terms and Explanations**
- **CAFE (Corporate Average Fuel Economy) Norms:** Instead of regulating the fuel efficiency of every single car model independently, CAFE norms look at the *average* fuel efficiency of all the vehicles a manufacturer sells in a year.
- **Carbon Credit Trading System:** A market-based approach to control pollution. If a company emits less carbon than its legal limit (or produces highly efficient vehicles), it earns "credits." It can then sell these credits to another company that has failed to meet its targets.
- **Super Credits:** A regulatory incentive where highly eco-friendly vehicles (like pure EVs or advanced hybrids) are counted more than once in the fleet average calculation. This mathematically pulls up the company's overall efficiency score, heavily incentivizing the production of clean tech.
- **Flex-Fuel Vehicles:** Vehicles equipped with an internal combustion engine designed to run on more than one fuel, usually gasoline blended with either ethanol or methanol (like E20, which is 20% ethanol and 80% petrol).
- **Bureau of Energy Efficiency (BEE):** A statutory body under the Ministry of Power created under the Energy Conservation Act, 2001, responsible for spearheading energy efficiency initiatives in India.

- **Main Arguments and Substantive Parts**
- When we look at the evolution of fuel economy frameworks, we are essentially looking at a balancing act between environmental necessity and economic reality.
- **The Core Thesis:** Transitioning to stricter emission and fuel efficiency norms is critical for achieving net-zero targets. However, to prevent industrial collapse, this transition must be managed through flexible, market-based mechanisms rather than rigid, one-size-fits-all mandates.
- **Supporting the Market Approach:** Moving away from regulating vehicle sizes to focusing on overall fleet emissions allows the auto industry to breathe. By introducing tradable credits, the government is financially rewarding early adopters of clean technology (like EV and hybrid manufacturers). This accelerates the shift toward greener mobility without forcing immediate, ruinous costs on legacy automakers.
- **The Counterarguments and Concerns:** The primary friction point lies in the mechanics of carbon trading. Environmental critics argue that trading systems can become a loophole—a form of "greenwashing" where wealthy manufacturers simply buy the right to pollute rather than investing in actual technological improvements. Furthermore, there are deep industry concerns regarding regulatory neutrality. If a standard-setting body (like the BEE) becomes a direct seller of carbon credits, it could distort fair price discovery and compromise its impartial status as a regulator.

- **Historical Evolution of the Issue**
- **Pre-2000s - The Unregulated Era:** Historically, India had no unified standards for vehicular emissions. The focus was purely on localized industrial growth and mass motorization.
- **Early 2000s - The Command and Control Phase:** The introduction of the Bharat Stage (BS) emission norms marked the beginning of active state intervention, focusing on tailpipe pollutants like particulate matter and nitrogen oxides.
- **2014 to 2017 - The Genesis of CAFE:** Recognizing that pollution wasn't just about toxic gases but also sheer fuel consumption and CO2 emissions, the government conceptualized CAFE norms. CAFE-I was officially notified, requiring an initial reduction in fuel consumption across fleets.
- **2022 to 2027 - Tightening the Screws (CAFE-II):** This phase saw significantly stricter CO2 limits. It was marked by intense friction between the government and automakers, as the cost of compliance forced the discontinuation of several popular diesel models.
- **Post-2027 - The Market Integration Phase:** The proposed next generation of norms represents a paradigm shift. It moves beyond just penalizing failure and introduces a lucrative trading economy, marrying environmental compliance with market capitalism to align with India’s long-term climate goals.

- **Way Forward**
- **Ensuring Institutional Neutrality:** The government must ensure a strict firewall between the bodies that *set* the emission standards (like BEE) and the platforms where carbon credits are traded. An independent market regulator should oversee the carbon exchange to ensure fair price discovery.
- **Preventing Greenwashing:** Cap-and-trade systems must have a declining cap. The total number of credits available in the market must reduce year-on-year to force actual technological innovation rather than indefinite credit purchasing.
- **Holistic Infrastructure Push:** Stricter fuel economy norms will only succeed if the broader ecosystem is ready. The government must aggressively subsidize and expand the EV charging network and ensure steady supply chains for flex-fuels (ethanol blending).
- **Support for MSMEs:** While mega-corporations can absorb compliance costs, the auto-ancillary sector (dominated by MSMEs making ICE parts) needs a targeted financial and reskilling package to help them transition to manufacturing EV and hybrid components.

