



THE HINDU & EXPRESS NOTES - DECEMBER 2025

EXPLORE. UNDERSTAND. MASTER.

OVER 200 NEWSPAPER ARTICLES DISTILLED INTO 200 PAGES
OF CLARITY. EACH PIECE COMES WITH KEY TAKEAWAYS,
SIMPLIFYING THE COMPLEX. RETAIN BETTER
WITH OUR EASY LANGUAGE SECTION.



5 December 2025	5
What is causing a surge in cases of kidney failure in Telangana?: TH Science	5
New Delhi's relative isolation, India's tryst with terror: TH Editorial	8
Cyber crackdown: TH Editorial	10
China's story of rural revitalisation: TH Text&Context	12
How the Mahad satyagraha(s) shaped constitutional discourse: TH Text&Context	14
Message to Maoists: Violence doesn't work: IE Editorial	16
A cosmic discovery shows mystery is still out there: IE Editorial	18
For India-Russia partnership, Moscow must do its fair share: IE Editorial	19
Why Railways wants to expand its High Density Network: IE Explained	21
6th December 2025	23
A growing shadow over digital constitutionalism: TH Editorial	23
Marked for life: TH Editorial	26
For Putin, a political win; for India, a stable partner- IE Editorial	27
Economy is new lynchpin of Indo-Russian ties: IE Editorial	30
New labour codes are a win-win for workers and employers: IE Ideas	32
Why Delhi HC rejected semaglutide patent suit: IE Explained	35
Amid rupee's fall, how investors are shunning the economy: IE Explained	36
7th December 2025	38
Rupee at 90: a market meltdown or a calculated policy pivot by RBI?: TH FAQ	38
What did Putin's visit to India achieve?: TH FAQ	40
One-atom experiment swings Einstein's debate in Bohr's favour: TH Science	41
Microbes can help low-pH cement protect nuclear waste: TH Science	43
8th December 2025	45
Why the rupee has a capital account problem-The Indian Express Explained Page	45
How hate speech is regulated in India,and what a Karnataka Bill has proposed-The Indian Express Explained Page	46
Economy beyond headline numbers better jobs,green growth needed-The Indian Express The Ideas Page	47
What are concerns over the draft ISI Bill, 2025?-The Hindu Text and Context	48
What the Nithari acquittals reveal about the justice system-The Hindu Text and Context	50
Grassland soils, not trees, anchor India's climate resilience-The Hindu Science	51
A black Friday for aviation safety in India-The Hindu Editorial	53
Surveillance apps in welfare, snake oil for accountability-The Hindu Editorial	54
9th December 2025	55
Lessons from Beijing in clearing Delhi's air-The Indian Express Explained Page	55
As Thailand strikes Cambodia, recalling the conflict's colonial roots-The Indian Express Explained Page	57
How Bankim imagined nation as motherland in AnandaMath-The Indian Express Explained page	58
How can India benefit from neurotechnology? -The Hindu text and Context	59
What is the India Post's DHRUVA framework?-The Hindu Text and Context	60
10th December 2025	62
Why India is not 'dumping' rice in the US as Trump says-The Indian Express Explained Page	62
Yellow Line that may define Gaza border-The Indian Express Explained Page	64
Blue-Corner Notice against Goa club owners-The Indian Express Explained Page	65
How countries like Myanmar and Cambodia turned into hubs of cyber slavery-The Indian Express Explained Page	67
What Indians eat,and how being unhealthy is easier and cheaper-The Indian Express The Ideas Page	68
MAGA agenda is now America's global strategy-The Indian Express The Ideas Page	71



| Clear your doubts now.



India's small enterprises hold key to job growth-The Indian Express The Ideas Page	75
Does Google's Quantum Echoes bring Q-day closer?-The Hindu text and Context	77
Value of water: evaluating the pricelessness of clean, potable water-The Hindu Text and Context	78
11th December 2025	80
In Australia's social media ban,template for the world-The Indian Express Explained Page	80
A glowing recognition:How Diwali made it to UNESCO list-The Indian Express Explained Page	84
Did US ' second tap'a Venezuelan boat?The legal questions at play-The Indian Express Explained Page	85
Amid Macaulay row, let's not forget,India increasingly speaks in English to itself-The Indian Express The Ideas Page	87
Satellites, science, and the new fight for spectrum in space-The Hindu Text and Context	88
Breeding project gives endangered western tragopan breathing space-The Hindu Science	91
EU scientists say 2025 set to be second or third warmest year-The Hindu Science	93
12th December 2025	95
Behind China's \$1-trn trade surplus-'Surplus is as much a sign of imbalance as it is of strength'-The Indian Express Explained Page	95
Behind China's \$1-trn trade surplus-Numbers hide domestic weaknesses:imports, consumption,currency-The Indian Express Explained Page	97
Taking stock of Syria,a year after the civil war ended-The Indian Express Explained Page	99
How Nehru, not Patel,became first PM:The politics behind 1946 Cong poll-The Indian Express Explained Page	102
Karnataka Bill can constrict free speech-The Indian Express The Ideas Page	104
Party-state is marching into public universities.There is no one to say no-The Indian Express The Ideas Page	106
Savings shift reshapes India's markets-The Hindu Text and Context	108
What does Supreme Court's ruling on narco tests mean?-The Hindu text and Context	111
Why human-rating matters as India prepares for Gaganyaan-The Hindu Text and Context	112
Invisible epidemic: why air pollution is India's largest health threat?-The Hindu Science	115
Notional security-The Hindu Editorial	118
13th December 2025	120
India is focusing on PM10, but PM2.5 is the real threat-The Indian Express Explained Page	120
IMF's 11 new conditions for cash-strapped Pakistan to avail loans-The Indian Express Explained Page	122
The link between inequality and public education-The Indian Express Explained Page	123
On healthcare,Rajasthan model showed the way, needs to be built on-The Indian Express Explained Page	125
From Licence Raj to Jan Vishwas,what we need to set our entrepreneurs free-The Indian Express The Ideas Page	126
The Indian Ocean as cradle of a new blue economy-The Hindu Text and Context	128
A critical story that a chunk of the media missed-The Hindu text and Context	130
14th December 2025	132
Assam's Demow Model to be studied in ICMR project for attaining 'zero snakebite deaths': TH News	132
How will Australia's social media ban work?: TH FAQ	133
America, First in the World: TH Profiles	135
Turbulent skies: TH Profiles	137
How mangroves' cells help plants survive in saltwater: TH Science	138
The snail as a model for restoring vision in humans: TH Science	140
15th December 2025	141
New Insurance Bill:Major reforms it seeks to bring-The Indian Express Explained Page	141
Concerns around Karnataka's expansive Bill to tackle hate speech-The Indian Express Explained Page	143
How AI tool developed with Microsoft is helping Maharashtra police solve crime-The Indian Express Explained Page	144
Beyond big sales: Divergences in the US-Saudi defence ties-The Indian Express Explained Page	146
From Brazil,a lesson on antibiotic use for India-The Indian Express The Ideas Page	148





Why was Elon Musk's X platform fined \$140 million by the EU?-The Hindu Text and Context	150
16th December 2025	152
20 yrs on,a radical revamp of the rural jobs framework-The Indian Express Explained Page	152
At Bondi Beach,an older question:How must open societies respond to terror?-The Indian Express The Ideas page	155
Does India need to upgrade its biosecurity measures?-The Hindu Text and Context	157
How is Asia-like artemisinin resistance emerging in Africa?-The Hindu Science	158
2025 ICTP Prize awarded to Titas Chanda, Sthitadhi Roy-The Hindu Science	160
The Oman visit is more than a routine diplomatic trip-The Hindu Editorial	161
17th December 2025	163
NREGS may not be cause of farm labour shortage-The Indian Express Explained Page	163
Climate change,deforestation worsened impact of SEAsia cyclones-The Indian Express Explained Page	164
At 100,Indian communism has unfinished business,too early to write its obituary-The Indian Express The Ideas Page	166
The future of governance in post-Maoist India-The Hindu Text and Context	168
Inhalable microplastics, a hidden toxin worsening the air in our cities-The Hindu Science	170
Stepping stone-The Hindu Editorial	172
18th December 2025	175
Nov exports to US surge, but a trade deal is still key-The Indian Express Explained Page	175
Philippines island visited by Bondi shooters has a history of violence beyond IS-The Indian Express Explained Page	176
National Herald case:Why special court ruled against ED-The Indian Express Explained Page	177
Navy inducts 2nd Seahawk chopper squadron in boost to anti-sub combat-The Indian Express Explained Page	179
Over Taiwan,China and Japan are playing a risky game-The Indian Express The Ideas Page	180
How is the Aravalli range to be protected?-The Hindu Text and Context	182
Why have Thailand-Cambodia border clashes flared up again?-The Hindu Text and Context	183
Pamir ice cores could provide answers to the loss of glaciers-The Hindu Science	184
19th December 2025	186
India-Russia logistics agreement,with eye on Arctic, Indo-Pacific-The Indian Express Explained Page	186
Domestic market stagnant,japan's mega banks set sights on India-The Indian Express Explained Page	188
The Islamic State's long shadow on Australia-The Indian Express Explained Page	189
MGNREGA was the ground beneath our feet.It's slipping away-The Indian Express Ideas Page	190
Inside the DHRUV64 microprocessor-The Hindu Text and Context	192
A bold step amid an ambitious nuclear energy target-The Hindu Editorial	195
20th December 2025	198
How India is overhauling its nuclear power regime-The Indian Express Explained Page	198
By overriding RTI Act,new law triggers transparency concerns-The Indian Express Explained Page	201
Behind rupee's weakness against the dollar:trade head winds,RBI policies-The Indian Express Explained Page	203
Trump reclassifies cannabis,marking new milestone in legalisation push-The Indian Express Explained Page	206
Three countries, one new story-The Indian Express The Ideas Page	208
The significance of a strong defence industrial base-The Hindu Editorial	209
21st December 2025	212
Why does the govt. want to replace MGNREGA?: TH FAQ	212
Will new Act aid India's nuclear development?: TH FAQ	213
Counting electrons reveals thorium's nuclear tick in solid clock: TH Science	215
Rewiring macrophage metabolism may shorten TB treatment: study: TH Science	216
22nd December 2025	218
GDP is growing rapidly. Why isn't private capex?-The Indian Express Explained Page	218



| Clear your doubts now.



