



MAHARAJA AGRASAIN UPSC ACADEMY

January 2026

PrepPulse

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Covers Important News & Events of December 2025

From the Director's Desk

Dear Aspirants,

*It is my pleasure to share with you the January 2026 edition of our Monthly Current Affairs Magazine, **PrepPulse**. While a new year begins, the policy decisions, strategic signals, and governance debates of December continue to shape India's trajectory.*

The most significant developments of December like India–Russia relations amid a rapidly polarizing global order, a decisive shift in rural governance through VB–G RAM G (Viksit Bharat Guarantee – Rojgar and Aajeevika Mission Gramin), modernization of India's civil nuclear governance and persistent stress in India's aviation sector are the main focus areas. These issues are not just headlines, they are signals of larger transitions taking place around us.

This edition is curated to help you understand these developments with depth and clarity. As a UPSC aspirant, your goal is not only to stay updated but to think beyond the news, to connect facts, observe patterns, and understand why events unfold the way they do and what they mean for India and the world.

Read this magazine with curiosity, patience, and an analytical mindset. Each page is an opportunity to learn, to challenge your thinking, and to strengthen your preparation.

Stay consistent. Stay informed. And most importantly, keep moving forward.

*Warm regards,
Director*

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IN THIS ISSUE

DEEP DIVE:

- India-Russia Relations 02
- The Shanti Act 08
- VBG RAM-G 12
- India's Aviation Sector 18

NEWS GIST:

- Polity 22
- International Relations 33
- Economy 42
- Science and Technology 61
- Environment 82
- Social Issues 85
- Miscellaneous 95

PREP ZONE: 106

Current Affairs Quiz

Current Affairs Mains Questions

An underwater photograph showing the surface of the water at the top, with sunlight filtering through, creating a bright, shimmering effect. The water below is a deep, clear blue. The text "DEEP DIVE" is centered in the middle of the image.

DEEP DIVE

India–Russia Relations

India–Russia relations are often described as time-tested, but that phrase hides a complex story of shifting power, emotion and hard interests that starts well before today's turbulence around Ukraine and Western sanctions. Rather than being guided by Cold War nostalgia alone, the relationship has moved to a cool, transactional partnership due to Western technology, markets and the China factor. However, defense and energy bind both sides and the 23rd Annual Summit in December 2025 shows that both sides are trying to lock in long-horizon strategic bets (2030–2047) even as they quietly hedge against a rapidly shifting global balance of power.

From Soviet embrace to “special” partnership

In the 1950s–70s, New Delhi and Moscow found each other as political outsiders in a world divided by the US–USSR rivalry and the Sino–Soviet split. The USSR backed India diplomatically on Kashmir and Goa and, crucially, during the 1971 Bangladesh Liberation War through the Indo–Soviet Treaty of Peace, Friendship and Cooperation, which gave India cover against the US–China–Pakistan axis at the UN and on the high seas.

The relationship was not just about war and high politics. Soviet loans built Indian steel plants, heavy machinery complexes and energy projects, feeding into India's state-led industrialization drive. In return, India offered a stable partner in the developing world, one that showcased that cooperation with Moscow did not require communist regimes, which mattered for Soviet global image-building.

Post-Soviet uncertainty and reinvention

The collapse of the USSR in 1991 suddenly removed India's principal strategic and economic anchor, exposing how tightly Indian defence and technology had been wired to one superpower. In the chaotic 1990s, with Russia itself in crisis, India's imports of spares, ammunition and new platforms became uncertain even as Moscow flirted briefly with the West.

Out of this uncertainty, both sides consciously rebuilt the relationship: The 1993 Treaty of Friendship and Cooperation and the 2000 Strategic Partnership (later upgraded to a “Special and Privileged Strategic Partnership”) institutionalized annual summits and set out a broad roadmap across defence, energy, space and culture. This period saw India begin economic reforms and open up to the West, but it still leaned on Russia for high-end defence technology and diplomatic balance in a unipolar, US-dominated order.

Geopolitical significance: A Triangle with China and the West

Geopolitically, the relationship sits at the heart of India's strategy of multi-alignment. Russia brings a UN Security Council veto, historical support on issues like Kashmir, and a shared interest in a multipolar world order where neither wants to be dominated by the US or China. Platforms like BRICS, SCO and the RIC (Russia–India–China) dialogue give both sides a stage to talk multipolarity, reform of global institutions, and de-dollarisation.

Yet, this geometry has become more complicated. Russia's deepening strategic embrace with China accelerated after Crimea (2014) and then the full-scale invasion of Ukraine (2022) and Western sanctions directly affects India's calculus. Moscow now needs Beijing far more than before, raising doubts in New Delhi about whether Russia can ever again be a meaningful counterweight to China in Asia, especially if India faces another Doklam or Galwan-type crisis.

Defence and Technology: from dependence to hedging

For decades, India's military has been built on Soviet/Russian platforms: tanks like T-72 and T-90, MiG and Sukhoi fighters, submarines and missile systems. Even today, over half of India's major military equipment is of Russian origin, which means training patterns, maintenance ecosystems and doctrine have been shaped by Russian hardware.

But within that dependence lies a story of gradual diversification and ambition. Joint projects like the Su-30MKI and BrahMos cruise missile shifted the relationship from buyer-seller to co-development, with India demanding local production, technology transfer and growing indigenous content. New Delhi wants Russia to be a long-term defence collaborator without being the single point of failure; hence parallel moves to buy Rafale jets from France, S-70 helicopters and drones from the US and develop indigenous systems under "Atmanirbhar Bharat".

The Ukraine war has exposed the risks of overdependence. Russian factories are prioritising their own war needs; sanctions complicate payments and supply chains; some deliveries to India face delays or uncertainty. Quietly, Indian planners are asking how to keep legacy platforms running while ensuring that the next generation of systems spreads risk across multiple partners, including domestic industry.

On the technology front beyond defence, Russia remains central in nuclear energy: Kudankulam's reactors, built and fuelled by Russia, anchor India's civilian nuclear expansion and form a pillar of its low-carbon strategy. Space cooperation launches, GLONASS navigation, satellite work and new discussions on AI, cybersecurity and critical minerals feature in recent summit documents, though this track is not as visible as defence or oil.

Economic and energy ties: oil, imbalance and sanctions

For much of the post-Cold War era, India-Russia trade underperformed, stuck under USD 10 billion and dominated by defence, fertilisers, and limited machinery. The Ukraine war dramatically altered this picture: as Europe cut Russian energy imports, Russia redirected crude to Asia, and India emerged as one of its biggest buyers of discounted oil.

Within a few years, bilateral trade ballooned to roughly USD 68-69 billion, but this growth is overwhelmingly driven by India's imports mainly crude, coal and fertilisers while Indian exports remain under USD 5-6 billion. The result is a large trade imbalance and a pile-up of rupee balances that Russian entities struggle to use productively, complicated by sanctions and the need to navigate "grey" shipping and insurance networks.

Yet, from New Delhi's perspective, these discounted imports have shielded India from global price spikes, supported macroeconomic stability and kept inflation manageable all essential for domestic political and developmental priorities. Long-term plans, articulated in recent summits, aim for USD 100 billion trade and deep investments in the Russian Far East, Arctic routes and connectivity corridors like INSTC and the Chennai-Vladivostok route.

Cultural and people-to-people ties: nostalgia and new realities

The soft-power story of India–Russia relations is coloured by nostalgia: old Indian films playing to packed Soviet halls, Hindi songs dubbed into Russian, and Indian students studying medicine and engineering in Soviet universities. This created a reservoir of goodwill that still exists among older generations in both countries, reinforced by shared interest in literature, yoga, spirituality and classical arts.

In contemporary terms, cultural ties remain friendly but are overshadowed by India’s far denser people-to-people links with the US, UK, EU and Gulf. Indian students still go to Russia for medical education; there are cultural festivals, tourism initiatives and university MoUs, but volumes are small compared to the West, which subtly shifts the emotional balance of India’s foreign policy over time.

Recent Developments: oil windfall, summitry and slow drift

Since 2022, India has followed a careful script on the Russia–Ukraine conflict: abstain at UN votes, call for cessation of hostilities, emphasise dialogue and “this is not an era of war”, and keep high-level channels open with Moscow and Kyiv. This position protects India’s interests oil, arms, Eurasian access while avoiding outright condemnation that could damage its Russia ties beyond repair.

In parallel, recent annual summits, including the 23rd Summit in 2025, have reaffirmed the “Special and Privileged Strategic Partnership”, announcing cooperation in nuclear energy, hydrocarbons, digital payments, connectivity and the Russian Far East. Public narratives in

both capitals frame the relationship as resilient and future-oriented, even as both quietly recognize structural challenges: Russia’s overreliance on China, India’s turn to Western high-tech and Asia-Pacific coalitions, and the ever-present risk of secondary sanctions.

What the 23rd Summit reveals about strategy

The Joint Statement from the 23rd Summit is deliberately dense, but read closely, it reveals India’s strategic priorities in the Russia relationship:

Locking in a long game on trade and payments

- A Programme for the Development of Strategic Areas of Economic Cooperation till 2030 (“Programme 2030”) aims to push trade to USD 100 billion, signalling that India sees Russia as a structural, not just wartime, energy and commodity partner.
- Both sides explicitly prioritise national-currency settlements, interoperability of payment systems, and even central bank digital currency platforms, which speaks to a shared interest in reducing exposure to the dollar-centric sanctions architecture.

Embedding India in Eurasian connectivity and the Arctic

- INSTC, the Chennai–Vladivostok Corridor and the Northern Sea Route are repeatedly highlighted, linking India not just to Russia but to Central Asia, Europe and the Arctic resource and shipping system.
- A dedicated 2024–2029 framework for the Russian Far East and Arctic pushes cooperation in energy, mining, agriculture, pharmaceuticals and maritime transport, giving India a foothold in spaces where China is also very active.

Pivot from “buyer” to co-producer in defense and tech

- The military-technical section stresses re-orienting towards joint R&D, co-development and co-production, including Make-in-India manufacture of spares and components and even export to “mutually friendly third countries”.
- This language is India’s answer to the Ukraine war-era lesson: dependence on imported spares is unacceptable; Russia must either become a co-producer within India’s industrial ecosystem or risk gradual relative decline in India’s defence mix.

Nuclear, space and critical minerals as future pillars

- The statement connects Russia’s nuclear role (Kudankulam and a prospective second site) directly to India’s goal of 100 GW nuclear capacity by 2047, tying the partnership to India’s low-carbon growth narrative
- Both sides highlight cooperation in critical minerals, rare earths, digital technologies and protection of critical infrastructure—precisely the domains where India also works with Western partners, signalling India’s desire to avoid any tech bloc alignment.

India’s balancing act with the West

- Russian energy and arms to remain available and affordable.
- Western capital and technology for growth and digital transformation.
- Enough strategic space to manage China on the Himalayan border and in the Indian Ocean.



Present geopolitical game: three fronts for India

India’s real strategic test lies in managing the triangle: Russia, the West and China.

- With Russia, it seeks uninterrupted energy and defence flows, and a partner in re-shaping Eurasian and BRICS-centric institutions.
- With the West (US, EU, key Indo-Pacific partners), it seeks capital, high technology, digital and defence diversification, and a common front on China.
- With China, it manages an unresolved border, military stand-offs and an Indo-Pacific contest, while watching Russia’s growing dependence on Beijing with unease.

This creates a constant balancing act: every step closer to the West (QUAD, tech alliances, defence diversification) risks signaling drift from Moscow, while every deepening of oil and defence engagement with Russia tests the patience of Western partners and exposes India to sanctions risk.

The US and EU have pressed India sometimes publicly, often privately to cut oil imports and defence ties with Russia and align more clearly on Ukraine. Yet, they also see India as indispensable for balancing China in the Indo-Pacific and have largely tolerated India’s Russia stance, focusing instead on building convergences in QUAD, critical technologies, supply chains and maritime security

23rd Annual Summit

*INDIA - RUSSIA: A Time-Tested
Progressive Partnership, Anchored
in Trust & Mutual Respect*

India has operationalized its answer through multi-alignment: participating in QUAD and deepening defence deals with the US and France, while simultaneously buying record volumes of Russian crude and hosting high-level visits from Moscow. This creates an image of India as a swing power working issue-wise coalitions rather than fixed blocs a framing that suits its aspiration for great-power status and strategic autonomy.

How India is using Russia in the wider geopolitical contest

Energy shield and macro-stability

- Discounted Russian crude has turned Moscow into a shock absorber for India's energy security, allowing New Delhi to manage inflation and fiscal pressures in a turbulent global market.
- India is using this breathing space to push its domestic energy transition while insisting that energy decisions are sovereign and cannot be subordinated to Western sanctions politics.

Strategic autonomy as a bargaining chip

- India's visible closeness to Russia increases its "price" in Western eyes; Washington and European capitals understand that if they push too hard on sanctions or alignment over Ukraine, India has a real alternative that can complicate Western strategies.
- At the same time, India's deepening with QUAD, AUKUS-adjacent tech dialogues and Indo-Pacific coalitions signals to Moscow that Russia cannot take India for granted and must compete by offering better terms in energy, defence localisation and Eurasian access.

Multilateral signalling: BRICS, SCO and UN

- The Joint Statement underlines reform of the UN Security Council and reiterates Russia's "steadfast support" for India's permanent seat symbolically important as India sells itself as Voice of the Global South and a leader of "reformed multilateralism".

Russia's full support for India's 2026 BRICS Chairship and coordination in SCO, including on counter-terrorism and information security, gives India platforms to shape norms outside Western-led forums

Key challenges in the current game

Russia–China entanglement

- Russia's economic and strategic tilt towards China, accelerated by sanctions, narrows the space for Moscow to act independently in Asia and on issues like India–China crises, even if Russian rhetoric remains formally neutral and supportive.
- This raises a structural question for India: Can a Russia so dependent on China ever again play the balancing role it did during the Cold War, or will its choices increasingly align with Beijing's preferences?

Sanctions, payments and legal risk

- The heavy reliance on discounted oil and complex shipping/insurance/ payment arrangements ties India's economic engagement with Russia to the durability and design of Western sanctions.
- If sanctions tighten (e.g. secondary measures on shipping, finance or technology), Indian firms face legal and reputational risks, forcing New Delhi to continually calibrate how far to go in shielding Russia without harming its own global financial integration.

Perception and norms

- India's abstentions and continued deep engagement with Russia on energy and defence fuel debates about whether its position on Ukraine weakens its long-term advocacy of sovereignty and territorial integrity principles central to its China and Pakistan narratives.
- India's answer is to frame its stance as principled neutrality and issue-based alignment, pointing to its humanitarian assistance to Ukraine and calls for dialogue while firmly rejecting unilateral sanctions and bloc politics.

Emerging debates and fault lines

Several deep debates now shape thinking on India–Russia relations:

- **Strategic drift vs legacy comfort:** Some argue that sentimental attachment and institutional inertia keep India closer to Russia than objective interests now justify, given Moscow's tilt towards Beijing. Others warn that breaking too sharply from Russia could leave India exposed in defence and Eurasia, and also reduce its leverage with the West.
- **Defence dependence vs indigenisation:** The Ukraine war has made clear that sanctions and supply disruptions can cripple platforms dependent on foreign spares. For India, this reinforces the push for domestic defence production and diversified imports, but the transition must be carefully sequenced so that legacy Russian systems remain operational during the shift.

- **Norms vs interests on Ukraine:** Domestically and internationally, critics question whether India's neutrality on Ukraine undercuts its own long-term advocacy of sovereignty and territorial integrity, principles that matter for its stand on issues like Kashmir and the Indo-Pacific. Supporters counter that strategic autonomy means keeping options open and that India has quietly used its channels to nudge Moscow towards restraint while protecting its vital interests.
- **Economic sustainability:** The current trade surge is heavily oil-led and sanctions-dependent, raising questions about its durability if the war ends, sanctions change, or the West tightens measures on third-country traders. India will have to convert this wartime windfall into longer-term, diversified economic interdependence if it wants a more balanced economic partnership.



The SHANTI Act

The SHANTI Act is the most far-reaching reform of India's civil nuclear sector since Independence, replacing core legacy laws to open the nuclear power industry to private capital while tightening safety regulation and aligning the sector with long-term clean energy and net-zero goals. It seeks to turn nuclear power from a strategic, state-dominated enclave into a more competitive, investment-friendly pillar of India's energy-security strategy by 2047

Historical evolution of India's civil nuclear sector

- India's nuclear journey began with the establishment of the Atomic Energy Commission (1948) and the Apsara research reactor (1956), followed by the Tarapur (1969) and Rajasthan (1970s) power stations. Homi Bhabha's three-stage nuclear power programme (natural uranium PHWRs → fast breeder reactors → thorium-based systems) was adopted in 1958 to achieve long-term energy independence using domestic thorium.
- The 1974 nuclear test led to technology denial and sanctions, forcing India to pursue indigenous reactor and fuel-cycle capabilities while keeping nuclear power under tight state control. The 2008 Indo-US civil nuclear agreement partially ended this isolation, enabling international cooperation but capacity addition remained modest due to regulatory, financial and liability constraints

“The SHANTI Act is the most far-reaching reform of India's civil nuclear sector since Independence”

Role of nuclear energy in India's energy security

- As of late 2025, India has about 8.78 GW of installed nuclear capacity, contributing roughly 3% of total electricity generation. Yet nuclear power is seen as a firm, low-carbon source that can complement renewables and support grid stability in the push towards net-zero emissions by 2070.
- Government roadmaps under “Viksit Bharat 2047” now target around 100 GW of nuclear capacity by 2047 through a mix of large reactors and emerging technologies like Small Modular Reactors (SMRs), positioning nuclear as a key pillar of long-term energy security and decarbonization. Nuclear energy also reduces import dependence on fossil fuels, enhancing strategic autonomy in the energy sector.

Challenges in evolution and growth

- Financial and project-management constraints have slowed nuclear expansion: large reactors require high upfront capital, long construction periods and complex clearances, often resulting in delays and cost overruns. Public sector entities like NPCIL have limited balance-sheet capacity to sustain a rapid scale-up, and state utilities have been cautious buyers of nuclear power at higher tariffs



- International liability concerns under the Civil Liability for Nuclear Damage (CLND) Act, 2010 especially supplier liability discouraged foreign vendors and complicated fuel and technology deals. In addition, land acquisition, local protests, and lingering safety perceptions since Chernobyl and Fukushima have made site development politically sensitive.

Legal and regulatory framework shaping the sector

- The Atomic Energy Act, 1962 vested all nuclear material and most nuclear activities in the Union government, effectively giving a state monopoly over nuclear power generation through entities like NPCIL and BHAVINI. The CLND Act, 2010 laid down a special civil liability regime for nuclear damage, creating a no-fault liability on operators with capped liability and a controversial right of recourse against suppliers.
- The Atomic Energy Regulatory Board (AERB) was created in 1983 by executive order to oversee nuclear and radiation safety but lacked a clear statutory basis, leading to repeated calls from experts and international bodies (like the IAEA) for an independent, law-backed regulator. This legal architecture kept the sector tightly controlled but also constrained private participation and complicated large-scale capacity expansion.

Safety and security concerns

- Nuclear accidents carry low probability but very high impact, with global events such as Chernobyl (1986) and Fukushima (2011) shaping public fears and international safety norms. In India, issues flagged include ageing reactors, seismic and coastal vulnerabilities at some sites, emergency preparedness, waste management, and transparency of safety assessments.

- Safety regulation historically suffered from perceived conflict of interest, as AERB reported administratively to the Atomic Energy Commission, which also promotes nuclear power. Civil society groups have repeatedly demanded clearer separation between promotion and regulation, stronger public consultation, and robust liability and compensation mechanisms to ensure accountability in case of accidents.

Key features of the SHANTI Act

Opening the sector to private participation

- For the first time, the law permits Indian private companies, joint ventures and certain foreign-linked entities to build, own, operate and decommission civil nuclear power plants, ending NPCIL's operational monopoly. Fuel supply and control over fissile materials, however, remain with the Central government; private players cannot own nuclear fuel or exercise independent control over strategic materials.
- Private participation under the SHANTI Act is essential to bridge India's massive investment gap—from 8.8 GW current nuclear capacity to the 100 GW target by 2047—requiring ~\$214 billion and ~4 GW annual additions beyond public sector limits. While it unlocks capital, execution expertise and technology transfer, realisation hinges on overcoming fuel dependency, liability perceptions and execution risks.
- Private entry addresses NPCIL's funding constraints, enabling joint ventures (e.g., NTPC-NPCIL's ASHVINI for 2.8 GW Mahi Banswara project) and direct private builds by firms like Adani, L&T or Tata Power. Analysts project 30-50% of new capacity from private sources, with up to 49% FDI allowed, potentially adding 40-60 GW via large reactors and SMRs if tariffs align with renewables

Key enablers from SHANTI Act

Enabler	Impact on 100 GW Target
Ends NPCIL monopoly on operations	Frees public capital for R&D; private firms handle construction/ownership, scaling ~4 GW/year.
Removes supplier liability (repeals CLND 2010)	Attracts foreign vendors (e.g., GE-Hitachi, Westinghouse) for tech transfer; caps operator liability at ₹30 bn for large plants.
Unified licensing + statutory AERB	Cuts project gestation from 11-12 years; supports SMRs for flexible siting/grid addition.
Nuclear Liability Fund	Ensures compensation; boosts investor confidence via risk pooling.

The Act aims to create a single, streamlined licensing process for all civil nuclear activities, thereby reducing procedural fragmentation that previously deterred investors. This is expected to attract large domestic conglomerates and international partners into nuclear power generation under strict regulatory oversight.

Revised liability and compensation regime

- The SHANTI Act repeals the CLND Act and removes statutory supplier liability, placing primary and exclusive liability for nuclear damage on the plant operator, with liability caps linked to installed capacity (for example, graded caps from smaller plants to large reactors, ₹100 crore for <150 MW plants to ₹3,000 crore for >3.6 GW). This aligns India more closely with international nuclear liability conventions and reduces perceived legal risk for technology suppliers.
- Operators can now pursue suppliers only contractually (e.g., indemnity clauses for willful misconduct), and a central Nuclear Liability Fund covers excess claims. This aligns with CSC/Paris conventions, where suppliers are channeled out of direct victim claims.

- It provides for a Nuclear Damage Claims Commission and allows creation of a Nuclear Liability Fund to ensure timely compensation in case of accidents. Operators may still have limited contractual recourse against suppliers in cases like wilful misconduct, but broad statutory supplier liability is removed.

Strengthening regulation and safety oversight

- The Act grants statutory status to the AERB as the national nuclear and radiation safety regulator, making it accountable to Parliament and clearly defining its powers and independence. AERB is empowered to set safety standards, license and inspect facilities, issue binding directions, and suspend or cancel operations for non-compliance across the entire lifecycle from siting and construction to operation, transport, waste management and decommissioning.

- Institutional mechanisms such as an Atomic Energy Redressal Advisory Council and specialised appellate/dispute-resolution arrangements (including the Appellate Tribunal for Electricity's role in nuclear cases) further structure regulatory governance and grievance redress.

Technology, Innovation and SMRs

- The SHANTI framework explicitly supports advanced nuclear technologies, including SMRs and next-generation reactors, to diversify plant sizes and siting options. By clarifying ownership, licensing and liability rules for such technologies, it aims to revive stalled civil nuclear deals and enable smaller, modular projects that can be added more flexibly to the grid.
- The Act is designed to integrate with broader energy and climate policies, supporting nuclear's role in India's net-zero and energy-transition pathways.

Prospects and related debates

Prospects

If implemented effectively, the SHANTI Act can:

- Unlock significant private and foreign investment (estimated at over USD 200 billion over coming decades) and accelerate progress toward the 100 GW nuclear target by 2047.
- Improve regulatory credibility through a statutory AERB, potentially boosting public trust and international cooperation in nuclear technology and fuel supply
- Support energy security and climate commitments by expanding reliable, low-carbon baseload capacity, complementing intermittent renewables.

Debates and concerns

- Critics warn that removing supplier liability and sharply capping operator liability may under-compensate victims in case of a major accident, effectively "privatising profits while socialising risk". There is concern that narrowing legal accountability could weaken incentives for maximum safety across global supply chains.
- Trade unions and civil society fear that opening generation to private companies may prioritise commercial returns over robust public consultation, transparency and long-term waste management. Questions are also raised about whether AERB's appointment process and linkages truly ensure independence from the executive and promoter agencies.
- From a strategic standpoint, some analysts caution that deep private and foreign involvement must be carefully ring-fenced to protect sensitive technology, material accounting and national security interests.

Conclusion

From a policy-evolution perspective, the SHANTI Act represents a decisive shift from a closed, state-dominated nuclear estate to a liberalized, investment-centric and regulator-driven framework aimed at making nuclear power a major contributor to India's clean-energy portfolio. It promises faster capacity addition, stronger statutory regulation and better alignment with global nuclear-liability norms, but simultaneously raises serious questions about victim compensation, regulatory independence, democratic accountability and the balance between safety and commercial incentives. Actually SHANTI is both an opportunity and a stress test: its success will be judged by whether India can scale nuclear capacity for energy security and net-zero without diluting the high bar of safety, transparency and justice that a technology of such risk inherently demands.

VB-G RAM G

VB-G RAM G marks a major restructuring of India's rural livelihood guarantee framework by replacing MGNREGA with a new, tech-heavy, 125-day employment and livelihood mission aligned to the Viksit Bharat 2047 vision. It strengthens some features (more days, climate-resilient assets, tighter monitoring) but raises serious concerns over dilution of demand-driven rights, higher burden on states, and the future of social protection for the rural poor.

Historical evolution of rural livelihood schemes

India's present employment guarantee framework evolved gradually from state-level experiments, food-for-work programme and centrally sponsored wage schemes. Maharashtra's Employment Guarantee Scheme (MEGS, 1970s) was an early model recognizing a justiciable "right to work" and inspired later national legislation. In the 1990s, the Employment Assurance Scheme and Food for Work programme tried to provide off-season work and create rural infrastructure but remained limited in coverage and legal backing.

The National Rural Employment Guarantee Act (NREGA) was passed in 2005, later renamed MGNREGA, and extended to all rural districts by 2008. It provided a statutory guarantee of at least 100 days of wage employment per rural household, funded largely by the Union government and implemented through gram panchayats with strong transparency provisions.



Changing nature of rural schemes over time

Over time, rural employment schemes have shifted from short-term relief and food security towards integrated livelihood, infrastructure and climate resilience goals. Digital technologies such as MIS, Aadhaar-based payments and geo-tagging were progressively incorporated into MGNREGA to improve transparency, though sometimes at the cost of exclusion errors.

The policy discourse has also moved from purely "workfare" to linking wage employment with durable asset creation and convergence with agriculture, watershed and rural development programme. At the same time, fiscal constraints and reforms debates pushed governments to consider capping outlays, revisiting labour-material ratios and geographically "focusing" programme, which ultimately set the stage for proposals to overhaul MGNREGA itself.

MGNREGA: Design and Multidimensional Impacts

MGNREGA legally guaranteed 100 days of unskilled manual work per rural household on demand, with compensation for non-provision of work, making it a rights-based and demand-driven programme. The Union government bore nearly all unskilled wage costs and part of material costs, and planning was decentralized to gram sabhas and panchayats.

Studies and official data show multiple impacts:

- Livelihood security and anti-poverty: It provided hundreds of crore person-days annually, cushioning rural households during agrarian distress and shocks such as droughts and the COVID-19 pandemic.

- **Gender and social inclusion:** Women's participation often exceeded 50 percent, and the scheme became a major source of independent income for women, especially from marginalized communities.
- **Rural assets and environment:** Works on water conservation, land development, afforestation and rural connectivity contributed to agricultural productivity, groundwater recharge and climate resilience in many regions.
- **Local democracy and transparency:** Gram sabha planning, social audits, proactive disclosure and the MGNREGA MIS strengthened local accountability, even though wage delays, corruption and under-provision of work persisted.
- **Work and planning:** There is stronger emphasis on climate-resilient and productive assets such as water structures, rural roads, markets and livelihood infrastructure, with more convergence with line departments.
- **Technology and monitoring:** The Act mandates biometric attendance, GPS-tagged works, AI-based fraud detection, weekly public data disclosure and more frequent social audits to tighten accountability.
- **Implementation flexibility:** It allows temporary pause of works (up to around 60 days) in peak agricultural seasons to avoid labour shortages while promising weekly wage payments.

VB–G RAM G: Features and government claims

VB–G RAM G (Viksit Bharat – Guarantee for Rozgar and Ajeevika Mission, Gramin) has been enacted in 2025 to replace MGNREGA as the primary rural employment and livelihood law. The Act increases the statutory employment guarantee from 100 to 125 days per rural household per year, and positions the programme explicitly within the Viksit Bharat 2047 rural transformation agenda.

Key structural features include:

- **Scheme architecture:** It becomes a centrally sponsored scheme with a fixed Centre–state cost-sharing pattern (for example, 60:40 in general states and higher central share for NE/Himalayan states) instead of near-full central funding of unskilled wages earlier.
- **Funding approach:** It moves from open-ended, demand-driven funding to a normative allocation system with fixed state-wise ceilings; any expenditure beyond normative limits is to be borne by states.

Government claims in favour of VB–G RAM G can be summarised as:

- It modernizes the employment guarantee by increasing days, improving payment frequency and integrating livelihoods with infrastructure and climate resilience.
- It clarifies Centre–state fiscal responsibilities and aims to reduce leakages through digital governance and real-time monitoring.
- It seeks to target vulnerable groups better (for example, special cards for single women, elderly, persons with disabilities, etc.) while giving panchayats a bigger role in long-term planning.



Will VB–G RAM G replace MGNREGA?

MGNREGA vs VB-G RAM G

Key design differences

Dimension	MGNREGA	VB-G RAM G
Legal status	MGNREGA Act 2005 guaranteeing 100 days of work; now repealed.	New VB-G RAM G Act 2025 guaranteeing 125 days of work.
Nature of guarantee	Demand-driven, legal right to work, compensation if work not given.	Higher days promised but within fixed budget ceilings; work availability can be constrained by allocations and pauses.
Funding pattern	Centre paid nearly 100 percent of unskilled wages, shared materials.	Centrally sponsored scheme with defined Centre-state shares (e.g., 60:40; 90:10 for special states).
Budget approach	Open-ended; central outlay rose automatically with demand.	Normative, capped allocation per state; excess costs to be borne by states.
Implementation lead	Gram panchayats central to planning and execution with strong demand registration.	Panchayats still involved but within a more top-down, mission-mode framework and digital platform.
Technology	MIS, Aadhaar-based payments, geo-tagging; tech gradually added.	Biometric attendance, GPS, AI-based analytics, weekly public dashboards made mandatory.
Work availability	No formal provision to pause employment; obligation to provide work within 15 days of demand.	Allows up to 60-day “employment pause” during peak agricultural seasons.
Payments	Wages to be paid within 15 days, with delay compensation (often violated in practice).	Weekly wage payment cycle promised; higher penalties for delays.