'Brazil tariff shock flags risks of fast-tracking India-US pact'

TRADE VIGIL. New Delhi watchful as US global tariffs of 10% are set to lapse

Amiti Sen
New Delhi

The US' decision to impose an additional 25 per cent tariff on a broad range of imports from Brazil has reinforced the Indian government's cautious approach towards concluding a bilateral trade agreement with Washington, with trade experts arguing that New Delhi should not rush into a deal amid continuing uncertainty over future US trade actions.

Industry sources said India was adopting a "wait-and-watch" approach as the temporary Section 122 universal tariffs of 10 per cent imposed by the US are scheduled to lapse later this month, potentially bringing those duties down to zero.

"At the same time, the outcome of the ongoing Section 301 investigations against India remains uncertain, making it prudent to avoid making fresh market-access commitments before there is greater clarity," a source tracking the matter told *businessline*.

TARIFF SHADOW. Key export sectors could face uncertainty depending on how the US proceeds with the Section 301 investigations on structural excess capacity and forced labour

ADDITIONAL TARIFF

The latest US decision to impose an additional 25 per cent tariff on a wide range of Brazilian imports from July 22 has heightened concerns in India about rushing into a trade deal with Washington.

"This particular Section 301 investigation (against Brazil) was unusually broad. It covered digital trade and Brazil's Pix instant payment system, preferential tariffs granted to India and Mexico, weak anti-corruption enforcement, inadequate intellectual property protection, restrictions on US ethanol exports, and illegal deforestation that allegedly gives Brazilian producers an unfair cost advantage, said Ajay Srivastava from trade research body GTRI.

The Brazil case shows that US trade concerns extend far beyond tariffs and can cover almost any policy Washington considers discriminatory or commercially disadvantageous, Srivastava said.

"The lesson for India is clear: it cannot meet every US demand. These now range from Russian oil purchases and digital rules to hundreds of trade complaints listed each year in the NTE Report. India should therefore respond calmly to future US actions as they arise, rather than making sweeping concessions through trade deal or outside of it through budget or policy changes to avoid possible investigations or penalties," he said.

Echoing the views, former JNU professor Biswajit Dhar said the episode demonstrated that trade agreements alone do not necessarily shield countries from unilateral US trade actions.

"India is seeking assurances in the India-US trade deal, which is the right thing to do. But it is absolute clear that the US can always go back and do whatever it wants," Dhar said.

EXPORT SECTORS

According to Dhar, India's key export sectors — including textiles, health products, construction materials, automobiles and auto parts, solar modules, petrochemicals and steel — could all face uncertainty depending on how the US proceeds with the Section 301 investigations on structural excess capacity and forced labour.

"We don't know how much market access we may lose because of additional tariffs as the investigations against India are not yet complete. We have already provided considerable market access to the US even before signing the trade pact, our imports from America have increased and our trade surplus has narrowed. We need to be careful. We cannot give market access for free," he said.

- **Key Terms and Explanations**
- **Unilateral Trade Actions:** This occurs when a single country decides to impose trade barriers, like tariffs or quotas, on another country without seeking approval from international bodies like the World Trade Organization (WTO) or mutually agreeing upon it through a bilateral treaty. **Section 301 (US Trade Act of 1974):** This is a critical piece of US legislation that authorizes the US President to take all appropriate action, including tariff-based retaliation, to obtain the removal of any act, policy, or practice of a foreign government that violates an international trade agreement or is unjustified, unreasonable, or discriminatory, and that burdens or restricts US commerce. It is essentially an aggressive domestic tool used to police international trade.
- **Universal Tariffs (e.g., Section 122):** These are broad-based import duties applied uniformly across a wide range of goods from various countries, often used as temporary measures to address severe balance-of-payments deficits or sudden domestic economic crises.
- **Market Access:** In international trade, this refers to the ability of a country's domestic providers of goods and services to penetrate a foreign market. Negotiations usually involve lowering tariffs or removing non-tariff barriers to increase this access.
- **National Trade Estimate (NTE) Report:** An annual report published by the US government that highlights significant foreign barriers to US exports, foreign direct investment, and electronic commerce. Being listed in this report often precedes diplomatic pressure or retaliatory trade actions.
- **Structural Excess Capacity:** This refers to a situation where a country's industries produce significantly more goods than domestic and global markets can absorb, often due to heavy government subsidies. This floods the global market, driving down prices and hurting industries in other countries.