In push for drug data exclusivity, pharma industry sees a bitter pill-The Indian Express Explained Page	219
Curbing elephant deaths on tracks needs blend of infra,tech-The Indian Express Explained Page	221
What is the Aland voter fraud case?-The Hindu Text and Context	223
Southern Ocean carbon 'anomaly' reveals what models can still miss-The Hindu Science	225
Unlocking the potential of India-Africa economic ties-The Hindu Editorial	226
23rd December 2025	228
Aravalli benchmark could have effects beyond mining-The Indian Express Explained Page	228
1729,number that bears Ramanujan name,reveals rigour behind genius-The Indian Express Explained Page	230
Higher education Bill puts focus on simplifying governance-The Indian Express Explained Page	231
For a choking capital,going electric is the way out-The Indian Express The Ideas Page	233
On the right to a healthy environment-The Hindu Text and Context	236
How are we protecting astronauts from deadly space debris?-The Hindu Text and Context	238
NASA loses touch with MAVEN craft which reached Mars just before Mangalyaan-The Hindu Science	241
Step up-The Hindu Editorial	242
24th December 2025	244
OTPs to food orders:The digital clues helping police-The Indian Express Explained Page	244
ISRO's heaviest-ever launch today is test of capability, cost-The Indian Express Explained Page	246
Punjab's 3 new 'holy cities', chosen for milestones in Sikhism history-The Indian Express Explained Page	247
Macaulay is only a punching bag.His ghost is resurrected to bury inconvenient ideas-The Indian Express The Ideas Page	249
SHANTI Bill is India's second shot at nuclear energy leadership-The Indian Express The Ideas Page	251
Beyond chips,data centres lies India's AI opportunity-The Indian Express The Ideas Page	253
How exports are concentrated in few States-The Hindu Text and Context	255
Rhino dehorning nearly eliminated poaching in African reserves: study-The Hindu Science	257
A good template-The Hindu Editorial	259
End the exploitation-The Hindu Editorial	261
Pakistan is back in West Asia's good graces-The Hindu Editorial	263
25th December 2025	265
The great wall in the North: Why the Aravallis matter-The Indian Express Explained Page	265
Better range,sleeker profile:Latest version of Akash missile-The Indian Express Explained Page	267
Behind stuck refunds,I-T messages:Ineligible claims,suspect donations-The Indian Express Explained Page	269
Amid AI content boom,how courts are enforcing personality rights-The Indian Express Explained Page	271
The twilight of deliberation:When Parliament becomes a rubber stamp-The Indian Express The Ideas Page	274
Why manufacturing has lagged in India-The Hindu Text and Context	276
What is the Bureau of Port Security and its role?-The Hindu Text and Context	278
Did an ancient flood contribute to Keezhadi's abandonment?-The Hindu Science	281
Study catches 'high- flying' mosquitoes spreading pathogens-The Hindu Science	283
26th December 2025	285
In HC suspension of Sengar sentence,the key role of 'public servant' definition-The Indian Express Explained Page	285
The good news is, lower-income states are catching up-The Indian Express The Ideas Page	287
U.S. naval moves against Venezuela-The Hindu Text and Context	289
Rabies: the cruel and expensive disease of India's most impoverished-The Hindu Science	291
A year of dissipating promises for Indian foreign policy-The Hindu Editorial	293
The urban future with cities as dynamic ecosystems-The Hindu Editorial	295
Doping menace-The Hindu Editorial	297
27th December 2025	300
India weathers tariff storm for now, but consumption headwinds await-The Indian Express Explained Page	300
My rights,in my language-The Indian Express The Ideas Page	301



| Clear your doubts now.



Health care does not need the PPP route-The Hindu Editorial	302
Social scourge-The Hindu Editorial	304
28th December 2025	305
What are India's diplomatic headwinds ahead?: TH FAQ	305
What are the signals from the Indian economy?: TH FAQ	307
Is the 'health for all' campaign on track?: TH FAQ	309
'Even low alcohol intake raises oral cancer risk in Indian men': TH Science	310
Twenty first century solutions to snake bites: TH Science	312
31st December 2025	313
A third of Delhi's PM 2.5 load has a secondary source: ammonium sulfate-The Indian Express Explained Page	313
A multipolar world with bipolar characteristics-The Indian Express The Ideas Page	314
Law on 'suspension of sentence'-The Hindu Text and Context	315
The India-New Zealand FTA — unlocking growth-The Hindu Editorial	316
Track record-The Hindu Editorial	317

5 December 2025

[What is causing a surge in cases of kidney failure in Telangana?: TH Science](#)

Science

Easy Explanation

Doctors across Telangana are seeing a worrying rise in kidney failure among young adults who do not have the usual causes of chronic kidney disease (CKD) such as diabetes or high blood pressure. This pattern has confused doctors and researchers because these patients are often the primary earners of their families, and yet their kidneys are failing without the common risk factors.

A study published last year may offer a potential clue: many of these patients are consuming self-prescribed alternative medicines—powders, liquids, leaves, or tablets recommended by friends or untrained healers. This connection is not scientifically proven yet, but doctors and researchers believe this is an important line of investigation. India has previously seen cases where certain alternative medicines have caused liver injury, so the concern is not new.

The study was conducted by nephrologists from Osmania General Hospital and Apollo Hospitals and published in the *Indian Journal of Nephrology* in August 2024. It followed 75 patients between 2021 and 2022 in Telangana who had chronic kidney disease of unknown cause.

The average age of these patients was just 41.7 years, and around 68% were male. Most of them (77.3%) depended on groundwater for drinking, and 40% reported using some form of alternative medicine. Nearly half underwent kidney biopsies so doctors could study the pattern of kidney damage.

Doctors found that many users of alternative medicine had taken these substances without any medical supervision. The products were often unlabelled and provided by unqualified practitioners (“quacks”), making



| Clear your doubts now.



it impossible to know what chemicals or toxins they contained. Even when patients admitted to taking these substances, they rarely brought samples of the medicines, so doctors could not test them directly.

Biopsy results showed that 44% of patients had *global glomerulosclerosis*—meaning more than half of the kidney's filtering units were permanently scarred. This level of damage indicates long-term exposure to harmful substances or severe kidney stress.

Another important finding was that these kidney failure cases were appearing even among people who did *not* have traditional risk factors or occupational exposures. Similar patterns have been observed in hotspot regions worldwide where CKD of unknown cause has been documented.

Most patients in the study came from Hyderabad and Rangareddy districts. About 33% had high uric acid levels, and 40% were already in the final stage (stage 5) of kidney failure by the time they were diagnosed. Almost 10% needed dialysis immediately.

Doctors and public health officials in Telangana are now calling for stronger action against illegal and unsafe medical practices. According to the Telangana Medical Council, unqualified practitioners often prescribe unregulated herbal substances or dangerous drug combinations. Many of these medicines are not tested for safety and may interact unpredictably with regular medications, harming the kidneys, liver, or even the brain.

For example, in some rural areas, quacks frequently give injections containing dexamethasone and diclofenac for instant pain relief. These drugs can directly damage the kidney's filtering structures (nephrons) and cause kidney failure.

Doctors warn that people must only take medicines prescribed by licensed medical professionals, with proper prescriptions and clear information about the drug and its dosage. Until more research is completed, experts believe that self-medication and unregulated alternative treatments pose a significant risk to kidney health in Telangana.

Key Takeaways

Rising Kidney Failures in Telangana

- Increasing cases among young adults without diabetes or hypertension
- Many are primary breadwinners
- CKD of unknown cause becoming more common

Possible Link to Alternative Medicines

- Up to 40% of patients reported using self-prescribed traditional or herbal remedies
- Products often unlabeled, taken without medical guidance
- Cannot yet conclusively prove causation, but evidence suggests a strong suspicion

Study Details

- Published in the *Indian Journal of Nephrology* (August 2024)
- Conducted at Osmania General Hospital (2021–2022)
- Sample size: 75 patients



| Clear your doubts now.



- Average age: 41.7 years; 68% men
- 77.3% depended on groundwater for drinking
- 46.6% underwent kidney biopsies

Key Medical Findings

- 44% had global glomerulosclerosis (severe scarring of kidney filters)
- 33% had hyperuricemia (high uric acid)
- 40% were already at stage 5 kidney failure at diagnosis
- 9.3% required dialysis immediately

No Traditional Risk Factors

- Many patients did not have diabetes, hypertension, or agricultural exposure
- Indicates CKD of unknown cause is emerging in Telangana
- Similar patterns observed in global CKD hotspots

Concerns About Quackery

- Unqualified practitioners prescribing unregulated herbal or chemical mixtures
- Unknown dosage, strength, interactions, metabolic effects
- Risk of harmful accumulation in the body

Additional Dangers Identified

- Some quacks use injections like dexamethasone + diclofenac
- These drugs can directly damage nephrons
- Can lead to rapid kidney failure

Recommendations from Medical Experts

- Urgent need to crack down on illegal and unsafe medical practices
- Patients must consult licensed professionals only
- Medicines should be taken only with proper prescriptions
- More state-wide research required to establish definitive links

[New Delhi's relative isolation, India's tryst with terror: TH Editorial](#)

International Relations

Easy Explanation

India is currently going through a difficult strategic moment. Although India is known for its strong diplomacy, it increasingly appears isolated or inactive in major global issues. Whether in West Asia, Europe, or the Indo-Pacific, India is not playing a central role in shaping peace or security. This is unusual because India has historically been a visible and influential actor.



| Clear your doubts now.



At the same time, South Asia itself is unstable. Afghanistan and Nepal are dealing with serious internal crises. The Maldives, Myanmar, and other neighbors are showing political volatility or unfriendly attitudes. This leaves India with fewer reliable regional partners at a time when global threats — including cyber-related ones — are rising.

One of India's biggest concerns is the growing hostility from Pakistan and Bangladesh. In Pakistan, recent constitutional changes have strengthened military control and elevated Field Marshal Asim Munir as the supreme head of all armed forces and nuclear assets. Such concentration of power historically increases the likelihood of miscalculations, conflicts, or adventurism. Analysts warn that India must not ignore the possibility of another conflict with Pakistan in the near future.

On the eastern side, the interim government in Bangladesh is becoming increasingly unfriendly. Bangladesh appears to be moving closer to Pakistan — symbolised by the visit of a Pakistan Navy ship after nearly 50 years. This has security implications for India, especially in the Bay of Bengal. Together, these developments raise diplomatic tensions across the region and require India to be extremely cautious and vigilant.