Shift in Centre–state cost sharing

VB–G RAM G significantly increases the fiscal burden and risk on states by shifting to a 60:40 (or 90:10) cost-sharing model and introducing capped, “normative” central allocations instead of open-ended funding. States will now not only pay a much larger share than under MGNREGA but also bear the entire cost once the Centre’s annual cap is exhausted.

- Under MGNREGA, the Centre paid 100% of unskilled wages and about 75% of material costs, with states primarily bearing unemployment allowance and 25% of materials.
- Under VB–G RAM G, all components (wages, materials, administration) are shared: 60:40 for general states and 90:10 for North-Eastern and Himalayan states; UTs without legislatures continue to be 100% centrally funded.

This uniform sharing means direct wage liability now falls substantially on states, a major departure from the earlier centre-heavy structure.

Normative allocations and capped central liability

- VB–G RAM G replaces MGNREGA’s demand-driven, open-ended funding with an annual “normative allocation” decided by the Centre for each state using “objective parameters”.
- Any expenditure beyond this allocation must be fully financed by the state government, even though the legal guarantee of 125 days remains on paper.

This effectively caps the Centre’s liability and transfers the risk of demand surges (for example, in droughts or pandemics) from the Union to states.

Quantified extra burden on state budgets

- An estimate using FY25 MGNREGA data suggests that if VB–G RAM G rules had applied, total state spending on wages and materials would have risen from about ₹10,120 crore to around ₹41,494 crore, i.e., more than a four-fold increase.

- The relative increase varies: Kerala, Jharkhand and Tamil Nadu would face among the highest percentage jumps, while states like Haryana, Rajasthan, Telangana and Uttar Pradesh see relatively lower increases, though still substantial in absolute terms.

For fiscally stressed states where 50–70% of revenue receipts are already pre-committed to salaries, pensions and interest, this additional committed spending significantly tightens fiscal space.

Interaction with 125-day guarantee and macro context

- The move to 125 guaranteed days magnifies potential liabilities: if rural distress drives up demand, states must either finance extra work beyond the Centre’s cap or ration employment, weakening the guarantee in practice.
- This comes when many states are already seeking higher tax devolution (above 41%) due to shrinking untied resources and growing conditional transfers; VB–G RAM G effectively pre-commits a larger chunk of state budgets to one centrally designed scheme.

Thus, the scheme changes employment guarantee from an instrument where the Centre absorbed counter-cyclical risk to one where that risk is largely decentralized to states.

Critics argue that shifting from open-ended, demand-driven funding to capped normative allocations converts a justiciable right into a supply-limited welfare scheme. This, combined with seasonal pauses, could weaken the protective function during distress periods when demand for work is highest. There are concerns that greater financial burden on fiscally weaker states will reduce their willingness or ability to fully utilise the 125-day guarantee, especially in poorer regions.

Technology a central pillar of design and implementation

VB–G RAM G makes technology a central pillar of design and implementation, using a full digital ecosystem (biometrics, GPS, AI, real-time dashboards) to push transparency and asset planning, but also raising concerns of exclusion and over-centralised control. Its impact will depend on whether these tools reduce leakages without blocking genuine workers in low-connectivity, marginal regions.

Core digital architecture

- The Act mandates a “comprehensive governance ecosystem” built on digital public infrastructure, including biometric authentication, spatial-technology-enabled planning, mobile-based monitoring and AI-enabled analytics.
- All works will be integrated into the Viksit Bharat National Rural Infrastructure Stack (VB-NRIS), creating a unified geospatial database of rural assets linked to district, state and national planning platforms.

This architecture aims to replace fragmented, paper-based systems with a single national digital backbone for rural works.

Technology in worksite management and payments

- Mandatory biometric attendance (often Aadhaar-linked) at worksites verifies worker presence, while GPS/mobile-based worksite monitoring and geo-tagged photos track progress.
- Real-time MIS dashboards and weekly public disclosure of data (person-days, payments, works) are required, coupled with e-payments routed through bank/post office accounts.

The stated objective is to curb “ghost workers”, fake muster rolls and wage theft that were persistent criticisms under MGNREGA.

**Mahatma Gandhi National Rural
Employment Guarantee Act**

Technology in planning and asset quality

- Village-level plans (Viksit Gram Panchayat Plans) must be prepared using spatial data and mapped onto the VB-NRIS, with priority to water security, core rural infrastructure, livelihood infrastructure and extreme-weather mitigation works.
- Integration with national platforms like PM Gati Shakti allows geospatial planning, reduces duplication and helps align local works with higher-order infrastructure (roads, markets, storage, etc.)

Technology thus attempts to shift the programme from scattered small works to more durable, climate-resilient, networked assets.

Accountability, AI and social audits

- VB–G RAM G explicitly provides for AI-based fraud detection, anomaly analytics and risk-flags on works, muster rolls and payments.
- It strengthens social audits by mandating at least two audits per gram panchayat per year, with findings fed into digital dashboards and linked to time-bound corrective action

The combination of AI tools and mandatory social audits is projected as a way to move from reactive, paper-heavy audits to continuous, data-driven oversight.

Benefits vs concerns: *A Brief Assessment*

Potential positives

- Reduced leakages and wage theft through biometric attendance, geo-tagging and AI-based anomaly detection.
- Faster, more transparent payments and improved public access to information via weekly digital disclosures and real-time MIS.
- Better asset quality and climate-resilient planning through spatial-tech-enabled project selection and integration with national infrastructure stacks.

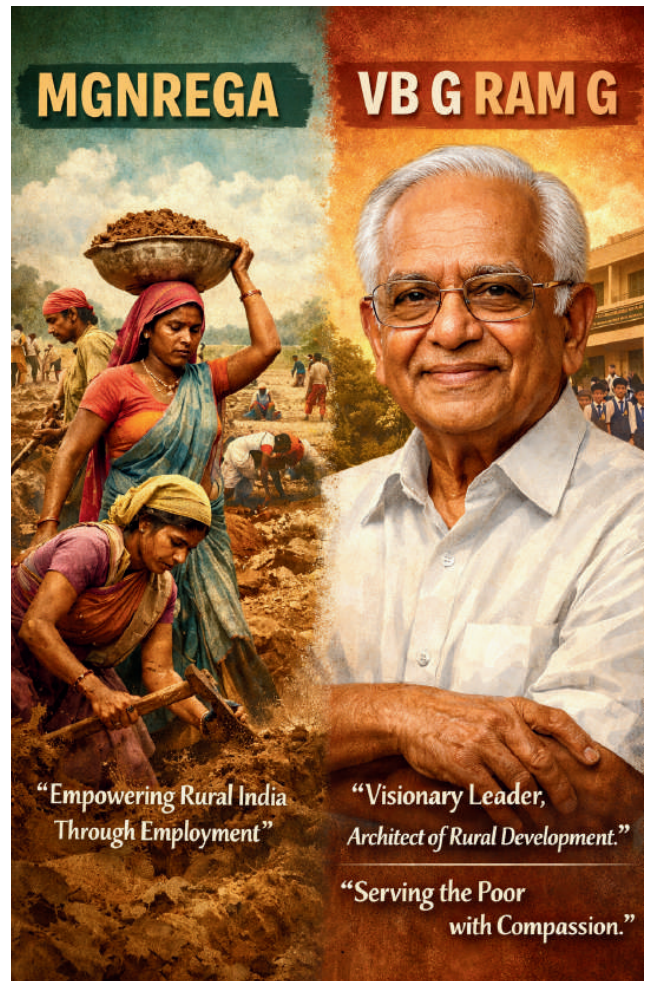
Key concerns

- Risk of exclusion where connectivity, devices or biometric authentication fail, affecting elderly, women, migrants and remote-area workers.
- Increased compliance and transaction costs for panchayats and frontline staff, who must manage apps, GPS tagging and dashboards, potentially reducing time for on-ground supervision.
- Fear of top-down control, as planning and monitoring get strongly mediated through central digital platforms rather than purely through gram sabhas

Conclusion

From a policy-evolution lens, VB–G RAM G represents a shift from an open-ended, rights-based employment guarantee (MGNREGA) toward a mission-mode, tech-enabled and fiscally capped rural livelihood framework under the Viksit Bharat narrative. It strengthens focus on productive, climate-resilient assets and monitoring, and enhances the formal guarantee of workdays, but simultaneously raises questions about demand-driven entitlement, federal fiscal balance and digital exclusion.

VB–G RAM G is actually “continuity with restructuring”: It retains the core idea of public works-based livelihood support yet redefines the state’s obligations by limiting budgets, changing Centre–state cost-sharing and deepening technological control. Its success will ultimately depend on whether the higher days and better assets materialize in practice without undermining the protective, inclusive spirit that made MGNREGA one of India’s most significant social welfare laws.



Discomfort is temporary. The IAS badge is permanent

India's Aviation Sector

India's aviation sector combines one of the world's fastest-growing markets with one of the most fragile business ecosystems, creating a "high-growth, high-risk" crisis marked by recurrent airline failures, safety scares, and regulatory stress despite record passenger numbers.

India's aviation sector in 2025 reached a tipping point of crisis, exemplified by two catastrophic events: the June Air India Flight 171 crash in Ahmedabad, which killed over 260 people (241 on board a Boeing 787-8 Dreamliner plus ground fatalities when it struck a medical hostel), and the December IndiGo meltdown that grounded thousands of flights amid new Flight Duty Time Limits (FDTL). These shocks amid record passenger traffic of over 200 million—exposed deep structural vulnerabilities in a sector poised for explosive growth yet plagued by financial fragility, safety lapses, regulatory gaps and a precarious duopoly.

A detailed assessment needs to situate the 2025 crisis (IndiGo meltdown, Air India crash, sky-high fares) within the longer evolution of policy, market structure, and infrastructure gaps, and then outline a calibrated reform path.

Historical evolution of India's aviation sector

- **Pre-liberalisation (1940s–1990s)**
 - Tata Airlines (1932) pioneered civil aviation, later nationalised into Air India (international) and Indian Airlines (domestic), creating a state-run duopoly with heavy regulation and limited connectivity.
 - High fares, limited routes and chronic inefficiencies characterised this era, with aviation largely an elite mode of travel
- **Liberalization and private entry (1990s–2000s)**
 - Economic reforms in the 1990s opened the sector to private carriers (Jet Airways, East-West, Sahara), ending operational monopoly and initiating competition on key routes.
 - The early 2000s saw the rise of low-cost carriers (LCCs) like IndiGo, SpiceJet, GoAir, dramatically lowering fares and pushing passenger traffic from about 22 million (2000) to over 150 million by 2019.
- **Post-2008 boom, busts and consolidation**
 - Aggressive expansion, high fuel prices and poor risk management led to repeated bankruptcies: Kingfisher (2012), Jet Airways (2019), Go First (2023 insolvency), with many smaller carriers failing roughly "once every five years."
 - By mid-2020s, IndiGo and the Tata-consolidated Air India group emerged as the dominant players, setting up the present near-duopoly structure.

Key policies, schemes and their impact

Liberalization, FDI and airport modernization

- Successive policy changes allowed up to 49% FDI in airlines (and higher for non-airline foreign investors), and encouraged PPPs in major airports (Delhi, Mumbai, Bengaluru, Hyderabad, later many regional airports).
- Private airport operators modernized terminals and increased capacity, but also raised aeronautical charges and user fees, pushing up airline operating costs and ticket prices.

UDAN – Regional Connectivity Scheme

- UDAN (Ude Desh ka Aam Naagrik), launched 2016, aimed to make flying affordable and connect unserved/underserved airports through capped fares and Viability Gap Funding (VGF).
- As of 2024–25, 600+ routes and several dozen airports had been operationalized, improving regional connectivity and supporting tourism and business in tier-2 and tier-3 cities.

But serious implementation issues emerged:

- A CAG audit found that up to UDAN-3, 52% of awarded routes never commenced; of the routes that started, only about 30% remained operational due to low demand and financial non-viability.
- Challenges included poor airport infrastructure, delays in approvals, maintenance issues, and weak business models for small regional airlines.

Safety and regulatory changes (FDTL, CARs)

- Strengthening Civil Aviation Requirements (CAR) on Flight Duty Time Limitations (FDTL) was driven by crew fatigue concerns and court directions, but implementation in 2025 without adequate transition planning triggered a meltdown at IndiGo, exposing weak regulatory-industry coordination.
- DGCA attempted to tighten safety oversight, but its own capacity constraints limited consistent enforcement.

DGCA (Directorate General of Civil Aviation)

What is DGCA?

The Directorate General of Civil Aviation is India's civil aviation safety regulator, responsible for ensuring safe, secure, and efficient air transport.

Institutional Status

- Functions under the Ministry of Civil Aviation (MoCA)
- Statutory authority under the Aircraft Act, 1934 and Aircraft Rules, 1937
- Headed by the Director General of Civil Aviation

Core Functions

- Safety regulation: Sets and enforces aviation safety standards
- Certification & licensing:
 - Aircraft airworthiness
 - Pilots, cabin crew, engineers, air traffic controllers
- Oversight of airlines & airports: Audits, inspections, surveillance
- Accident investigation (technical role): Coordinates with AAIB
- Consumer protection: Passenger rights, flight disruptions, refunds
- Security coordination: Works with BCAS on aviation security matters

International Role

- India's nodal agency for ICAO (International Civil Aviation Organization) compliance
- Ensures India aligns with global aviation safety norms (SARPs)

**A detail perspective on
India's aviation sector**



Nature of the current crisis (2025): symptoms and structure

Operational shocks and safety worries

- In 2025, a major Air India crash Air India Boeing 787-8 Dreamliner killed around 260 people, raising questions about safety culture, maintenance practices and oversight, at a time when India was aspiring to be a global aviation hub.
- The same year, IndiGo's implementation of new FDTL (rules without adequate crew planning led to thousands of cancellations, mass delays and nationwide passenger distress, with on-time performance collapsing below 10% on some days.

These incidents illustrated how rapid growth, thin staffing and uneven regulatory enforcement can undermine safety and reliability.

Financial fragility and airline distress

- Despite record traffic, most airlines remained loss-making: combined pre-tax losses for FY 2024-25 exceeded ₹9,500 crore, with industry debt around ₹67,000 crore.
- Air India recorded heavy losses (over ₹10,000 crore in FY 2025 in one estimate), while SpiceJet and Akasa also reported financial stress; IndiGo alone was consistently profitable but with narrowing margins and very high lease-linked debt.
- Structural reasons include high ATF prices (with state VAT), rupee depreciation, expensive airport charges, intense fare competition on trunk routes, and limited pricing power owing to regulatory and political constraints.

Regulatory and institutional stress

- DGCA was functioning with barely half its sanctioned staff (around 800 vacancies as of late 2025), undermining its ability to conduct audits, inspections and data-driven oversight for a rapidly expanding fleet and traffic.
- Experts highlight a pattern of reactive decision-making: tightening rules after accidents or court orders, then diluting under industry pressure (e.g., FDTL rollbacks), creating an impression of regulatory capture and policy volatility.

Deep-rooted challenges and changing market nature

Cost structure and taxation

- Aviation Turbine Fuel (ATF) forms roughly 35–40% of airline operating costs; high state VAT (often 20–30%) makes ATF in India significantly more expensive than global averages, eroding margins.
- High airport charges and ground-handling fees at PPP-run metros further add to the cost base, and dollar-denominated aircraft leases and maintenance amplify vulnerability to currency fluctuations

Market concentration and duopoly risks

- After successive exits and consolidations, IndiGo and Tata-Air India together control roughly 85–90% of domestic market share, creating a de facto duopoly.
- This concentration heightens systemic risk: operational or financial stress in one major carrier (as in IndiGo 2025) quickly becomes a national crisis, pushing up fares and stranding passengers due to lack of spare capacity or competitors.

Infrastructure and manpower bottlenecks

- Fleet expansion has not matched demand: a significant share of aircraft remains grounded due to engine issues and supply chain constraints, while airports at Delhi, Mumbai and other metros operate near saturation in peak hours.
- There are shortages of trained pilots, cabin crew, maintenance engineers and air-traffic controllers, with training capacity lagging behind traffic growth, contributing to fatigue, scheduling complications and safety concerns.

Regional connectivity and UDAN sustainability

- UDAN has created new routes, but many are commercially unviable without continuous subsidies; several UDAN routes and regional carriers have shut down operations due to low load factors and high operating costs.
- Upgrading regional airports faces land acquisition delays, environmental concerns and regulatory bottlenecks, slowing the translation of policy intent into a robust, integrated network.

Opportunities and potential upside

Despite turbulence, structural demand drivers create significant opportunities:

- Demographic and income growth: Rising middle-class incomes, urbanization and tourism growth can push domestic passenger numbers from ~200 million to 300–350 million over the next decade.
- Connectivity and regional development: A more stable UDAN 2.0/5.0 with better route design, dynamic VGF and multimodal integration can support economic growth in smaller cities and border areas.

- MRO, cargo and aerospace manufacturing: India can become a hub for Maintenance, Repair and Overhaul (MRO), freighter operations, and aircraft components, reducing import dependence and creating high-skill jobs.
- Green aviation: Investments in Sustainable Aviation Fuel (SAF), efficient air traffic management (ATM) and newer aircraft can reduce emissions and operating costs over time.

Way forward: reforms for a resilient aviation ecosystem

Structural cost and tax reforms

- Rationalise ATF taxation by bringing it under GST with a lower uniform rate or capped VAT, reducing input costs and fare volatility, especially for regional routes.
- Review aeronautical charges at PPP airports, possibly using long-term tariff frameworks and performance-based regulation to balance investor returns with airline sustainability.

Strengthen competition and reduce systemic risk

- Encourage entry and survival of new carriers, especially regional airlines, through predictable policy, fair slot allocation and support for code-sharing/interlining with larger networks rather than relying solely on duopoly competition
- The competition regulator should monitor potential anti-competitive practices (capacity dumping, predatory pricing or coordinated fare hikes) and ensure transparent slot distribution at congested airports.

Reform UDAN and regional connectivity strategy

- Move from a “route-count” to a viability-centred approach: use robust demand modelling, flexible aircraft choices (turboprops, helicopters, seaplanes) and adaptive VGF rather than rigid fare caps that make routes unviable.
- Integrate UDAN airports with rail, bus and digital ticketing, so that airlines can tap multi-modal catchment areas instead of depending on thin local demand.

Regulatory capacity and safety culture

- Urgently strengthen DGCA: fill vacancies, build specialist cadres (safety data analysts, human-factors experts, accident investigators) and insulate core decisions from short-term political and commercial pressures.
- Adopt proactive risk-based oversight using flight data monitoring, safety management systems (SMS) and regular audits rather than purely reactive post-incident regulation.

Human resources and training

- Expand pilot, cabin crew and maintenance training academies, including PPPs with global OEMs, to ensure adequate supply and reduce overwork-induced safety risks.
- Phase in FDTL and other safety reforms with realistic transition plans, buffer staff and clear crisis protocols to avoid sudden operational collapse like the IndiGo episode.

Long-term sectoral vision

- Treat aviation as critical infrastructure for national integration and economic growth, aligning policies with a long-term National Civil Aviation Policy 2.0 that balances affordability, connectivity, safety and environmental sustainability.

- Leverage India’s G20 and regional leadership role to position the country as an aviation hub, while ensuring domestic policy addresses the “triple deficit” in finance, regulation and infrastructure exposed in 2025.

The crisis of India’s aviation sector is not just about airline bankruptcies or one year of disruptions; it reflects deeper structural imbalances high input costs, regulatory capacity gaps, lopsided market structure and a fragile regional connectivity model which must be addressed through coordinated fiscal, regulatory and infrastructural reforms if aviation is to become a truly inclusive and sustainable growth engine.



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Judges Are Conscious: Why AI Will Not Overpower the Judicial Process

Why in News

Senior members of the judiciary have emphasised that while Artificial Intelligence (AI) can assist courts in efficiency and case management, judicial decision-making will remain firmly human-led, rooted in constitutional values, ethics, and discretion.

AI and the Indian Judiciary:

Indian courts have begun adopting AI-driven tools for:

- Case listing and tracking
- Legal research and translation
- Transcription of court proceedings

Initiatives like SUPACE (Supreme Court Portal for Assistance in Court Efficiency) reflect a growing use of decision-support systems, not decision-makers.

AI and eCourts Project (Digital Backbone)

- Part of the National e-Governance Plan.
- Enables:
 - E-filing
 - Virtual hearings
 - Digital case records
- AI is layered on this data to enable analytics and workflow optimisation.

AI and eCourts Project (Digital Backbone)

Use of AI-enabled tools for:

- Speech-to-text transcription of court proceedings
- Translation of judgments into regional languages

Improves access to justice for litigants and lawyers

Predictive Analytics for Case Management

- Experimental use of AI to:
 - Identify case bottlenecks
 - Predict delays
 - Suggest optimal listing and scheduling
- Aims to reduce case pendency through better administrative planning

Virtual Courts & Automated Processes

- Virtual courts handle traffic challans and minor offences.
- Automation reduces human discretion in routine matters.
- Frees judicial time for substantive cases

Why AI Cannot Replace Judges

Judicial Discretion:

- Judging involves interpretation, empathy, proportionality, and moral reasoning—capacities AI does not possess.

Constitutional Values:

- Courts must balance fundamental rights, natural justice, and equity, which cannot be reduced to algorithms.

Context Sensitivity:

- Facts, social context, and lived realities often shape verdicts beyond statutory text.

Accountability:

- Judges are constitutionally accountable; AI systems lack responsibility and moral agency.

Benefits of AI in the Judicial Process

- **Speed:** Faster research and case management
- **Consistency:** Helps identify precedents and reduce clerical errors
- **Access to Justice:** Translation and transcription tools aid litigants
- **Backlog Reduction:** Supports judges amid heavy pendency

Concerns and Safeguards

- **Algorithmic Bias:** Risk of reproducing societal prejudices
- **Opacity:** “Black box” decision-making undermines transparency
- **Data Privacy:** Sensitive judicial data must be protected
- **Over-reliance:** Mechanical reasoning could dilute justice

Judicial leaders stress that human oversight is non-negotiable.

Way Forward

- Treat AI strictly as a decision-support tool
- Ensure human-in-the-loop frameworks
- Adopt ethical AI guidelines tailored for the judiciary
- Train judges and court staff in digital literacy
- Ensure transparency, auditability, and data protection

Conclusion

AI can modernise courts, but justice cannot be automated. As guardians of the Constitution, judges remain conscious of technology’s limits. The future of the judiciary lies in human judgment augmented by technology, not replaced by it.

Surveillance Apps in Welfare: Snake Oil for Accountability?

Why in News

Governments increasingly deploy surveillance-based digital apps using GPS tracking, facial recognition, biometric authentication, and real-time monitoring to improve accountability and efficiency in welfare delivery. However, concerns are growing over whether such tools genuinely improve governance or merely create an illusion of control.

What are Surveillance Apps?

Surveillance apps are software applications designed to monitor, collect, track, or analyse information about individuals, devices, or activities often without continuous user interaction. They are used by governments, organisations, employers, and sometimes private individuals.

The Promise of Surveillance in Welfare

Digital surveillance tools are promoted as solutions to:

- Leakages and corruption in welfare schemes
- Absenteeism among frontline workers
- Fake beneficiaries and duplication
- Weak last-mile monitoring

In theory, data-driven oversight is meant to ensure transparency, efficiency, and better service delivery.

Why the Model Is Being Questioned

Input Control vs Outcome Improvement:

- Monitoring attendance or movement does not automatically translate into better nutrition, health, or learning outcomes.

Burden on Frontline Workers:

- Anganwadi workers, ASHAs, and teachers often spend excessive time feeding data into apps, reducing time for actual service delivery.

Exclusion Errors:

- Biometric failures, poor connectivity, and rigid digital requirements can exclude genuine beneficiaries, especially the elderly, disabled, and migrants.

Privacy and Dignity Concerns:

- Continuous surveillance risks violating informational privacy and human dignity, particularly among vulnerable populations.

Is It Really Accountability?

True accountability focuses on:

- Responsibility for outcomes, not just compliance
- Institutional performance, not individual micromanagement
- Feedback and grievance redressal, not only surveillance

Many apps prioritise upward reporting to administrators rather than downward accountability to citizens.

Governance and Ethical Concerns

- Data misuse and function creep
- Lack of clear data protection safeguards
- Absence of consent and transparency
- Technological determinism replacing administrative judgment

Such systems risk becoming “snake oil” appearing modern and decisive, but failing to address structural problems like staff shortages, underfunding, and weak institutions.

Way Forward

- Shift from surveillance-led governance to trust-based systems
- Evaluate welfare delivery using outcome indicators, not just app compliance
- Minimise data collection to what is necessary and proportional
- Strengthen grievance redressal and social audits
- Ensure technology is assistive, not punitive, especially for frontline workers
- Anchor digital welfare within privacy-by-design principles

Conclusion

Technology can support welfare delivery, but surveillance is not a substitute for governance reform. Without attention to outcomes, ethics, and institutional capacity, surveillance apps risk becoming snake oil high on promise, low on real accountability.

Rajasthan Becomes First State to Fully Digitise Voter Rolls

Why in News

Rajasthan has become the first Indian state to achieve 100% digitisation of voter rolls, marking a significant milestone in electoral reforms, transparency, and digital governance.

What Does 100% Digitisation Mean?

Complete digitisation implies that:

- All electoral records are available in digital format
- Voter data can be updated, verified, and searched electronically
- Integration with national electoral databases is enabled

The initiative strengthens the administrative capacity of election machinery and reduces manual errors.

Institutional Framework

The exercise has been carried out under the supervision of the Election Commission of India, which is mandated under Article 324 of the Constitution to ensure free and fair elections.

Key Significance

Electoral Transparency:

- Digitisation reduces duplication, fake entries, and clerical errors in electoral rolls.

Ease for Voters:

- Enables faster corrections, additions, and deletions especially beneficial for migrants, youth, and first-time voters.

Administrative Efficiency:

- Supports better election planning, booth management, and logistics.

Digital Governance:

- Aligns with India's broader push towards technology-driven public administration.

Data Protection and Democratic Concerns

While digitisation improves efficiency, it also raises concerns related to:

- Data privacy and security of voter information
- Potential misuse or unauthorised access
- Need for strong cyber safeguards and audit mechanisms

Ensuring data protection is crucial to maintain public trust in electoral processes.

Challenges

- Digital divide affecting access for some voters
- Dependence on accurate seeding and verification
- Risk of exclusion if technological errors are not promptly corrected

Way Forward

- Strengthen cybersecurity and data protection protocols
- Maintain offline verification and grievance redressal mechanisms
- Regular audits and transparency in data handling
- Replicate best practices across other states

Conclusion

Rajasthan's achievement sets a national benchmark in electoral administration. If combined with robust safeguards and citizen-centric processes, voter roll digitisation can enhance electoral integrity, inclusiveness, and democratic participation across India.

SIR and the Annihilation of Rights: When Electoral Purification Risks Exclusion

Why in News

The renewed push for Special Intensive Revision (SIR) of electoral rolls has sparked concern that, while aimed at improving roll accuracy, the exercise could lead to large-scale voter exclusion, disproportionately affecting vulnerable sections of society.

What is SIR?

Special Intensive Revision is an extraordinary exercise undertaken to:

- Verify existing voters
- Remove duplicate or ineligible entries
- Update electoral rolls comprehensively

It goes beyond routine annual revisions and involves door-to-door verification and documentary scrutiny.

The Rights at Stake

Voting is not a fundamental right, but it is central to constitutional democracy and linked to:

- Article 14 (Equality before law)
- Article 19 (Freedom of expression through political participation)
- Article 21 (Right to life and dignity)

Any process that arbitrarily denies citizens their vote risks substantive rights violations.



Why SIR Is Being Criticised

Burden of Proof on Citizens:

- SIR often requires voters to prove eligibility repeatedly, reversing the presumption of inclusion.

Documentary Exclusion:

- Migrant workers, urban poor, women, elderly, and marginalised communities may lack required documents.

Administrative Discretion:

- Ground-level officials exercise wide discretion, increasing the risk of errors and bias.

Time-Bound Exercises:

- Short verification windows reduce opportunities for correction and appeal.

From Roll Cleansing to Rights Erosion

While electoral integrity is essential, excessive focus on exclusion can:

- Undermine the principle of universal adult suffrage
- Convert citizenship into a document-driven privilege
- Create fear and disengagement among voters
- Shift elections from inclusion to gatekeeping

In effect, SIR risks becoming an instrument of “annihilation of rights” rather than protection of democracy.

Institutional Responsibility

The Election Commission of India, entrusted under Article 324, must ensure that:

- Errors do not translate into disenfranchisement
- Due process and transparency are upheld
- Inclusion remains the default principle

Way Forward

- Treat inclusion, not exclusion, as the guiding norm
- Ensure multiple notice and appeal mechanisms

- Use SIR only in exceptional circumstances, not routinely
- Rely on data triangulation, not document absolutism
- Strengthen judicial and independent oversight
- Prioritise voter facilitation over verification anxiety

Conclusion

Electoral rolls must be accurate, but democracy survives on participation, not perfection. If Special Intensive Revision is pursued without robust safeguards, it risks hollowing out the very rights it seeks to protect. Democratic legitimacy lies in inclusion, not administrative purity.

The National Song Debate: A Reading Between the Lines

Why in News

Periodic controversies around the National Song resurface in public discourse—often triggered by debates on mandatory recitation, symbolism, and national identity. These debates go beyond culture, touching the core of constitutional values, pluralism, and individual freedoms.

What Is India’s National Song?

India’s National Song is **Vande Mataram**, composed by **Bankim Chandra Chattopadhyay** and popularised during the freedom struggle. It symbolised resistance to colonial rule and inspired generations of nationalists.

Importantly:

- India’s National Anthem is Jana Gana Mana
- The Constitution does not mandate the singing of the National Song

Historical Context

During the freedom movement, Vande Mataram became a rallying cry. However, even at that time:

- Some communities expressed discomfort with certain verses
- Leaders like Gandhi acknowledged the need for accommodation and sensitivity

This historical nuance is often lost in contemporary debates.