- **Main Arguments and Substantive Parts**
- When analyzing the geopolitics of trade, it becomes evident that rushing into bilateral agreements with dominant economic powers carries profound risks. The core thesis here revolves around the necessity of "strategic patience" in economic diplomacy.
- **The Illusion of Protection in Pacts:** The central argument is that signing a Free Trade Agreement (FTA) or a bilateral pact does not offer an ironclad shield against unilateral punitive actions. A dominant partner can always invoke domestic laws to bypass the spirit of an international agreement if it serves their immediate political or economic interests.
- **The Expanding Horizon of Trade Disputes:** Historically, trade disputes were about tariffs and quotas. Today, the substantive argument highlights that developed nations are weaponizing a broad spectrum of domestic policies of developing nations. Everything from digital payment systems and anti-corruption enforcement to environmental concerns (like deforestation) and geopolitical choices (like purchasing energy from sanctioned nations) is being scrutinized and used as a pretext for imposing trade barriers.
- **The Danger of Asymmetric Concessions:** There is a strong cautionary note against granting "free" or premature market access. If a developing nation opens its markets aggressively in the hope of securing a broader deal, it loses its primary negotiating leverage. If the developed partner later imposes unilateral tariffs anyway, the developing nation is left with a narrowed trade surplus and no diplomatic capital to negotiate a reversal.
- **The Necessity of Case-by-Case Response:** Instead of broad, sweeping concessions to preemptively please a dominant trading partner, the more prudent approach is to respond to specific grievances individually. This preserves policy space and prevents a domino effect where conceding on one issue invites pressure on dozens of others.

- **Historical Evolution of the Issue**
- **The Era of GATT and Multilateralism (Post-WWII to 1990s):** Following the World Wars, the global consensus shifted toward lowering trade barriers to promote peace and prosperity, leading to the General Agreement on Tariffs and Trade (GATT) and eventually the birth of the WTO in 1995. The rule of law, rather than the rule of power, was supposed to govern international trade.
- **India's Economic Integration (1991 onwards):** India, post its 1991 Balance of Payment crisis, transitioned from a highly protectionist, import-substituting economy to an increasingly open one. India began seeking integration into global supply chains, engaging more deeply with Western markets.
- **The Rise of Bilateralism (2000s):** As the WTO's Doha Development Round stalled due to disagreements between developed and developing nations over agricultural subsidies and intellectual property, countries began bypassing the multilateral system, preferring faster, tailored Bilateral and Regional Free Trade Agreements.
- **The Return of Economic Nationalism (Post-2008 to Present):** The 2008 financial crisis, followed by political shifts in the West, ushered in an era of protectionism. Slogans emphasizing domestic manufacturing became policy. Tools like Section 301, previously dormant, were revived to launch aggressive tariff wars. Developing nations like India found themselves caught in a paradigm where historical trade preferences (like the Generalized System of Preferences - GSP) were revoked, forcing a recalibration of their trade diplomacy toward self-reliance and extreme caution.

- **Way Forward**
- **Adopt Strategic Patience and Reciprocity:** Developing nations must avoid the temptation of rushing into mega-deals for optical victories. Market access must be treated as a premium asset, traded only for ironclad, legally binding concessions that guarantee protection from sudden unilateral tariff hikes.
- **Diversify Export Destinations (China Plus One, Europe, Africa):** Over-reliance on a single superpower's market creates fatal vulnerabilities. Nations must aggressively pursue trade agreements with alternative, stable markets—such as the European Union, the UK, Australia, and emerging African economies—to diffuse risk.
- **Fortify Domestic Competitiveness:** The ultimate defense against tariffs is producing high-quality goods at unbeatable prices. Governments must focus on internal reforms: reducing logistics costs (e.g., India's PM Gati Shakti), enhancing ease of doing business, and providing targeted manufacturing incentives (like PLI schemes) so exports remain competitive even if slapped with sudden duties.
- **Spearhead Multilateral Institutional Reform:** While bilateralism is the current reality, the long-term solution lies in a functional, rules-based global order. Developing nations must form coalitions to push for the resurrection of the WTO's Dispute Settlement Mechanism, ensuring that unilateral bullying can be challenged and penalized in a recognized international forum.