India is also seeing the return of urban terrorism in a new form. While earlier major attacks like the 2008 Mumbai attacks were sponsored by Pakistani terror groups, the new module uncovered recently stretches from Srinagar to Faridabad and Delhi — and shockingly involves medical professionals. These individuals were influenced by grievances linked to the Babri Masjid demolition, despite many of them not being alive when it occurred. This reveals deep-seated ideological motivations and the presence of radicalisation among highly educated individuals.

The group managed to secretly gather nearly 3,000 kg of explosives and transport a car bomb close to the Red Fort. This points either to sophisticated planning by the terrorists or significant lapses by security agencies. Unlike past terror episodes driven by foreign groups or criminal elements, this new form of terrorism is more internal, organised, ideologically motivated, and technologically enabled (using encrypted channels, academic networks, and cross-border contacts).

Investigations show that these networks raised funds through professional circles, used encrypted messaging, and may have links extending to Pakistan, UAE, Saudi Arabia, and Türkiye. This demonstrates how local radical groups can quickly become part of a larger international ecosystem.

Given the combination of external hostility and internal radicalisation, India is passing through a highly sensitive period. Ensuring that religious tension does not escalate and maintaining societal harmony is essential. India's tradition of pluralism is strong, but the current situation demands constant vigilance to prevent fragmentation or further instability.

Key Takeaways

India's Strategic Isolation

- India is increasingly seen as inactive in major global crises
- Limited role in West Asian, European, and Indo-Pacific developments
- Unusual phase for a country known for active diplomacy

Turbulent South Asian Neighbourhood



| Clear your doubts now.



- Afghanistan, Nepal, Maldives, and Myanmar facing instability
- India has fewer friendly or reliable partners in the region
- Growing external threats, including cyber risks

Pakistan: Rising Military Power and Higher Threat

- Pakistan's 27th Constitutional Amendment strengthens military dominance
- Field Marshal Asim Munir becomes supreme commander of all forces
- Military control over nuclear assets increases risks
- Higher chance of miscalculation or conflict
- India advised to prepare for possible escalation

Bangladesh Becoming Unfriendly

- Interim government showing signs of hostility
- Bangladesh reviving ties with Pakistan
- Presence of a Pakistan naval ship in Bangladesh after 50 years
- Strategic implications for India in the Bay of Bengal

Combined Impact

- Hostile Pakistan on the west
- Unfriendly Bangladesh on the east
- Diplomatic temperature rising across the region
- Need for cautious and skilful manoeuvring

Return of Urban Terrorism

- New terror modules uncovered across Srinagar–Faridabad–Delhi
- Shock involvement of medical professionals
- Radicalisation linked to historical events (e.g., Babri Masjid)
- Different from 1993 or 2008 attacks — more internal and educated actors

Serious Security Lapses Indicated

- Nearly 3,000 kg of explosives accumulated
- Explosive-laden car reached near Red Fort
- Indicates either high planning or weak security response

Nature of the New Terror Network

- Locally radicalised individuals
- Use of encrypted channels for planning and funding
- Academic and professional networks used for mobilisation
- Suspected foreign links with Pakistan, UAE, Saudi Arabia, Türkiye

Societal Concern



| Clear your doubts now.



- Radicalisation among educated elite is a dangerous trend
- Reveals deep fault lines in India's diverse society
- Revenge-based motivations persist across generations

Need for Vigilance

- Hostile neighbors + rising internal terror = high-risk security environment
- India must prevent spread of religious extremism
- Strong monitoring, intelligence coordination, and community trust are essential
- Pluralism remains India's strength, but requires consistent protection

[Cyber crackdown: TH Editorial](#)

Science

Easy Explanation

The Supreme Court has taken an unusual but very important step: it has ordered the CBI to investigate cyber-crimes across India, especially the fast-growing “digital arrest” scam. Normally, the CBI needs permission from States to investigate within their jurisdictions. But the Court bypassed this requirement, recognising that cyber-crime does not follow State boundaries and has become a nationwide threat.

The “digital arrest” scam works like this: fraudsters pretend to be police or government officials, contact victims through video calls, accuse them of fake crimes, and frighten them into transferring money to avoid being “arrested.” Many senior citizens have fallen for this, and losses are estimated to be over ₹3,000 crore. The Court has asked the CBI to not only catch the scammers but also investigate bank employees who help open fake (“mule”) accounts used to move the stolen money.

These scams succeed because India's financial system can be manipulated. Money is moved through many layers of accounts to hide its origin. To counter this, the Court has instructed the RBI to use Artificial Intelligence and Machine Learning to track such money trails. It has also ordered online platforms and apps to cooperate fully with the CBI under the IT Rules, 2021.

The Court also asked the CBI to investigate other common frauds next — such as fake investment schemes, phishing scams, and part-time job scams.

Although domestic policing and courts can tackle crimes happening inside India, cyber-fraud has a much bigger international dimension. Large scam centres have emerged in unstable regions of Southeast Asia, where trafficked or trapped workers are forced to run online scams. Countries such as Myanmar have become major hubs because the military junta profits from these operations.

The U.S. has already created special task forces to fight such scam networks. India too must go beyond simple diplomatic requests and work with ASEAN, the UN, and other partners to sanction the illegal regimes that shelter these operations.

Inside India, digital literacy remains a major weakness. As people increasingly use online banking, digital payments, and government portals, many still don't know how to identify fraud. State governments, local



| Clear your doubts now.



bodies, and the RBI need to run large awareness campaigns. At the same time, the cyber-capabilities of State police forces must be upgraded so they can detect, investigate, and stop digital crimes effectively.

Key Takeaways

Supreme Court's Extraordinary Step

- Court directed the CBI to conduct a pan-India probe without needing State consent
- Recognises that cyber-crimes cross State boundaries and require unified investigation

The “Digital Arrest” Scam

- Fraudsters impersonate police or officials through video calls
- Victims are falsely accused of crimes and pressured to transfer money
- Seniors are common targets
- Losses exceed ₹3,000 crore

Targeting Financial Networks Enabling Scam

- CBI asked to investigate bank employees who help create mule accounts
- RBI instructed to use AI and ML to trace layered money flows
- Online platforms must cooperate under IT Rules, 2021

Expanding the Scope Beyond Digital Arrest

- CBI also to probe investment scams, fake job scams, phishing networks
- Recognises broad nature of modern cyber-fraud

Rising Cybercrime in India

- NCRB data shows steep increase in cyber-frauds
- Domestic policing alone cannot solve the crisis

Transnational Nature of Scams

- Scam centres operate in Southeast Asian conflict zones
- Workers are trafficked and forced to run online fraud operations
- Myanmar junta profits by taxing proceeds of these scams

Need for International Action

- India must coordinate with ASEAN, UN and global partners
- Objective: sanction illegal regimes protecting scam networks and disrupt financial channels

Domestic Action: Awareness and Capacity



| Clear your doubts now.



- Major digital literacy gap exists among users
- States, local bodies, and RBI must run public awareness campaigns
- State police require training and upgraded cyber capabilities

[China's story of rural revitalisation: TH Text&Context](#)

Sociology

Easy Explanation

When Xi Jinping became the Communist Party's General Secretary in 2012, his early visits to rural and poor areas signalled a central message: poverty removal and improving the lives of ordinary people are key pillars of China's socialist model. He famously said that with confidence, "barren clay can be turned into gold." The people of Xichou county in Yunnan take pride in this idea — known locally as the "Xichou spirit" — because they spent years breaking rocks by hand to convert a desolate region into green, livable areas.

China today shows a sharp contrast. On one side are modern, wealthy cities like Shanghai and Beijing, full of skyscrapers, global brands, and advanced infrastructure — examples of China's embrace of market economics within its socialist framework. On the other side are rural and mountainous regions that remain far behind but are deeply shaped by China's poverty alleviation and rural development programs.

As China prepares its 15th Five-Year Plan — meant to fully implement the goal of "socialist modernisation" by 2035 — the results of long-term poverty reduction efforts are visible. China has a long history of targeted poverty programs. Initially, poverty was concentrated in mountainous central and western provinces like Yunnan and Sichuan, while the eastern coastal provinces, boosted by economic reforms since the late 1970s, became global business hubs.

To address this divide, China invested heavily in inaccessible regions — building roads, setting up government-supported enterprises, establishing poverty-relief institutions, and promoting local resource-based development. Wind farms on remote hilltops, better connectivity, and job-creation initiatives in counties like Malipo and Jinping (Yunnan) and Panzhihua (Sichuan) are part of this effort. Large financial support came from the central government, the Ministry of Foreign Affairs, and cooperative models where wealthy eastern provinces invest in western regions.

The role of local communities is equally important. In Jinping's Jiwozhai village, ancient tea trees — some nearly 800 years old — provide income. A cooperative formed in 2014 brings villagers together to collect and process tea, which is sold across China and exported abroad. Government investments, including interest-free loans and inter-provincial funding, have helped modernise processing facilities and raise incomes.

China officially declared the elimination of extreme poverty in many such regions by 2020. With basic needs improving, China is now shifting toward "rural revitalisation" — a long-term strategy to strengthen agriculture, improve rural incomes, build infrastructure, secure food supplies, and reduce the urban-rural gap. The new "Rural Comprehensive Revitalisation Plan" aims to resolve major rural issues by 2027.

Beyond policies and investments, what stands out in rural China is the determination of ordinary people. When one travels through remote mountain roads supported by wooden stilts, it becomes clear that these



| Clear your doubts now.



communities survived and progressed through their collective hard work. This human resilience remains the quiet backbone of China's rural transformation.

Key Takeaways

China's Poverty-Alleviation Philosophy

- Xi Jinping emphasised poverty removal as central to Chinese socialism
- "Xichou spirit" reflects confidence and community-led transformation
- Rural development seen as essential for national modernisation

Urban–Rural Divide

- Eastern cities like Shanghai, Beijing, Shenzhen represent prosperity and modern capitalism
- Central and western provinces (Yunnan, Sichuan) remain less developed
- Contrast reflects China's dual model — market economy + socialist governance

History of Poverty-Reduction Programs

- Special poverty-relief institutions formed in 1986
- Seven-year program (1994) aimed to lift 80 million people
- Development-oriented poverty alleviation outline introduced in 2001
- Poverty headcount ratio reduced significantly between 2001–2010
- Eastern provinces saw dramatic improvements; western regions lagged

Investments in Remote Regions

- Major government expenditure in road connectivity, public services, and renewables
- Wind farms and infrastructure projects in Yunnan, Sichuan
- Ministry of Foreign Affairs support since 1992 for healthcare, education, livelihood projects
- Government-created enterprises to generate local jobs

Community Role in Rural Transformation

- Jiwozhai village (Yunnan) uses ancient tea trees as main income source
- Tea cooperatives provide part-time employment, income-sharing models, and exports
- Combined funding from provincial governments and eastern-region partners
- Annual cooperative profits benefit households and village committees

Shift From Poverty Alleviation to Rural Revitalisation

- China declared elimination of extreme poverty in many regions by 2020
- New Rural Revitalisation Plan (2027 target) aims to:
 - strengthen agriculture and food security
 - reduce urban-rural income gaps
 - build rural infrastructure
 - promote rural industries and sustainability



| Clear your doubts now.