Constitutional and Legal Position

- The Constitution recognises freedom of expression and conscience under Articles 19 and 25
- There is no legal obligation to sing the National Song
- The Supreme Court has consistently upheld that patriotism cannot be enforced by coercion

Thus, voluntary respect, not compulsion, is the constitutional standard.

What the Debate Is Really About

A closer reading shows that the controversy is less about the song itself and more about:

Identity Politics:

- Cultural symbols are increasingly used to draw rigid lines of “belonging”.

State vs Citizen:

- The debate reflects tension between state-led nationalism and individual choice.

Majoritarian Anxiety:

- Uniform cultural expectations risk marginalising diversity in a plural society.

Symbolism Over Substance:

- Focus on performative patriotism diverts attention from constitutional duties and governance outcomes.

Why This Matters

- Democracy thrives on consent, not conformity
- Cultural nationalism, when enforced, can weaken constitutional nationalism
- True unity comes from shared rights and justice, not ritual compliance

India’s strength lies in unity without uniformity, a principle embedded in its civilizational and constitutional ethos.

Way Forward

- Reaffirm voluntary respect for national symbols
- Promote constitutional values over symbolic enforcement
- Encourage civic nationalism rooted in rights, duties, and inclusion
- Use cultural symbols to unite, not discipline, citizens

Conclusion

The national song debate, read between the lines, is not about music or memory—it is about the kind of republic India aspires to be. A confident democracy does not fear difference; it accommodates it. Patriotism imposed is fragile, patriotism chosen is enduring.

Tea Garden Workers Deserve Land Rights and More

Why in News

Renewed discussions on the condition of tea garden workers, especially in Assam and North Bengal have highlighted persistent issues of landlessness, poor living standards, and historical neglect, despite the sector’s major contribution to India’s economy and exports.

Historical Context

Tea plantations emerged during the colonial period, built on indentured and migrant labour. Workers were settled on estate land but never granted ownership, creating generations of labourers who remain legally landless despite living and working on the same land for decades.

This colonial legacy continues to shape today's inequalities.

Current Socio-Economic Realities

Tea garden workers face:

- Low wages and seasonal unemployment
- Poor housing, sanitation, and healthcare
- High levels of malnutrition, anaemia, and maternal mortality
- Limited access to quality education and mobility

Their dependence on plantation management restricts both economic freedom and political agency.

Why Land Rights Matter

Economic Security:

- Land ownership provides a safety net beyond daily wages and reduces vulnerability.

Social Dignity:

- Land rights confer legal identity, stability, and bargaining power.

Intergenerational Mobility:

- Secure land enables diversification of livelihoods, education, and entrepreneurship.

Constitutional Ethos:

- Land rights align with Article 21 (right to life with dignity) and Directive Principles on social justice.

Beyond Land: What “More” Means

Land rights alone are insufficient unless accompanied by:

- Minimum living wages, not just subsistence pay
- Access to public health and nutrition services
- Quality education and skill training
- Inclusion in social security schemes (pensions, insurance)
- Recognition of workers as citizens, not captive labour

Policy and Legal Gaps

- Plantation Labour Act provisions are weakly enforced
- Estate-based welfare often substitutes for state responsibility
- Workers fall between labour law, land law, and welfare policy silos

This fragmented governance perpetuates exclusion.

Way Forward

- Grant secure, heritable land titles for homestead and cultivation
- Revise and enforce the Plantation Labour Act
- Ensure portable welfare benefits independent of estate control
- Promote livelihood diversification through skills and credit
- Strengthen local self-governance and worker representation
- Integrate tea garden areas fully into mainstream rural development programmes

Conclusion

Tea garden workers are not beneficiaries of charity but holders of long-denied rights. Land ownership, fair wages, and social protection are essential to dismantle a colonial-era labour regime and fulfil the promise of dignity, equality, and inclusive growth in independent India.

Census 2027 Approved at ₹11,718 Crore; No Separate Allocation for NPR

Why in News

The Union Cabinet has approved Census 2027 with an estimated cost of ₹11,718 crore, while clarifying that there will be no separate budgetary allocation for the National Population Register (NPR)—a move with important administrative and political implications.

What Is the Census?

The Census is a decennial constitutional exercise conducted under the Census Act, 1948, to collect comprehensive data on:

- Population size and distribution
- Demography, literacy, housing, and livelihoods

It forms the backbone of policy planning, welfare targeting, and fiscal federalism.

About NPR

The NPR is a register of usual residents, prepared under the Citizenship Rules, 2003. While distinct from the Census, past exercises saw overlaps in data collection, leading to public concerns about intent and usage.

Key Features of Census 2027

- Total approved cost: ₹11,718 crore
- Likely to be conducted in two phases (House-listing & Population Enumeration)
- Expected to be digitally enabled, improving speed and accuracy
- Will update data last collected comprehensively in 2011

Significance of 'No Separate NPR Allocation'

Political Reassurance:

- Separating Census funding from NPR addresses concerns about backdoor data linkage.

Administrative Clarity:

- Reinforces the Census as a statistical exercise, not a citizenship verification process.

Trust and Participation:

- Clear demarcation can improve public cooperation and enumeration accuracy.

Federal Sensitivity:

- Reduces friction with states that had earlier raised objections to NPR-linked exercises.

Why Census 2027 Matters

- **Governance:** Basis for delimitation, reservation, and welfare design
- **Economy:** Informs labour, urbanisation, and migration policies
- **Social Justice:** Critical for evidence-based targeting of vulnerable groups
- **Democracy:** Strengthens representational fairness

Delays since 2021 have created data deficits, making this Census especially consequential.

Challenges Ahead

- Managing a digitally complex exercise at scale
- Ensuring data privacy and security
- Training enumerators and addressing the digital divide
- Preventing undercounting of migrants and urban poor

Way Forward

- Maintain strict separation between Census and NPR objectives
- Ensure transparent communication to citizens
- Adopt robust data protection and audit mechanisms
- Engage states and local bodies for smoother implementation
- Use Census outputs proactively for policy and fiscal reforms

Conclusion

Census 2027 is a critical reset for India's data architecture. By approving adequate funding and distancing it from NPR allocations, the government has an opportunity to restore trust, improve data quality, and strengthen evidence-based governance provided execution remains transparent and inclusive.

SC Advisory Opinion on Governor's Role Is Flawed—Let It Stay Advisory

Why in News

The Supreme Court of India has issued an advisory opinion on the conduct of Governors to address recurring Centre–State tensions. While the intent is to uphold constitutional propriety, critics argue that the opinion risks overreach and should remain advisory, not evolve into binding rules.

Constitutional Position of the Governor

- Governors are constitutional heads under Articles 153–162.
- They are expected to act on aid and advice of elected state governments, with limited discretion.

- The Constitution relies on conventions and restraint, not granular judicial prescriptions, to manage this office within India's federal framework.

What the Advisory Seeks to Achieve

- Emphasise timeliness and propriety in actions such as assent to Bills and government formation.
- Reinforce constitutional morality and reduce arbitrariness.
- These goals are normatively sound, but the route taken raises concerns.

Why the Advisory Is Flawed

Judicial Over-Specification:

- Detailed guidance risks converting conventions into enforceable commands, narrowing legitimate discretion.

Federal Sensitivities:

- Uniform templates may ignore state-specific political contexts, unsettling cooperative federalism.

Separation of Powers:

- Advisories that read like mandates blur the line between interpretation and governance.

Judicialization of Politics:

- Prescriptive advice can incentivise routine political disputes to be litigated.

Why It Should Stay Advisory

- **Flexibility:** Advisories guide conduct without hardening into rigid doctrine.
- **Democratic Primacy:** Political accountability and conventions should remain the first line of correction.
- **Institutional Balance:** Courts preserve moral authority while avoiding day-to-day regulation of federal offices.

Better Paths Forward

- Codify best practices through parliamentary debate or intergovernmental consensus.
- Encourage transparent reasoning by Governors to strengthen conventions.
- Use case-specific adjudication for clear constitutional violations, not broad rule-making.

Conclusion

The Court's concern for federal balance is laudable. But advice must not morph into command. Let the opinion inform behaviour, not govern it preserving flexibility, federalism, and the Court's own institutional legitimacy.

The Supreme Court of India Issues Advisory Opinion on Conduct of Governors

**ADVISORY
OPINION**

- ✓ Intended to uphold constitutional propriety
- ⚠ Critics warn of overreach & binding rules

Should Remain Advisory, Not Binding Rules



INTERNATIONAL RELATIONS

Amid US Tariffs, Delhi and Moscow Reiterate \$100 Billion Trade Target by 2030

Amid renewed US tariff pressures and global trade fragmentation, India and Russia have reaffirmed their ambition to raise bilateral trade to \$100 billion by 2030, underscoring India's pursuit of strategic autonomy and diversified economic partnerships.

Background & Context

- Global trade is witnessing a return of protectionism, marked by higher tariffs, sanctions, and supply-chain realignments.
- Recent US tariff measures and economic nationalism have compelled countries to diversify trade partnerships.
- In this context, India and Russia reiterated their long-term trade target of \$100 billion by 2030, first articulated during high-level bilateral engagements.

Key Facts & Data

- India–Russia bilateral trade crossed \$65 billion (approx.) in 2023–24, largely driven by energy imports.
- Russia has emerged as one of India's top crude oil suppliers.
- Trade is currently skewed in Russia's favour, due to India's energy-heavy import basket.
- Target: \$100 billion trade by 2030, including goods and services.

Why This Reiteration Matters?

Strategic Autonomy (Foreign Policy)

- Reinforces India's doctrine of multi-alignment, resisting pressure to choose economic blocs.
- Signals independent decision-making amid geopolitical polarisation.

“India and Russia reiterated their long-term trade target of \$100 billion by 2030, first articulated during high-level bilateral engagements.”

Energy Security (Economic Dimension)

- Long-term access to discounted crude oil, LNG, fertilisers, and nuclear fuel helps India manage inflation and current account stress.

Trade Diversification

- Reduces overdependence on Western markets amid tariff uncertainties.
- Helps hedge against supply-chain disruptions.

Multipolar World Order

- Strengthens South–South and Eurasian economic cooperation, aligning with India's vision of a multipolar global economy.

Key Enablers of the \$100 Billion Target

- Alternative payment mechanisms (rupee–ruble trade, non-dollar settlements)
- Development of logistics corridors (including Arctic and Far East routes)
- Cooperation in pharmaceuticals, engineering goods, IT, agriculture, and coking coal
- Institutional mechanisms like India–Russia Inter-Governmental Commission



Challenges & Concerns

Sanctions & Financial Constraints

- Western sanctions affect shipping, insurance, banking, and payments.

Trade Imbalance

- India's exports to Russia remain limited compared to imports.

Connectivity & Market Access

- Poor logistics integration and regulatory mismatches constrain trade expansion.

Diplomatic Balancing

- Deepening economic ties with Russia requires careful management of relations with the US and Europe.

Way Forward

- Diversify India's export basket to Russia (pharma, auto components, machinery, IT services).
- Institutionalise local currency trade and alternative financial channels.
- Improve logistics connectivity and standards harmonisation.
- Encourage Indian private sector and MSME participation.
- Maintain transparent diplomatic communication with all major partners to avoid misperceptions.

Constitutional / Policy / Ethical Dimensions

- Reflects India's constitutional commitment to independent foreign policy.
- Aligns with economic sovereignty and national interest-based diplomacy.
- Raises ethical questions on navigating trade amid sanctions without violating international law.

Conclusion

Reaffirming the \$100 billion trade target amid US tariff pressures highlights the pragmatic resilience of India–Russia relations. In an era of fragmented global trade, India's ability to balance partnerships while safeguarding national interest will be critical to sustaining growth, energy security, and diplomatic credibility.

India–Russia Logistics Pact Expands Strategic Reach to the Arctic and Indo-Pacific

A new logistics agreement between India and Russia expands bilateral cooperation from the Arctic to the Indo-Pacific, strengthening trade connectivity, energy access, and strategic autonomy amid shifting global supply chains.

Background & Context

- Global trade and security are being reshaped by geopolitical fragmentation, sanctions, and supply-chain disruptions.
- India and Russia have sought to diversify routes and logistics, reduce reliance on vulnerable chokepoints, and deepen long-term economic ties.
- The logistics pact aims to operationalise cooperation across ports, shipping, corridors, and multimodal transport.

What the Logistics Pact Entails

- Cooperation on maritime, rail, and port logistics
- Access to and development of routes linking:
 - Russia's Arctic and Far East
 - India's western and eastern seabords
- Facilitation of cargo movement, customs coordination, and investment in logistics infrastructure
- Alignment with alternative payment and insurance mechanisms where required

Why the Arctic Matters

- **The Arctic is emerging as a strategic frontier due to:**
 - New shipping lanes (shorter Europe–Asia routes)
 - Vast energy and mineral resources
 - Climate-driven navigability and geopolitical interest
- **For India, Arctic access enhances:**
 - Energy security (LNG, hydrocarbons)
 - Scientific and climate research
 - Long-term trade diversification

Why the Indo-Pacific Angle Is Significant

- The Indo-Pacific is central to India's trade and security calculus.
- Logistics cooperation complements India's role as a net security provider and trade hub.
- It links Eurasian routes to Indian Ocean sea lanes, reducing overdependence on traditional chokepoints.

Strategic Significance

Strategic Autonomy

- Diversifies logistics options amid sanctions and tariff pressures.
- Reinforces India's multi-alignment without bloc dependence.

Trade & Connectivity

- Reduces transit time and costs for India–Russia trade.
- Enables expansion beyond energy into pharma, engineering goods, agriculture, and minerals.

Energy Security

- Supports long-term access to Russian energy resources, including Arctic LNG.
- Improves resilience against price and supply shocks.

Geopolitical Reach

- Signals India's intent to engage from Eurasia to the Indo-Pacific, broadening its strategic footprint.

Challenges & Constraints

- Sanctions-related risks (finance, insurance, shipping)
- Harsh Arctic operating conditions and high infrastructure costs
- Trade imbalance tilted towards energy imports
- Need for sustained commercial viability beyond strategic intent

Way Forward

- Institutionalise corridor governance and timelines
- Encourage private sector and MSME participation
- Develop multimodal hubs and port connectivity
- Harmonise standards, customs, and digital logistics
- Balance Eurasian engagement with Indo-Pacific partnerships
- Maintain transparency with other partners to manage perceptions

Broader Strategic Implications

- Reflects India's evolution from route-dependent trade to route-shaping diplomacy
- Positions India as a connector across Eurasia, the Arctic, and the Indian Ocean
- Reinforces the idea that connectivity is now a strategic instrument, not just economic infrastructure

Conclusion

The India–Russia logistics pact is more than a transport arrangement it is a strategic lever to expand India's reach from the Arctic to the Indo-Pacific. If implemented effectively, it can bolster energy security, trade resilience, and strategic autonomy in an increasingly fragmented global order.

AI Could Widen Inequalities in the Asia-Pacific

Why in News

Rapid advances in Artificial Intelligence (AI) are transforming economies across the Asia-Pacific. However, recent assessments warn that without inclusive policies, AI adoption could deepen existing inequalities between countries, regions, firms, and social groups.

Asia-Pacific: A Region of Extremes

The Asia-Pacific region hosts:

- Global AI leaders alongside least-developed economies
- Advanced digital ecosystems coexisting with large digital divides
- Young, tech-savvy populations alongside vast informal labour markets

This uneven starting point makes the region particularly vulnerable to AI-driven divergence.

How AI Can Worsen Inequality

Between Countries

- Advanced economies with data, capital, and talent gain disproportionate benefits
- Developing countries risk becoming AI consumers, not creators
- Dependence on foreign AI platforms may reinforce technological dependency

Within Countries

- High-skilled workers benefit from productivity gains
- Low- and medium-skilled jobs face automation risks, especially in manufacturing, services, and clerical work
- Informal workers lack reskilling pathways and social protection

Digital Divide

- Unequal access to data, compute power, broadband, and digital literacy
- Rural, women, and marginalised communities risk exclusion from AI-enabled opportunities

Market Concentration

- AI favours scale, leading to dominance by large tech firms
- Small firms and MSMEs struggle to adopt AI due to cost and capability gaps

Social and Ethical Dimensions

- AI systems trained on biased data can reinforce social discrimination
- Automated decision-making in welfare, credit, or policing may amplify exclusion
- Language and cultural under-representation in AI models disadvantages local communities

These risks challenge principles of equity, dignity, and fairness.

Governance and Institutional Gaps

- Uneven AI regulation across the region
- Weak data protection and accountability frameworks in several countries
- Limited public-sector capacity to deploy AI for social good
- Absence of regional norms for ethical and inclusive AI

Institutions such as UNESCO have warned that AI governance must prioritise human-centric development, not just innovation speed.

Why This Matters

- **Economic inequality:** Productivity gains may not translate into broad-based growth
- **Social cohesion:** Job displacement without safeguards can fuel instability
- **Development goals:** AI-driven exclusion threatens progress on SDGs
- **Demographic dividend:** Failure to skill the workforce could turn advantage into liability

Way Forward: Making AI Inclusive

- Invest in digital public infrastructure and affordable connectivity
- Prioritise AI-ready skills, reskilling, and lifelong learning
- Support MSMEs and startups in adopting AI responsibly
- Promote open, multilingual, and representative datasets
- Strengthen social protection systems for displaced workers
- Develop regional cooperation frameworks on ethical AI
- Ensure human oversight and accountability in AI use

India's Relevance

For countries like India, the challenge is to:

- Use AI to enhance public service delivery and productivity
- Prevent a dual economy of tech elites and excluded workers
- Align AI strategy with inclusive growth and constitutional values

Conclusion

AI is not inherently unequal but without deliberate policy choices, it can magnify structural divides in the Asia-Pacific. The region's future will depend on whether AI becomes a tool for shared prosperity or a catalyst for deeper inequality. Inclusive governance, skills, and public investment will decide the outcome.

The Oman Visit Is More Than a Routine Diplomatic Trip

Why in News

India's high-level engagement with Oman has underscored that the visit goes beyond protocol, reflecting deepening strategic convergence amid churn in West Asia and the Indian Ocean.

Historical Context

India–Oman ties are among the oldest in the region, anchored in:

- Centuries-old maritime trade across the Arabian Sea
- A large Indian diaspora contributing to Oman's economy
- Consistent political goodwill even during regional upheavals

This continuity lends substance to contemporary cooperation.

Why the Visit Matters

Strategic & Security Dimension

- Oman's geography near the Strait of Hormuz makes it pivotal for India's energy security and maritime interests.
- Enhanced defence cooperation, access to ports, and naval exercises strengthen India's Indian Ocean posture and support a free, open, and stable maritime commons.

Economic & Trade Dimension

- The visit advanced talks on trade facilitation, investments, and logistics.
- Oman is a gateway to Gulf and East African markets, aligning with India's supply-chain diversification goals.
- Energy cooperation (LNG, renewables) remains central, while non-oil trade is being broadened.

Connectivity & Logistics

- Oman's ports complement India's connectivity initiatives across West Asia, reducing transit times and costs.
- Co-operation supports resilient routes amid global supply-chain disruptions.

People-to-People Ties

- The Indian community in Oman is a stabilising bridge, enhancing skill mobility, remittances, and cultural links a quiet but durable pillar of bilateral ties.

Geopolitical Significance

- West Asia is witnessing realignments, conflict spillovers, and great-power competition.
- Oman's tradition of strategic autonomy and mediation aligns well with India's multi-alignment approach, offering New Delhi a reliable partner amid regional volatility.

Challenges

- Regional instability affecting trade and shipping
- Balancing ties across competing blocs in West Asia
- Translating MoUs into time-bound outcomes

Way Forward

- Institutionalise defence and maritime cooperation
- Fast-track trade facilitation and investment pipelines
- Expand collaboration in green hydrogen, renewables, and skills
- Leverage diaspora networks for innovation and SMEs
- Sustain political dialogue to navigate regional shocks

Conclusion

The Oman visit reflects strategic intent, not routine diplomacy. By strengthening a trusted partnership in West Asia, India advances energy security, maritime stability, and economic diversification key pillars of its long-term regional strategy.

In West Asia, India's Diplomacy Has Delivered Dramatic Gains

Through pragmatic, non-ideological engagement, India has achieved significant diplomatic gains in West Asia, strengthening ties across rival blocs, enhancing energy and diaspora security, and positioning itself as a trusted, autonomous partner amid regional turbulence.

Background & Context

West Asia has long been marked by:

- Geopolitical rivalries and proxy conflicts
- Energy chokepoints and supply risks
- External power competition

Traditionally, India maintained limited engagement. Over the last decade, however, New Delhi has adopted proactive, multi-vector diplomacy, transforming its regional footprint.



What Has Changed in India's West Asia Approach

- Shift from issue-specific engagement to comprehensive partnerships
- Willingness to engage simultaneously with mutually adversarial actors
- Focus on outcomes energy, trade, security, diaspora welfare rather than ideology

This marks a move from reactive diplomacy to strategic presence.

Key Diplomatic Gains (Multi-Dimensional)

Strategic & Political Gains

India has successfully deepened ties with:

- Saudi Arabia and United Arab Emirates (strategic partnerships)
- Israel (defence, technology, innovation)
- Iran (connectivity and regional access)

Crucially, India has avoided being drawn into regional fault lines, preserving trust across camps.

Energy Security

- Diversified oil and gas sourcing across the Gulf
- Secured long-term supply arrangements
- Leveraged discounted imports during global volatility

This has cushioned India against price shocks and supply disruptions.

Economic & Trade Gains

- Rapid growth in bilateral trade and investment flows
- Gulf countries emerging as top trade and FDI partners

Cooperation expanding beyond hydrocarbons to:

- Infrastructure
- Digital economy
- Food security
- Renewables and green hydrogen

Diaspora & Human Security

- Over 8 million Indians live and work in West Asia
- Improved labour protections, skill mobility, and crisis evacuation coordination
- Diaspora increasingly viewed as a strategic bridge, not just remittance source

Defence & Maritime Cooperation

- Joint military exercises and defence procurement
- Enhanced maritime domain awareness
- Cooperation in securing the Indian Ocean–West Asia sea lanes, critical for trade and energy

Connectivity & Regional Integration

- Strategic ports and logistics cooperation
- India positioned as a connector between South Asia, West Asia, and Africa
- Reduced transit risks amid global supply-chain disruptions

Why These Gains Are 'Dramatic'

- India maintains strong ties with competing regional powers simultaneously
- It has enhanced influence without military intervention
- Achieved outcomes despite regional wars, sanctions, and instability
- Reinforced its image as a reliable, non-intrusive partner

Challenges & Constraints

- Persistent regional instability and conflict spillovers
- Navigating great-power competition (US, China, Russia)
- Balancing relations amid shifting alliances
- Ensuring economic agreements translate into delivery

Way Forward

- Institutionalise strategic dialogues and defence cooperation
- Deepen economic integration beyond energy
- Expand collaboration in green transition and technology
- Protect diaspora interests amid regional shocks
- Sustain strategic autonomy and balanced engagement

Broader Strategic Significance

India's West Asia diplomacy reflects:

- Maturity in foreign policy
- Confidence in multi-alignment
- Ability to convert geography into advantage
- It strengthens India's role as a net security contributor and economic partner in the extended neighbourhood.

Conclusion

India's recent diplomatic successes in West Asia are not accidental they are the result of pragmatic engagement, strategic autonomy, and sustained political investment. In a volatile region, India has emerged as a partner that delivers stability, trust, and tangible outcomes marking a decisive upgrade in its regional diplomacy.

Every hour you study today reduces the burden of regret tomorrow.

COMMUNICATION PROJECT MANAGEMENT COMMERCE
ECONOMICS PROFIT DONATION COOPERATION
CROWD FUNDING DOLLAR WEALTH
FINANCE BUSINESS BANK
SUCCESS INVESTMENT CURRENCY REVENUE

Economy

OMIC REVENUE
SUCCESS ACCOUNTING MONEY BUSINESS
ALTH INVESTMENT FINANCING
IDENTITY CROWD FUNDING
OPERATION ADMINISTRATION



Rupee's Fall Is Real This Time

Introduction

The depreciation of the Indian rupee is often dismissed as a routine response to global volatility. However, the recent fall goes beyond headline numbers, reflecting deeper structural and cyclical pressures on India's external sector. Unlike earlier episodes, this phase combines adverse global conditions with persistent domestic vulnerabilities.

Background & Context

- The global economy is witnessing tight monetary conditions, led by aggressive interest rate hikes by the US Federal Reserve.
- A strong US dollar, geopolitical uncertainties, and uneven global recovery have triggered capital flight from emerging markets.
- India's growing integration with global financial markets has increased its exposure to such external shocks.

General Impacts

- **Exchange Rate:** Sustained rupee depreciation against the US dollar
- **Current Account Deficit (CAD):** Widened due to high import bills, especially crude oil
- **Forex Reserves:** Depletion as the Reserve Bank of India intervenes to manage volatility
- **Inflation:** Risk of imported inflation through costlier fuel, fertilizers, and edible oils
- **Capital Flows:** FPI outflows in response to higher global interest rates



Fiscal Impact

- Higher subsidy burden due to costlier imports (fuel, fertilizers).
- Increased fiscal stress as government spending rises to cushion inflationary effects.
- External debt servicing becomes more expensive, impacting fiscal consolidation efforts.

Monetary Impact

- RBI faces a trade-off between controlling inflation and supporting growth.
- Limited space for accommodative monetary policy due to inflationary pressures.
- Excessive intervention risks rapid depletion of forex reserves.

Sectoral Effects

Negative Impacts:

- **Oil & Gas:** Higher import costs worsen CAD and inflation.
- **Aviation & Power:** Rising operational costs.
- **MSMEs:** Increased cost of imported inputs.

Mixed/Positive Impacts:

- **Exports:** Marginal competitiveness gains, limited by weak global demand.
- **IT & Remittances:** Dollar earnings benefit exporters and remittance inflows.

Why This Fall Is Different

- Export growth has not kept pace with rising imports.
- Structural dependence on energy and critical imports persists.
- Global slowdown reduces the cushioning effect of services exports.
- Currency depreciation is increasingly supply-side driven, not just cyclical.

Policy Challenges

- Managing inflation without choking growth.
- Maintaining investor confidence amid global risk aversion.
- Balancing forex reserve usage with long-term external stability.
- Reducing structural import dependence while boosting manufacturing competitiveness.

Conclusion

The current phase of rupee depreciation signals deeper structural issues rather than temporary turbulence. Addressing it requires a balanced mix of macroeconomic stability, structural reforms, and long-term resilience-building rather than short-term firefighting.

Way Forward

- **External Sector Reforms:** Export diversification, value-added manufacturing, and trade facilitation.
- **Energy Strategy:** Accelerate renewable energy adoption and reduce oil import dependence.
- **Capital Flow Management:** Attract stable long-term FDI rather than volatile portfolio flows.
- **Macroeconomic Prudence:** Credible fiscal consolidation and transparent monetary communication.
- **Structural Reforms:** Strengthen domestic supply chains and productivity to improve competitiveness.

Sabka Bima Sabki Raksha (Amendment of Insurance Laws) Bill, 2025

The Sabka Bima Sabki Raksha (Amendment of Insurance Laws) Bill, 2025 is a major liberalisation-cum-regulatory reform in India's insurance sector, aimed at "insurance for all by 2047" through higher FDI, easier entry and stronger regulation. It amends the Insurance Act, 1938, the IRDAI Act, 1999 and the LIC Act, 1956 to deepen insurance penetration while attracting global capital and technology.

Context and need

- India's insurance penetration remains relatively low(4%) compared to global averages despite schemes like PMJJBY, PMSBY, PMFBY and Ayushman Bharat, especially among informal workers, small farmers and MSMEs.
- The government projects India's insurance market to touch around 600–650 billion dollars by 2030, requiring large long-term capital, better products, and strong regulation to support growth, infrastructure financing and social protection.

- Existing laws had high capital thresholds, limited FDI and rigid structures, which constrained competition, innovation, and expansion into rural and underserved regions.

Key features

- The Bill raises the FDI limit in Indian insurance companies from 74% to 100% of paid-up equity capital, while mandating that at least one key managerial person (Chairperson/MD/CEO) must be an Indian citizen.
- Net-owned fund requirements for foreign re-insurers are reduced from ₹5,000 crore to ₹1,000 crore, and capital norms for domestic insurers/cooperative insurers are rationalised to ease entry of small, regional and niche players.
- IRDAI's powers are strengthened, including authority to disgorge wrongful gains, simplify one-time registration for intermediaries, liberalise equity transfer thresholds, and extend regulatory provisions to SEZs and IFSCs.

Significance

- Higher FDI is expected to bring larger capital inflows, global expertise, advanced products, digital technologies and better risk-management, potentially improving efficiency and claim settlement.
- Lower entry barriers and reinsurance reforms can increase the number of insurers and re-insurers, deepen domestic capacity, reduce over-reliance on GIC Re, and support specialized products like micro-insurance, parametric covers and usage-based insurance.
- Stronger regulatory powers for IRDAI and a policyholders' protection fund can enhance trust in the sector by improving enforcement against malpractice and safeguarding consumer interests.
- LIC and other public insurers gain operational flexibility to expand domestically and overseas, aligning with India's role as a major savings and investment hub.

Analytical perspective

- The Bill marks a decisive shift from a predominantly state-led, protectionist insurance model to a more liberal, market-driven but regulator-centric regime.
- From an inclusive growth perspective, structural reforms in capital and ownership will translate into social security gains only if complemented by proactive policies on rural outreach, social insurance scaling and financial literacy.
- The expansion of FDI to 100% can help India integrate with global insurance and reinsurance markets, but also increases exposure to global financial cycles and calls for robust macro-prudential oversight.
- Cooperative and smaller insurers may use eased capital norms to focus on localized and community-based products, potentially improving last-mile coverage where large commercial insurers are less present.

Present debate

- Supporters argue that 100% FDI will accelerate insurance for all by 2047 by boosting competition, product diversity, technology adoption and coverage in underserved areas at lower premiums.
- Critics fear foreign dominance over long-term household savings and social risk protection, warning that profit repatriation and capital flight could weaken domestic capital formation and strategic autonomy.
- Concerns are raised that foreign-owned insurers may prioritise urban, high-income segments, neglecting rural and social sector obligations unless strict rural and priority-sector norms are enforced.
- Opposition parties and trade bodies highlight potential adverse effects on LIC agents, employment patterns, and the symbolic shift away from public-sector leadership in social insurance.