Skyroot Aerospace ready for Vikram-1 launch tomorrow

Our Bureau
Hyderabad

Skyroot Aerospace's maiden test flight of Vikram-1 is scheduled for lift-off from the first launch pad at Sriharikota, Andhra Pradesh, at 11.30 am on July 18.

This will mark the arrival of Indian private-sector spacetech companies in the lucrative global launch business.

The Hyderabad-based spacetech unicorn has received all the permissions to launch the mission, christened Mission Aagaman, on Saturday morning.

Vikram-1 will carry technology demonstration payloads from Grahaa Space, Cosmoserve, DCubed and Skyroot's own Scope, along with Cosmos Diamonds' artwork 'Cosmic Bloom' and a micro-art piece.

Skyroot Aerospace's maiden test flight Vikram-1 launch vehicle fully stacked at SDSC-SHAR

FIRST PRIVATE ROCKET

Vikram-1 is a seven-storey-tall, multi-stage orbital launch vehicle, built with an all-carbon composite structure. It is designed to carry small satellites weighing up to 350 kg to a low-Earth orbit (LEO).

This will be the first time a private player is attempting an orbital-class rocket launch in India.

The authorities concerned have issued the necessary airspace and maritime notices, formally designating restricted zones along Vikram-1's ascent and impact corridor for the launch day.

"We have done everything that could be done to test Vikram-1 on the ground. On July 18, we are eager to see how Vikram-1 performs in a real flight environment for the first time," Pawan Kumar Chandana, Co-founder and Chief Executive Officer of Skyroot Aerospace, said.

"This is our first test flight, and we will be getting valuable data from it," he said.

"This will be foundational to Skyroot's aspirations to establish a launch cadence. We are excited to see this through," he added.

CONSTRAINED SUPPLY

"The small satellite launch market is deeply constrained on the supply side. At the same time, the demand for services enabled by satellites in space will only continue to grow, and that is where Skyroot's opportunity lies," Pawan said.

"With in-flight data gathered from this mission, we will return to the shop floor to learn, improve and build further," said Naga Bharath Daka, Co-founder and Chief Operating Officer, Skyroot Aerospace.

- **Key Terms and Explanations**
- **Orbital Launch Vehicle:** A rocket structurally and propulsion-wise capable of accelerating a payload to orbital velocity and placing it into a stable trajectory around the Earth. An example is a multi-stage rocket with an all-carbon composite structure designed for orbital-class missions.
- **Low-Earth Orbit (LEO):** This refers to an Earth-centered orbit with an altitude of 2,000 kilometers or less. It is the primary destination for small satellites weighing up to 350 kg, which are heavily utilized for telecommunications, Earth observation, and remote sensing.
- **Spacetech Unicorn:** A privately held startup operating in the space technology domain that has reached a valuation of over $1 billion. The emergence of such entities signifies the massive influx of venture capital and commercial viability in domestic aerospace manufacturing.
- **Technology Demonstration Payload:** These are experimental components, micro-art pieces, or prototype subsystems flown into space to validate their performance in a real flight environment before integrating them into operational, large-scale commercial satellites.
- **Launch Cadence:** The frequency or rate at which a space company can successfully prepare, launch, and turnaround orbital missions. Establishing a high launch cadence is foundational for capturing global market share.

Main Arguments and Substantive Parts

The core thesis of this strategic shift revolves around unlocking the vast economic potential of the cosmos by transitioning from a purely state-led model to a collaborative public-private ecosystem.

Supply-Demand Mismatch in LEO: The global small satellite launch market is deeply constrained on the supply side, while the demand for satellite-enabled services continues to grow exponentially. Private sector agility is required to bridge this gap.