The Human Element

- Hard work and perseverance of rural communities central to progress
- “Spirit of the people” remains a key driver behind China’s rural success
- Rural China reflects resilience, cooperation, and cultural continuity

[How the Mahad satyagraha\(s\) shaped constitutional discourse: TH Text&Context](#)

History

EASY EXPLANATION

Before independence, Mahad (in today’s Maharashtra) was part of the Bombay Province. It was an important economic area because many people from there worked in industries in Bombay. But the caste system was followed very strictly. High-caste people treated Dalits badly, especially by denying them basic rights like drinking water from public places. One such place was the Chavadar Tank, from which Dalits were not allowed to take water.

Mahad became famous for one of the earliest human rights movements in India. It helped shape ideas that later became part of India’s Constitution.

The movement began when a resolution was passed in the Bombay Legislative Council in 1923 (called the Bole Resolution). It said Dalits must be allowed to use all public water sources and public buildings built with government money. This challenged upper-caste domination and encouraged social change in villages near Mahad.

Events in Goregaon and Dasgaon showed how difficult this change was. When Dalit leaders like Ramchandra Chandorkar used public water sources, upper caste people attacked their homes and properties. But activists and organisations — including the Mahar Samaj Seva Sangh — continued fighting for equality. Mahad was chosen by Dr. B. R. Ambedkar because the region already had strong leaders and a supportive environment.

Mahad 1.0 (1927)

Ambedkar and thousands of followers held a satyagraha (peaceful protest) to demand Dalits’ right to drink water from the Chavadar Tank. But the locals still didn’t allow them to use the tank, so they had to buy water separately. After the protest, upper-caste people performed “purification rituals” to show that the water had been polluted by Dalits. This insult strengthened Ambedkar’s resolve.

Mahad 2.0 (December 1927)

Ambedkar planned a second conference. Meanwhile, courts declared that the Chavadar Tank was privately owned, stopping Dalits from accessing it legally. During this time, Ambedkar started his newspaper *Bahishkrut Bharat*, which focused on human rights. He also took part in the Ambabai Temple satyagraha, and a Dalit protection group called Ambedkar Seva Dal was formed.

At the Mahad 2.0 event, Ambedkar burned the Manusmriti — a text that justified caste and gender inequalities. This act symbolised the rejection of discriminatory traditions. He also spoke specifically to women, emphasising that true human rights must include gender equality.



| Clear your doubts now.



Connection to the French Revolution

Ambedkar compared Mahad 1.0 and 2.0 to the spirit of the French Revolution — the fight for liberty, equality, and fraternity. However, he also pointed out that the French Revolution ignored women's rights. He wanted Mahad to represent a more complete vision: a society where both Dalits and women were free and equal.

Ambedkar believed caste could not be destroyed without understanding how it controlled women's lives. His actions at Mahad tried to create a "gendered nation": a nation where equality included everyone — men, women, Dalits, and other oppressed groups.

This is why December 25 is celebrated as **Indian Women's Liberation Day** — it marks Ambedkar's call for equality for both caste-oppressed people and women.

The values seen in Mahad — dignity, equality, human rights, and fraternity — later became the moral foundations of the Indian Constitution.

KEY TAKEAWAYS

• Historical Context

- Mahad was part of the Bombay Province and an economic hub.
- caste discrimination was deeply rooted, especially denying Dalits access to public water.

• Beginning of the Human Rights Movement

- 1923 Bole Resolution demanded Dalits' right to use public water sources and public buildings.
- This challenged upper-caste dominance and sparked social reforms in villages around Mahad.

• Early Acts of Resistance

- Dalit leaders like Ramchandra Chandorkar openly used public water sources, leading to violent backlash.
- Mahar Samaj Seva Sangh mobilised communities for equality.
- The region had a strong legacy of reformers, making it suitable for Ambedkar's movement.

• Mahad 1.0 Satyagraha (March 1927)

- Ambedkar led a mass protest to assert Dalits' right to drink water.
- Locals still prevented access; water had to be purchased.
- Upper castes performed purification rituals to insult Dalits and keep caste hierarchy intact.

• Mahad 2.0 Conference (December 1927)

- Court orders declared the Chavadar Tank privately owned, blocking Dalit access.
- Ambedkar launched *Bahishkrut Bharat* to promote democratic and human rights ideals.
- Ambedkar Seva Dal was formed after violent attacks on Dalits.
- Manusmriti was burned, symbolising rejection of caste and gender discrimination.
- Ambedkar emphasised **women's rights** as part of the human rights struggle.

• Intellectual and Global Links

- Ambedkar compared Mahad's spirit to the French Revolution (liberty, equality, fraternity).
- But unlike the French Revolution, Mahad included women in the idea of rights.
- Ambedkar believed caste cannot be abolished without addressing its impact on women.



| Clear your doubts now.



• Gendered Understanding of Human Rights

- Ambedkar proposed that caste oppression is closely linked to gender oppression.
- Mahad 2.0 became a platform to assert **gender equality** along with caste equality.
- December 25 is now observed as Indian Women's Liberation Day.

• Contribution to Constitutional Morality

- Mahad shaped the moral base of India's Constitution — liberty, equality, dignity, and fraternity.
- Ambedkar promoted a democratic, humane, Buddhist-inspired vision of society (Manuski and Maitri).

[Message to Maoists: Violence doesn't work: IE Editorial](#)

Internal Security

EASY EXPLANATION

A senior Maoist commander named Modiyam Vella was killed along with 12 others in an encounter with security forces in Bijapur, Chhattisgarh. He was involved in many deadly attacks, including one in 2022 where 22 security personnel died. His death is another major setback for Left-Wing Extremism (LWE), which has been declining in India because of strong government action and better security operations.

But the fall of LWE is not only because of police encounters or military action. The bigger reason is that the conditions that once allowed Maoist influence to grow are changing.

Mallojula Venugopal Rao, known as Sonu — a top Maoist ideologue who recently surrendered — said in an interview that Maoists “underestimated the power of the Indian state” and ignored democratic and legal ways to mobilise people.

Over the decades, India has strengthened its government institutions, welfare programmes, and policing. In the early 2000s, Naxalism affected more than 200 districts. Today, it is down to just 11 districts, with only three considered “severely affected.” This shows how much the situation has improved.

Several factors helped: better welfare schemes like MGNREGA and jobs, police presence in remote forests, and most importantly, deeper democracy that gives people peaceful ways to solve their problems. Democracy and development have reduced the appeal of violent movements.

Sonu admitted that the Maoist “experiment” failed because it could not meet people's needs, and those still fighting are ignoring the sacrifices made earlier. The government's combined strategy — security operations plus surrender and rehabilitation — has broken the idea of a successful violent revolution.

Going forward, strengthening democracy and ensuring inclusive development will help eliminate the remaining pockets of extremism.

KEY TAKEAWAYS

• Recent Incident

- Maoist commander Modiyam Vella and 12 others were killed in an encounter in Bijapur, Chhattisgarh.
- Vella was involved in several major attacks, including a 2022 ambush killing 22 security personnel.
- His death represents another setback for the Maoist movement.

• Decline of Left-Wing Extremism (LWE)

- LWE is weakening due to government pressure, improved policing, and coordinated security operations.



| Clear your doubts now.



- Once widespread across more than 200 districts, LWE is now limited to only 11 districts (3 severely affected).

- **Not Just Security Action — Structural Changes**

- Welfare schemes (MGNREGA, jobs, rights-based programmes) improved lives in affected regions.
- Better law-and-order capabilities: new police posts in dense forests and remote areas.
- Stronger state capacity has reduced the appeal of insurgent ideology.

- **Importance of Deepening Democracy**

- Democratic systems provide peaceful channels for grievance redressal.
- Inclusion of vulnerable and marginalised groups reduces the space for extremist narratives.
- Democracy acts as long-term protection against insurgencies.

- **Insights from Former Maoist Leader (Sonu)**

- Maoists underestimated the strength of the Indian state.
- They ignored legal and democratic opportunities to build mass support.
- He admits the “experiment” failed, and remaining Maoists are repeating mistakes.

- **Government Strategy**

- Dual approach: strict security operations + surrender and rehabilitation programmes.
- This has broken the dream of a violent revolution.
- Sustainable peace depends on continuing inclusive development and democratic strengthening.

[A cosmic discovery shows mystery is still out there: IE Editorial](#)

Science

EASY EXPLANATION

Astronomers used to believe that big spiral galaxies like the Milky Way take billions of years to slowly form. They thought the early universe (the first 1–2 billion years) could not have these large, well-structured galaxies because building them is a long, complicated process. Small galaxies were supposed to form first and then slowly merge into bigger ones over time.

But new discoveries are shaking up this old understanding.

A recent finding by two astronomers from NCRA Pune adds to the growing list of surprising early galaxies.

If we could look at the Milky Way from outside, we would see a flat disk with spiral arms. These spiral arms form because stars and gas bunch up—like traffic piling up behind a slow truck. This compression of gas leads to more star formation. How these spiral patterns formed has always been a puzzle, because scientists considered spiral galaxies to be fragile structures that should not form easily in the early universe.

Yet scientists have recently discovered several ancient spiral galaxies that look surprisingly similar to the Milky Way.

- **Zhúlóng:** Found from when the universe was only 1 billion years old. Massive, full of stars, and had spiral arms.

- **Big Wheel:** From when the universe was less than 2 billion years old. Again, a large spiral galaxy.



| Clear your doubts now.



Now, researchers from Pune have found another early spiral galaxy: **Alaknanda**.

They detected Alaknanda using “gravitational lensing”—a huge cluster of galaxies in front bends space and works like a natural magnifying glass, enlarging distant galaxies behind it. Alaknanda has clear spiral arms and a mass similar to the Milky Way, yet it existed when the universe was only one-fifth of its present size.