Conclusion

- The Sabka Bima Sabki Raksha Bill is a structurally important reform that liberalizes ownership, eases capital norms and strengthens regulation to modernize India's insurance ecosystem.
- Its success will be judged less by FDI inflows and more by whether it actually expands affordable, reliable insurance to farmers, informal workers, women, MSMEs and climate-vulnerable communities.
- For balanced policy design, liberalization must be paired with stringent regulatory oversight, clear social obligations, and sustained investment in financial literacy and last-mile delivery channels such as SHGs, PACS, CSCs and post offices.

For Green Transition, India Can Fall Back on Itself

Introduction

India's green transition is often seen as dependent on foreign finance and technology. However, the country has strong internal capabilities—constitutional backing, indigenous knowledge, decentralised governance, and frugal innovation—that can drive a sustainable and self-reliant development pathway.

What Is Green Transition?

Green transition refers to shifting towards **low-carbon, resource-efficient, and environmentally sustainable growth**, covering renewable energy, sustainable agriculture, circular economy, and responsible consumption.

India's Internal Strengths

- **Indigenous Knowledge Systems:** Traditional practices like rainwater harvesting and agroforestry offer climate-resilient, low-cost solutions.
- **Decentralised Models:** Local governance and community-led renewable energy improve access and sustainability.
- **Circular Economy:** India's informal recycling sector provides a strong base for waste reduction and resource efficiency.

Self-Reliance and Climate Justice

A self-driven green transition aligns with Atmanirbhar Bharat and the principle of climate justice, allowing India to balance development needs with climate action while reducing import dependence.

Challenges

- Limited green finance
- Technology gaps
- Governance coordination issues

Way Forward

India should integrate traditional knowledge with modern technology, strengthen domestic green manufacturing, promote sustainable lifestyles (LiFE), and ensure inclusive, community-led climate action.

Conclusion

By leveraging its internal strengths, India can achieve a green transition that is sustainable, inclusive, and development-oriented, without excessive external dependence.

PM Internship Scheme Offers: What the Data Reveals

Introduction

The revelation that only 20% of candidates accepted internship offers under the Prime Minister's Internship Scheme (PMIS) has raised important questions about the design,

implementation, and effectiveness of India's flagship youth employability initiative. The data highlights a growing gap between policy intent and ground-level realities.

About the PM Internship Scheme

Announced in the Union Budget 2024, the PM Internship Scheme aims to provide one crore internships over five years in leading companies to young Indians. The objective is to bridge the education–employment gap by offering real-world work exposure, industry skills, and enhanced employability.

Key objectives include:

- Improving job readiness of youth
- Strengthening industry–academia linkage
- Supporting demographic dividend utilisation

This suggests that the challenge is not only access but also attractiveness, affordability, and relevance of internships.

Reasons for Low Acceptance and High Dropout

Economic Constraints

- The stipend offered is often insufficient to cover living expenses, especially in urban centres where most internships are located. Costs related to relocation, accommodation, and food discourage participation, particularly among students from economically weaker backgrounds.

Design and Structural Issues

- A fixed 12-month duration reduces flexibility for students pursuing higher education or competitive exam preparation.
- Limited provision for remote or hybrid internships restricts accessibility.

Aspirational Mismatch

Many internships offered are perceived as low-skill or routine in nature, with limited learning outcomes. Youth increasingly prioritise skill depth, career relevance, and future employability over mere participation.

Awareness and Counselling Gaps

Inadequate guidance regarding career pathways, expectations, and benefits of internships reduces informed decision-making among candidates.

Significance of the Issue

Human Capital Development

- Low uptake weakens India's effort to convert its demographic advantage into a skilled workforce, undermining long-term productivity and growth.

Governance and Policy Credibility

- Large flagship schemes with limited outcomes risk becoming headline-driven rather than impact-driven, affecting public trust in welfare and skill initiatives.

Equity Concerns

- Students from rural areas, small towns, and marginalised groups are disproportionately excluded due to financial and logistical barriers.

Policy and Implementation Challenges

- Balancing scale with quality of internships
- Ensuring meaningful private sector participation
- Preventing internships from becoming low-cost labour substitutes
- Monitoring outcomes rather than just enrolment numbers

Way Forward

Policy Reforms

- Rationalise stipends and link them to cost-of-living indices
- Allow shorter and modular internship durations
- Expand remote and hybrid internship models

Institutional Measures

- Integrate internships with academic credits
- Strengthen career counselling and mentorship
- Introduce quality benchmarks and feedback mechanisms

Ethical and Social Dimension

- Ensure internships provide learning value and dignity of labour
- Promote inclusivity by supporting disadvantaged candidates

Conclusion

The low acceptance rate under the PM Internship Scheme signals that employability challenges cannot be addressed through scale alone. For internships to become a true bridge between education and employment, policy must be youth-centric, flexible, and economically viable, focusing on outcomes rather than mere enrolment figures.

FM: Tobacco Excise Duty Will Be Shared with States

Introduction

The Finance Minister's announcement that tobacco excise duty will be shared with States marks an important shift in India's fiscal federal framework. The move aims to strengthen State finances while aligning public health objectives with cooperative fiscal governance.

Background & Context

- Excise duty on tobacco products is a Union levy, traditionally retained largely by the Centre.
- States bear a significant share of public health expenditure, including treatment of tobacco-related diseases.
- The decision reflects growing recognition that States should receive greater fiscal support for health and welfare responsibilities.

What the Announcement Means

- A portion of tobacco excise collections will now form part of the divisible pool shared between the Centre and States.
- This enhances predictable and untied revenue for States.
- The announcement was made by Nirmala Sitharaman, highlighting a policy shift towards fiscal decentralisation.

Significance

Fiscal Federalism

- Strengthens cooperative federalism by addressing vertical fiscal imbalance.
- Reduces States' dependence on discretionary grants.

Public Health

- Provides States with additional resources to fund tobacco control, healthcare infrastructure, and preventive programmes.
- Reinforces the use of taxation as a public health tool.

Economic Governance

- Aligns revenue-sharing with expenditure responsibilities.
- Encourages States to invest in long-term health outcomes.

Challenges / Concerns

- States may become fiscally dependent on revenues from a harmful commodity, creating a policy contradiction.
- Need to ensure funds are not diverted away from health-related spending.
- Potential resistance from the tobacco industry and farmers.

Way Forward

- **Policy:** Earmark or nudge States to use shared revenue for health and awareness programmes.
- **Fiscal:** Balance revenue considerations with gradual reduction in tobacco consumption.
- **Ethical:** Prioritise public health over revenue maximisation, especially for vulnerable populations.



Low Inflation Gave RBI Support to Growth

Introduction

A sustained phase of low and stable inflation has provided the Reserve Bank of India with the necessary policy space to prioritise economic growth. This underscores the critical role of price stability in enabling counter-cyclical monetary policy.

Background & Context

India's monetary policy framework is anchored in flexible inflation targeting, with price stability as the primary objective. In recent months, moderation in headline inflation driven by easing food prices and supply-side interventions has reduced macroeconomic uncertainty and strengthened growth prospects.

Key Economic Indicators

- **Inflation:** Remained within or close to the RBI's tolerance band
- **Policy Rates:** Scope for rate pauses or calibrated easing
- **Growth Outlook:** Improved investment and consumption sentiment
- **Liquidity Conditions:** Managed to support credit expansion without fuelling inflation

How Low Inflation Supports Growth

- **Monetary Policy Space:** Lower inflation allows the RBI to avoid aggressive rate hikes, supporting credit availability.
- **Investment Confidence:** Price stability reduces uncertainty, encouraging private investment.
- **Consumption Boost:** Lower inflation protects purchasing power, sustaining domestic demand.

Fiscal and Monetary Impact

Monetary:

- Enables accommodative or neutral stance
- Supports orderly transmission of policy rates

Fiscal:

- Reduces pressure on subsidies and welfare spending
- Improves fiscal consolidation by lowering interest costs

Sectoral Effects

- **MSMEs:** Benefit from stable borrowing costs
- **Housing & Infrastructure:** Improved credit flow
- **Banking Sector:** Better asset quality due to manageable interest rates

Challenges / Concerns

- Inflation remains vulnerable to food price shocks and global uncertainties
- Premature easing may reignite inflationary pressures
- Need to balance growth support with inflation expectations anchoring

Way Forward

- Maintain data-driven and cautious monetary policy
- Strengthen supply-side reforms to control food inflation
- Improve inflation forecasting and transmission mechanisms

Conclusion

Low inflation has acted as a macroeconomic stabiliser, giving the RBI room to support growth without compromising price stability. Sustaining this balance will be key to India's long-term economic resilience.

Circular Economy Will Raise Dairy Farmers' Income in Five Years

Introduction

Union Home and Cooperation Minister Amit Shah has stated that adopting a circular economy model in the dairy sector can significantly enhance farmers' income within five years. The statement highlights the growing role of sustainability-led economic models in strengthening rural livelihoods.

Background & Context

The dairy sector is a critical pillar of India's rural economy, supporting millions of small and marginal farmers. However, rising input costs, low productivity, and waste mismanagement have constrained income growth. The circular economy approach seeks to address these challenges by maximising resource efficiency and minimising waste.

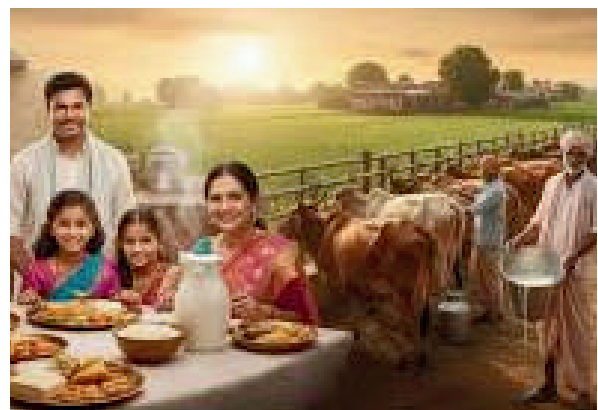
What Is a Circular Economy in Dairy?

A circular economy focuses on reusing by-products and reducing waste through closed-loop systems. In the dairy sector, this includes:

- Using cattle dung for biogas, organic manure, and bio-CNG
- Recycling wastewater and dairy by-products
- Integrating dairy farming with energy and fertiliser production

How It Can Raise Farmers' Income

- **Additional Revenue Streams:** Sale of biogas, bio-fertilisers, and organic inputs supplements milk income.
- **Lower Input Costs:** Organic manure reduces dependence on chemical fertilisers.
- **Energy Security:** Biogas meets household and farm energy needs.
- **Value Addition:** Processing and diversification improve returns.



Economic and Sectoral Significance

Agriculture & Rural Economy:

- Enhances income stability for dairy farmers
- Promotes diversification of rural livelihoods

Environment:

- Reduces methane emissions from unmanaged cattle waste
- Supports climate-resilient and sustainable agriculture

Energy:

- Contributes to renewable and clean energy generation

Policy Linkages

- Supports the goal of doubling farmers' income
- Aligns with Swachh Bharat Mission, National Bio-Energy Mission, and climate action commitments
- Strengthens cooperative institutions in the dairy sector

Challenges / Concerns

- High initial investment for biogas and waste-processing units
- Need for technical training and awareness
- Market linkages for bio-products
- Institutional coordination at local levels

Way Forward

- Promote dairy-based biogas and bio-CNG clusters
- Strengthen dairy cooperatives and FPOs
- Provide credit support and technical assistance
- Integrate circular economy principles into agricultural policy

Conclusion

Adopting a circular economy in the dairy sector offers a sustainable pathway to enhance farmers' income, reduce environmental impact, and strengthen rural resilience. With targeted policy support and institutional backing, this model can deliver tangible income gains within the next five years.

From Licence Raj to Jan Vishwas: What India Needs to Set Its Entrepreneurs Free

Introduction

India's journey from the restrictive Licence Raj to the reform-oriented idea of Jan Vishwas (trust-based governance) reflects a fundamental shift in the state's approach to enterprise. Jan Vishwas" literally means "people's trust" and in governance context it refers to the Jan Vishwas (Amendment of Provisions) framework, under which the Union government decriminalises minor offences and converts them into civil/monetary penalties to promote trust-based governance and ease of doing business and living.

In 2023 this took the form of the Jan Vishwas (Amendment of Provisions) Act, 2023, and has since been expanded through a follow-up Jan Vishwas 2.0 Bill in 2025 that amends more Central Acts on similar lines. It amends 355 provisions in 16 Central Acts administered by 10 ministries/departments, mainly by replacing imprisonment for technical/procedural violations with monetary or civil penalties and advisory mechanism.

Licence Raj: A Legacy of Control

Post-independence, India adopted a highly regulated economic model where licences, quotas, and permits governed business activity.

This system led to:

- Rent-seeking and corruption
- Suppressed innovation and competition
- Delayed decision-making and low productivity

The 1991 economic reforms dismantled much of the Licence Raj, but its regulatory mindset continues in many forms.

Jan Vishwas: A Shift Towards Trust-Based Governance

Jan Vishwas represents a governance philosophy that trusts entrepreneurs as partners in nation-building rather than potential offenders. It emphasises:

- Decriminalisation of minor economic offences
- Reduced compliance burden
- Ease of doing business through simplification and digitisation

Recent reforms aim to replace punitive regulation with facilitative oversight.

What Still Constrains Indian Entrepreneurs

Over-Criminalisation of Business Laws

Minor procedural lapses often attract criminal penalties, creating fear and discouraging risk-taking.

Compliance Overload

Multiple laws, overlapping jurisdictions, and frequent filings raise transaction costs, especially for MSMEs and start-ups.

Inspector Raj and Discretion

Excessive discretionary powers at the implementation level lead to uncertainty and harassment.

Limited Access to Finance and Markets

Smaller entrepreneurs struggle with credit access, delayed payments, and scale disadvantages.

What Is Needed to Truly Set Entrepreneurs Free

Regulatory Reforms

- Further decriminalisation of economic laws
- Shift from permission-based to self-certification regimes
- Sunset clauses for outdated regulations

Institutional Reforms

- Strengthen single-window clearance systems
- Reduce inspector discretion through technology
- Time-bound approvals with deemed clearance provisions

Cultural and Governance Shift

- Treat entrepreneurship as a public good
- Encourage failure as part of innovation
- Promote trust, transparency, and accountability in regulation

Economic and Social Significance

- Freer entrepreneurship boosts job creation and innovation
- Enhances India's global competitiveness
- Supports MSMEs and start-ups as engines of inclusive growth

Challenges

- Balancing ease of business with consumer and environmental protection
- Capacity constraints in regulatory institutions
- Resistance to change within bureaucracy

Way Forward

India must move decisively from control-based regulation to trust-based governance, where the state acts as an enabler rather than a gatekeeper. Continuous regulatory review, stakeholder consultation, and outcome-based regulation are key.

Conclusion

The transition from Licence Raj to Jan Vishwas is not merely legal or procedural, it is philosophical. Setting India's entrepreneurs truly free requires confidence in enterprise, clarity in regulation, and consistency in governance.

Why Is India Pursuing FTAs?

Introduction

India's renewed push for Free Trade Agreements (FTAs) marks a strategic shift in its external engagement. While trade expansion remains important, India's FTA strategy today is driven as much by geopolitics, supply-chain security, strategic autonomy, and global positioning as by economic gains.

Background: India's Evolving Trade Approach

After a phase of trade scepticism evident in India staying out of RCEP, India has adopted a selective and strategic FTA approach, signing agreements with partners such as the UAE, Australia, and negotiating with the EU and the UK. These FTAs are qualitatively different from earlier trade deals.

“ Free Trade Agreements (FTAs) marks a strategic shift in its external engagement. ”

Beyond Economics: Strategic Drivers of India's FTAs

Geopolitical Signalling

FTAs are tools of strategic alignment. By deepening trade ties with key partners, India strengthens diplomatic relationships and balances regional power dynamics, especially in the Indo-Pacific.

Supply Chain Resilience

Post-pandemic disruptions highlighted the risks of overdependence on a few countries. FTAs help India:

- Diversify sourcing of critical inputs
- Integrate into trusted supply chains
- Reduce vulnerability to geopolitical shocks

Strategic Autonomy

India's FTAs reflect its pursuit of strategic autonomy, not isolation. They allow India to engage globally on its own terms while safeguarding sensitive sectors like agriculture and MSMEs.

Standards and Rule-Making Power

Modern FTAs increasingly cover digital trade, labour standards, environment, IP, and services. Participation ensures India has a voice in shaping global trade norms rather than being a passive rule-taker.

Supporting Domestic Reforms

FTAs act as external anchors for internal reforms by:

- Improving competitiveness
- Encouraging ease of doing business
- Boosting manufacturing and services exports

Enhancing India's Global Image

A proactive FTA strategy projects India as a reliable, predictable, and open economic partner, strengthening investor confidence and India's claim to global leadership.

Economic Gains Still Matter— But Selectively

India's new FTAs focus on:

- Labour-intensive exports (textiles, gems, food processing)
- Services and professional mobility
- Safeguards against import surges

Thus, economics remains important, but no longer the sole driver.

Challenges

- Risk of trade deficits
- Adjustment pressures on domestic industry
- Complex negotiations on standards and IP
- Implementation and utilisation gaps

Way Forward

- Align FTAs with industrial and export strategies
- Build domestic capacity to leverage trade deals
- Strengthen trade diplomacy and regulatory preparedness
- Periodic review of FTA outcomes

Conclusion

India's pursuit of FTAs reflects a strategic recalibration from viewing trade as merely economic exchange to recognising it as an instrument of geopolitical influence, resilience, and global rule-making. In a fragmented world order, FTAs have become tools of statecraft.



Delhi Pollution Crisis: Push for Carpooling Apps and Public Transport Mandates

Context

Delhi continues to face severe air pollution, with vehicular emissions emerging as a major contributor alongside construction dust and seasonal factors. The crisis has intensified calls for sustainable urban mobility solutions.

Why Transport Matters

Road transport accounts for a significant share of particulate and nitrogen oxide emissions. Rapid growth in private vehicles, congestion, and low average occupancy rates have offset gains from cleaner fuels and emission norms.

Role of Carpooling Apps

Carpooling apps can reduce the number of vehicles on roads by increasing occupancy per trip. Technology-enabled ride-sharing offers flexibility for daily commuters and can be promoted through:

- Employer-led carpool programmes
- Dedicated lanes or parking incentives
- Integration with pollution alerts and peak-hour pricing signals

Public Transport Mandates

Strengthening and mandating public transport use is critical. Measures include:

- Expanding and modernising bus and metro networks
- Improving last-mile connectivity
- Introducing congestion pricing, high-occupancy vehicle norms, and periodic restrictions on private cars

Challenges

Behavioural resistance, uneven public transport coverage, and equity concerns especially for peripheral and low-income commuters remain key obstacles.

Way Forward

A balanced approach combining incentives, regulation, and infrastructure investment is needed. Making shared and public transport reliable, affordable, and convenient is essential for reducing emissions and addressing Delhi's pollution crisis sustainably.

India, Oman Ink Free Trade Agreement

Context

India and Oman have signed a Comprehensive Economic Partnership Agreement (CEPA), strengthening economic ties and advancing India's strategy of deeper engagement with West Asia.

Key Features of the Agreement

- **Market Access:** Oman will eliminate customs duties on over 98% of tariff lines, covering nearly 99% of India's exports by value.
- **Sectors Benefited:** Textiles, gems and jewellery, engineering goods, chemicals, pharmaceuticals, agricultural products, and automobiles.
- **Services and Mobility:** The agreement facilitates movement of skilled Indian professionals, especially in healthcare, IT, engineering, and services.
- **Indian Commitments:** India has offered phased tariff concessions on around 78% of its tariff lines to Oman.

Why It Matters for India

- **Export Growth:** Duty-free access improves competitiveness of Indian goods, especially for MSMEs.
- **Employment and Skills:** Easier professional mobility supports India's skilled workforce and service exports.
- **Strategic Importance:** Oman's location near key shipping routes enhances India's trade and energy security in West Asia.

Challenges

- Utilisation of FTA benefits by small exporters
- Need for standards compliance and awareness
- Managing trade imbalances

Way Forward

India must strengthen export facilitation, improve logistics, and support MSMEs to fully leverage the CEPA. Effective implementation can make the agreement a model for future FTAs and boost India's integration into global value chains.

Changing Patterns in Indian Student Migration

Introduction

Indian student migration has long been dominated by Western education hubs like the US, UK, Canada, and Australia. However, recent trends show an important shift towards emerging destinations in Asia, Europe, and the Gulf.

Drivers of Change

Rising tuition costs, stringent visa regimes, and post-study work limitations in traditional Western destinations are pushing Indian students to explore alternatives. Simultaneously, countries such as Germany, Japan, South Korea, Singapore, and the UAE are enhancing their academic offerings, English-medium programs, and scholarship opportunities making them attractive and affordable options.

Emerging Destinations on the Rise

- **Germany & France:** Affordable or nil tuition fees and strong technical programs draw students in STEM fields.
- **Asian Hubs (Japan, South Korea, Singapore):** Scholarships, industry linkages, and quality research opportunities are growing pull factors.
- **Gulf Countries:** Cultural proximity, strategic partnerships, and employment opportunities encourage migration.

Implications for India

Diversifying destinations helps reduce dependency on Western economies and spreads global academic linkages. It also aligns with India's global mobility partnerships and fosters skill flows that match emerging sectors like AI, renewables, and biotech.

Way Forward

Policy frameworks (e.g., simplified foreign degree recognition, study abroad incentives, and career guidance networks) can support informed decision-making. Strengthening bilateral education agreements will further enhance mobility and ensure Indian students benefit from global opportunities.

SEBI Overhauls Mutual Fund Norms

Context

Securities and Exchange Board of India (SEBI) has revised mutual fund expense norms by capping expense ratios and introducing clearer disclosure structures, aiming to enhance investor protection and efficiency in India's growing capital markets.



Key Economic Indicators Involved

- **Household Financial Savings:** Rising share of mutual funds in household savings makes cost efficiency critical.
- **Assets Under Management (AUM):** India's MF AUM has expanded rapidly, increasing the aggregate impact of even small fee reductions.
- **Retail Participation:** SIP growth and retail inflows heighten the relevance of long-term cost compounding.

Fiscal and Monetary Implications

- **Monetary transmission:** Efficient capital markets aid credit flow and complement RBI's monetary policy by improving savings–investment linkage.
- **Fiscal impact:** While no direct fiscal cost is involved, deeper financial markets reduce reliance on bank-led credit and support private investment without fiscal expansion.

Sectoral Effects

- **Mutual Fund Industry:** Margin pressures on AMCs may lead to consolidation and greater focus on scale and performance.
- **Retail Investors:** Lower expense ratios improve net returns, particularly for long-term savers.
- **Capital Markets:** Enhanced transparency strengthens trust and broadens participation.

Policy Challenges

- Ensuring that cost rationalisation leads to real reductions, not just reclassification
- Balancing investor protection with viability of smaller fund houses
- Strengthening investor awareness to interpret revised disclosures correctly

Way Forward

SEBI's reforms mark a shift towards investor-centric regulation. Continuous monitoring, uniform disclosure standards, and financial literacy efforts will be essential to translate regulatory intent into durable market efficiency and inclusive financial growth.

Exports Surge 15% YoY

Context

India's merchandise and services exports recorded a 15% year-on-year growth, defying a slowdown in global trade driven by weak demand, geopolitical tensions, and tighter financial conditions. This highlights growing resilience in India's external sector.

Key Economic Indicators

- **Export growth:** Broad-based rise led by engineering goods, electronics, pharmaceuticals, and services exports.
- **Current Account Balance:** Strong exports help contain the current account deficit despite volatile energy prices.
- **Foreign Exchange Reserves:** Sustained export earnings support reserve adequacy and exchange rate stability.

Fiscal and Monetary Implications

Robust exports ease pressure on the balance of payments, reducing vulnerability to capital flow volatility. For the Reserve Bank of India, external stability provides space to prioritise growth-supportive monetary policy without excessive concern over currency stress. On the fiscal side, higher exports support tax revenues and manufacturing-linked incentives.

Sectoral Effects

- **Manufacturing:** Engineering, electronics, and chemicals benefit from global supply-chain diversification.
- **Services:** IT and business services continue to anchor export performance.
- **MSMEs:** Improved global demand transmission, though logistics and credit constraints persist.

Policy Challenges

Export concentration in a few sectors and states, rising trade protectionism, and logistics costs remain concerns.

Way Forward

Diversifying export baskets, deepening FTAs, improving logistics, and supporting MSMEs are key to sustaining export-led growth in an uncertain global environment.

On Quality Control Orders: A Welcome Regulatory Reset

Introduction

Quality Control Orders (QCOs) mark a decisive shift in India's regulatory approach from post-facto enforcement to ex-ante quality assurance. By mandating minimum standards for notified products, QCOs seek to protect consumers, raise manufacturing credibility, and align India with global quality regimes making them a timely regulatory reset.

What are Quality Control Orders (QCOs)?

QCOs are statutory notifications issued under sectoral laws that mandate compliance with specified standards, typically those set by the Bureau of Indian Standards (BIS). Products covered cannot be manufactured, imported, stored, or sold unless they conform to the prescribed standard and bear the certification mark.

Why QCOs Matter (Multi-Dimensional Significance)

Consumer Protection & Safety

- Prevents circulation of substandard and unsafe goods (e.g., electricals, chemicals, toys).
- Shifts the burden from consumers to producers/importers, reducing accidents and health risks.

Manufacturing Competitiveness

- Encourages process discipline, testing, and traceability, raising India's manufacturing quality.
- Supports Make in India by curbing low-quality imports that undercut compliant domestic firms.

Export Readiness & Global Integration

- Quality compliance improves acceptance in export markets, lowering rejections and recalls.
- Aligns Indian products with international norms, easing market access under FTAs.

Regulatory Modernisation

- Moves India towards standards-led regulation, replacing fragmented inspections with clear benchmarks.
- Creates predictability for industry by codifying quality expectations upfront.

Key Facts

- BIS standards cover thousands of products; QCOs selectively mandate them for high-risk or high-volume items.
- India's approach must remain consistent with the World Trade Organization – Technical Barriers to Trade (TBT) Agreement, ensuring non-discrimination and scientific justification.
- QCO coverage has expanded across electronics, chemicals, steel, toys, footwear, and consumer goods in recent years.

Concerns & Implementation Challenges

MSME Readiness

- Compliance costs (testing, certification, process upgrades) can strain MSMEs, risking market exit without support.

Testing & Certification Capacity

- Limited labs and certifying bodies may create bottlenecks, delays, and compliance backlogs.

Import Disruptions

- Abrupt rollouts can disrupt supply chains if foreign suppliers are unprepared or unaware.

Regulatory Overreach Risk

- Excessively broad or frequently changing QCOs may increase compliance friction without commensurate safety gains.

Way Forward: Making the Reset Work

Phased & Consultative Rollouts

- Advance notice, pilot phases, and stakeholder consultations—especially for MSMEs and importers.

Capacity Building

- Expand accredited labs, digitise certification, and fast-track approvals to reduce time and cost.

MSME Support

- Targeted subsidies, testing vouchers, common facility centres, and handholding for first-time compliance.

Risk-Based Regulation

- Prioritise QCOs for high-risk products; avoid blanket mandates where voluntary standards suffice.

International Harmonisation

- Where feasible, harmonise BIS standards with ISO/IEC, reducing duplication and TBT concerns.

Future Perspective

QCOs can be transformative if implemented with predictability, proportionality, and partnership. Done right, they will upgrade India's quality ecosystem, protect consumers, and enhance export competitiveness—without stifling enterprise. The regulatory reset must therefore balance rigour with readiness, turning compliance into a catalyst for growth rather than a barrier.



The Significance of a Strong Defence Industrial Base

Why in News

Rising geopolitical tensions, supply-chain disruptions, and lessons from recent conflicts have renewed global focus on building a robust domestic defence industrial base (DIB). For India, defence manufacturing is increasingly viewed as a pillar of national security, strategic autonomy, and economic growth.

What Is a Defence Industrial Base?

A defence industrial base comprises:

- Public and private defence manufacturers
- MSMEs and startups supplying components and subsystems
- R&D institutions and testing facilities
- Skilled workforce and supply chains

It spans the entire lifecycle from design and production to maintenance, upgrades, and disposal.

Why a Strong Defence Industrial Base Matters

National Security & Strategic Autonomy

- Reduces dependence on foreign suppliers for critical platforms and spares
- Ensures assured availability during crises, sanctions, or conflicts
- Enables sovereign decision-making without external pressure

Military Readiness & Resilience

- Faster repairs, upgrades, and indigenised spares improve operational availability
- Shorter procurement cycles and lifecycle cost control
- Better tailoring of systems to Indian operational conditions

Economic & Industrial Growth

- Defence manufacturing has strong spill over effects into civilian sectors (aerospace, electronics, materials)
- Generates high-skill jobs and deepens manufacturing capabilities
- Boosts exports, improving the balance of payments

Technology & Innovation

- Defence R&D drives advances in AI, semiconductors, cyber, space, and advanced materials
- Dual-use technologies accelerate innovation across the economy
- Strengthens the national innovation ecosystem

Geopolitical Leverage

- Indigenous capabilities enhance credibility as a reliable security partner
- Defence exports build long-term strategic relationships
- Reduces vulnerability to technology denial regimes

India's Progress So Far

- Rising indigenisation across platforms and subsystems
- Growing role of private industry and start-ups
- Increasing defence exports and deeper MSME participation
- Policy focus on domestic design, testing, and production

Yet, gaps persist in engine technology, sensors, propulsion, and advanced electronics.