Maturation of Domestic Capabilities: We are witnessing a transition from private companies acting merely as component vendors to becoming end-to-end system integrators. Attempting orbital-class rocket launches independently marks the arrival of domestic players in the lucrative global launch business.

Iterative Learning in Aerospace: True technological self-reliance cannot be achieved on the ground alone. Real flight environments provide invaluable in-flight data, allowing companies to return to the shop floor to learn, improve, and build more robust architectures for future missions.

Regulatory Facilitation: The successful issuance of airspace and maritime notices, along with the designation of restricted zones and impact corridors, demonstrates that the state apparatus is actively functioning as a facilitator for private enterprise.

- **Historical Evolution of the Issue**
- **Phase I: The State Monopoly (1960s - 1990s):** The genesis of the Indian space program under Dr. Vikram Sarabhai was strictly state-led, focusing on socio-economic development (telemedicine, tele-education, weather forecasting) rather than commercial profit. ISRO handled all research, development, and launches.
- **Phase II: Initial Commercialization (1990s - 2010s):** Recognizing the global demand for launch services, commercial arms like Antrix Corporation (and later NewSpace India Limited - NSIL) were established. However, the private sector's role was largely confined to Tier-2 and Tier-3 manufacturing—supplying nuts, bolts, and subsystems based on ISRO's designs.
- **Phase III: The Paradigm Shift (2020 - Present):** The Union Government announced sweeping space sector reforms, establishing the Indian National Space Promotion and Authorization Centre (IN-SPACe) as an independent nodal agency to authorize and regulate private space activities.
- **Current Milestone:** The ecosystem has now evolved to the point where private entities are executing independent, multi-stage orbital missions, transitioning from sub-orbital test flights to commercial satellite deployments.

- **Way Forward**
- **Accelerating Technology Transfer:** ISRO must actively facilitate the transfer of proven technologies (propulsion systems, avionics) to private startups to reduce their gestation period and R&D costs.
- **Infrastructure Sharing and Development:** While IN-SPACe allows access to state facilities, there is a need to develop dedicated commercial launch pads (such as the upcoming Kulasekharapatnam spaceport) specifically tailored for small and medium launch vehicles.
- **Predictable Regulatory Environment:** Fast-tracking the implementation of the Indian Space Policy 2023 with clear guidelines on FDI, insurance, and liability caps to boost investor confidence.
- **Demand Generation:** The government should act as an anchor customer by procuring Earth observation data and communication bandwidth directly from private Indian space companies, thereby guaranteeing a baseline revenue stream.
- **Focus on Sustainability:** Mandating private players to integrate de-orbiting mechanisms into their launch vehicles and satellites to ensure the long-term sustainability of the Low-Earth Orbit environment.

Accused can be convicted of murder even if the victim's body is never recovered: SC

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NEW DELHI: A missing body is not a missing murder. The Supreme Court has ruled that an accused can be convicted of murder even if the victim's body is never recovered, saying the law requires proof that a crime was committed – not production of the corpse and warning that any such requirement would allow killers who successfully dispose of a body to escape justice.

The verdict came as a bench of justices Sanjay Karol and Prasanna B Varale upheld the life sentence of an Assam man convicted of killing a 10-year-old adopted girl whose body was allegedly thrown into a river and could never be traced.

The court upheld the concurrent findings of the trial court and the Gauhati high court, ruling that the prosecution had established the offence through credible evidence despite the absence of the body.

THE TOP COURT RULED THAT THE PROSECUTION HAD ESTABLISHED THE CRIME THROUGH CREDIBLE PROOF DESPITE ABSENCE OF THE BODY

"A person can be convicted of murdering another even if the latter's body has not been recovered," held the bench in its judgment released on Wednesday, clarifying that "corpus delicti means that the offence has been committed and not that the dead body of the murdered person has been recovered."

The ruling came in an appeal filed by Debojit Pankika of Assam, who challenged his conviction under Sections 302 (murder) and 201 (causing disappearance of evidence) of the Indian Penal Code in the 2015 case. The prosecution case was that the deceased child, who had been living with the appellant and his mother – the girl's aunt, after being adopted, disappeared after the mother left home for medical treatment, leaving the child in the appellant's exclusive care.