Its stars are only a few hundred million years old, and it contains dust — which is normal because dust comes from star formation and is also needed to make new stars.

The exact ages and masses may have some uncertainty because they depend on theoretical models, but one thing is clear: scientists are finding too many early spiral galaxies for the old theories to make sense.

These discoveries are forcing astronomers to rethink how fast galaxies can form and how early spiral structures can appear.

KEY TAKEAWAYS

• Old Understanding of Galaxy Formation

- Spiral galaxies were believed to form slowly over billions of years.
- Early universe was thought to mostly contain small, simple galaxies.
- Large galaxies like the Milky Way were expected to appear only later.

• Structure of the Milky Way

- It has a thin disk with spiral arms formed by “traffic jams” of stars and gas.
- Gas compression in these regions leads to new star formation.
- How these arms form has long been a mystery.

• Challenge to Existing Theories

- Several massive spiral galaxies have now been found in the very early universe.
- These discoveries contradict the idea that spiral galaxies are too fragile to form early.

• Recent Ancient Galaxy Discoveries

- **Zhúlóng**: Existed when universe was ~1 billion years old; similar in size to the Milky Way.
- **Big Wheel**: Another early spiral galaxy from when the universe was <2 billion years old.
- These galaxies were not expected to exist so early according to older models.

• New Discovery: Alaknanda

- Found by Indian astronomers using gravitational lensing.
- Has clear spiral arms and Milky Way–like mass.
- Existed when the universe was only 20% of its current size.
- Contains young stars (few hundred million years old) and moderate dust.

• Implications for Astronomy

- Early existence of massive spiral galaxies suggests galaxy formation was much faster and more complex than expected.
- Theoretical models of galaxy formation may need revision.
- Increasing number of such discoveries is pushing scientists to rethink how galaxies grow and assemble.



| Clear your doubts now.



[For India-Russia partnership, Moscow must do its fair share: IE Editorial](#)

International Relations

EASY EXPLANATION

Russian President Vladimir Putin is visiting India for the first time since the Ukraine war began in 2022. This visit has already created diplomatic tensions. Before Putin even arrived, the ambassadors of France, Germany, and the UK in India criticised Russia strongly for causing instability in Europe. The Russian ambassador replied with equal force, defending Russia's actions and blaming Europe for not wanting peace.

India has struggled to maintain a balance between its relationships with the US, Europe, and Russia. It has tried to stay neutral, but this balancing act has limitations. Many Indian experts and the government defend India's ties with Russia, but the article argues that Russia must now take responsibility for the problems it has created—problems that are affecting India-Russia relations.

Since the invasion of Ukraine, Russia has become more isolated in the global economy. Its main export, energy, is something many countries can easily replace. That makes Russia economically vulnerable. Even China, its closest major partner, has hesitated to support Russia fully because it fears US sanctions. A lot of Russia-China trade is now happening through hidden or informal channels. Russia is being forced to sell oil and goods at very cheap prices because it has fewer buyers.

India cannot be expected to carry the burden of maintaining the relationship alone. Russia must understand that India also has limits. Ending the war is not enough — the peace terms must be fair. If the deal is seen as unfair, Russia will continue to be isolated globally, which also affects India because India is now more connected with the US and Western economies. This creates pressure on India to side with the West in many situations.

There is also tension because Russian leaders often criticise India's growing ties with the US and India's role in the Quad. But Russia expects India to stay calm about Russia's close ties with China — even though China is hostile to India. So the article says Moscow must show the same understanding about India-US ties that it expects India to show about Russia-China ties.

India values Russia as an important partner and friend. But India should not have to defend Russia's choices or suffer because of them. Russia must take steps that help reduce the burden on India and strengthen the relationship in a fair way.

KEY TAKEAWAYS

• **Putin's Visit and Diplomatic Tensions**

- Putin's first India visit since the Ukraine war has already drawn criticism from European envoys in India.
- European ambassadors blamed Russia for disturbing peace; Russia responded by criticising Europe.
- The visit exposes geopolitical tensions around India.

• **India's Balancing Challenge**

- India tries to maintain ties with the US, EU, and Russia simultaneously.
- This balancing has limits; India cannot fully satisfy every side.
- Russia must recognise India's constraints.



| Clear your doubts now.



• **Russia's Global Isolation**

- Four years into the war, Russia is cut off from much of the world economy.
- Energy exports — its main economic strength — are replaceable.
- Russia is vulnerable to Western sanctions and economic pressure.
- Even China, despite being friendly, has restricted payment settlements to avoid US sanctions.

• **Economic Consequences**

- Much of Russia-China trade now occurs through underground or informal channels.
- Russia is selling goods and energy at steep discounts due to limited buyers.
- India cannot be expected to compensate for Russia's economic losses.

• **Need for Fair Peace Terms in Ukraine**

- Simply ending the war won't fix Russia's global isolation.
- A peace deal perceived as unfair will prevent Russia's reintegration with Europe and the world.
- Continued isolation weakens both Russia and India, forcing India closer to the West.

• **India-US and India-Russia Dynamics**

- Russia criticises India's growing ties with the US and involvement in the Quad.
- But Russia expects India to tolerate its closeness with China, which is hostile to India.
- Reciprocity is essential — Russia must respect India's strategic choices.

• **Core Message**

- Russia remains an important partner for India.
- But India should not have to bear the burden of defending Russia internationally.
- Russia must take responsibility for repairing its global position and easing pressure on India.

[Why Railways wants to expand its High Density Network: IE Explained](#)

EASY EXPLANATION

The Central government has approved building a **third and fourth railway line** between **Badlapur and Karjat** in Maharashtra. This is part of a big plan to reduce congestion on India's busiest railway routes, called **High Density Networks (HDNs)**. These HDNs form only 16% of the total railway tracks but carry **41% of all train traffic**, making them extremely crowded.

The Badlapur–Karjat stretch lies on the **Mumbai–Chennai HDN**, one of India's most overloaded railway corridors.

Why HDNs are a problem

HDNs are important passenger–freight routes, but most of them are already running beyond their capacity. Ideally, a track should be used up to around **70–80% capacity** for smooth operations. But most HDNs are running at **100% to even 150%+ capacity**. This means train delays, congestion, and slower movement.

For example, on the **Karjat–Lonavala** stretch (28 km long), **67 trains** run daily even though the maximum capacity is **40 trains** — meaning **167% utilisation**.

Across the entire railway network, congestion in HDNs is far worse than in other areas.



| Clear your doubts now.



Seven High Density Networks (HDNs)

These include major routes such as:

- Howrah–Delhi
- Howrah–Mumbai
- Mumbai–Delhi
- Delhi–Guwahati
- Delhi–Chennai
- Howrah–Chennai
- Mumbai–Chennai

Most of these corridors have long stretches operating above 100% capacity.

Some, like **HDN-4 (Delhi–Guwahati)**, have huge stretches operating above **150%**, meaning trains are far more than the track can handle.

Future problem

According to the National Rail Plan:

- By 2051, **no HDN will run below 100% capacity.**
- 92% of HDNs will run **above 150% capacity** — extremely overloaded.

How Railways is fixing this

The main solution is **adding more tracks**: double, triple, quadruple, and even five or six lines. More lines mean more train capacity.

So far, the Railways has been completing thousands of kilometres of doubling/tripling projects every year. Dedicated Freight Corridors (Eastern DFC operational, Western DFC almost completed) will also help by shifting freight trains away from HDNs.

Currently, HDNs have:

- 250 km: single line
- 8,113 km: double line
- 2,040 km: triple line
- 625 km: quadruple line
- 23 km: five or six lines

The plan is to upgrade almost all HDNs to **triple or quadruple lines** to meet future demand.

KEY TAKEAWAYS

- **New Railway Expansion Approved**
 - Centre approves 3rd and 4th lines on Badlapur–Karjat section.
 - Part of a plan to ease congestion on High Density Networks (HDNs).
- **What Are HDNs?**
 - HDNs are the busiest rail corridors handling 41% of traffic but only 16% of the track length.
 - These are both passenger and freight routes.
 - Most are running beyond their ideal capacity of 70–80%.



| Clear your doubts now.



• **Current Congestion Levels**

- Only 4.6% of HDNs operate below 80% capacity.
- Over 80% of sections run beyond 100% of capacity.
- Karjat–Lonavala: 167% utilisation (67 trains vs capacity of 40).

• **Comparison with Overall Network**

- Across Indian Railways, only 1% of tracks operate above 150% capacity —
- But in HDNs, 14% operate above 150%, making these the worst congested routes.

• **Seven High Density Corridors**

Includes major routes such as:

- Howrah–Delhi
- Howrah–Mumbai
- Mumbai–Delhi
- Delhi–Guwahati
- Delhi–Chennai
- Howrah–Chennai
- Mumbai–Chennai

Most corridors have long stretches operating above 100% capacity; some above 150%.

• **Future Congestion Projections**

- By 2051, **no HDN will run below 100% capacity** if no upgrades happen.
- 92% of HDNs will run beyond 150% capacity.
- Even by 2031, 50% will operate above 150%.

• **Solutions Underway**

- Expanding track capacity: doubling, tripling, quadrupling, and five/six-line projects.
- Thousands of kilometres completed each year since 2021.
- Dedicated Freight Corridors expected to reduce load.

• **Current Line Distribution in HDNs**

- Mostly double-lined (8,113 km).
- Some triple-lined and quadruple-lined stretches exist.
- Very few five/six-line stretches.
- HDN-4 still has single-line sections.

• **Recommendations of National Rail Plan**

- Make HDN-1 and HDN-4 triple-lined fully.
- Convert HDN-2, 3, 6, and 7 to triple or quadruple lines.
- Aim to handle future passenger and freight demand without excessive congestion.

6th December 2025

[A growing shadow over digital constitutionalism: TH Editorial](#)

Polity



| Clear your doubts now.



EASY EXPLANATION

The central government had recently ordered mobile phone companies to pre-install a government app called **Sanchar Saathi** on all phones starting 2026. But within 48 hours, the government **took back the order** because there was massive criticism from the public, tech companies, and privacy experts. People were worried that the app would collect personal data without clear consent, allow surveillance, and store data without limits. Apple even refused to follow the order.

The government said the app was meant to help fight cybercrime — which has increased sharply — but the pushback raised bigger questions about privacy, consent, data misuse, and state power. These concerns highlight an important idea: **digital constitutionalism**.

What is Digital Constitutionalism?