Key Challenges

- Fragmented supply chains and scale constraints
- Long procurement timelines and cost overruns
- Limited R&D depth in certain critical technologies
- Skill shortages and testing infrastructure gaps
- Need for predictable orders to sustain industry

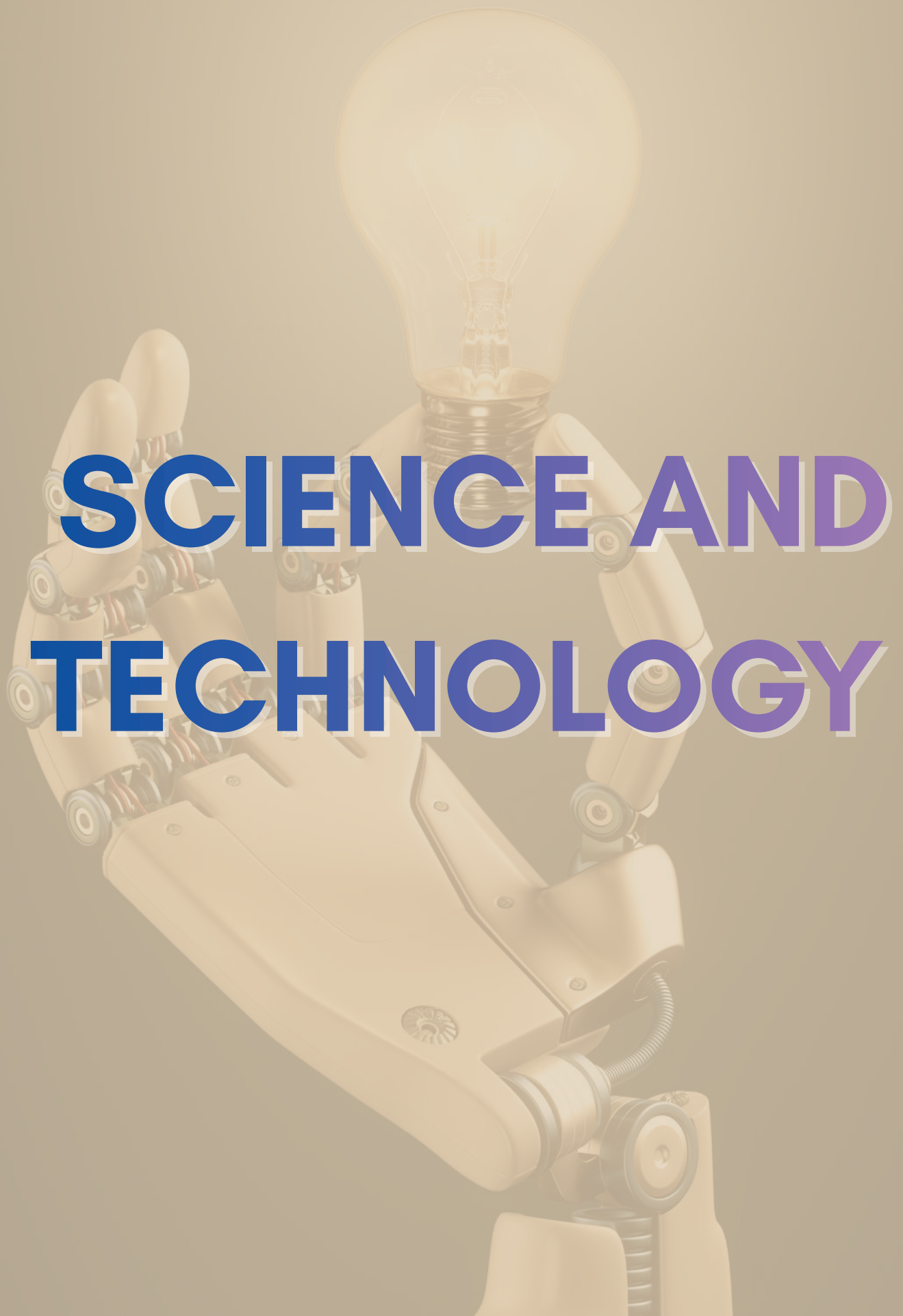
Way Forward

- Provide stable demand visibility through long-term capability plans
- Deepen public–private partnerships and co-development models
- Invest in core technologies (engines, sensors, electronics, materials)
- Strengthen testing, certification, and quality assurance
- Integrate MSMEs into tiered supply chains
- Promote exports with financing, standards harmonisation, and after-sales support
- Align defence manufacturing with Make in India and innovation policies

Conclusion

A strong defence industrial base is not merely about producing weapons—it is about securing sovereignty, resilience, and technological leadership. For India, building such a base is central to safeguarding national interests in an uncertain world while catalysing economic growth and innovation. Security, industry, and technology must advance together.





SCIENCE AND TECHNOLOGY

The New Action Plan on AMR Needs a Shot in the Arm

What is Antimicrobial Resistance (AMR)?

Antimicrobial Resistance occurs when bacteria, viruses, fungi, or parasites stop responding to medicines meant to kill them. As a result, common infections become harder, costlier, and sometimes impossible to treat, increasing illness and deaths.

In simple terms, misuse and overuse of antibiotics make germs stronger than drugs.

Why AMR is a Serious Public Health Threat

- Routine infections risk turning fatal
- Medical procedures like surgeries, chemotherapy, and organ transplants become unsafe
- Treatment costs rise and hospital stays lengthen

The WHO calls AMR a “silent pandemic” because it grows steadily without dramatic outbreaks.

India’s New National Action Plan on AMR (What it Proposes)

India’s updated action plan builds on a One Health approach, recognising that human health, animal health, and the environment are interconnected.

Key focus areas include:

- Strengthening AMR surveillance
- Promoting rational use of antibiotics
- Improving infection prevention and control
- Regulating antibiotic use in livestock and agriculture
- Enhancing research, awareness, and capacity-building

Where the Plan Falls Short

Despite sound intent, outcomes remain limited.

- Implementation depends heavily on states with uneven capacity
- Over-the-counter antibiotic sales continue
- Surveillance data is fragmented and under-reported
- Environmental pathways (hospital waste, pharmaceutical effluents) remain weakly regulated

As a result, policy ambition does not fully translate into on-ground change.

Why the Plan “Needs a Shot in the Arm”

To be effective, the action plan requires:

- Dedicated funding and timelines
- Stronger regulatory enforcement
- Behavioural change among doctors, pharmacists, and patients
- Integration of AMR into public health priorities, not just policy documents

Way Forward

- Make AMR a notifiable public health issue
- Strengthen primary healthcare and infection control
- Align state action plans with national targets
- Link AMR strategy with SDG-3 (Health) and health security goals



The Science, Technology, and Pitfalls of Using Nuclear Power in Space

Why Nuclear Power Is Considered for Space

Space missions increasingly go farther, longer, and deeper into environments where sunlight is weak, irregular, or completely absent. Solar panels, though clean and proven, lose effectiveness:

- Beyond Mars
- In permanently shadowed lunar craters
- During long Martian dust storms
- In deep-space interstellar missions

Nuclear power offers a compact, long-lasting, and dependable energy source, capable of operating continuously for decades without refuelling.

The Science Behind Nuclear Power in Space

Nuclear space power relies on energy released from the atomic nucleus, not chemical reactions. There are two scientific pathways:

Radioactive Decay (RTGs)

- Certain elements naturally release heat as they decay.
- This heat is converted into electricity using thermocouples.
- No combustion, no chain reaction, no moving parts.

Key feature: Extreme reliability systems can function for 20–40 years.

Nuclear Fission (Space Reactors)

- A controlled chain reaction splits atom (like uranium).
- The released heat generates electricity or propulsion power.
- Produces much higher energy output than RTGs.

Key feature: Suitable for human habitats, mining, and propulsion.

Major Nuclear Technologies Used or Proposed

Radioisotope Thermoelectric Generators (RTGs)

- Best for deep-space probes and landers.
- Work regardless of sunlight or temperature.
- Ideal where maintenance is impossible.

Space Nuclear Reactors

- Compact reactors designed for zero gravity.
- Proposed for Moon and Mars bases, where nights last weeks.
- Could power life-support systems, research labs, and fuel production.

Nuclear Electric Propulsion (NEP)

- Nuclear power generates electricity for ion or plasma engines.
- Provides low thrust but very high efficiency.
- Enables long-duration missions with reduced fuel mass.

Agencies such as NASA and ISRO view nuclear systems as enablers of next-generation exploration.



Why Nuclear Power Is Attractive for Space Missions

- High energy density: Small fuel, large power output
- Continuous power supply: No dependence on sunlight
- Longevity: Supports missions lasting decades
- Mission expansion: Makes crewed deep-space exploration feasible

In essence, nuclear power removes energy as a constraint in space planning.

The Pitfalls and Risks (Why It Is Controversial)

Launch and Accident Risks

- Rocket failures during launch could disperse radioactive material.
- Though designs minimise risk, consequences would be high-impact.

Space Debris and Re-entry Hazards

- Defunct nuclear-powered satellites may re-enter Earth's atmosphere.
- Tracking, containment, and controlled disposal remain challenging.

Weaponization and Strategic Concerns

- Nuclear propulsion technologies have dual-use potential.
- Risk of militarisation of outer space raises geopolitical tensions.

Environmental and Ethical Concerns

- Long-term contamination risks extend beyond national borders.
- Raises ethical questions about exposing Earth to irreversible harm.

Cost and Technical Complexity

- Requires heavy shielding, advanced materials, and precision engineering.
- Far more expensive than solar-based systems.

Legal and Governance Challenges

- The Outer Space Treaty (1967) mandates peaceful use of space but:
 - Does not clearly regulate nuclear reactors
 - Lacks liability mechanisms for nuclear accidents in space

This creates a governance gap in managing emerging space nuclear technologies.

The Way Forward

- Develop international safety and liability norms
- Ensure fail-safe reactor design and containment
- Restrict nuclear use to missions where solar power is unviable
- Promote transparency and multilateral oversight

WHO Terms Obesity a Global Health Crisis, Backs Long-Term Use of GLP-1 Drugs

Why in News

The World Health Organization has described obesity as a global health crisis and supported the long-term use of GLP-1 receptor agonist drugs for obesity management, alongside lifestyle interventions.

Obesity as a Public Health Challenge

Obesity is now recognised as a chronic, relapsing disease, shaped by genetics, diet transitions, urbanisation, sedentary lifestyles, and unhealthy food environments. It significantly increases the risk of diabetes, cardiovascular diseases, cancers, and premature mortality, placing long-term pressure on health systems.

What are GLP-1 Drugs?

GLP-1 (Glucagon-Like Peptide-1) drugs mimic a natural gut hormone that:

- Reduces appetite
- Slows gastric emptying
- Improves insulin secretion

Initially used for diabetes, these drugs show sustained weight-loss effects, leading the WHO to support their long-term use, similar to medicines for hypertension.

WHO's Key Position

- Obesity should be treated as a long-term medical condition, not a short-term lifestyle issue
- Continuous pharmacological support may be needed to prevent weight regain
- Drug therapy must complement lifestyle modification, not replace it

Concerns and Pitfalls

- High cost and limited access, especially in low- and middle-income countries
- Risk of over-medicalisation, ignoring social determinants like food systems and urban planning
- Long-term safety, ethical use, and equitable availability remain unresolved

India-Specific Relevance

India faces a dual burden of malnutrition persisting undernutrition alongside rising obesity, especially in urban areas. This makes prevention, regulation of ultra-processed foods, and public awareness essential.

Key Terms Explained

- **Obesity:** A medical condition characterised by excessive body fat accumulation that increases the risk of non-communicable diseases.

- **Global Health Crisis:** A widespread health problem that threatens populations across countries and requires coordinated international action.
- **GLP-1 (Glucagon-Like Peptide-1):** A naturally occurring hormone that regulates appetite, digestion, and blood sugar levels.
- **GLP-1 Receptor Agonists:** Drugs that mimic GLP-1 hormone action to control appetite and improve metabolic function.
- **Chronic Disease:** A long-lasting condition requiring ongoing management rather than short-term treatment.
- **Medicalisation:** Treating a social or lifestyle issue primarily through medical or pharmaceutical interventions.
- **Dual Burden of Malnutrition:** Coexistence of undernutrition and overweight/obesity within the same population.
- **SDG-3:** UN Sustainable Development Goal focused on ensuring healthy lives and promoting well-being for all.

Way Forward

- Integrate obesity care into primary healthcare systems
- Promote healthy diets, physical activity, and food regulation
- Use GLP-1 drugs judiciously, ensuring affordability and ethical oversight
- Align national strategies with SDG-3 and Universal Health Coverage



A Worrying Pattern of HIV Transmission in Children

Why in News

Recent health data points to a persistent and worrying trend of HIV infections among children, highlighting gaps in prevention, early diagnosis, and treatment despite overall progress in HIV control.

How Children Acquire HIV

Most HIV infections in children occur through vertical transmission, that is, from mother to child:

- During pregnancy
- At childbirth
- Through breastfeeding

With timely testing and treatment, this form of transmission is largely preventable.

What the Emerging Pattern Shows

- New paediatric HIV cases continue to be reported, especially in resource-poor settings
- Late diagnosis of mothers, poor antenatal coverage, and gaps in follow-up remain major causes
- Children often enter treatment much later than adults, worsening outcomes

This indicates a failure not of medical science, but of health-system delivery.

Why This Is Concerning

- Untreated HIV in children leads to high early mortality
- It undermines global and national targets to end AIDS as a public health threat
- Paediatric HIV reflects inequalities in maternal healthcare and social stigma

As the World Health Organization notes, no child should be born with HIV in the age of effective treatment.

India-Specific Concerns

- Missed HIV testing during pregnancy
- Inadequate linkage between maternal health services and ART centres
- Social stigma discouraging disclosure and treatment adherence

India's challenge lies less in policy and more in last-mile implementation.

Way Forward

- Universal HIV testing of pregnant women
- Early initiation of antiretroviral therapy (ART) for mothers and infants
- Integration of HIV services with maternal and child health programmes
- Community outreach to reduce stigma and discrimination

Why 50+ Need Pneumonia Shots Even More Now

Why in News

Health experts are stressing pneumococcal (pneumonia) vaccination for people aged 50 and above, as ageing populations, rising co-morbidities, and post-COVID vulnerability increase the risk of severe respiratory infections.

The Concept: What is Pneumonia?

Pneumonia is a lung infection caused by bacteria, viruses, or fungi that inflames air sacs, making breathing difficult. In older adults, even common pneumonia can quickly turn life-threatening due to weaker immunity.



Why the Risk Increases After 50

- Immunosenescence: Natural decline in immune response with age
- Higher prevalence of diabetes, heart disease, COPD, and kidney disorders
- Increased exposure to hospital-acquired infections
- Slower recovery and higher complication rates

Ageing turns pneumonia from a routine illness into a major mortality risk.

Why Vaccination Matters More Today

- **Post-COVID impact:** Many older adults have residual lung weakness
- **Antimicrobial Resistance (AMR):** Antibiotics are becoming less effective
- **Urban pollution & climate stress:** Increase respiratory vulnerability

Vaccination reduces severe illness, hospitalisation, and death, even if infection occurs.

What Are Pneumonia (Pneumococcal) Vaccines?

These vaccines protect against *Streptococcus pneumoniae*, a leading cause of:

- Pneumonia
- Meningitis
- Bloodstream infections

They are preventive tools, not treatments, and are especially effective in high-risk age groups.

Global Health Perspective

The World Health Organization recommends pneumococcal vaccination for older adults and people with co-morbidities as part of healthy ageing strategies.

India-Specific Relevance

- Rapidly growing elderly population
- High burden of non-communicable diseases
- Significant out-of-pocket health expenditure

Preventive vaccination can reduce avoidable hospitalisation costs and health system pressure.

Way Forward

- Integrate adult vaccination into primary healthcare
- Increase awareness among doctors and the public
- Include pneumococcal vaccines in healthy ageing programmes
- Strengthen surveillance of adult respiratory infections

What is India Post's DHruva Framework?

The DHruva (Digital Hub for Reference and Unique Verification) framework is a digital address and identity verification system developed by India Post to leverage its nationwide postal network for secure, trusted, and last-mile verification services.

The Core Idea

India Post uses its physical reach + digital systems to verify addresses, identities, and service delivery points, especially in areas where private digital platforms have limited access. Think of DHruva as “digital trust built on physical presence.”

Why DHruva Was Introduced

- India lacks a standardised, reliable address system, especially in rural and informal settlements
- Digital services (banking, insurance, e-commerce, government schemes) need trusted verification
- India Post already reaches every village and habitation, making it ideal for this role

Key Features of the DHruva Framework

- Digital address referencing: Standardises addresses using postal data
- On-ground verification: Postal workers validate addresses and beneficiaries
- Interoperability: Can be used by government departments, banks, and service providers
- Trust layer: Acts as a neutral, public digital infrastructure (DPI)

How DHruva Works

Request for verification

- India Post's digital platform assigns task
- Postal worker conducts physical verification
- Digitally authenticated response shared with service provider

Why It Matters

- Improves financial inclusion and DBT delivery
- Reduces fraud in KYC, insurance, and welfare schemes
- Strengthens last-mile governance
- Complements India's Digital Public Infrastructure (DPI) stack

Concerns and Challenges

- Data privacy and consent safeguards must be robust
- Need for legal clarity on data sharing and liability
- Capacity building for postal staff is essential

India Is a Model for Digital Infrastructure. It Can Become One for AI, Too

The Central Argument

India's success in building Digital Public Infrastructure (DPI) shows that technology at population scale can be inclusive, low-cost, and public-purpose driven. The same design philosophy can help India emerge as a global model for Artificial Intelligence (AI)—if it prioritises trust, access, and governance over hype.

Why India's Digital Infrastructure Model Worked

India's DPI success rests on three pillars:

- Public goods approach: Platforms built as open, interoperable infrastructure
- Scale with inclusion: Designed for a billion users, including the poorest
- State as platform builder: Government enabled ecosystems rather than monopolies

This turned digital services into enablers of rights, welfare, and markets.

What This Means for AI

AI, like digital infrastructure, is becoming a general-purpose technology—affecting governance, healthcare, education, finance, and security.

If left only to markets, AI risks becoming:

- Exclusionary
- Opaque
- Biased
- Concentrated in a few global firms

India's DPI experience offers a counter-model.

How India Can Replicate the DPI Logic in AI

Treat AI as Public Infrastructure, Not Just a Product

- Build shared datasets, compute access, and models for public use
- Enable startups and researchers to innovate on top of common rails

AI as a **platform**, not a privilege.

Embed Trust and Accountability by Design

- Clear rules on data use, consent, and explainability
- Human oversight in high-stakes AI decisions

Trust is India's biggest potential AI advantage.

Focus on Population-Scale Use Cases

- AI for health diagnostics, agriculture advisories, education support, and governance
- Prioritise local languages and low-bandwidth solutions

Solve India's problems first; the world will follow.

Democratise Access to AI Capability

- Public investment in compute infrastructure and skilling
- Support Tier-2/Tier-3 institutions and startups

Avoid an AI divide mirroring the digital divide.

Risks and Cautions

- Algorithmic bias can reinforce social inequalities
- Excessive regulation can stifle innovation
- Weak coordination between Centre and States can fragment outcomes

India must balance innovation freedom with rights protection.

Way Forward

- Build AI public goods similar to digital rails
- Anchor AI governance in constitutional values
- Invest in skills, data stewardship, and public research
- Position India as a voice for Global South-centric AI norms

Aadhaar App to Enable Offline Sharing with Minimal Data: UIDAI CEO

Why in News

The Unique Identification Authority of India (UIDAI) has announced that the Aadhaar mobile app will enable offline sharing of identity details, allowing users to share only minimal, need-based data without revealing their Aadhaar number.

The Concept

Offline Aadhaar verification allows an individual to prove identity without real-time authentication or database access. Instead of sharing the full Aadhaar number, users can share limited, digitally signed information such as name or age, based on consent. In essence, it shifts Aadhaar from mandatory disclosure to voluntary, controlled sharing.

What the New Feature Enables

- **Minimal data exposure:** Only selected fields (e.g., age or name) are shared
- **Offline mode:** No internet or central database access required
- **User control:** Consent-driven and purpose-specific data sharing
- **Enhanced privacy:** Reduces risk of data misuse and profiling

Why This Matters

- Addresses long-standing privacy and surveillance concerns around Aadhaar
- Aligns with the Supreme Court's emphasis on data minimisation and proportionality
- Improves usability in areas with poor connectivity
- Strengthens trust in digital public infrastructure

Governance and Legal Significance

The move reflects a shift towards privacy-by-design in India's digital governance. It reinforces the principle that identity systems should empower users, not merely serve administrative convenience.

Challenges Ahead

- Awareness and adoption among users and service providers
- Ensuring acceptance of offline Aadhaar by private entities
- Preventing indirect coercion to share data

Way Forward

- Clear guidelines on voluntary use and consent
- Strong oversight to prevent misuse
- Integration with broader data protection frameworks

Thalassemia Patients Hail New Transfusion Bill: The Science, Technology, and Policy Angle

Why in News

Thalassemia patient groups have welcomed a new blood transfusion-related legislation, seeing it as a step toward safer, more reliable, and technology-enabled blood supply systems critical for people dependent on lifelong transfusions.

The Disease Context: What is Thalassemia?

Thalassemia is a genetic blood disorder in which the body produces inadequate or abnormal haemoglobin. This leads to:

- Chronic anaemia
- Fatigue and poor growth
- Organ damage if untreated

Patients with thalassemia major require regular blood transfusions for life, often every 2–4 weeks.

Why Blood Transfusion is Central to Thalassemia Care

Blood transfusion helps maintain adequate haemoglobin levels, allowing:

- Normal growth and development
- Reduced bone deformities
- Improved life expectancy

However, repeated transfusions also pose risks:

- Transmission of infections
- Iron overload damaging the heart and liver
- Dependence on consistent blood availability

Hence, transfusion safety is not optional—it is lifesaving infrastructure.

What the New Transfusion Bill Seeks to Address

The proposed law aims to modernise India's blood ecosystem by focusing on science-backed regulation and standardisation.

Key Provisions

- Uniform standards for blood collection, testing, storage, and transport
- Stronger screening for HIV, hepatitis, and other transfusion-transmitted infections
- Regulation of blood banks under a centralised scientific framework
- Promotion of voluntary blood donation over replacement donation

Science & Technology Dimensions

Advanced Blood Screening Technologies

- Use of Nucleic Acid Testing (NAT) to detect infections earlier than conventional tests
- Reduces the "window period" of undetected infections

Crucial for patients needing lifelong transfusions.

Digital Blood Bank Management

- Creation of digital registries and inventories
- Real-time tracking of blood availability and quality

Improves access and reduces shortages, especially in emergencies.

Component-Based Transfusion

- Separating whole blood into red cells, plasma, platelets
- Thalassemia patients receive only red blood cells, reducing complications

More scientific and resource-efficient.

Quality Control and Standardisation

- Uniform protocols across states reduce regional disparities
- Scientific oversight lowers risks of contamination and misuse

Why Patients Have Welcomed the Bill

- Greater assurance of safe and infection-free blood
- Reduced long-term complications from poor-quality transfusions
- Better availability through regulated, transparent systems

For thalassemia patients, this is not merely a regulatory reform—it directly affects survival and quality of life.

Challenges and Concerns

- Uneven implementation capacity across states
- Need for trained personnel and upgraded labs
- Ensuring affordability and avoiding over-centralisation

Technology without last-mile capacity can deepen inequality.

Way Forward

- Invest in public blood infrastructure and skilled manpower
- Integrate blood services with digital health platforms
- Expand screening and counselling to reduce new thalassemia births
- Encourage voluntary, regular blood donation as a public health responsibility

Key Terms Explained

- **Thalassemia:** A hereditary disorder affecting haemoglobin production, requiring lifelong transfusions in severe cases.
- **Haemoglobin:** Protein in red blood cells that carries oxygen.

- **Nucleic Acid Testing (NAT):** A molecular test that detects viral genetic material, improving blood safety.
- **Transfusion-Transmitted Infections (TTIs):** Diseases spread through unsafe blood transfusions.
- **Component Therapy:** Transfusion of specific blood components rather than whole blood.
- **Voluntary Blood Donation:** Donation without expectation of return, considered the safest source of blood.

New Oral Drugs Expand Options for Gonorrhea Treatment

Why in News

New oral antibiotics have shown effectiveness against drug-resistant gonorrhea, offering fresh treatment options as resistance to existing medicines threatens global control of the infection.

The Disease Context: What is Gonorrhea? (Concept)

Gonorrhea is a sexually transmitted infection (STI) caused by the bacterium *Neisseria gonorrhoeae*.

It commonly affects the genitals, rectum, and throat and can lead to:

- Pelvic inflammatory disease
- Infertility
- Increased HIV transmission risk

If untreated, complications are severe, especially for women and newborns.

Why Gonorrhea Is a Growing Public Health Concern

- The bacterium has developed resistance to almost every class of antibiotics used so far
- Treatment options are narrowing, making gonorrhea a priority pathogen under antimicrobial resistance (AMR) surveillance

- Current standard therapy relies largely on injectable antibiotics, limiting access and compliance.

The World Health Organization has warned that untreatable Gonorrhea could become a reality without new drugs.

What Are the New Oral Drugs? (Science Explained Simply)

The new medicines are oral antibiotics with novel mechanisms of action, meaning:

- They attack the bacteria differently from older drugs
- They remain effective against multi-drug resistant strains
- Being oral, they are easier to administer than injections

Early clinical trials suggest they can safely clear infection with fewer logistical challenges.

Why Oral Drugs Are a Game Changer

- **Improved access:** Pills are easier to distribute, especially in low-resource settings
- **Better compliance:** Reduces dependence on hospital-based injections
- **Public health impact:** Enables wider treatment and contact management

This marks an important shift from last-resort injectable therapy to patient-friendly treatment.

Concerns and Caution

- Overuse could quickly lead to new resistance if not regulated
- Long-term effectiveness must be monitored through surveillance systems
- New drugs must be used as part of combination therapy and stewardship, not as stand-alone solutions

India-Specific Relevance

- Rising STI burden, especially among young adults
- Limited STI awareness and testing
- Need to integrate new treatments with public health programmes and AMR action plans

Way Forward

- Ensure judicious use under national treatment guidelines
- Strengthen AMR surveillance and laboratory capacity
- Expand STI screening, awareness, and safe-sex education
- Link treatment advances with broader sexual and reproductive health services

Key Terms Explained

- **Gonorrhoea:** A bacterial sexually transmitted infection caused by *Neisseria gonorrhoeae*.
- **Antimicrobial Resistance (AMR):** Ability of microbes to resist the effects of drugs designed to kill them.
- **Oral Antibiotics:** Medicines taken by mouth, unlike injectable drugs requiring clinical settings.
- **Novel Mechanism of Action:** A new way in which a drug attacks bacteria, reducing cross-resistance.
- **Antimicrobial Stewardship:** Coordinated strategies to ensure responsible use of antibiotics.

How the Aviation Sector Is Tackling the Rise in GPS Jamming and Spoofing

Why in News

Airlines and aviation regulators worldwide are responding to a sharp rise in GPS jamming and spoofing incidents, which interfere with satellite-based navigation and pose risks to flight safety, especially near conflict zones and busy air corridors.

The Core Concept (Simplified)

- **GPS jamming:** Deliberate transmission of signals that overpower or block satellite navigation signals, causing loss of positioning data.
- **GPS spoofing:** Sending fake navigation signals that mislead aircraft systems into calculating incorrect position, altitude, or time.

Modern aviation relies heavily on GNSS (Global Navigation Satellite Systems) for navigation, landing, surveillance, and timing making interference a serious safety concern.

Why GPS Interference Is a Growing Threat

- Increased electronic warfare and use of low-cost jamming devices
- Dense air traffic relying on satellite-based navigation
- Expansion of performance-based navigation (PBN) and satellite-assisted landings

The International Civil Aviation Organization has flagged GNSS interference as a major emerging global aviation risk.

How the Aviation Sector Is Responding

Multi-Layered Navigation Backups

Aircraft are being trained and equipped to fall back on non-GPS systems, such as:

- Inertial Navigation Systems (INS)
- Ground-based radio navigation aids (VOR, DME, ILS)

Ensures aircraft can navigate safely even when GPS fails.

Improved Cockpit Procedures & Pilot Training

- Updated standard operating procedures for GPS anomalies
- Pilot training to recognise spoofing signatures (sudden position jumps, inconsistent speed/altitude)
- Manual navigation and cross-checking protocols

Human awareness acts as the first line of defence.

Aircraft and Avionics Upgrades

- Anti-jam antennas and signal filtering
- Integration of multi-constellation GNSS (GPS, Galileo, GLONASS, BeiDou)
- Cross-verification between satellite data and onboard sensors

These upgrades reduce reliance on any single satellite system.

Air Traffic Management (ATM) Measures

- Real-time interference reporting and advisories
- Rerouting aircraft away from high-risk zones
- Temporary reliance on radar-based surveillance instead of satellite tracking

National regulators like the Directorate General of Civil Aviation issue operational advisories to airlines when interference risks rise.

International Coordination and Monitoring

- Shared databases of interference incidents
- Regional coordination among civil aviation authorities
- ICAO-led guidance on GNSS resilience and contingency planning

Aviation safety is treated as a global commons, requiring cooperation beyond national borders.

Limitations and Challenges

- Complete elimination of interference is not feasible
- Retrofitting older aircraft is costly
- Civil aviation has limited control over military or hostile jamming sources

Hence, resilience not absolute prevention is the strategy.

Key Terms

- **GNSS:** Satellite-based systems providing position, navigation, and timing.
- **GPS Spoofing:** Deceptive transmission of false navigation signals.
- **GPS Jamming:** Blocking or overwhelming legitimate satellite signals.
- **INS:** Navigation system using motion sensors, independent of satellites.

Inside the DHRUV64 Microprocessor: India's Push for Sovereign Computing

Why in News

India has unveiled DHRUV64, an indigenous 64-bit microprocessor, marking a key milestone in the country's effort to build trusted, home-grown semiconductor capability amid rising concerns over supply chains and digital sovereignty.

What is DHRUV64?

- **DHRUV64** is a 64-bit microprocessor designed in India, aligned with the RISC-V open-instruction architecture.
- It is aimed at secure computing, embedded systems, and strategic applications, reducing dependence on foreign proprietary chips.

Core Technical Features

- **64-bit Architecture:** Enables handling of large memory spaces and complex computing workloads.
- **RISC-V ISA:** Open-source, modular, and license-free allowing customisation and auditability.
- **Security-by-Design:** Supports secure boot, hardware isolation, and trusted execution features.
- **System-on-Chip (SoC) Compatibility:** Can integrate CPU cores with memory controllers, I/O, and accelerators.

Why RISC-V Matters

- **No licensing costs** → lowers entry barriers for Indian designers.
- **Transparency** → reduces risks of hidden backdoors.
- **Strategic autonomy** → critical for defence, space, and public digital infrastructure.