The prosecution relied principally on the testimony of a witness who stated that the appellant had confessed that the child caught fire after being accused of stealing ₹40 and had then forced him, at knifepoint, to help transport the body wrapped in a sack towards the Teok river for disposal. The investigating agency failed to recover the body from the river.

Rejecting the defence argument that non-recovery of the body fatally undermined the prosecution case, the Supreme Court said the case squarely fell within the category governed by the principle of "corpus delicti". The doctrine, it explained, has two components in a murder case – proof of death and proof that the death resulted from the criminal act of another. While one may be proved directly, the other can be established through circumstantial evidence.

The bench referred to earlier decisions to hold that insisting on recovery of the body as an absolute prerequisite would allow offenders who successfully dispose of a corpse to escape punishment.

The bench also found the testimony of the prosecution's key witness to be reliable despite allegations of previous hostility with the accused. The witness had consistently maintained that he was threatened with a dagger and compelled to accompany the appellant while the body, tied in a sack, was carried on a bicycle. The fact that he did not falsely claim to have witnessed the actual murder enhanced rather than diminished his credibility, the court observed.

An additional incriminating circumstance, according to the bench, was the appellant's complete failure to explain the child's disappearance for 22 days.

- **Key Terms and Explanations**
- **Corpus Delicti:** Often misunderstood as just "the body," it is a Latin term meaning "the body of the crime." In law, it refers to the objective proof that a crime has indeed been committed—not necessarily that a physical human corpse has been found.
- **Circumstantial Evidence:** This refers to evidence that relies on an inference to connect it to a conclusion of fact. It does not directly prove the crime but creates a chain of events (e.g., blood traces, witness accounts, motive, sudden disappearance) that leads to a single, logical conclusion of guilt.
- **Concurrent Findings:** When the trial court and the High Court reach the same conclusion, the Supreme Court is generally less likely to interfere unless there is a gross miscarriage of justice. This creates a high barrier for an appellant.
- **Section 302 IPC:** The specific provision governing the punishment for murder. It establishes that whoever commits murder shall be punished with death or imprisonment for life and a fine.
- **Section 201 IPC:** Deals with the intentional omission or destruction of evidence of an offense to screen the offender from legal punishment. This is frequently invoked when a body is disposed of to prevent identification.

- **Main Arguments and Substantive Parts**
- The core of this judicial position is not about ignoring evidence, but about preventing the law from being used as a shield by perpetrators of heinous crimes.
- **Decoupling Murder from the Corpse:** The central thesis is that the "body" is merely a piece of evidence. If the prosecution can prove, through other means, that a death occurred at the hands of the accused, the absence of the physical body is not an automatic acquittal.
- **The "Escape Justice" Rationale:** A rigid requirement to produce a body would create a perverse incentive. If the law demanded a body, every murderer would be motivated to ensure a body is never found—through fire, chemicals, or deep water—thereby guaranteeing their immunity.
- **The Doctrine of Circumstantial Sufficiency:** The judiciary holds that if the chain of circumstances is so complete that it leaves no room for any hypothesis other than the guilt of the accused, the conviction must stand.
- **Credibility vs. Hostility:** Witness testimony remains valid even if there is past animosity, provided the testimony is consistent, corroborative, and logical. A witness’s reluctance or partial cooperation often highlights the genuineness of their fear rather than malice.

- **Historical Evolution of the Issue**
- **Pre-Independence/Early Colonial Era:** Legal interpretations often relied on rigid adherence to the "best evidence rule," where the physical body was considered the primary evidence of a death, making convictions without one exceptionally rare.
- **Post-Independence Judicial Activism:** Over the decades, courts began shifting focus from the *form* of evidence to the *truth* of the incident. This period saw a rise in reliance on forensic science and circumstantial evidence chains.
- **Modern Consolidation:** The current stance is a culmination of various judicial precedents that have incrementally clarified that "corpus delicti" is a principle of law, not a requirement for a physical autopsy. It acknowledges that as investigative methods evolve, the dependency on a physical corpse diminishes.