It means applying constitutional values — like liberty, dignity, privacy, equality, accountability, and rule of law — to the digital world. Today, technology controls many parts of our lives: Aadhaar systems, KYC verification, welfare systems, job applications, social media, hospital records, etc. But these systems often operate without transparency or proper legal protections.

As a result, **power is shifting** from citizens to tech designers, government agencies, and private companies. People become passive data sources instead of rights-holding citizens.

Modern surveillance is no longer like CCTV cameras you can see. It is silent and constant — through location tracking, metadata, biometric scans, behavioural analysis, and predictive algorithms. This kind of invisible surveillance can restrict free speech, discourage dissent, and create fear. People begin to censor themselves.

Even though India's Supreme Court has declared privacy a fundamental right (Puttaswamy judgment, 2017), the **Digital Personal Data Protection Act, 2023** has major weaknesses. It gives the government broad exemptions, has poor oversight, and offers weak remedies for citizens. It prioritises administrative convenience over personal dignity.

Technology gives efficiency but reduces control

Almost every sector uses data: banks, hospitals, schools, social media, etc. But personal control over data is shrinking. Consent has become meaningless because people just click “I agree” without real choice. Data collected for one purpose is used for many others. Privacy loss is now about **losing control over our identity**.

Surveillance technologies like facial recognition can misidentify people, especially minorities and women, leading to discrimination. Such systems have caused wrongful arrests abroad. Digi Yatra data in India is not even managed by the government, which raises more concerns.

India still does not have a proper law on surveillance. There is little transparency, no judicial oversight, and almost no accountability. This creates a dangerous imbalance of power, risking a shift towards a “Big Brother” state.

Algorithms — which are often “black boxes” — now influence who gets welfare, who the police suspect, whose posts are removed, and whose job application is shortlisted. These decisions are often invisible and cannot be appealed. Algorithm mistakes have denied welfare benefits and suppressed legitimate speech.

India's legal system is not ready for this digital age

Existing laws (like the IT Act, 2000) mainly regulate platforms, not citizens' digital rights. Courts have



| Clear your doubts now.



offered some guidelines, but they are scattered and incomplete. There is no strong institution to audit dangerous algorithms or oversee surveillance.

This creates a gap: digital systems shape rights and freedoms, but they are **not bound** by constitutional protections.

What should be done?

Digital constitutionalism must include real institutional safeguards:

- Create an **independent digital rights commission** to ensure accountability
- Strictly limit surveillance to situations of proven necessity
- Require transparency reports, parliamentary scrutiny, and judicial warrants
- Audit AI systems for bias and discrimination
- Give people the **right to explanation** and **right to appeal** for automated decisions
- Punish misuse of data and limit data collection
- Promote digital literacy so citizens understand their rights and can challenge abuses

Digital technology now affects almost every aspect of citizenship — identity, welfare, political participation, services. As India becomes more data-driven, constitutional values must guide this shift.

Digital constitutionalism is not just about laws — it is about protecting democracy in the age of algorithms and ensuring that technology serves the people, not controls them.

KEY TAKEAWAYS

• Rollback of Sanchar Saathi Requirement

- Government withdrew order to pre-install Sanchar Saathi app within 48 hours.
- Concerns: unclear data collection, lack of consent, surveillance risks, unlimited storage.
- Apple refused the mandate; international pressure likely influenced rollback.

• Why This Issue Matters

- Highlights dangers of state surveillance and unchecked data collection.
- Raises fundamental questions about privacy, consent, and digital rights in India.
- Points to the need for “digital constitutionalism.”

• What is Digital Constitutionalism?

- Applying constitutional values — liberty, dignity, privacy, equality, rule of law — to digital systems.
- Ensures technology does not undermine democratic rights.

• Growing Threat of Invisible Surveillance

- Modern surveillance uses metadata, biometrics, predictive analytics — often hidden.
- Encourages self-censorship and suppresses dissent.
- Puttaswamy judgment declared privacy a fundamental right, but enforcement is weak.

• Problems with the Digital Personal Data Protection Act, 2023

- Broad exemptions for government.
- Weak oversight and remedies.
- Prioritises administrative convenience over individual liberty and dignity.



| Clear your doubts now.



• **Loss of Personal Control Over Data**

- Consent has become a meaningless “click-through” process.
- Wide use of data in banking, healthcare, education, social media reduces personal control.
- Privacy loss now means loss of control over identity.

• **Risks of Surveillance Technologies**

- Facial recognition can discriminate and misidentify minorities, women, people of colour.
- Digi Yatra and similar systems create concerns about data safety.
- Wrongful arrests abroad show real dangers.

• **Algorithmic Harm**

- Algorithms decide welfare benefits, police profiling, content removal, and job filtering.
- Often operate as “black boxes” with no transparency or appeal.
- Errors have denied welfare and silenced valid speech.

• **Weakness of Current Legal Framework**

- IT Act, 2000 and new digital laws mainly regulate platforms, not citizen rights.
- Courts’ guidelines are fragmented; no independent oversight body.
- Citizens lack affordable and effective remedies.

• **What India Needs for Digital Constitutionalism**

- Independent digital rights commission.
- Strict limits on surveillance: necessity + proportionality.
- Judicial warrants and transparency reports.
- AI audit and bias testing.
- Right to explanation and appeal for automated decisions.
- Strong data protection rules and harsh penalties for misuse.
- Improving digital literacy for citizens.

• **Core Message**

- Technology now shapes identity, access to services, and political participation.
- Constitutional values must guide India’s digital governance.
- Digital constitutionalism protects democracy in the algorithmic age.
- Technology must remain a tool for citizens — not a hidden source of control.

[Marked for life: TH Editorial](#)

Polity

EASY EXPLANATION

The Supreme Court of India was shocked to learn that an acid attack victim, **Shaheen Malik**, is still waiting for justice **16 years** after the attack. The Chief Justice said this delay makes a “mockery of the system” and that courts must show **zero sympathy** to acid attackers. He said the entire justice system must act strongly against them.

Shaheen Malik was only 26 and preparing for her MBA when she was attacked with acid outside her office in Haryana in 2009. For four years, **nothing happened** in her case. Later, her case was moved to a Delhi court, where it is still going on and “final arguments” are happening now.



| Clear your doubts now.



She has undergone multiple surgeries and even started an NGO in 2021 called **Brave Souls**, which helps acid attack survivors with medical and legal support. She approached the Supreme Court through a PIL asking that acid attack survivors be formally recognised as **persons with disabilities** under the Rights of Persons with Disabilities Act, 2016. She also highlighted that some victims are forced to **drink acid**, which leaves internal injuries that are less visible but equally devastating.

The Chief Justice asked the central government to consider bringing an **ordinance** (a special fast-track law). The Solicitor-General said no one could oppose the survivors' cause, and that attackers should face punishment as harsh as the suffering they caused.

The Court also asked all High Courts to submit details of **pending acid attack trials** and suggested creating **special courts** that hear these cases daily to ensure faster justice.

Earlier, in the famous **Laxmi vs Union of India** case, the Court had asked the government to give proper treatment and rehabilitation to victims and to restrict over-the-counter sale of acid.

However, in reality, trials take too long and conviction rates are low. According to the NCRB, India recorded **207 acid attacks in 2023**. West Bengal reported the highest number (57), followed by Uttar Pradesh (31).

Acid attacks are one of the most brutal forms of gender-based violence. Survivors deserve much faster justice, better support, and stronger protection.

KEY TAKEAWAYS

• Supreme Court's Strong Reaction

- Shock over 16-year delay in an acid attack case.
- CJI calls slow pace a "mockery of the system."
- Says acid attackers should receive no sympathy.

• Story of the Survivor: Shaheen Malik

- Attacked in 2009 while studying for her MBA.
- Case moved from Haryana to Delhi; still pending.
- Has undergone multiple reconstructive surgeries.
- Founded NGO *Brave Souls* to support survivors.

• Issues Raised in the PIL

- Seeking recognition of acid attack survivors as persons with disabilities under the 2016 Act.
- Draws attention to victims **forced to swallow acid**, whose internal injuries are ignored.

• Court's Directions and Suggestions

- CJI asks Centre to consider issuing an **ordinance** for stronger action.
- Orders High Courts to report pending trial numbers.
- Suggests forming **special courts** dedicated to acid attack cases.

• Government's Position

- Solicitor-General supports the petitioners.
- Says attackers should face the same ruthlessness they inflicted on victims.



| Clear your doubts now.



• Legal Background

- Laxmi vs Union of India: mandated treatment and rehabilitation, and stricter regulation of acid sale.
- Section 124 of Bharatiya Nyaya Sanhita covers punishment for acid attacks.

• Current Situation (NCRB Data 2023)

- 207 acid attacks reported nationwide.
- West Bengal: 57 cases — highest.
- Uttar Pradesh: 31 cases.
- Conviction rates remain low; trials drag on for years.

• Larger Message

- Acid attacks are among the worst forms of gender violence.
- Survivors deserve faster justice, stronger legal protections, and better rehabilitation.
- The justice system needs urgent reform to prevent delays and ensure meaningful accountability.

[For Putin, a political win; for India, a stable partner- IE Editorial](#)

International Relations

EASY EXPLANATION

Russian President Vladimir Putin completed a two-day visit to India and left feeling politically strengthened. For a leader facing Western sanctions and diplomatic isolation because of the Ukraine war, India giving him a warm welcome — especially Prime Minister Modi personally receiving him at the airport — sends an important message. These visuals help Putin show Russians that he is still accepted globally and not cut off from the world. So the visit had big political value for him.

For India, the timing is important because its foreign policy environment is changing. For nearly 25 years, India's partnership with the United States was steadily improving. But under President Trump's second term, this progress has slowed. The US is no longer focusing as much on the Indo-Pacific or China containment as before. As a result, India's importance in the old Indo-Pacific strategy has reduced. The US has also imposed very high tariffs on India — including a special 25% penalty tariff just because India continues buying Russian oil, even though other countries do it too.

India cannot retaliate strongly. So when India-US ties weaken, a visit from Putin becomes politically useful.

Russia, however, cannot replace the huge American market for Indian exports. Still, both sides are trying to increase economic cooperation through a plan called the **Economic Vision for 2030**, aiming for **\$100 billion trade**.

Today's India-Russia relationship is very different from the India-Soviet alliance of the Cold War. Earlier, both countries had a shared enemy: China. The US was also unfriendly to India on big issues like Kashmir. That old strategic glue no longer exists. What remains is the long defence relationship — Russia has been India's main arms supplier for decades.