Key Facts & Context

- India imports over 90% of its semiconductors.
- Chips are foundational to AI, telecom, defence, automobiles, and digital governance.
- Indigenous processors support initiatives like Digital Public Infrastructure (DPI) and Atmanirbhar Bharat.



Strategic Significance

Digital Sovereignty:

- Reduces reliance on foreign processors for sensitive data and systems.

National Security:

- Trusted hardware is essential for defence electronics, secure communications, and space missions.

Semiconductor Ecosystem:

- Encourages domestic chip design, verification, and fab-linkages, even if fabrication occurs abroad initially.

Innovation & Talent:

- Strengthens India's position in chip design, where it already has a strong global workforce.

Challenges

- **Fabrication bottlenecks:** India still lacks advanced commercial fabs.
- **Scale & Adoption:** Competing with mature global processors needs ecosystem support.
- **Software Stack:** Operating systems, compilers, and applications must be optimised for adoption.

Way Forward

- Align indigenous processors with Semicon India Programme incentives.
- Promote public procurement preference for trusted Indian chips.
- Build a full-stack ecosystem hardware, firmware, OS, and applications.
- Invest in chip testing, packaging, and verification alongside fabrication.

Conclusion

DHRUV64 represents more than a processor it signals India's intent to secure the digital foundations of its economy and governance. Sustained policy support and ecosystem development will determine whether such indigenous chips move from symbolic success to scalable impact.

Visibility and Inclusion: Advancing the Case of Children with Disabilities

Why in News?

Despite progressive laws and global commitments, children with disabilities (CwDs) in India remain undercounted, underrepresented, and underserved. Recent debates on inclusive education, digital access, and social protection have renewed focus on making disability visible in policy and practice.

Understanding the Issue

Children with disabilities face multiple and intersecting disadvantages health, education, nutrition, and social exclusion often beginning early in life. A major challenge lies in invisibility: inadequate data, weak identification mechanisms, and social stigma prevent targeted interventions.

Key Data & Facts

- As per Census 2011, ~1.7% of India's children live with disabilities (likely underestimated).
- School dropout rates are significantly higher among CwDs, especially girls.
- India is a signatory to the UN Convention on the Rights of Persons with Disabilities (UNCRPD).
- Ending exclusion aligns with SDG 4 (Inclusive Education) and SDG 10 (Reducing Inequalities).

“ A major challenge lies in invisibility: inadequate data, weak identification mechanisms, and social stigma prevent targeted interventions. ”

Why Visibility Matters

Policy Design:

- Without reliable, disaggregated data, CwDs remain excluded from planning and budgeting.

Early Intervention:

- Timely identification enables early healthcare, assistive devices, and learning support.

Social Inclusion:

- Visibility challenges stigma and reframes disability as a rights-based issue, not charity.

Institutional & Policy Framework

- Rights of Persons with Disabilities Act, 2016: Guarantees equality, education, and accessibility.
- Inclusive Education under Samagra Shiksha aims to mainstream CwDs.
- Programmes supported by organisations like UNICEF emphasise early screening and community-based rehabilitation.

Persistent Challenges

- Data gaps and outdated disability definitions
- Shortage of trained special educators and therapists
- Poor school infrastructure and digital accessibility
- Social stigma and weak community awareness
- Fragmented implementation across states

Way Forward

- Conduct regular, disability-disaggregated surveys aligned with global standards
- Strengthen early screening and intervention at Anganwadi and primary health levels
- Ensure universal design in schools, digital platforms, and learning materials
- Invest in teacher training and assistive technologies
- Promote community participation to reduce stigma and improve uptake

Conclusion

Advancing the rights of children with disabilities requires moving from token inclusion to systemic visibility. A rights-based, data-driven, and child-centric approach is essential to ensure that no child remains unseen or unheard in India's development journey.

Country No. 1 on the Doping List: Why a Systemic Clean-Up Is Urgent

Why in News

India has repeatedly figured among the top countries in global doping violations, according to testing data compiled under the World Anti-Doping Agency framework. The trend has raised concerns about sports governance, athlete welfare, and international credibility.

Understanding the Issue

Doping refers to the use of prohibited substances or methods to enhance athletic performance. While individual violations draw attention, consistently high national numbers point to structural failures rather than isolated misconduct.

Key Data & Facts

- India has ranked among the top contributors to adverse analytical findings in recent years.
- Most violations are linked to anabolic steroids, often used unknowingly.
- Testing and enforcement in India are overseen by the National Anti-Doping Agency.
- Clean sport is integral to Olympic Charter principles and international sporting ethics.

Why the High Doping Burden Persists

Awareness Deficit:

- Many athletes lack knowledge about banned substances, supplements, and therapeutic exemptions.

Informal Training Ecosystem:

- Unregulated coaching, local competitions, and unsafe supplements increase risk.

Incentive Pressure:

- Medals-linked rewards, jobs, and fame create performance-at-any-cost pressures.

Weak Support Systems:

- Limited access to sports medicine, nutritionists, and counsellors at grassroots levels.

Implications

- **Credibility Loss:** Repeated violations tarnish India's sporting image globally.
- **Athlete Harm:** Health risks, bans, and career derailment affect young athletes disproportionately.
- **Institutional Trust:** Questions arise over governance, monitoring, and preventive education.
- **Olympic Ambitions:** Doping undermines long-term performance sustainability.

Existing Framework

- Anti-doping rules aligned with the WADA Code
- Testing, investigations, and sanctions by NADA
- Education initiatives, though unevenly implemented across states and disciplines

Way Forward

- Shift focus from punitive action to prevention-first strategy
- Mandatory anti-doping education at junior and sub-junior levels
- Regulate sports supplements and informal coaching centres
- Strengthen sports science support nutrition, medicine, mental health
- Ensure institutional accountability of federations and support staff
- Promote a culture of clean sport, not just medal counts

Conclusion

Being at the top of the global doping list is not merely a reputational issue it reflects deeper systemic gaps in India's sports ecosystem. Cleaning up requires education, ethical leadership, and athlete-centric governance, ensuring that sporting excellence is achieved through integrity, not shortcuts.

How Transfusion Safety Gaps Put Thalassemia Patients at HIV Risk

Why in News

Concerns have resurfaced over blood transfusion safety in India after reports highlighted the continued risk of HIV transmission among thalassemia patients, who depend on lifelong, frequent blood transfusions for survival.

Understanding the Issue

Thalassemia is a genetic blood disorder requiring regular transfusions, often every 2–4 weeks. Any lapse in blood screening, storage, or handling exposes patients to transfusion-transmitted infections (TTIs) such as HIV, hepatitis B, and hepatitis C.

Key Data & Facts

- India has 1–1.5 lakh thalassemia patients, with ~10,000–15,000 new births annually.
- Blood safety is governed by National AIDS Control Organisation guidelines.
- Nucleic Acid Testing (NAT) can detect HIV earlier than conventional tests but is not universally available.
- Safe transfusion is linked to SDG 3 (Good Health and Well-being).

Where the Safety Gaps Lie

Uneven Screening Standards:

- Not all blood banks use advanced testing methods, increasing the “window-period” risk.

Fragmented Blood Banking System:

- Large variation exists between urban tertiary hospitals and smaller or private blood banks.

High Transfusion Frequency:

- Repeated exposure multiplies infection risk even if individual transfusions are largely safe.

Regulatory Oversight Gaps:

- Monitoring and accreditation of blood banks remain inconsistent across states.

Implications

- **Health Impact:** HIV infection severely complicates thalassemia management and survival.
- **Economic Burden:** Long-term treatment costs escalate for families and public health systems.
- **Ethical Concerns:** Patients face avoidable harm despite depending on state-regulated healthcare.
- **Trust Deficit:** Weakens confidence in public health institutions and blood services.

Existing Policy Framework

- National Blood Policy
- Mandatory HIV screening of donated blood
- Oversight under Drugs and Cosmetics Act
- However, implementation gaps persist, particularly in access to modern testing technologies.

Way Forward

- Universalise NAT-based screening for all blood units
- Strengthen regulatory audits and accreditation of blood banks
- Develop dedicated transfusion registries for thalassemia patients
- Promote voluntary, repeat blood donation to reduce risk
- Integrate transfusion safety with national HIV control programmes

Conclusion

For thalassemia patients, blood transfusion is not optional it is life-sustaining. Closing transfusion safety gaps is therefore a public health, ethical, and governance imperative, essential to protect vulnerable patients from preventable HIV infection.

Early Gestational Diabetes: A Growing Concern for Maternal and Child Health

Why in News

Recent studies indicate that early gestational diabetes mellitus (GDM) affects nearly one in five pregnant women, signalling a higher disease burden and raising concerns for maternal, neonatal, and long-term public health outcomes.

What is Gestational Diabetes?

Gestational diabetes refers to glucose intolerance first detected during pregnancy. When it appears early in pregnancy, it often reflects pre-existing metabolic risk rather than pregnancy-induced changes alone.

Key Data & Facts

About 20% of pregnant women show evidence of early GDM.

- Women with GDM face a 7–10 times higher risk of developing type-2 diabetes later in life.
- Children born to affected mothers have higher risks of obesity and diabetes.
- Early detection aligns with SDG 3 (Good Health and Well-being) and maternal health targets endorsed by World Health Organization.

Why Early GDM Matters

Maternal Health Risks:

- Higher incidence of pre-eclampsia, operative deliveries, and future diabetes.

Foetal & Neonatal Outcomes:

- Increased risk of large-for-gestational-age babies, birth injuries, and neonatal hypoglycaemia.

Intergenerational Impact:

- Creates a cycle of metabolic disorders, burdening future health systems.

Underlying Causes

- Rising obesity and sedentary lifestyles
- Poor nutritional transitions
- Delayed pregnancies
- Genetic and ethnic susceptibility
- Inadequate early pregnancy screening

Challenges in India

- Screening often done late in pregnancy
- Uneven access to quality antenatal care
- Limited awareness among expectant mothers
- Shortage of trained healthcare providers at primary level

Way Forward

- Introduce universal early screening during first antenatal visits
- Integrate GDM management with maternal nutrition and lifestyle counselling
- Strengthen primary healthcare and ASHA-led awareness
- Post-partum follow-up to prevent progression to type-2 diabetes
- Use digital health tools for tracking and continuity of care

Conclusion

Early gestational diabetes is not merely a pregnancy-related complication but a warning sign of India's growing metabolic burden. Timely screening, preventive care, and continuum-based maternal health strategies are essential to protect both present and future generations.

Satellites, Science and the New Fight for Spectrum in Space

Why in News

The rapid expansion of satellite constellations, especially in Low Earth Orbit (LEO), has intensified global competition over radio frequency spectrum a finite and critical resource for communication, navigation, Earth observation, and scientific research.

Understanding Spectrum in Space

Electromagnetic spectrum is the backbone of:

- Satellite communication (internet, TV, telephony)
- Navigation systems
- Weather forecasting and disaster management

- Radio astronomy and space science

Unlike terrestrial spectrum, space spectrum must work across borders, making its governance inherently global.

What Has Changed?

Satellite Proliferation:

- Thousands of LEO satellites are being deployed for broadband connectivity.

Commercialisation of Space:

- Private actors now dominate launches and satellite services, increasing demand for spectrum.

Science vs Commerce Tension:

- Radio astronomy and Earth science require quiet, interference-free bands, now under pressure from commercial use.

Who Governs Space Spectrum?

Global coordination is led by the International Telecommunication Union, which:

- Allocates spectrum bands
- Prevents harmful interference
- Balances national, commercial, and scientific interests

National agencies and space organisations including Indian Space Research Organisation operate within this international framework.

Why the New Fight Matters

Scientific Research at Risk:

- Radio telescopes and climate-monitoring satellites are vulnerable to signal interference.

Digital Inequality:

- Early movers can lock up spectrum, disadvantaging late entrants and developing countries.

Strategic and Security Concerns:

- Spectrum control has implications for national security, navigation systems, and data sovereignty.

Orbital Congestion Link:

- Spectrum competition overlaps with issues of space debris and orbital crowding.

India's Stakes

- Expanding satellite-based broadband and navigation services
- Protecting scientific missions and radio astronomy
- Ensuring equitable access for a late-but-rising space power
- Aligning with India's vision of responsible and inclusive space governance

Key Challenges

- "First-come, first-served" tendencies in spectrum filing
- Weak enforcement against harmful interference
- Limited voice of developing countries in global negotiations
- Absence of binding norms to protect scientific bands

Way Forward

- Strengthen multilateral spectrum governance under the ITU
- Protect science-exclusive and passive-use bands
- Promote equitable access for developing countries
- Integrate spectrum policy with space traffic management
- Encourage international cooperation between science agencies and regulators

Conclusion

The contest over space spectrum is not merely technical it is about who gets to speak, observe, and innovate in space. Balancing commercial ambition with scientific freedom and global equity will define the next phase of space governance. In the new space age, spectrum must be treated as a shared global common, not a corporate land grab.



A conceptual illustration of environmental care. A hand is shown holding a lush green forest scene. In the center, a tree stands on a globe. The globe is partially covered with green leaves, while the other part shows the skeletal branches. Three butterflies are flying around the globe. The background is a light green gradient with a wavy pattern at the bottom, suggesting water or a soft landscape. The word "Environment" is written in a large, bold, blue-to-purple gradient font across the middle of the image.

Environment

The Climate Is Breaching the Wall of Urban Metrics

Context

Indian cities are witnessing more frequent heatwaves, urban floods, air pollution episodes, and water shortages. Yet, urban performance is still judged using traditional metrics such as GDP growth, infrastructure creation, housing numbers, and service coverage. Climate change is now breaking through these indicators, exposing their limitations.

What does “Breaching the Wall” mean?

Urban metrics were designed for a period of climate stability. They measure how much a city builds or produces, not how well it withstands climate stress. When extreme weather events repeatedly disrupt transport, power, water, and health systems, these metrics fail to reflect real urban well-being.

How Climate Change Exposes the Gap

- Cities with “adequate” drainage still face severe flooding due to intense rainfall.
- High-density infrastructure increases urban heat island effects, making cities unlivable during heatwaves.
- Economic growth figures hide climate-related health costs and productivity losses.
- Vulnerable groups, especially those in informal settlements, face the worst impacts but remain undercounted.

Why This Matters

Ignoring climate realities leads to poor planning, misdirected investments, and greater inequality. Climate risks are no longer temporary shocks but permanent features of urban life.

Way Forward

Cities must adopt climate-resilient metrics including heat tolerance, flood resilience, green cover, and climate-health indicators and integrate them into urban governance. This approach supports sustainable development, climate adaptation, and the constitutional right to life (Article 21).

Conclusion

Urban success in the climate era will be defined by resilience and adaptability, not just growth and expansion.

Lessons from Beijing in Clearing Delhi’s Air

Delhi continues to face severe air pollution despite episodic measures like GRAP and vehicle restrictions. In contrast, Beijing achieved a sustained reduction in PM2.5 levels over the last decade, offering policy-relevant lessons for Indian cities.

What Beijing Did Differently

- Strong political will: Air pollution was treated as a public health and national priority, not a seasonal problem.
- Coal phase-down: Closure of coal-fired plants around cities and shift to cleaner energy.
- Industrial relocation and regulation: Polluting industries were either upgraded, relocated, or shut down.
- Transport reforms: Strict vehicle emission norms, promotion of public transport, and limits on car ownership.
- Robust monitoring and enforcement: Real-time air quality monitoring with heavy penalties for violations.

Key Lessons for Delhi

- Air pollution control must be structural and year-round, not reactive.
- Source-based regulation (industry, power, transport, construction) is more effective than blanket bans.
- Regional coordination across NCR and neighbouring states is essential.
- Public communication and compliance improve when policies are predictable and science-based.

Challenges in Replication

Delhi faces federal constraints, livelihood concerns, and dependence on surrounding regions for power and agriculture.

Way Forward

India must move towards clean energy transition, strengthen urban public transport, enforce industrial and construction norms, and adopt airshed-based governance. Beijing's experience shows that sustained improvement is possible with consistent policy, strong enforcement, and long-term planning.

Elephant Deaths on Railway Tracks

India has witnessed repeated incidents of elephant deaths due to train collisions, especially in forest corridors of Assam, West Bengal, Odisha, and Jharkhand. With rail expansion intersecting wildlife habitats, the issue has emerged as a critical conservation–infrastructure conflict.

Why Elephants Are Vulnerable

Elephants follow traditional migratory corridors that often cut across railway lines. Poor visibility, high train speeds, night-time movement, and habitat fragmentation increase collision risks. Linear infrastructure has disrupted ecological connectivity.

Key Facts (Prelims-Relevant)

- Elephants are listed under Schedule I of the Wildlife (Protection) Act, 1972
- India hosts nearly 60% of the world's Asian elephant population
- Several elephant corridors overlap with busy rail routes under Indian Railways

What Has Worked So Far

- Speed restrictions in vulnerable stretches
- Early warning systems using sensors and AI-based alerts
- Track-side signage and awareness among loco pilots

Gaps and Challenges

- Limited coverage of mitigation measures
- Poor coordination between railways and forest departments
- Cost and time constraints in retrofitting existing lines

Way Forward

- Build underpasses, overpasses, and elevated tracks in critical corridors
- Adopt landscape-level planning using GIS and wildlife data
- Institutionalise coordination under Project Elephant
- Balance development with conservation in line with Article 48A (environment protection) and SDG 15 (Life on Land)

Conclusion

Reducing elephant deaths on tracks requires not isolated fixes but a systemic blend of infrastructure design, ecological science, and governance coordination, ensuring development does not come at the cost of biodiversity.



SOCIAL ISSUES

Institutionalising Animal Representation

Introduction

Animals are sentient beings affected by human decisions on development, environment, and governance, yet they lack a voice in decision-making. Institutionalising animal representation refers to creating formal legal and governance mechanisms through which animal interests are considered in policy, planning, and justice systems. It reflects an ethical shift from human-centric governance to eco-centric and sentience-based governance.

Why Animal Representation Matters

Ethical Dimension

- Animals experience pain, fear, and well-being, making moral consideration necessary.
- Ethical frameworks such as environmental ethics, compassion, and interspecies justice support representation.
- Aligns with the principle of trusteeship humans as custodians, not owners, of nature.

Constitutional & Legal Basis (India)

- Article 48A: State to protect environment and wildlife.
- Article 51A(g): Fundamental duty to show compassion to living creatures.
- Judicial expansion of animal rights has recognised animals as sentient beings with intrinsic value.

Environmental & Ecological Rationale

- Animal interests are inseparable from ecosystem health.
- Ignoring animal welfare leads to:
 - Biodiversity loss
 - Human–animal conflict
 - Zoonotic disease risks

How Can Animal Representation Be Institutionalised?

Legal Guardianship & Trustees

- Appoint state-recognised guardians or ombudspersons to represent animal interests in courts and policy forums.
- Similar to guardianship for minors or persons with disabilities.

Dedicated Institutions

- Strengthen animal welfare bodies with:
 - Statutory backing
 - Enforcement powers
 - Scientific and ethical expertise
- Integrate animal welfare units into urban planning, disaster management, and infrastructure approvals.

Representation in Decision-Making

- Mandatory animal impact assessments for large infrastructure and development projects.
- Inclusion of animal welfare experts in:
 - Environmental Impact Assessment (EIA) committees
 - Wildlife and forest governance bodies

Judicial & Administrative Innovations

- Fast-track mechanisms for animal cruelty cases.
- Use of public interest litigation (PIL) to act as a proxy for animal voices.

Challenges & Concerns

- Anthropomorphism risk: Humans projecting their preferences onto animals.
- Balancing development and welfare without paralysing growth.
- Capacity constraints and overlapping jurisdictions.
- Potential misuse or over-criminalisation without scientific grounding.

Way Forward

1. **Rights-plus-Welfare Approach**
 - Combine animal welfare standards with limited rights protection.
2. **Scientific & Ethical Integration**
 - Base representation on veterinary science, ecology, and ethics.
3. **Local Governance Role**
 - Empower local bodies to manage urban animals humanely.
4. **Public Awareness & Behavioural Change**
 - Law alone is insufficient; social compassion is critical.

Future Perspective

As climate change, urbanisation, and biodiversity loss intensify, governance systems must evolve to reflect interdependence between humans and animals. Institutionalising animal representation is not about equating animals with humans, but about embedding compassion, sustainability, and responsibility into governance. It marks a transition from dominion over nature to coexistence with nature.

**Fatalities Increase,
Target to Reduce
Road Accidents
Missed**

Why in News

India has failed to meet its stated targets for reducing road accident fatalities, with recent data showing a rise in deaths and serious injuries. This has raised concerns over the effectiveness of road safety policies and institutional accountability.

The Scale of the Problem

India accounts for one of the highest numbers of road accident deaths globally. Despite policy commitments to reduce fatalities by 50% by 2030, progress remains uneven, and recent trends indicate a reversal of earlier gains.

Road accidents disproportionately affect:

- Young adults (15–45 age group)
- Pedestrians, cyclists, and two-wheeler riders
- Rural and peri-urban populations

Why the Target Was Missed

Weak Enforcement:

- Traffic laws, including speed limits, helmet and seatbelt rules, suffer from inconsistent enforcement.

Unsafe Road Design:

- Many highways and urban roads prioritise speed over safety, lacking footpaths, crossings, and crash barriers.

Vehicle Safety Gaps:

- Older vehicles, poor maintenance, and delayed adoption of safety features increase fatality risk.

Human Behaviour:

- Overspeeding, drunk driving, and mobile phone use remain major contributors.

Post-Crash Care Deficit:

- Delayed emergency response and trauma care significantly increase mortality.

Policy Framework and Gaps

India adopted a multi-pronged road safety approach under the Motor Vehicles (Amendment) Act, 2019, covering enforcement, engineering, education, and emergency care.

However, coordination failures, capacity constraints at the state level, and inadequate funding have limited impact.

Why This Matters

- **Public Health Crisis:** Road accidents are a leading cause of preventable deaths.
- **Economic Cost:** Losses run into several percentage points of GDP due to healthcare costs and productivity loss.
- **Equity Issue:** Poor and vulnerable road users bear the brunt of unsafe mobility.
- **Governance Credibility:** Missing targets undermines trust in policy commitments.

Way Forward

- Adopt a Safe Systems Approach, treating deaths as preventable, not inevitable
- Redesign roads with safety-first engineering
- Use technology for speed management and enforcement
- Strengthen vehicle safety standards and inspections
- Improve emergency response and trauma care networks
- Set clear accountability for states and agencies

Conclusion

Rising road fatalities signal not just policy failure, but a deeper governance challenge. Road safety must shift from rhetoric to results backed by enforcement, infrastructure reform, and accountability. Preventable deaths on roads are not accidents; they are outcomes of choices.

Care as Disability Justice: Restoring Dignity in Mental Health

Why in News

Recent debates on mental healthcare, disability rights, and custodial conditions have foregrounded a critical idea: care is not charity, but a matter of justice. For persons with mental illness and psychosocial disabilities, dignity depends not merely on treatment, but on how care is designed, delivered, and governed.

Reframing Mental Health: From Charity to Justice

Traditionally, mental health care has been approached through:

- Medical paternalism (patients as passive recipients)
- Welfare charity (care as benevolence)

The disability justice perspective challenges this by asserting that access to care is a right, rooted in equality, autonomy, and human dignity—not sympathy.

What Is Disability Justice?

Disability justice goes beyond inclusion to address:

- Structural barriers
- Power imbalances
- Intersectional vulnerabilities (gender, caste, poverty)

In mental health, this means recognising persons with psychosocial disabilities as rights-bearing citizens, not objects of control or confinement.

Mental Health and Dignity

Dignity in mental health care requires:

- Respect for autonomy and informed consent
- Freedom from degrading treatment and coercion
- Community-based care instead of long-term institutionalisation
- Recognition of lived experience in decision-making

These principles are central to Article 21 (Right to Life with Dignity).

Legal and Policy Framework

- Mental Healthcare Act, 2017:
 - Recognises mental healthcare as a legal right
 - Emphasises consent, least restrictive care, and advance directives
- Rights of Persons with Disabilities Act, 2016
- India's obligations under the UN Convention on the Rights of Persons with Disabilities (UNCRPD)

Despite progressive laws, implementation gaps remain stark.

Where the Gaps Lies

- Shortage of mental health professionals
- Over-reliance on institutional care
- Poor conditions in mental health facilities and prisons
- Limited community support, housing, and rehabilitation
- Stigma and criminalisation of mental illness

Care systems often prioritise control and efficiency over dignity and choice.

Care as Justice: What It Demands

Person-Centred Care:

- Care plans shaped by individual needs, not administrative convenience.

Community-Based Support:

- Shift from asylums to community housing, peer support, and social integration.

Supported Decision-Making:

- Replace substituted decision-making with respect for agency.

Accountability:

- Independent oversight of mental health institutions and grievance redressal.

Intersectional Sensitivity:

- Special attention to women, prisoners, homeless persons, and marginalised groups.

Ethical and Governance Dimensions

- Coercive care undermines trust and dignity
- Underfunding mental health violates distributive justice
- Ignoring lived experience weakens policy legitimacy

A justice-based approach treats care as a public responsibility, not an individual burden.

Way Forward

- Fully operationalise the Mental Healthcare Act, 2017
- Invest in community mental health infrastructure
- Train healthcare workers in rights-based care
- Include persons with psychosocial disabilities in policy design
- Integrate mental health into primary healthcare systems

Conclusion

Mental health care is not just about curing illness it is about affirming humanity. Viewing care through the lens of disability justice restores dignity, autonomy, and equality to those long marginalised. A democratic society is judged not by how it controls vulnerability, but by how justly and humanely it cares.

World's First Social Media Ban for Under-16s: Australia's Bold but Contested Move

Why in News

Australia has become the first country in the world to bring into force a nationwide ban on social media access for children under 16, placing legal responsibility on platforms to prevent underage use.

What Does the Ban Entail?

- Social media platforms must block accounts of users below 16 years
- Companies face penalties for non-compliance
- Parents are not criminalised; the onus lies on tech companies
- Platforms must deploy age-verification and compliance mechanisms

The law targets major social media platforms rather than messaging or educational services.

Rationale Behind the Ban

Child Mental Health:

- Evidence links excessive social media use to anxiety, depression, cyberbullying, and self-harm among adolescents.

Online Safety:

- Concerns over exposure to harmful content, online grooming, and algorithm-driven addiction.

Regulatory Vacuum:

- Voluntary safeguards by platforms were deemed insufficient by policymakers.

Why This Is a Global First

Unlike content moderation or parental-control laws elsewhere, Australia's policy:

- Sets a clear age threshold
- Imposes legal liability on platforms, not users
- Treats social media as a regulated environment, similar to alcohol or tobacco for minors

It signals a shift from self-regulation to state regulation of Big Tech.

Concerns and Criticisms

Rights and Freedoms:

- Critics argue the ban may infringe on children's freedom of expression and access to information.

Privacy Risks:

- Age verification could require collection of sensitive personal data, raising surveillance concerns.

Digital Exclusion:

- Social media also provides avenues for learning, activism, and peer support, especially for marginalised youth.

Enforceability:

- Children may bypass restrictions using VPNs or false credentials.

Comparative Perspective

Other countries have:

- Age thresholds (EU's GDPR default age of 16 for data consent)
- Platform guidelines and parental controls

However, none have implemented a blanket, legally enforceable ban like Australia

Lessons and Relevance for India

For India, the Australian experiment raises key questions:

- Should child online safety rely on bans or graded access?
- How to balance protection with participation?
- Can regulation avoid over-surveillance?
- What role should schools, parents, and platforms play?

The debate is relevant in light of India's Digital Personal Data Protection framework and growing concern over youth mental health.

Way Forward

- Closely monitor outcomes and unintended effects of the ban
- Invest in digital literacy and mental health support
- Develop privacy-preserving age verification technologies
- Adopt graduated, risk-based regulation rather than one-size-fits-all bans
- Ensure children's voices are included in policy design

Conclusion

Australia's under-16 social media ban marks a turning point in global digital governance. Whether it becomes a model or a cautionary tale will depend on its impact on child well-being, rights, and online safety. The challenge for democracies is clear: protect children without shrinking their digital citizenship.

Not Just Insurance, Indians Need Universal Healthcare

Why in News

The growing reliance on health insurance based models to address India's healthcare needs has revived a deeper debate: Can insurance alone deliver health security, or does India need a genuinely universal public healthcare system?

Insurance vs Healthcare: Understanding the Difference

Health insurance primarily finances care. It helps pay for treatment once illness occurs. Universal healthcare, by contrast, focuses on availability, accessibility, quality, and continuity of care, regardless of a person's income or insurance status. Insurance without robust public health infrastructure risks becoming a payment mechanism for an unequal system.

Limits of an Insurance-Heavy Approach

Out-of-Pocket Expenditure (OOPE):

- Despite insurance schemes, India continues to have high OOPE, pushing millions into poverty annually.

Hospital-Centric Bias:

- Insurance incentivises tertiary care and hospitalisation, neglecting primary care, prevention, and public health.

Unequal Access:

- Private providers cluster in urban areas, leaving rural and marginalised populations underserved.

Fragmentation:

- Multiple schemes and empanelled hospitals create uneven quality and weak continuity of care.

What Universal Healthcare Entails

Universal healthcare means:

- Strong primary healthcare as the first point of contact
- Free or affordable essential medicines and diagnostics
- Preventive, promotive, curative, and rehabilitative services
- Public provisioning backed by adequate financing
- Care as a right, not a market commodity

It aligns with Article 21 (Right to Life with Dignity) and global norms endorsed by the World Health Organization.

India's Current Approach

Schemes like Ayushman Bharat have expanded financial protection, especially for hospital care. However, the Health and Wellness Centres component, meant to strengthen primary care, remains under-resourced in many states.

The imbalance reflects a policy tilt towards insurance over infrastructure.

Why Universal Healthcare Is Essential

Equity:

- Health outcomes should not depend on income, geography, or insurance literacy.

Efficiency:

- Preventive and primary care reduce long-term costs and hospital burden.

Public Health Security:

- Pandemics and chronic diseases require system-wide capacity, not episodic insurance claims.

Social Trust:

- Universal systems strengthen state legitimacy and social cohesion.

Global Lessons

Countries with strong public health systems, whether tax-funded or social insurance based invest heavily in:

- Primary care
- Public hospitals
- Health workforce
- Preventive services

Insurance works best as a complement, not a substitute, to public provisioning.