- **Way Forward**
- **Capacity Building:** Police forces must be trained specifically in "circumstantial evidence reconstruction"—the ability to build a bulletproof chain of events without relying on a body.
- **Forensic Integration:** Greater investment in forensic technologies (e.g., digital footprints, call detail records, financial trails) that provide irrefutable circumstantial evidence to bolster cases.
- **Judicial Vigilance:** While conviction is possible without a body, the judiciary must remain hyper-vigilant in verifying the *completeness* of the circumstantial chain to avoid wrongful convictions.
- **Public Awareness:** Creating clear, transparent guidelines on what constitutes "sufficient evidence" in the absence of a body can help restore public confidence and prevent arbitrary policing.

Merit over MAGA hysteria: US Fed names 3 PIOs to key panels

Chidanand Rajghatta | TNN

Washington: At a moment when anti-immigrant rhetoric has become a staple of America's political soundtrack and Indian immigrants have increasingly found themselves in the crosshairs of MAGA hardliners, the US federal reserve has delivered an unmistakably different message: when it comes to solving difficult problems, talent trumps tribalism.

Fed chairman Kevin Warsh has unveiled the leadership of five high-powered task forces charged with rethinking the central bank's approach to monetary policy and proposing what he called "transformational changes" to prepare the institution for a rapidly changing economy. Among the economists, former central bankers, academics and corporate executives tapped to lead the effort are three people of Indian origin — former RBI governor Raghuram Rajan, Harvard economist Raj Chetty, and Microsoft Xbox chief executive Asha Sharma.

"The goal is straightforward: To ensure the Fed is best positioned to achieve our objectives in this consequential time," Warsh said while announcing the appointments. The symbolism is difficult to miss: as political rallies debate who belongs in America, the country's — and arguably the world's — most consequential economic institution has assembled a team that reflects where expertise actually comes from.

Rajan, arguably the best known of the trio in global financial circles, will co-chair the task force on Balance Sheet Policy, examining the costs, benefits and institutional implications of the Fed's balance sheet. Long before the 2008 financial crisis humbled Wall Street's brightest minds, the former IMF chief economist famously warned at the Fed's annual Jackson Hole symposium that banks' growing appetite for subprime lending posed systemic risks. His caution was dismissed at the time as unduly pessimistic, but history had other ideas.

Other than Raghuran Rajan (in pic), the two other Indians are Harvard economist Raj Chetty and Microsoft Xbox CEO Asha Sharma

The former RBI governor and one-time chief economic adviser to the Indian govt now serves as the Katherine Dusak Miller Distinguished Service Professor of Finance at the University of Chicago Booth School of Business, remaining one of the world's most influential voices on finance and globalisation.

Joining him in the Fed's intellectual reboot is Raj Chetty, the William A Ackman Professor of Public Economics at Harvard University, whose pioneering research has transformed economists' understanding of social mobility and inequality. Chetty will serve on the Liquidity Dependence task force alongside former Fed governor Jeremy Stein, former Walmart chief executive Doug McMillon and University of Chicago economist Kevin Murphy. The panel will examine how dependent financial markets have become on central bank liquidity and what reforms may be needed to reduce those vulnerabilities.

If Rajan represents central banking experience and Chetty academic rigour, Asha Sharma brings Silicon Valley's innovation mindset. Born in Wisconsin to Indian immigrants and raised in the US, Sharma, CEO of Microsoft's Xbox gaming division, will lead the Productivity and Employment task force.

Her appointment comes days after Microsoft announced one of the largest rounds of layoffs in Xbox's recent history — a reminder that managing productivity in the age of artificial intelligence often means navigating uncomfortable economic trade-offs. Before leading Xbox, Sharma held senior leadership roles at Meta, Instacart, and Home Depot. She will work alongside venture capitalist Marc Andreessen and Stanford economist Chad Jones.

The appointments also underscore a broader reality that American politics sometimes obscures. Indian-Americans have become disproportionately represented in leadership positions. Their prominence owes less to identity politics than to a decades-long pipeline of highly educated immigrants drawn by American universities and opportunities.

For critics who insist immigrants are taking something away from America, the Fed has offered an inconvenient counterargument: in the business of safeguarding the world's largest economy, it appears the central bank is less interested in where people were born than in whether they know how to keep inflation low, productivity high and financial crises at bay.