India has reduced its dependence on Russian weapons over time, but Russia still provides critical systems that no one else is ready to share — such as nuclear submarines and anti-missile systems like the **S-400**,



| Clear your doubts now.



which India used effectively in **Operation Sindoor**. Russia is also deeply involved in India's nuclear energy plans and has offered collaboration in **small modular reactors** and **floating nuclear plants**.

India's challenge now is to maintain its growing tech and defence partnership with the US — which remains important — while still benefiting from Russia's defence support. Given Trump's unpredictable decisions, retaining strong defence ties with Russia may be strategically wise.

How does China see Putin's India visit?

Some Chinese analysts say a stronger India–Russia defence link could harm China's interests because it strengthens India militarily. Others argue the opposite — that a closer India–Russia relationship may reduce India's closeness with the US, which would help China strategically. But India knows that the Russia–China partnership is far deeper (“no-limits partnership”), so India-Russia ties have natural limits.

Europe's reaction?

Europe is unhappy that India gave Putin a warm welcome while he continues the Ukraine war. But Europe itself is unsure of the US's reliability and is also worried about China's aggressive economic policies. Europe sees India as an important long-term partner. European leaders will even be honoured guests at India's Republic Day celebrations next year.

Through all these complex shifts, India is doing what it has always done — managing changing alliances while protecting its own **strategic autonomy**. Putin's visit showcased India's ability to balance multiple powers without fully siding with any one bloc.

KEY TAKEAWAYS

• Why Putin's Visit Mattered to Him

- Gained political legitimacy despite Western isolation
- Positive optics for Russian domestic audience
- India's warm welcome sends a message that Russia is not globally isolated

• Why the Visit Mattered to India

- US-India ties slowing under President Trump's second term
- US imposing high tariffs, including penalties for buying Russian oil
- India has limited ability to retaliate
- Putin's visit comes during strained India-US relations

• Economic Angle

- Russia cannot replace US as a market for Indian goods
- But both aim to strengthen trade under *Economic Vision 2030*
- Target: **\$100 billion trade**

• Defence & Technology Cooperation

- Legacy of decades-long Indo-Soviet defence relationship
- Russia still supplies key defence systems no one else shares



| Clear your doubts now.



- Examples:
 - Nuclear submarines
 - S-400 anti-missile system (used effectively in Operation Sindoor)
- Russia offering collaboration in small modular reactors and floating nuclear plants

• Changing Geopolitical Context

- Cold War alignment based on shared threat from China — no longer true
- Russia no longer sees China as a threat
- India is diversifying defence imports away from Russia, but slowly

• Balancing Between US and Russia

- India relies heavily on US for high-tech defence and innovation
- Relationship remains strong: Defence Cooperation Framework renewed for 10 years
- But US unpredictability increases India's need to keep Russia close

• China's Perspective

- Some Chinese analysts fear stronger India–Russia defence cooperation
- Others think it reduces India's closeness to the US
- India knows India–Russia ties cannot match the “no-limits partnership” of Russia–China

• Europe's Concerns

- Displeased with India welcoming Putin during Ukraine escalation
- But Europe also fears US unreliability
- Growing strategic alignment between India and Europe
- European leaders will attend India's Republic Day as honoured guests

• India's Diplomatic Strategy

- Long history of balancing multiple power blocs
- Core aim: safeguard **strategic autonomy**
- Putin's visit shows India's ability to manage shifting global alignments

[Economy is new lynchpin of Indo-Russian ties: IE Editorial](#)

International Relations

EASY EXPLANATION

India and Russia have long had a strong defence partnership going back to Soviet times. Russia shared military technology with India, helped India build weapons locally, and supported India when the US imposed arms sanctions in 1965. But today, if India and Russia want a deeper and more balanced relationship, they need to go beyond defence and build strong **economic ties**.



| Clear your doubts now.



Putin's recent visit to India (Dec 4–5) signals a shift in this direction. This was his first visit since the Ukraine war started and came at a time when Western countries are pressuring India to stop buying cheap Russian oil. Despite this, India and Russia announced a **Strategic Economic Roadmap for 2030**, plus agreements on labour mobility, fertilisers, nuclear energy, and tourism.

Currently, India exports only about **\$5 billion** worth of goods to Russia, but total trade has shot up to **around \$69 billion** — mostly because India is buying discounted Russian crude oil. So the trade relationship is **heavily one-sided**, with India having a large trade deficit. Both countries now want to fix payment problems, remove trade barriers, and aim for **\$100 billion in trade by 2030**. They are also fast-tracking a free trade agreement with the Eurasian Economic Union.

One major new area is **labour mobility**. Russia has a huge labour shortage, while the West — especially the US — is tightening immigration. India and Russia have now signed a pact that will allow Indian workers and professionals to take up jobs across sectors in Russia. If implemented well, this could create a large Indian community in Russia, similar to the Indian diaspora in Gulf countries. That would give India more influence and bargaining power on global issues like climate change, conflicts, and the world economy.

Putin also assured India of **uninterrupted fuel supplies**.

Importantly, improving ties with Russia does **not** mean India must weaken its relationships with the US or Europe. India continues trade negotiations with Europe and expects a major US trade delegation soon. With the Trump administration now leading Ukraine war negotiations, the entire US–Europe–Russia dynamic may change. India needs to maintain good relations with all three.

Prime Minister Modi made India's position clear: **India is not neutral in the conflict — it supports peace**.

KEY TAKEAWAYS

• Long Defence-Based Relationship

- India–Russia ties historically built on defence cooperation.
- Soviet support and US arms embargo (1965) strengthened the partnership.
- Russia was always willing to share technology and localise production.

• Shift Toward Economic Partnership

- Putin's visit signals move beyond defence to broader economic engagement.
- Announcements include:
 - Strategic Economic Roadmap 2030
 - Labour mobility pact
 - Cooperation on fertilisers, nuclear energy, tourism

• Trade Imbalance

- India exports only ~\$5 billion to Russia.
- Total bilateral trade now ~\$69 billion (mostly due to crude oil imports).
- Trade is heavily skewed in Russia's favour.
- Both sides want smoother payments and aim for **\$100 billion trade by 2030**.



| Clear your doubts now.



• Free Trade Agreement Progress

- Work is speeding up on an FTA between India and the Eurasian Economic Union.
- Removing trade barriers is a priority.

• Labour Mobility Pact (Major Shift)

- Creates opportunities for Indian workers in Russia amid its labour shortage.
- Could build a large Indian diaspora in Russia — similar to the Gulf.
- Gives India strategic leverage in global negotiations.

• Energy Security

- Putin assures “uninterrupted fuel shipments” to India.
- Oil imports remain a key pillar of the relationship.

• Balancing Global Powers

- Strengthening India–Russia ties does not weaken India–US or India–EU ties.
- US trade delegation is arriving soon; India–EU FTA talks improving.
- With Trump managing Ukraine talks, the global balance may shift.
- India must engage all three: US, Russia, and Europe.

• India’s Stated Position on the War

- Modi reiterated: India is **not neutral** — it supports an **early return to peace**.

[New labour codes are a win-win for workers and employers: IE Ideas](#)

Economy

Easy Explanation

For many years, India’s labour laws were made with good intentions — to protect workers. But in reality, these laws often had the opposite effect. They made it difficult for companies to grow big, hire more people, or become formal (registered, tax-paying, with proper contracts). So India ended up with many small, informal units and very few large factories that could create stable, well-paid jobs.

The old law at the core of this system was the Industrial Disputes Act (IDA) of 1947. It scared firms from crossing certain size limits because, after that, they needed government permission to lay off workers or shut units. So many firms chose to remain small on purpose.

This created three big problems:

1. Good, productive firms stayed smaller than they should have.
2. India became a country of tiny, informal units with low productivity and poor-quality jobs.



| Clear your doubts now.



3. The laws protected only a small number of formal, unionised workers, while most workers in informal jobs had no real protection at all.

Later, the Contract Labour Act (1970) and amendments in 1976 and 1982 added more rules and permissions around contract workers and layoffs. Even after economic reforms in 1991, labour laws were mostly untouched. The result: India had plenty of workers, but companies were hesitant to hire, especially in large numbers, for labour-intensive manufacturing. Job creation did not keep up with economic growth.

To fix this, the government merged 29 separate labour laws into 4 big labour codes:

- Code on Wages (2019)
- Industrial Relations Code (2020)
- Code on Social Security (2020)
- Occupational Safety, Health and Working Conditions (OSHWC) Code (2020)

These codes try to balance worker protection with economic growth and flexibility for businesses.

The Code on Wages creates a single national system for minimum wages and timely payment for all workers — including those earlier left out in the informal sector. With mandatory appointment letters, employers are nudged towards formal jobs and transparency.

The Code on Social Security brings gig workers and platform workers (like delivery agents, ride-share drivers, freelancers on apps) into the social security net for the first time. This recognises new forms of work in the digital age and aims to give them basic protections.

Compliance has also been simplified. Earlier, firms had to deal with many registrations, licences, inspections, and returns under different laws. Now, these are being combined into one registration, one licence, and one return. This especially helps small and medium enterprises, who often stayed informal just to avoid complex paperwork.

The Industrial Relations Code makes hiring and managing workers more flexible. It makes processes like layoffs in medium-sized firms more predictable and less scary, so firms are more willing to grow and hire. At the same time, it keeps safeguards and dispute resolution mechanisms to stop misuse and protect workers from arbitrary firing.

The OSHWC Code updates and unifies safety and health rules across sectors like construction, mining, manufacturing, and transport. This should mean clearer standards, safer workplaces, and more dignity for workers.

Evidence from recent decades shows that states that reformed their labour laws did better in using trade opportunities and attracting industries. Overall, the old system of “protective” laws had become a chokehold on India’s economic potential.

The new labour codes are a big attempt to correct this. If implemented well by states, they can:

- increase formal employment
- raise productivity
- attract more investment
- improve working conditions and safety



| Clear your doubts now.



In simple words: the goal is to move from a scattered, informal, low-quality labour market to a modern, more formal, fair and growth-friendly system that uses the full potential of India's workforce.

Key Takeaways

• Historical Problem: Well-Intentioned but Harmful Laws

- Old labour laws like the IDA (1947) discouraged firms from growing big.
- Companies stayed small to avoid heavy regulations and permission requirements.
- Labour rules ended up helping only a small group of formal, unionised workers.
- Most workers in informal jobs had no real legal protection.