Way Forward for India

- Increase public health spending as a share of GDP
- Prioritise primary healthcare and district hospitals
- Integrate insurance schemes with public service delivery
- Ensure free essential drugs and diagnostics
- Strengthen health workforce recruitment and training
- Treat healthcare as a rights-based public good

Conclusion

Insurance can reduce financial shock, but it cannot by itself deliver health justice. For India, the real choice is not insurance versus universal healthcare, but whether insurance will support or substitute the building of a strong public health system. Lasting health security lies in universal care, not selective coverage.

Overhauling Higher Education in India: From Expansion to Excellence

Why in News

India is undertaking a comprehensive reform of its higher education system to address concerns over quality, relevance, access, and global competitiveness, amid rising enrolments, skill mismatches, and rapid technological change.

The Current Landscape

India hosts one of the largest higher education systems in the world, with:

- Rapid expansion in enrolment over the past two decades
- A large number of institutions, but uneven quality
- Persistent gaps in employability, research output, and international rankings

While access has improved, learning outcomes and institutional capacity remain inconsistent.

Why Reform Is Necessary

Quality Deficit:

- Many institutions struggle with faculty shortages, outdated curricula, and weak research ecosystems.

Skill Mismatch:

- Graduates often lack industry-relevant skills, contributing to educated unemployment.

Fragmentation:

- Multiple regulators, rigid degree structures, and siloed disciplines hinder innovation.

Inequity:

- Students from rural, poor, and marginalised backgrounds face barriers in access, affordability, and digital readiness.

Key Pillars of Higher Education Reform

Academic Flexibility:

- Multidisciplinary education
- Multiple entry–exit options
- Credit transfer and lifelong learning

Institutional Autonomy:

- Greater academic, administrative, and financial autonomy
- Reduced micromanagement and compliance burden

Research and Innovation:

- Dedicated funding for research
- Promotion of university–industry collaboration
- Incentives for high-quality publications and patents

Faculty Development:

- Transparent recruitment
- Continuous professional development
- Performance-based career progression

Digital Transformation:

- Use of online platforms and blended learning
- Open educational resources and virtual labs
- Bridging the digital divide

Governance and Regulatory Reforms

Reforms aim to move towards:

- Outcome-based regulation
- Transparent accreditation and ranking systems
- Light-but-tight oversight instead of excessive control

Effective governance is essential to balance autonomy with accountability

Equity and Inclusion

Overhauling higher education must prioritise:

- Affordable education and scholarships
- Support for first-generation learners
- Regional balance and language inclusivity
- Gender and disability-sensitive infrastructure

Without inclusion, expansion risks reinforcing inequality

Global and Economic Relevance

A strong higher education system is central to:

- Building human capital
- Supporting India's innovation and startup ecosystem
- Enhancing global academic collaboration
- Realising the demographic dividend

Education reform is thus both a social and economic imperative.

Challenges Ahead

- Capacity constraints in implementation
- Resistance to change within institutions
- Ensuring quality during rapid expansion
- Aligning central reforms with state-level realities

Way Forward

- Increase public investment in higher education
- Strengthen state universities, not just elite institutions
- Link curricula with future skills and research needs
- Promote internationalisation while protecting public interest
- Ensure reforms are phased, consultative, and evidence-based

Conclusion

Overhauling higher education in India is not merely about restructuring degrees or regulators it is about redefining the purpose of universities. From credential factories, they must evolve into centres of learning, research, and social transformation. The success of India's development trajectory will depend heavily on how effectively this transformation is achieved.

The Marital Rape Exception in Criminal Law Is a Colonial Relic

The continued retention of the marital rape exception in India's criminal law has reignited debate on gender justice, consent, and constitutional morality, as courts and policymakers confront the gap between modern rights jurisprudence and colonial-era statutes.

What Is the Marital Rape Exception?

Exception 2 to Section 375 of the IPC excludes sexual intercourse by a man with his wife (above a prescribed age) from the definition of rape, irrespective of consent. This legal carve-out denies married women protection against sexual violence within marriage.

Colonial Origins

The exception is a product of British colonial law, rooted in:

- Victorian notions of marriage as irrevocable consent
- The doctrine of coverture, where a woman's legal identity merged with her husband's
- The belief that the state should not intrude into the marital sphere

These assumptions are incompatible with a modern constitutional democracy.

Why the Exception Is Constitutionally Infirm

Equality (Article 14):

- It creates an unreasonable classification between married and unmarried women, denying equal protection.

Dignity and Liberty (Article 21):

- The right to life includes bodily autonomy, sexual agency, and dignity, which marriage cannot extinguish.

Consent Jurisprudence:

- Modern criminal law recognises consent as specific, ongoing, and revocable—a principle negated by the exception.

Judicial Trajectory

The Supreme Court of India has progressively expanded the scope of:

- Privacy and bodily autonomy (Puttaswamy)
- Gender equality and constitutional morality

Yet, the marital rape exception remains intact, creating a disconnect between constitutional values and statutory law.

Arguments Against Criminalisation and Their Limits

Concerns often cited include:

- Potential misuse of law
- Impact on the institution of marriage
- Evidentiary difficulties

While these merit procedural safeguards, they cannot justify a blanket immunity for sexual violence within marriage.

Conclusion

The marital rape exception is not a cultural necessity but a colonial anachronism. In a constitutional order founded on dignity and equality, marriage cannot operate as a shield for sexual violence. Repealing the exception is essential to ensure that constitutional rights do not stop at the doors of marriage.

Comparative Perspective

Most constitutional democracies, including the UK, Canada, and South Africa—have abolished the marital rape exception, affirming that marriage does not imply permanent consent. India's continued retention places it among a shrinking group of outliers.

Way Forward

- Repeal the marital rape exception to align law with constitutional principles
- Introduce procedural safeguards to prevent misuse
- Strengthen support systems legal aid, counselling, shelters
- Promote societal awareness on consent and marital equality
- Anchor reform in a rights-based, woman-centric framework

When the syllabus feels endless, remember: so is your potential.

A vintage map of the world, showing the British Isles, Scandinavia, and parts of Europe and Africa. A magnifying glass is positioned over the British Isles, and a coin is visible in the bottom left corner. The map includes various geographical features, place names, and a scale bar. The text "MISCELLANEOUS" is overlaid in large, bold, blue and purple letters.

MISCELLANEOUS

Geography

WHY CYCLONE DITWAH CAUSED LARGE-SCALE DAMAGE IN SRI LANKA

Introduction

Cyclone Ditwah exposed Sri Lanka's high vulnerability to rainfall-intensive cyclones, where damage is driven less by wind speed and more by prolonged heavy rainfall, flooding, and landslides. The event underlined structural, ecological, and governance weaknesses in disaster preparedness.

Nature of the Cyclone (Hazard Dimension)

- Ditwah was a slow-moving system, leading to continuous rainfall over several days.
- High moisture content intensified cloudbursts and saturation of soil.
- Resulted in compound disasters: river floods, flash floods, and landslides occurring simultaneously.

Physical & Geographical Factors

- Island geography with short rivers causes rapid runoff and quick flooding.
- Central highlands are geologically fragile, making them prone to landslides after soil saturation.
- Low-lying coastal and urban plains face poor natural drainage.

Environmental & Ecological Factors

- Deforestation and catchment degradation reduced water absorption capacity.
- Loss of wetlands and flood buffers due to urban expansion worsened inundation.
- Silted rivers reduced carrying capacity, increasing overflow risk.

Urbanisation & Infrastructure Deficits

- Rapid urban growth with encroachment on floodplains.
- Inadequate stormwater drainage systems unable to handle extreme rainfall events.
- Poor housing quality in informal settlements amplified losses.

Socio-Economic Vulnerability

- High population density in hazard-prone zones.
- Limited insurance penetration and weak social safety nets.
- Livelihood losses in agriculture, fisheries, and informal sectors prolonged recovery.

Governance & Disaster Management Gaps

- Land-use planning weakly linked to hazard maps.
- Early warning systems exist, but last-mile communication and evacuation remained inadequate.
- Insufficient coordination between local authorities during compound disasters

Climate Change Dimension (Future Risk)

- Rising sea surface temperatures increase rainfall intensity of cyclones.
- Climate change is shifting risk from wind damage to hydro-meteorological extremes.
- Events like Ditwah reflect the new normal for Indian Ocean island states.

WAY FORWARD

Risk-Informed Planning

- Integrate flood and landslide hazard maps into statutory land-use planning.
- Enforce no-construction zones in high-risk areas.

Climate-Resilient Infrastructure

- Upgrade drainage systems based on future rainfall projections, not historical averages.
- Strengthen slope stabilisation and urban flood-control structures.

Nature-Based Solutions

- Restore wetlands, watersheds, and riparian buffers.
- Promote urban “sponge city” concepts to absorb excess rainfall.

Strengthening Disaster Governance

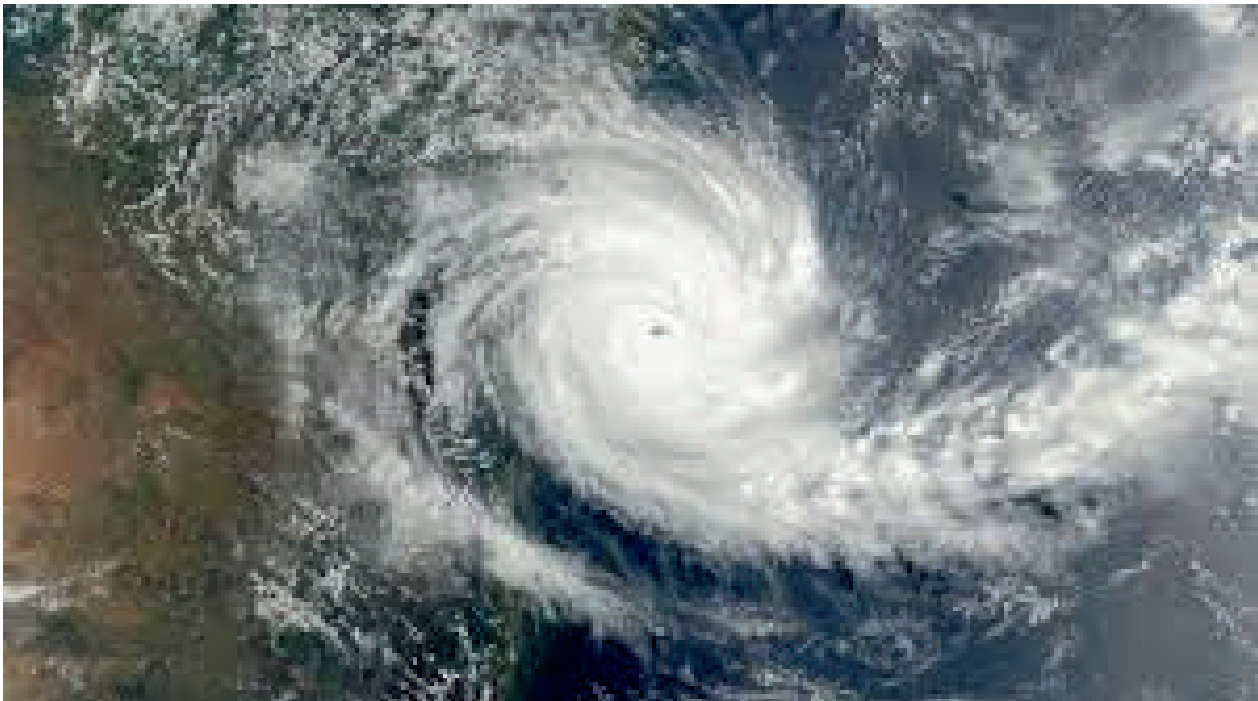
- Improve last-mile early warning dissemination and community preparedness.
- Regular evacuation drills and decentralised response capacity.

Financial & Regional Measures

- Expand disaster insurance and explore parametric insurance models.
- Enhance regional cooperation in the Indian Ocean for data-sharing and humanitarian assistance.

FUTURE PERSPECTIVE

Cyclone Ditwah signals a shift towards rainfall-dominated climate disasters in South Asia. For Sri Lanka and similar island nations, disaster resilience must move beyond response to anticipatory governance, climate adaptation, and ecosystem restoration, aligning with the Sendai Framework and sustainable development goals.



History

Kashi–Tamil Sangamam: Reviving India’s Civilisational Continuum

Why in News

Prime Minister Narendra Modi has urged people across the country to actively participate in the Kashi–Tamil Sangamam, a cultural initiative aimed at strengthening the age-old civilisational links between Varanasi and Tamil Nadu.

Historical and Cultural Context

Kashi and Tamilakam represent two enduring centres of Indian civilisation—Sanskrit and Tamil traditions, Shaivism, Bhakti movements, temple architecture, and classical learning.

Ancient scholars such as Adi Shankaracharya and long-standing pilgrimage routes symbolised this north–south intellectual and spiritual exchange.

What is the Kashi–Tamil Sangamam?

The Sangamam is a cultural and academic exchange programme that brings together:

- Scholars, students, artisans, and spiritual leaders
- Classical literature, music, philosophy, and crafts
- Shared heritage of Shaiva Siddhanta, Vedantic thought, and Bhakti poetry

It seeks to transform cultural memory into lived experience.

Significance

Cultural Integration:

- Reinforces India’s unity through shared civilisational values rather than political boundaries.

Soft Power & Cultural Diplomacy:

- Showcases India’s plural heritage internally and globally.

Educational Value:

- Encourages youth engagement with classical languages, traditions, and indigenous knowledge systems.

Tourism & Local Economy:

- Boosts cultural tourism, benefiting local artisans and service providers.

Policy and Constitutional Linkages

- Aligns with Article 51A(f): duty to preserve composite culture
- Supports Ek Bharat Shreshtha Bharat initiative
- Complements NEP 2020, which stresses Indian knowledge systems and multilingualism

Challenges

- Risk of symbolism without sustained engagement
- Need to avoid cultural homogenisation
- Ensuring inclusivity beyond elite or academic circles

Way Forward

- Institutionalise exchanges through universities and cultural bodies
- Promote digital archives and translations of Tamil–Sanskrit texts

- Encourage people-to-people participation, especially youth and local communities
- Integrate cultural initiatives with education and tourism policies

Conclusion

The Kashi–Tamil Sangamam reflects India’s civilisational strength—unity without uniformity. Sustained participation and institutional backing can turn it from a symbolic event into a lasting platform for cultural integration and national cohesion.

Protests Against the Bill to Revamp the Statistical Institute: Autonomy vs Reform

Why in News

Students, faculty, and alumni have protested a proposed Bill seeking to revamp the governance structure of the Indian Statistical Institute (ISI), expressing concerns over institutional autonomy, academic freedom, and excessive government control.

About the Indian Statistical Institute

Founded in 1931 by P.C. Mahalanobis, ISI is a premier institution in statistics, mathematics, economics, and data science. It plays a crucial role in official statistics, policy planning, and evidence-based governance in India.



What Does the Proposed Bill Seek to Do?

- Reconstitute the governing council and leadership selection process
- Increase the role of the central government in appointments and administration
- Update the legal framework to reflect contemporary governance needs.

The government argues the changes aim to improve efficiency, accountability, and global competitiveness.

Why Are Protests Taking Place?

Erosion of Autonomy:

- Faculty and students fear reduced academic independence due to increased government oversight.

Governance Concerns:

- Critics argue that weakening internal decision-making could harm research excellence and institutional culture.

Precedent Anxiety:

- There are concerns that such reforms may set a precedent for centralised control over other academic institutions.

Significance of the Issue

- **Academic Freedom:** Autonomy is critical for innovation, critical inquiry, and credibility of research.
- **Statistical Integrity:** Independent institutions are vital for trustworthy official data.
- **Policy Making:** Weakening statistical institutions may affect evidence-based governance.
- **Global Reputation:** Institutional independence influences international collaboration and rankings.

Legal and Policy Context

- Autonomous institutions are protected in spirit under constitutional values of freedom of thought and expression.
- The debate echoes broader concerns about higher education governance reforms in India.

Way Forward

- Ensure stakeholder consultation before legislative changes
- Maintain a balance between accountability and autonomy
- Adopt transparent appointment and evaluation mechanisms
- Strengthen parliamentary oversight without micromanagement
- Preserve ISI's academic and research independence as a national asset

Conclusion

Reforming institutions is necessary in a changing world, but autonomy remains the cornerstone of academic excellence. Any revamp of India's premier statistical institutions must be consultative, balanced, and trust-enhancing, not control-driven.

“

Founded in 1931 by P.C. Mahalanobis, ISI is a premier institution in statistics, mathematics, economics, and data science.

”

Statue of Unity Creator Dies at 100: Remembering Ram V. Sutar's Enduring Artistic Legacy

Why in News

Renowned sculptor Ram V. Sutar, creator of the Statue of Unity, passed away at the age of 100. His death marks the end of an era in modern Indian monumental art, spanning works from Gujarat to Assam and beyond.



Who Was Ram V. Sutar?

- Ram V. Sutar was one of India's most influential sculptors, whose career bridged colonial India, the freedom movement, and post-independence nation-building.
- He is widely regarded as the sculptor who gave three-dimensional form to India's political and civilisational memory.

Major Works and Contributions

- **Statue of Unity (Gujarat):** At 182 metres, the world's tallest statue, depicting Sardar **Vallabhbhai Patel**, symbolising national unity and integration.
- Statues of **Mahatma Gandhi, Jawaharlal Nehru, B.R. Ambedkar**, and other national figures across Indian states.
- Numerous public monuments in **Assam, Uttar Pradesh, Madhya Pradesh, and Maharashtra**, shaping India's post-Independence visual landscape.

Artistic Style and Philosophy

- Realist tradition: Emphasis on anatomical accuracy and emotional restraint.
- Public art orientation: Sculptures designed for mass visibility and civic spaces, not elite galleries.
- Blended Indian ethos with modern sculptural techniques, making art accessible to the public.

Historical and Cultural Significance

Nation-Building through Art:

- Sutar's sculptures became tools of historical memory and political symbolism in post-1947 India.

Continuity with Indian Traditions:

- While modern in scale, his work echoed ancient Indian traditions of royal and religious statuary, such as Mauryan and Gupta sculptural realism.

Democratization of Art:

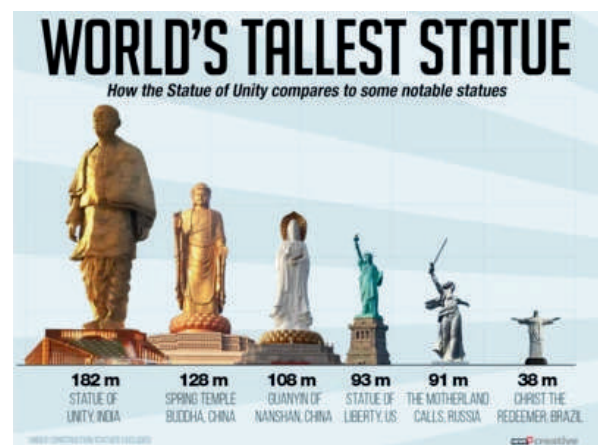
- By placing art in public spaces, he helped take sculpture beyond museums to everyday civic life.

Awards and Recognition

- Padma Shri and Padma Bhushan
- International recognition for contributions to monumental sculpture
- Mentor to a generation of Indian sculptors, including participation in large-scale national projects

Conclusion

Ram V. Sutar's legacy stands etched in stone and bronze across India's landscape. More than a sculptor, he was a chronicler of India's political history in monumental form, ensuring that the nation's ideals, leaders, and struggles remain visible to generations yet to come.



INTERNAL SECURITY

Maoist Movement at Its Lowest: Security Gains and the Road Ahead

Why in News

Recent security assessments indicate that the Left-Wing Extremist (LWE) movement, led by groups such as CPI (Maoist), is at its weakest point in decades, with sharp declines in violence, geographical spread, and cadre strength.

Who are Maoists?

Maoists are left-wing extremist groups in India who follow the ideology of Mao Zedong, advocating a violent overthrow of the state through a prolonged “people’s war” led from rural and forested areas.

Core beliefs & ideology

- **Maoism:** A variant of communism that stresses armed revolution, class struggle, and mobilisation of peasants and tribal.
- Rejects **parliamentary democracy**, viewing it as serving elite interests.
- Seeks to establish a **people’s state** through **guerrilla warfare**.

Organisation in India

- The principal group is the Communist Party of India (Maoist), formed in 2004.
- Operates through armed wings and mass fronts in remote regions.

Areas of operation

- Concentrated in parts of central and eastern India (often called the Red Corridor), especially forested, tribal belts.
- Terrain advantage: dense forests, poor connectivity, limited state presence.

Methods

- **Guerrilla tactics:** ambushes, IEDs, attacks on security forces and infrastructure.
- **Extortion and parallel administration** in some pockets.
- Propaganda to mobilise local grievances.

Why they find support (drivers)

- **Socio-economic deprivation:** poverty, land alienation, lack of services.
- **Tribal displacement** due to mining/infra projects.
- Governance gaps and weak justice delivery.

Trajectory of Decline

Once active across the “Red Corridor”, the Maoist movement has witnessed:

- Contraction to a few pockets in central India
- Significant losses of top leadership and armed cadres
- Falling recruitment and surrender of members

This marks a structural weakening rather than a temporary setback.

Key Indicators of Decline

- Sharp reduction in violent incidents and fatalities (civilians and security forces)
- Shrinking number of affected districts
- Improved road, telecom, and administrative presence in former strongholds
- Higher surrender rates due to targeted rehabilitation policies

Why the Maoist Movement Has Weakened

Improved Security Operations

- Better coordination among central forces and state police
- Intelligence-led operations and technology-enabled surveillance
- Disruption of supply lines, finances, and leadership networks

Development & Governance Push

- Expansion of roads, mobile connectivity, banking, and welfare delivery
- Increased penetration of health, education, and livelihood schemes
- Reduced isolation of tribal and forest regions

Loss of Ideological Appeal

- Diminishing resonance of armed revolution in a democratic polity
- Internal dissent, coercion of locals, and civilian harm eroded legitimacy

Surrender & Rehabilitation Policies

- Incentives for surrender, skill training, and reintegration
- Psychological impact on remaining cadres

Why Caution Is Still Needed

Despite the gains:

- Residual pockets remain active and capable of sporadic attacks
- Risk of splinter groups turning to organised crime
- Persistent grievances related to land, forest rights, and displacement
- Development gaps could allow local resurgence if governance weakens

Strategic and Governance Significance

- Confirms the effectiveness of the “security + development” approach
- Frees up security resources for emerging threats like cybercrime and terrorism
- Strengthens state legitimacy in long-neglected regions
- Enhances investor confidence and regional stability

Way Forward

- Consolidate gains through **last-mile governance**, not just policing
- Accelerate implementation of **forest rights and land entitlements**
- Ensure **inclusive development** for tribal and marginalised communities
- Maintain intelligence vigilance to prevent regrouping
- Strengthen local self-governance and grievance redressal
- Focus on **post-conflict rehabilitation**, not securitisation alone

Conclusion

The Maoist movement being at its lowest is a major internal security milestone. However, history cautions that military success without sustained development can be reversible. The challenge now is to convert security dominance into durable peace, ensuring that governance fills every vacuum left behind.

National Intelligence Grid Gains Traction as Agencies Intensify Information Sharing

Why in News

India's National Intelligence Grid (NATGRID) is witnessing increased operational use, as central intelligence agencies and state police forces increasingly tap integrated databases to track terrorism, organised crime, cyber fraud, and financial crimes.

Background & Evolution

Conceived after the 26/11 Mumbai terror attacks, NATGRID was designed to overcome:

- Fragmented intelligence databases
- Poor inter-agency coordination
- Delays in actionable intelligence

It aims to provide a secure, technology-driven platform that enables authorised agencies to access disparate datasets in real time.

What is NATGRID?

- A centralised intelligence-sharing architecture
- Integrates data from multiple sources such as:
 - Immigration and travel records
 - Telecom and banking information
 - Vehicle registration and identity databases
- Access is provided to authorised law-enforcement and intelligence agencies on a need-to-know basis.
- Crucially, NATGRID is not an intelligence-gathering agency, but a data-access and analytics platform.

Why NATGRID Is Gaining Traction Now

Evolving Nature of Crime

- Rise in terror financing, cybercrime, narco-networks, and cross-border linkages
- Criminal activities increasingly leave digital and financial trails

Push for Real-Time Policing

- Law enforcement requires speed, pattern recognition, and predictive analysis, which siloed systems cannot provide.

Institutional Maturity

- Improved backend integration, cybersecurity protocols, and access controls have made agencies more confident in using the platform.

Significance

Internal Security

- Enhances preventive intelligence and threat anticipation
- Supports counter-terrorism and organised crime investigations

Governance & Policing

- Reduces duplication of effort across agencies
- Promotes evidence-based, data-driven policing

Federal Coordination

- Enables information flow between central agencies and state police, addressing long-standing coordination gaps

Concerns & Challenges

Privacy and Civil Liberties

- Large-scale data integration raises concerns under Article 21 (Right to Privacy)
- Risk of surveillance overreach without strong safeguards

Oversight Deficit

- Limited transparency on:
 - Access protocols
 - Audit mechanisms
 - Accountability for misuse

Data Accuracy & Bias

- Errors in source databases can lead to false positives, harassment, or wrongful targeting

Function Creep

- Risk of NATGRID being expanded beyond serious crimes into routine policing without legal clarity

Legal and Policy Context

- Operates within India's security framework
- Must align with privacy jurisprudence laid down by the Supreme Court (Puttaswamy case)
- Increasing relevance amid India's evolving data protection regime

However, NATGRID still lacks a dedicated statutory framework, relying largely on executive control.

Way Forward

- Enact a clear legal mandate defining scope, access, and purpose
- Ensure independent oversight and regular audits
- Adopt privacy-by-design and data minimisation principles
- Restrict use to serious national security and organised crime cases
- Strengthen training and accountability of authorised users
- Integrate safeguards for citizen grievance redressal

Conclusion

NATGRID reflects India's shift towards intelligence-led policing in a data-rich era. While its growing use can significantly strengthen internal security, its legitimacy and effectiveness will ultimately depend on robust legal safeguards, transparency, and respect for civil liberties. Security and liberty must advance together, not at each other's cost.



PREP ZONE

**PRACTICE
QUESTION
(MCQS)**

Good
Practice



Q1. Consider the following pairs:

Institution	Primary Function
Directorate General of Civil Aviation	Aviation safety regulation
Airports Authority of India	Airport development & air navigation services
Aircraft Accident Investigation Bureau	Accident investigation

Which of the pairs given above are correctly matched?

- A. 1 and 2 only
- B. 2 and 3 only
- C. 1 and 3 only
- D. 1, 2 and 3

Q2. The UDAN scheme is significant because it:

- 1. Provides viability gap funding for regional routes
- 2. Aims to revive under-served and unserved airports
- 3. Mandates uniform airfares across all routes

Select the correct answer using the code below:

- A. 1 and 2 only
- B. 2 only
- C. 1 and 3 only
- D. 1, 2 and 3

Q3. Consider the following statements regarding Sustainable Aviation Fuel (SAF):

- 1. SAF can be blended with conventional jet fuel without engine modification.
- 2. SAF adoption is linked to India's climate commitments.
- 3. SAF currently accounts for a majority share of aviation fuel consumption in India.

Which of the statements given above are correct?

- A. 1 and 2 only
- B. 2 and 3 only
- C. 1 only
- D. 1, 2 and 3

Q4. Which of the following best explains why Aviation Turbine Fuel (ATF) remains a challenge for Indian airlines?

- A. ATF prices are fully regulated by the central government
- B. ATF is outside the GST framework
- C. ATF is imported entirely
- D. ATF subsidies are prohibited under WTO rules

Q5. With reference to India–Russia relations, consider the following statements:

- 1. India and Russia describe their relationship as a “Special and Privileged Strategic Partnership”.
- 2. Russia is India's largest trading partner in services.
- 3. Defence cooperation remains a core pillar of bilateral ties.

Which of the statements given above are correct?

- A. 1 and 3 only
- B. 1 and 2 only
- C. 2 and 3 only
- D. 1, 2 and 3

Q6. Consider the following pairs:

Initiative	Initiative
International North–South Transport Corridor	Connectivity between India and Eurasia
Kudankulam Nuclear Power Project	Civil nuclear energy cooperation
Vladivostok–Chennai Maritime Route	Arctic connectivity project

Which of the pairs given above are correctly matched?

- A. 1 and 2 only
- B. 2 and 3 only
- C. 1 only
- D. 1, 2 and 3

Q7. Which of the following multilateral groupings include both India and Russia as members?

- 1. BRICS
- 2. Shanghai Cooperation Organisation
- 3. QUAD

Select the correct answer using the code below:

- A. 1 and 2 only
- B. 2 only
- C. 1 and 3 only
- D. 1, 2 and 3

Q8. With reference to nuclear energy governance in India, consider the following statements:

1. Civil nuclear energy falls under the Union List.
2. Safety regulation of nuclear installations is critical due to high-risk, low-probability events.
3. India's nuclear liability framework has been debated as a constraint on private participation.

Which of the statements given above are correct?

- A. 1 and 2 only
- B. 2 and 3 only
- C. 1 and 3 only
- D. 1, 2 and 3

Q9. The SHANTI Bill is often linked to enabling which of the following?

1. Greater private sector participation
2. Clearer safety and accountability mechanisms
3. Faster nuclear capacity addition

Select the correct answer using the code below:

- A. 1 and 2 only
- B. 2 and 3 only
- C. 1 and 3 only
- D. 1, 2 and 3

Q10. Which of the following is a key challenge unique to nuclear energy, compared to other power sources?

- A. Intermittency of supply
- B. Long-term radioactive waste management
- C. High land requirement
- D. Dependence on monsoons

Q11. Why is reform in nuclear legislation often seen as necessary for India?

- A. To reduce dependence on coal
- B. To attract investment and advanced nuclear technology
- C. To comply with WTO obligations
- D. To decentralise power generation

Q12. With reference to MGNREGA and the Viksit Bharat Guarantee for Rozgar & Ajeevika Mission (VBGRAMG), consider the following statements:

1. MGNREGA is a legally enforceable, demand-driven employment programme. VBGRAMG emphasises skill-linked and livelihood-based employment rather than a statutory job guarantee.
2. Both aim to create durable rural assets and income security.

Which of the statements given above are correct?

- A. 1 and 2 only
- B. 2 and 3 only
- C. 1, 2 and 3
- D. 1 and 3 only

Q13. Which of the following objectives are common to both MGNREGA and VBGRAMG?