- **Key Terms and Explanations**
- **The Federal Reserve (The Fed):** America’s central banking system. It controls monetary policy, manages inflation, and maintains financial stability. Think of it as the "bank of last resort" that prevents the collapse of the world’s largest economy.
- **Balance Sheet Policy:** This refers to how a central bank manages its assets and liabilities. When the Fed buys or sells bonds to influence interest rates and money supply, it affects the global flow of capital.
- **Liquidity Dependence:** A state where financial markets become "addicted" to easy money or low interest rates provided by the central bank. If this is high, markets struggle when the central bank tries to tighten policy.
- **Meritocracy vs. Identity Politics:** Meritocracy is a system where advancement is based on ability and talent; identity politics focuses on group-based grievances or affiliations. The tension here lies in whether institutions prioritize raw expertise over political/social identity.
- **Brain Circulation:** A modern evolution of "brain drain." It describes the movement of skilled professionals across borders where they accumulate knowledge and influence, benefiting both their host country and often, their country of origin through soft power.

- **Main Arguments and Substantive Parts**
- The core discourse revolves around how large institutions navigate the friction between populist sentiment and functional necessity.
- **The Meritocracy-Populism Paradox:** The primary argument is that while populist rhetoric often frames immigrants as competitors for national resources, complex institutional realities—like safeguarding a global economy—demand a reliance on the most competent talent available, irrespective of origin.
- **The Institutional Pipeline:** The success of immigrants in high-level leadership positions is not accidental. It is the result of a decades-long "pipeline" of rigorous education and professional grooming. This argues that systemic integration in universities and firms creates a ready-made pool of talent that political narratives cannot easily dismiss.
- **Expertise as an Economic Buffer:** The argument posits that in volatile economic times, institutions seek "intellectual rebooting." They favor individuals with proven track records (academics, practitioners, and innovators) to handle systemic risks like financial crises or artificial intelligence-driven productivity shifts.
- **The Resilience of Globalization:** Despite domestic isolationism, the global economic order remains inextricably linked. The appointment of a diverse, global-minded leadership team at the highest levels confirms that the world’s economic "engine" still relies on an internationalist, cross-border exchange of ideas.

- **Historical Evolution of the Issue**
- **Pre-1965 Context:** For much of the early 20th century, US immigration was heavily restricted by national origin quotas. This era was characterized by a lack of diversity in high-level institutional roles.
- **The 1965 Immigration and Nationality Act:** This is the pivotal milestone. By replacing national quotas with a preference system based on family reunification and skilled labor, it opened the doors for a massive influx of professionals, particularly from Asia.
- **The Era of Globalisation (1990s-2010s):** This period saw the "tech boom" and the strengthening of academic ties. Indian-Americans began cementing their presence in Silicon Valley and academia, shifting the narrative from "migrant labor" to "intellectual capital."
- **The Current Post-Populist Phase:** We are now in a period of "Institutional Tension." While political discourse has turned inward (focusing on border security and national identity), the economic reality (the need for high-end talent) continues to drive the appointment of foreign-born experts, creating a distinct divergence between public sentiment and institutional practice.

- **Way Forward**
- **Skill-Based Immigration Reforms:** Nations should continue to prioritize pathways for highly skilled individuals. The focus must shift from "immigration for labor" to "immigration for innovation," ensuring that host countries remain hubs for global expertise.
- **Strengthening Institutional Independence:** Central banks and critical regulatory bodies must be insulated from the "political soundtrack." Maintaining their non-partisan, technocratic character is the only way to ensure market confidence.
- **Fostering "Brain Circulation" Frameworks:** Instead of worrying about "Brain Drain," developing nations (like India) should create frameworks to collaborate with their diaspora. This includes joint research, policy advisory boards, and virtual mentorships, turning the diaspora into a permanent asset.
- **Institutional Diversity as a KPI:** Organizations should recognize that diversity isn't just about identity; it’s about cognitive diversity. Bringing in different backgrounds (e.g., from the tech sector to the central bank) ensures that policies are stress-tested against varied experiences.