1. Strengthening rural livelihoods
2. Reducing distress migration
3. Providing unemployment allowance as a legal right

Select the correct answer using the code below:

- A. 1 only
- B. 1 and 2 only
- C. 2 and 3 only
- D. 1, 2 and 3

Q14. Why is VBGRAMG seen as complementary to MGNREGA rather than a replacement?

- A. VBGRAMG provides a legal guarantee of 100 days of work
- B. MGNREGA addresses immediate employment needs, while VBGRAMG targets sustainable livelihoods
- C. Both are limited to urban employment
- D. VBGRAMG replaces wage employment with direct cash transfers

Q15. Which of the following could be a potential challenge in implementing VBGRAMG?

- A. Excessive legal rigidity
- B. Mismatch between trained skills and local labour market demand
- C. Constitutional restrictions on livelihood missions
- D. Prohibition on private sector participation

Q16. Which of the following urban indicators are often criticised for inadequately reflecting climate stress?

1. Per capita income
2. Ease of living index
3. Infrastructure coverage indicators

Select the correct answer using the code below:

- A. 1 only
- B. 1 and 2 only
- C. 1, 2 and 3
- D. 2 and 3 only

Q17. Consider the following statements regarding urban climate governance:

1. Climate-resilient urban planning requires inter-sectoral coordination.
2. Disaster response alone is sufficient to address urban climate risks.
3. Nature-based solutions can enhance urban climate resilience.

Which of the statements given above are correct?

- A. 1 and 3 only
- B. 1 and 2 only
- C. 2 only
- D. 1, 2 and 3

Q18. With reference to Beijing's air pollution control strategy, consider the following statements:

1. Coal consumption was sharply reduced within and around the city.
2. Industrial units were relocated or upgraded with stricter emission norms.
3. Vehicle ownership was left completely unregulated.

Which of the statements given above are correct?

- A. 1 and 2 only
- B. 2 and 3 only
- C. 1 only
- D. 1, 2 and 3

Q19. Consider the following statements regarding air pollution governance:

1. Air pollution often transcends municipal and state boundaries.
2. Effective air quality management requires coordination across multiple sectors.
3. Judicial interventions alone can permanently solve air pollution.

Which of the statements given above are correct?

- A. 1 and 2 only
- B. 2 and 3 only
- C. 1 only
- D. 1, 2 and 3

Q20. With reference to elephant mortality due to railway lines, consider the following statements:

1. Most such incidents occur in known elephant corridors.
2. Fragmentation of habitats increases the likelihood of animal–train collisions.
3. Elephant corridors are legally protected uniformly across India.

Which of the statements given above are correct?

- A. 1 and 2 only
- B. 2 and 3 only
- C. 1 only
- D. 1, 2 and 3

Q21. With reference to governance and wildlife protection, consider the following statements:

1. Railways and Forest Departments must coordinate to reduce wildlife fatalities.
2. Environmental Impact Assessment (EIA) is relevant for linear infrastructure projects.
3. Wildlife protection is exclusively a Union subject.

Which of the statements given above are correct?

- A. 1 and 2 only
- B. 2 and 3 only
- C. 1 only
- D. 1, 2 and 3

Q22. Which of the following global developments can contribute to sustained pressure on the rupee?

1. Tight monetary policy in advanced economies
2. Geopolitical tensions affecting capital flows
3. Volatility in global crude oil prices

Select the correct answer using the code below:

- A. 1 only
- B. 1 and 2 only
- C. 1, 2 and 3
- D. 2 and 3 only

Q23. A persistent depreciation of the rupee can have which of the following effects?

1. Increase in the import bill, especially for crude oil
2. Rise in imported inflation
3. Improvement in export price competitiveness

Select the correct answer using the code below:

- A. 1 and 2 only
- B. 2 and 3 only
- C. 1 and 3 only
- D. 1, 2 and 3

Q24. The primary objective of the Sabka Bima Sabki Raksha (Amendment of Insurance Laws) Bill, 2025 is to:

- A. Nationalise private insurance companies
- B. Expand insurance penetration and strengthen policyholder protection
- C. Replace social security schemes with private insurance
- D. Abolish insurance regulation

Q25. The Bill strengthens the role of which regulator in ensuring solvency, governance and market conduct of insurers?

- A. Securities and Exchange Board of India
- B. Reserve Bank of India
- C. Insurance Regulatory and Development Authority of India
- D. Pension Fund Regulatory and Development Authority

Q26. Which of the following issues in India's insurance sector does the Bill attempt to address?

- 1. Low insurance penetration and density
- 2. Limited product innovation
- 3. Weak consumer trust due to claim settlement issues

Select the correct answer using the code below:

- A. 1 only
- B. 1 and 3 only
- C. 1, 2 and 3
- D. 2 and 3 only

Q27. With reference to India's green transition strategy, consider the following statements:

- 1. India has significant domestic potential in renewable energy generation.
- 2. Public policy can drive demand for green technologies through regulation and incentives.
- 3. Green transition in India is entirely dependent on foreign capital and technology.

Which of the statements given above are correct?

- A. 1 and 2 only
- B. 2 and 3 only
- C. 1 only
- D. 1, 2 and 3

Q28. Which of the following domestic strengths support India's green transition?

- 1. Large renewable energy market and scale advantages
- 2. Strong public digital and financial infrastructure
- 3. Indigenous manufacturing capacity in clean energy components

Select the correct answer using the code below:

- A. 1 only
- B. 1 and 2 only
- C. 1, 2 and 3
- D. 2 and 3 only

Q 29. Which of the following factors can discourage candidates from accepting internship offers?

- 1. Inadequate stipend relative to living costs
- 2. Mandatory rural or remote postings
- 3. Lack of formal certification or skill recognition
- 4. Absence of social security benefits

Select the correct answer using the code below:

- A. 1 and 2 only
- B. 1, 2 and 3 only
- C. 2 and 4 only
- D. 1, 2, 3 and 4

Q30. The decision to share tobacco excise duty with States primarily strengthens:

- A. Monetary federalism
- B. Fiscal federalism
- C. Administrative federalism
- D. Cooperative policing

Q31. Low inflation provides the central bank greater room to support growth mainly because it:

- A. Raises real interest rates
- B. Allows accommodative or neutral monetary stance
- C. Increases fiscal deficit tolerance
- D. Strengthens exchange rate controls

Q32. Low inflation combined with weak private investment indicates the need for:

- A. Tight monetary policy
- B. Higher indirect taxes
- C. Monetary support along with structural reforms
- D. Exchange rate appreciation

Q33. In the context of agriculture and dairy, a circular economy primarily aims to:

- A. Increase export of dairy products
- B. Minimise waste and reuse by-products
- C. Replace cooperatives with private firms
- D. Shift farmers from dairy to crop farming

Q34. Consider the following benefits of adopting circular economy practices in dairying:

- 1. Additional income from biogas and organic fertilisers
- 2. Reduction in input costs for farmers
- 3. Lower greenhouse gas emissions
- 4. Improved soil health

Which of the above are correct?

- A. 1 and 2 only
- B. 1, 2 and 3 only
- C. 2, 3 and 4 only
- D. 1, 2, 3 and 4

Q35. Which of the following government initiatives can complement circular economy practices in the dairy sector?

- A. PM-KISAN
- B. Gobardhan Scheme
- C. Minimum Support Price (MSP)
- D. PMFBY

Q36. The Jan Vishwas reform agenda mainly aims to:

- A. Increase tax compliance through stricter penalties
- B. Decriminalise minor economic and regulatory offences
- C. Replace courts with tribunals
- D. Centralise regulatory powers

Q37. Consider the following objectives of Jan Vishwas-type reforms:

1. Reducing fear of imprisonment for procedural lapses
2. Promoting trust-based governance
3. Improving ease of doing business
4. Eliminating all regulatory oversight

Which of the above are correct?

- A. 1 and 2 only
- B. 1, 2 and 3 only
- C. 2 and 4 only
- D. 1, 2, 3 and 4

Q38. India's recent push for Free Trade Agreements (FTAs) reflects a shift primarily from:

- A. Multilateral trade to autarky
- B. Export pessimism to import substitution
- C. Defensive trade policy to selective strategic integration
- D. Regionalism to protectionism

Q39. Consider the following objectives of India's FTAs:

1. Securing market access for goods and services
2. Integrating into global value chains
3. Promoting technology transfer and investment
4. Achieving complete trade self-sufficiency

Which of the above are correct?

- A. 1 and 2 only
- B. 1, 2 and 3 only
- C. 2 and 4 only
- D. 1, 2, 3 and 4

Q40. Dependence on defence imports poses which of the following risks?

1. Supply disruptions during conflicts
2. Strategic vulnerability to exporting countries
3. Higher lifecycle costs
4. Faster technology absorption

Select the correct answer:

- A. 1 and 2 only
- B. 1, 2 and 3 only
- C. 2 and 4 only
- D. 1, 2, 3 and 4

Q41. Which of the following sectors often benefits from defence R&D spillovers?

1. Aerospace
2. Electronics and semiconductors
3. Cybersecurity
4. Pharmaceuticals

Select the correct answer:

- A. 1 and 2 only
- B. 1, 2 and 3 only
- C. 2 and 4 only
- D. 1, 2, 3 and 4

Q42. The primary objective of the India-Oman Free Trade Agreement (FTA) is to:

- A. Replace multilateral trade rules
- B. Boost bilateral trade, investment, and supply-chain integration
- C. Establish a common currency
- D. Reduce labour mobility

Q43. A key challenge for India in utilising FTAs effectively is:

- A. Excessive export subsidies
- B. Low awareness and utilisation by exporters
- C. Overdependence on agriculture
- D. Absence of trade remedy measures

Q44. The recent change in Indian student migration patterns is best characterised by:

- A. Declining overseas education demand
- B. Shift from traditional destinations to diversified study locations
- C. Exclusive preference for neighbouring countries
- D. Complete replacement of STEM courses

Q45. Which policy initiative can help India convert student migration into a long-term advantage?

- A. Restricting foreign education
- B. Ignoring overseas qualifications
- C. Improving domestic research, innovation, and job ecosystems
- D. Eliminating private higher education

46. The primary objective of SEBI's overhaul of mutual fund norms is to:

- A. Increase tax revenue
- B. Enhance investor protection and transparency
- C. Promote only equity mutual funds
- D. Reduce competition among fund houses

Q47. Which of the following challenges persists despite regulatory reforms in the mutual fund sector?

- A. Absence of retail investors
- B. Financial illiteracy and risk misperception
- C. Excessive government control
- D. Low returns on equity markets

Q48. A sustained rise in exports is most likely to:

- A. Reduce foreign exchange reserves
- B. Strengthen employment and industrial capacity
- C. Increase import dependence
- D. Worsen trade competitiveness

Q49. Export growth combined with weak private investment suggests the need for:

- A. Export restrictions
- B. Complementary domestic manufacturing and logistics reforms
- C. Higher import tariffs
- D. Reduced trade agreements

Q50. Quality Control Orders (QCOs) in India are primarily issued to:

- A. Promote exports only
- B. Ensure minimum quality and safety standards of goods
- C. Restrict domestic manufacturing
- D. Increase customs revenue

Q51. Quality Control Orders are most closely associated with the functioning of:

- A. RBI
- B. SEBI
- C. Bureau of Indian Standards
- D. NITI Aayog

Q52. The large-scale damage caused by Cyclone Ditwah in Sri Lanka was primarily due to:

- A. High wind speed alone
- B. Heavy rainfall leading to floods and landslides
- C. Storm surge along the eastern coast only
- D. Earthquake-triggered coastal subsidence

Q53. Which geographical factor increased Sri Lanka's vulnerability to Cyclone Ditwah?

- A. Extensive desert regions
- B. Steep terrain and short river systems
- C. Large continental shelf
- D. Cold ocean currents

Q.54. Consider the following impacts of lack of access to clean drinking water:

1. Increased disease burden
2. Reduced productivity and learning outcomes
3. Gendered impacts due to water collection burden
4. Higher agricultural yields

Which of the above are correct?

- A. 1 and 2 only
- B. 1, 2 and 3 only
- C. 2 and 4 only
- D. 1, 2, 3 and 4

Q.55. Which of the following best explains why water is often described as an economic good?

- A. It can be privately owned everywhere
- B. It has alternative uses and opportunity cost
- C. It is always traded in markets
- D. It is inexhaustible

Q56. The central argument of the article is that Artificial Intelligence (AI) in courts:

- A. Will replace judges entirely
- B. Undermines judicial independence
- C. Acts as a decision-support tool, not a decision-maker
- D. Eliminates judicial discretion

Q57. Consider the following concerns regarding excessive reliance on AI in the judiciary:

1. Algorithmic bias
2. Lack of transparency in decision-making
3. Erosion of accountability
4. Speeding up case disposal

Which of the above are valid concerns?

- A. 1 and 2 only
- B. 1, 2 and 3 only
- C. 2 and 4 only
- D. 1, 2, 3 and 4

Q.58. The core concern raised by the phrase "snake oil for accountability" in welfare surveillance apps is that:

- A. Technology always fails in governance
- B. Digital monitoring may create an illusion of accountability without real outcomes
- C. Welfare schemes should avoid technology entirely
- D. Surveillance apps reduce fiscal burden

Q.59. Consider the following potential risks of excessive surveillance in welfare schemes:

1. Exclusion errors due to technological failures
2. Violation of privacy and dignity
3. Shifting accountability from institutions to beneficiaries
4. Complete elimination of corruption

Which of the above are valid concerns?

- A. 1 and 2 only
- B. 1, 2 and 3 only
- C. 2 and 4 only
- D. 1, 2, 3 and 4

Q.60. A balanced approach to using surveillance apps in welfare delivery would include:

1. Clear purpose limitation
2. Independent audits and transparency
3. Strong grievance redressal mechanisms
4. Mandatory surveillance for all citizens

Select the correct answer:

- A. 1 and 2 only
- B. 1, 2 and 3 only
- C. 2 and 4 only
- D. 1, 2, 3 and 4

Q.61. Rajasthan's complete digitisation of voter rolls primarily aims to address which of the following issues?

1. Duplicate and bogus voters
2. Delays in updating electoral rolls
3. Lack of transparency in voter registration

Select the correct answer using the code below:

- A. 1 and 2 only
- B. 2 and 3 only
- C. 1 and 3 only
- D. 1, 2 and 3

Q.62. Consider the following statements regarding digitised electoral rolls:

1. They facilitate real-time updating of voter data.
2. They can help curb electoral malpractices like impersonation.
3. They automatically ensure universal voter enrolment.

Which of the statements given above are correct?

- A. 1 and 2 only
- B. 2 and 3 only
- C. 1 and 3 only
- D. 1, 2 and 3

Q.63. With reference to electoral democracy, consider the following statements:

1. Universal adult suffrage is a basic feature of the Constitution.
2. Errors in voter rolls can lead to disenfranchisement.
3. Electoral purification always strengthens democratic participation.

Which of the statements given above are correct?

- A. 1 and 2 only
- B. 2 and 3 only
- C. 1 and 3 only
- D. 1, 2 and 3

Q.64. The article cautions that aggressive SIR exercises may disproportionately affect which of the following groups?

1. Migrant workers
2. Urban poor and homeless populations
3. Women and elderly voters

Select the correct answer using the code below:

- A. 1 only
- B. 1 and 2 only
- C. 1, 2 and 3
- D. 2 and 3 only

Q.65. India's National Song, Vande Mataram, is taken from which literary work?

- A. Anandamath
- B. Gitanjali
- C. Hind Swaraj
- D. Discovery of India

Q.66. Consider the following statements regarding the National Song debate:

1. Singing the National Song is legally mandatory.
2. The debate often arises from concerns of religious symbolism and pluralism.
3. The Constitution explicitly defines the National Song.

Which of the statements given above are correct?

- A. 1 only
- B. 2 only
- C. 1 and 3 only
- D. 2 and 3 only

Q.67. Consider the following statements regarding judicial oversight of free speech:

1. Courts must apply a high threshold before restricting speech.
2. Vague or overbroad restrictions can have a chilling effect.
3. All offensive speech can be lawfully prohibited.

Which of the statements given above are correct?

- A. 1 and 2 only
- B. 2 and 3 only
- C. 1 and 3 only
- D. 1, 2 and 3

Q.68. The doctrine of chilling effect refers to:

- (a) Suppression of speech through prior restraint
- (b) Deterrence of lawful speech due to fear of legal action
- (c) Regulation of speech during emergencies
- (d) Temporary suspension of fundamental rights

Q.69. Which institution is described as the ultimate guardian of free speech under the Constitution?

- A. Parliament
- B. Executive
- C. Media
- D. Supreme Court of India

Q.70. From a democratic perspective, free speech is best protected when courts:

- A. Actively define permissible opinions
- B. Defer entirely to the executive
- C. Intervene only when constitutional thresholds are crossed
- D. Prioritise social harmony over individual rights

Q.71. Consider the following statements about tea garden workers:

1. Most workers do not own the land on which they reside.
2. Access to housing, healthcare, and sanitation is often employer-dependent.
3. All tea workers are covered under Scheduled Tribe land protections.

Which of the statements given above are correct?

- A. 1 and 2 only
- B. 2 and 3 only
- C. 1 and 3 only
- D. 1, 2 and 3

Q.72. Granting land rights to tea garden workers would most directly strengthen which constitutional principle?

- A. Separation of powers
- B. Equality before law
- C. Right to life with dignity
- D. Parliamentary sovereignty

Q.73. Consider the following statements regarding the Governor's role:

1. The Governor is a constitutional head, not an agent of the Union.
2. Discretionary powers of the Governor are explicitly defined in the Constitution.
3. Judicial interpretation has shaped conventions around the Governor's functions.

Which of the statements given above are correct?

- A. 1 and 3 only
- B. 1 and 2 only
- C. 2 and 3 only
- D. 1, 2 and 3

Q.74. Which of the following best explains why Article 143 opinions are meant to remain advisory?

- A. They bypass Parliament
- B. They are delivered without an adversarial trial
- C. They apply only to States
- D. They are limited to financial matters

Q.75. Which legislation provides the legal framework for accessibility and reasonable accommodation for persons with disabilities in India?

- A. Juvenile Justice Act, 2015
- B. Mental Healthcare Act, 2017
- C. Rights of Persons with Disabilities Act, 2016
- D. Prisoners Act, 1894

Q.76. Consider the following facilities with reference to disability-friendly prisons:

1. Ramps and barrier-free access
2. Accessible toilets and bathing spaces
3. Assistive devices such as wheelchairs and hearing aids

Which of the above are essential for compliance with disability rights?

- A. 1 only
- B. 1 and 2 only
- C. 2 and 3 only
- D. 1, 2 and 3

Q.77. Census in India is conducted under which constitutional provision?

- A. Article 246
- B. Article 280
- C. Entry 69, Union List
- D. Entry 20, Concurrent List

Q78. The absence of a separate budget allocation for NPR in Census 2027 implies that:

- A. NPR has been abolished
- B. NPR will be merged administratively with Census operations
- C. NRC will replace NPR
- D. NPR will be conducted by States

Q79. From a constitutional governance perspective, the article supports which approach?

- A. Judicial codification of gubernatorial conduct
- B. Legislative control over Governors' discretion
- C. Judicial restraint and respect for constitutional conventions
- D. Abolition of the office of Governor

Q.80. India's National Action Plan on AMR (NAP-AMR) is aligned with the Global Action Plan led by the World Health Organization. Which of the following is not a core pillar of NAP-AMR?

- A. Surveillance of resistant infections
- B. Rational use of antimicrobials
- C. Promotion of traditional medicine as first-line treatment
- D. Infection prevention and control

Q.81. Consider the following sectors contributing to AMR in India:

1. Human health
2. Animal husbandry
3. Agriculture and environment

Which of the above are recognised under the "One Health" approach?

- A. 1 only
- B. 1 and 2 only
- C. 1 and 3 only
- D. 1, 2 and 3

Q.82. Radioisotope Thermoelectric Generators (RTGs) generate electricity by:

- A. Nuclear fission driving turbines
- B. Solar energy conversion
- C. Converting heat from radioactive decay into electricity
- D. Fusion reactions

Q.83. Which radioactive material is most commonly used in RTGs for space missions?

- A. Uranium-235
- B. Thorium-232
- C. Plutonium-238
- D. Cesium-137

Q84. Which of the following missions has used nuclear power for spacecraft operations?

- A. Chandrayaan-3
- B. Voyager probes
- C. Hubble Space Telescope
- D. INSAT series

Q85. The World Health Organization has termed obesity a global health crisis primarily because it:

- A. Is limited to high-income countries
- B. Increases risk of non-communicable diseases and mortality
- C. Is a cosmetic concern
- D. Affects only adults

Q86. Consider the following statements regarding GLP-1 drugs:

1. They were initially developed for diabetes management.
2. WHO supports their long-term use under medical supervision.
3. They permanently cure obesity after short-term use.

Which of the statements given above are correct?

- A. 1 only
- B. 1 and 2 only
- C. 2 and 3 only
- D. 1, 2 and 3

Q87. Mother-to-child transmission of HIV can occur during which of the following stages?

1. **Pregnancy**
2. **Childbirth**
3. **Breastfeeding**

Select the correct answer using the code below:

- A. 1 only
- B. 1 and 2 only
- C. 2 and 3 only
- D. 1, 2 and 3

Q88. Which pathogen is most commonly targeted by pneumonia vaccines for older adults?

- A. Influenza virus
- B. Respiratory syncytial virus (RSV)
- C. Streptococcus pneumoniae
- D. SARS-CoV-2

Q89. Consider the following statements regarding paediatric HIV in India:

1. Early diagnosis significantly improves survival outcomes.
2. Children living with HIV face higher risks of stigma and exclusion.
3. Paediatric HIV transmission has been completely eliminated in India.

Which of the statements given above are correct?

- A. 1 only
- B. 1 and 2 only
- C. 2 and 3 only
- D. 1, 2 and 3

Q90. Consider the following conditions that increase pneumonia risk in people aged 50+:

1. Diabetes mellitus
2. Chronic lung disease (COPD)
3. Cardiovascular disease

Which of the above increase susceptibility and complications?

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

Q91. Consider the following measures to widen India's STEM talent pipeline:

1. Early exposure to science education in government schools
2. Reducing gender and regional disparities in STEM access
3. Linking STEM education only to immediate job outcomes

Which of the above are essential as per the article's argument?

- A. 1 only
- B. 1 and 2 only
- C. 2 and 3 only
- D. 1, 2 and 3

Q92. Consider the following statements about the DHruva framework:

1. It leverages India Post's nationwide physical network.
2. It aims to improve last-mile delivery of public and private services.
3. It is limited only to postal services and money orders.

Which of the statements given above are correct?

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

Q.93 Consider the following factors contributing to high doping cases in India:

1. Lack of awareness among grassroots athletes
2. Unregulated supplements and medicines
3. Weak accountability of coaches and support staff

Which of the above are valid contributors?

- A. 1 only
- B. 1 and 2 only
- C. 2 and 3 only
- D. 1, 2 and 3

Q.94. Which category accounts for the highest share of road accident deaths in India?

- A. Car occupants
- B. Pedestrians
- C. Two-wheeler riders
- D. Bus passengers

Q.95. Which of the following policy measures would be most effective in reversing the rising trend in fatalities?

1. Scientific road design and black-spot correction
2. Strict enforcement using technology (speed cameras, e-challans)
3. Public awareness without enforcement

Select the correct answer using the code below:

- A. 1 only
- B. 1 and 2 only
- C. 2 and 3 only
- D. 1, 2 and 3

Q.96. Consider the following principles related to disability justice in mental health:

1. Informed consent and supported decision-making
2. Community-based care over custodial institutions
3. Equal recognition before law

Which of the above are consistent with a dignity-centred mental health approach?

- A. 1 only
- B. 1 and 2 only
- C. 1, 2 and 3
- D. 2 and 3 only

Q.97. Australia's decision to ban social media access for under-16s is primarily aimed at addressing concerns related to:

- A. National security
- B. Child mental health and online safety
- C. Electoral misinformation
- D. Data localisation

Q.98. Consider the following ways in which AI may exacerbate inequality:

1. Automation displacing routine jobs
2. Concentration of data and capital with a few firms/countries
3. Universal upskilling at low cost

Which of the above contribute to widening inequality?

- A. 1 only
- B. 1 and 2 only
- C. 2 and 3 only
- D. 1, 2 and 3

Q.99. Which of the following areas have seen major gains due to India's West Asia outreach?

1. Energy security
2. Diaspora welfare and labour agreements
3. Strategic and defence cooperation

Select the correct answer using the code below:

- A. 1 only
- B. 1 and 2 only
- C. 2 and 3 only
- D. 1, 2 and 3

100. Which of the following states have historically been affected by Maoist violence?

1. Chhattisgarh
2. Jharkhand
3. Odisha
4. Punjab

Select the correct answer using the code below:

- A. 1 and 2 only
- B. 1, 2 and 3 only
- C. 2 and 4 only
- D. 1, 2, 3 and 4

ANSWER CODE:

1) D, 2) A, 3) A, 4) B, 5) A, 6) A, 7) A, 8) D, 9) D, 10) B, 11) B, 12) C, 13) B, 14) B, 15) B, 16) C, 17) A, 18) A, 19) A, 20) A, 21) A, 22) C, 23) D, 24) B, 25) C, 26) C, 27) A, 28) C, 29) D, 30) B, 31) B, 32) C, 33) B, 34) D, 35) B, 36) B, 37) B, 38) C, 39) B, 40) B, 41) B, 42) B, 43) B, 44) B, 45) C, 46) B, 47) B, 48) B, 49) B, 50) B, 51) C, 52) B, 53) B, 54) B, 55) B, 56) C, 57) B, 58) B, 59) B, 60) B, 61) D, 62) A, 63) A, 64) C, 65) A, 66) D, 67) A, 68) B, 69) D, 70) C, 71) A, 72) C, 73) A, 74) B, 75) C, 76) D, 77) C, 78) B, 79) C, 80) C, 81) D, 82) C, 83) C, 84) B, 85) B, 86) B, 87) D, 88) C, 89) B, 90) D, 91) B, 92) A, 93) D, 94) C, 95) B, 96) C, 97) B, 98) B, 99) D, 100) B

CA MAINS QUESTIONS

- 1. Despite becoming one of the world's fastest-growing aviation markets, India's airline industry remains financially fragile.** Analyse the structural reasons and suggest reforms for sustainable growth. (250 word)
- 2. Aircraft leasing, Maintenance-Repair-Overhaul (MRO), and aviation finance are emerging as focus areas in India's aviation policy.** Examine their significance for reducing operational costs and boosting self-reliance. (250 words)
- 3. India's aviation sector faces growing cybersecurity and navigation threats due to GPS jamming and spoofing incidents.** Discuss their implications for national security and civil aviation safety. (250 words)
- 4. Bilateral Air Services Agreements (BASAs) increasingly influence India's aviation diplomacy.** Analyse how air connectivity shapes India's economic and strategic outreach. (250 words)
- 5. India–Russia relations are undergoing recalibration amid geopolitical churn and India's expanding strategic partnerships.** Examine the evolving contours of the partnership while safeguarding India's strategic autonomy. (250 words)
- 6. Defence cooperation with Russia is transitioning from buyer–seller dynamics to joint development and manufacturing.** Critically examine this shift in the context of Atmanirbhar Bharat. (250 words)
- 7. Russia remains a critical pillar of India's Eurasian engagement.** Discuss India's cooperation with Russia in forums such as BRICS, SCO, and the implications for multipolarity. (250 words)
- 8. Rural employment programmes must move beyond relief to resilience.”** Discuss this statement in the context of VBG RAM-G and India's evolving rural governance architecture. (250 words)
- 9. Decentralisation and community participation are critical for the success of livelihood missions.** Examine how VBG RAM-G seeks to operationalise these principles through Panchayati Raj Institutions. (250 words)
10. Discuss the role of agri-allied activities, rural MSMEs, and value chains in achieving the objectives of VBG RAM-G. (250 words)
- 11. Domestic nuclear legislation has significant implications for India's international nuclear cooperation.** Analyse how the SHANTI Act may influence India's global partnerships and strategic autonomy. (250 words)
- 12. Expansion of nuclear energy raises ethical questions related to intergenerational equity, risk distribution, and informed public consent.** Discuss these concerns in the context of the SHANTI Act. (150–250 words)

QUESTIONS FROM NEWS GIST

1. Evaluate the role of global monetary tightening, capital flows, and India's external sector vulnerabilities in shaping the rupee's exchange rate movement. (250 words)
2. **Sustainable agriculture and natural resource management are central to India's green transition.** Discuss how community-led and locally adapted solutions can enhance climate resilience. (250 word)
3. **Urban–rural and gender disparities often persist in skilling initiatives.** Analyse whether the PM Internship Scheme data reflects inclusive access and equitable opportunities. (250 words)
4. **India has moved from a regime of excessive controls to one of trust-based governance.** Critically examine this transition from the Licence Raj to the Jan Vishwas framework in promoting entrepreneurship. (250 words)
5. **FTAs are increasingly used as tools of supply-chain resilience and geopolitical positioning.** Discuss this statement in the context of India's recent trade agreements. (250 word)
6. Discuss how the India–Oman FTA can help India overcome market access barriers in the Gulf region and strengthen its integration with global value chains. (250 words)
7. **India's push for indigenisation in defence production goes beyond import substitution.** Analyse how a robust defence industrial base can contribute to innovation, exports, and technological self-reliance. (250 words)
8. **Cyclone Ditwah highlights the growing challenge of compound disasters in South Asia.** Discuss how heavy rainfall, flooding, landslides, and infrastructure stress combined to magnify losses in Sri Lanka. (250 words)
9. **Art and architecture are not merely cultural expressions but historical documents.** Analyse how monumental sculptures contribute to understanding India's political and social history. (250 words)
10. **Discuss the significance of big data analytics and secure digital platforms in strengthening intelligence-led policing in India. (250 words)**
11. **Improved intelligence coordination, infrastructure expansion, and area domination have altered the security landscape in LWE-affected regions.** Critically examine their impact on reducing Maoist violence. (250 words)
12. **Climate change is exposing the structural vulnerabilities of India's urban development model.** Analyse how climate shocks are overwhelming existing urban planning indicators and infrastructure benchmarks. (250 words)
13. **Beijing's experience demonstrates that sustained policy intervention can significantly improve urban air quality.** Examine the key lessons Delhi can draw from Beijing in tackling chronic air pollution. (250 words)
14. **“Air pollution control is as much a governance challenge as a technological one.”** Comment with reference to lessons from Beijing for Indian cities. (150 words)

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