• Three Major Distortions Created by Old Laws

- Firms stayed below optimal size → fewer large, competitive factories.
- Economy filled with micro and small informal units with low productivity.
- Legal protection went mainly to a tiny formal workforce, not the majority.

• Contract Labour and Tightening Rules

- Contract Labour Act (1970) and later amendments increased compliance burden.
- Thresholds for needing government approval for layoffs were lowered.
- Even after 1991 economic reforms, labour law stayed rigid, hurting job creation.

• Structural Imbalance in Labour Market

- India had abundant labour but firms were reluctant to hire at scale.
- Job creation lagged behind economic growth.
- Informal employment remained very high.

• The Four New Labour Codes

- Code on Wages (2019)
- Industrial Relations Code (2020)
- Code on Social Security (2020)
- OSHWC Code (2020)
- Aim: balance worker protection with economic dynamism and flexibility.

• Universal Wage Protection

- Code on Wages sets a nationwide framework for minimum wages and timely payments.
- Extends wage protection to all workers, including informal sector workers.
- Mandatory appointment letters encourage formalisation and transparency.

• Expanded Social Security for New Forms of Work

- Code on Social Security includes gig workers and platform workers.
- Delivery boys, ride-share drivers, freelancers on apps now recognised in law.
- Moves labour law in step with digital and platform-based work.

• Simplified Compliance for Businesses

- Multiple registrations, licences and returns merged into “one registration, one licence, one return”.
- Reduces bureaucratic friction, especially for small and medium enterprises.
- Makes it easier and more attractive to enter the formal economy and hire formally.



| Clear your doubts now.



• Flexibility with Safeguards

- Industrial Relations Code gives firms more flexibility in hiring and managing labour.
- Streamlines processes for layoffs/retrenchment in medium-sized firms.
- Keeps dispute resolution mechanisms and protections against arbitrary dismissal.
- Goal: predictable rules that encourage growth without destroying worker rights.

• Modern and Safer Workplaces

- OSHWC Code unifies safety and health standards across multiple sectors.
- Provides clearer regulations for construction, mining, manufacturing, transport, etc.
- Encourages investment in safer technology and improves dignity and protection for workers.

• Evidence from States

- States that reformed labour earlier benefited more from trade liberalisation.
- Less restrictive labour rules helped industries to better use export and trade opportunities.
- However, such reforms have been limited to a few states.

• Overall Impact and Future Potential

- Old laws “protected” workers in theory but actually strangled growth and formal job creation.
- New labour codes try to correct that historical imbalance.
- If implemented fully and properly:
 - more formal jobs
 - higher productivity
 - greater investment
 - better working conditions and safety
- They offer a path from a fragmented, informal system to a modern, inclusive and growth-oriented labour market.

[Why Delhi HC rejected semaglutide patent suit: IE Explained](#)

Science

Easy Explanation

A big legal fight is happening between two companies over a very popular medicine called **semaglutide**, used for diabetes and weight loss (sold as Ozempic and Wegovy). Novo Nordisk, the Danish company that invented the drug, asked the Delhi High Court to stop Dr Reddy's Laboratories (DRL), an Indian company, from making and exporting its own version.

DRL refused to stop making the drug and even challenged Novo Nordisk's patent in court. Novo Nordisk claimed DRL was violating its patent rights. DRL claimed that Novo Nordisk was trying to “evergreen” its patents — meaning extend its monopoly by filing new patents for only small changes to the drug.

The court refused to give Novo Nordisk a temporary ban. This means DRL can continue making and exporting semaglutide, although it still cannot sell it within India until the patent officially expires in March 2026.

Novo Nordisk has two patents in India:

- One for the basic drug (expired in 2024).
- Another for a specific formulation/device (expires in 2026).



| Clear your doubts now.



The court said the second patent didn't seem truly new or inventive — it looked like the same drug with minor changes. This qualifies as “evergreening”, which Indian law does not allow.

This decision is important because semaglutide is a blockbuster medicine, and major companies worldwide are fighting to enter the market. With the basic patent expired and the second patent now under challenge, many Indian companies — DRL, Cipla, Sun Pharma, Mankind — may soon be able to make cheaper versions. This could make the drug available to more people worldwide, especially for obesity treatment, which is a huge market.

In summary:

- DRL wins the first round; it can keep producing and exporting.
- Novo Nordisk's patent strategy has been questioned.
- Global competition for semaglutide is heating up.
- Many cheaper generic versions could soon come to the market.

Key Takeaways

• **What Happened in Court?**

- Delhi High Court refused Novo Nordisk's request to stop DRL from making/exporting semaglutide.
- DRL can continue production and export until final judgment.
- Drug cannot be sold in India until the patent expires in March 2026.

• **Why the Fight?**

- Semaglutide is a blockbuster drug for diabetes and obesity.
- Novo Nordisk wanted to protect its market by claiming patent infringement.
- DRL argued Novo Nordisk was “evergreening” — extending monopolies using minor tweaks.

• **The Two Patents Explained**

- Patent 1 (drug composition): filed 2006, expired 2024.
- Patent 2 (formulation/device): filed 2007, expires 2026.
- After Patent 1 expired, generics could legally develop semaglutide — but Patent 2 remained contested.

• **Court's Key Findings**

- Second patent lacked novelty and inventive step.
- Court said Novo Nordisk had effectively taken **two patents for the same drug**, violating Section 3(d).
- Concluded that this was “evergreening”.
- DRL's challenge was called “prima facie valid”.

• **Patent Strategy Under Scrutiny**

- Novo Nordisk filed a broad “genus patent” covering many GLP-1 drugs.
- Later filed a specific formulation patent to extend monopoly time.
- Did not disclose development of newer versions when filing earlier patents.

• **Impact on the Pharma Market**

- Huge setback for Novo Nordisk in India.
- Major win for Indian generic manufacturers.
- More companies (Cipla, Sun Pharma, Mankind, etc.) preparing GLP-1 drugs.
- 10+ firms have applied for trials for semaglutide generics in India.



| Clear your doubts now.



• Global Implications

- Patent expiry in large markets (Canada, China, Brazil, Turkey, India) will open massive opportunities.
- Low-cost generics can significantly expand patient access.
- Countries with high obesity burden may see a dramatic rise in demand.

• The Bigger Picture

- Semaglutide market is worth billions — global competition is intense.
- Delhi HC ruling encourages competition and reduces monopoly control.
- Patients worldwide may benefit through lower prices and increased availability.

[Amid rupee's fall, how investors are shunning the economy: IE Explained](#)

Economy

Easy Explanation

Recently, the Indian rupee has been falling in value compared to the US dollar. Usually, this happens because India buys (imports) more from the world than it sells (exports). This creates a **trade deficit** and a **current account deficit**. In simple terms, more dollars leave India than come in.

Earlier, this problem was balanced because India used to receive a lot of **foreign investments** —

- **FDI** (foreign companies investing long-term, like building factories), and
- **FPI** (foreigners investing in Indian stocks and bonds).

This incoming investment money filled the gap created by the trade deficit, helping keep the rupee stable.

But now, **foreign investment coming into India has dropped sharply, and more investment is leaving India.**

This reduces the net flow of dollars into India, adding pressure on the rupee.

One big concern:

- The green line (FDI coming into India) has fallen since 2021–22.
- The red line (FDI going out of India) has risen.

This means foreign companies are investing less in India, while Indian companies are investing more abroad. In fact, net FDI has almost become zero — meaning the outflow is the same as or more than the inflow.

FPIs (portfolio investments) also show negative trends — more Indian money is being invested abroad than foreign money coming into India's stock markets.

When more money flows out than in, **demand for dollars increases**, and the **rupee weakens**.

This is surprising because India's GDP growth is strong. Normally, strong growth should attract more foreign investors. So the situation raises questions — either global investors are becoming more cautious, or India's growth numbers might be overstating how strong the economy truly is.

Key Takeaways

• Why the Rupee Is Falling

- India's trade deficit means more dollars go out than come in.
- Earlier, foreign investment inflows offset this. Now they are declining.



| Clear your doubts now.



- **FDI Trends Are Worrying**

- FDI inflow into India has dropped steeply since 2021–22.
- Outward FDI (Indians investing abroad) has increased.
- Net FDI has fallen close to zero — more money is leaving than entering.

- **FPI Trends Also Negative**

- Net FPIs are often negative.
- Foreign investors are withdrawing from Indian markets.
- Indians investing abroad further increase outflow.

- **Impact on the Rupee**

- When dollar demand rises because more money leaves India, the rupee weakens.
- Weak rupee creates inflation risk and costlier imports.

- **Why This Is Surprising**

- India's economy is growing faster than most.
- Strong growth should normally attract foreign investors.
- The decline suggests global doubts — either about India's economic conditions, policy environment, or whether GDP numbers reflect real on-ground strength.

- **Bigger Question**

- Is the world losing confidence in India's economic story?
- Or is India's reported growth overstating the true momentum?

7th December 2025

[Rupee at 90: a market meltdown or a calculated policy pivot by RBI?: TH FAQ](#)

Economy

Easy Explanation

The rupee recently fell below ₹90 per US dollar – a level many people see as a big psychological shock. But the basic economic problems were already present. What changed was that a combination of new pressures pushed the rupee down faster.

The rupee's value depends on:

1. **Market forces** (exports, imports, investments), and
2. **RBI's actions** (how much the central bank intervenes).

Right now, three big things in the market are hurting the rupee:

- **Exports to the US have fallen** because of new 50% tariffs imposed by President Trump.
- **Gold and silver imports have suddenly surged**, creating a huge demand for dollars.
- **Foreign Portfolio Investors (FPIs)** have pulled out a massive amount of money from Indian stock markets.



| Clear your doubts now.



Earlier, when the rupee was under pressure, the **RBI used to step in and sell dollars** to stop the fall. But this year, the RBI is choosing **not** to defend the rupee aggressively. It is letting the rupee drop gradually — a policy shift called a **“managed float”**. This change is one of the biggest reasons why the rupee slipped past ₹90.

Exports are weakening

US tariffs have made Indian goods too expensive, so US buyers are buying less. Exports to the US fell sharply. Overall exports have stayed flat only because Indian companies found new markets elsewhere — but experts warn that demand is slowing, and worse may be ahead.

Imports are rising sharply

Gold imports shot up by 200%, and silver imports by 528%. This is not festival buying — economists say people are scared of market volatility and are putting money into gold as a safe asset. To buy this gold, India needs more dollars — creating a “dollar drain” that weakens the rupee.

Foreign investors are withdrawing

FPIs sold \$17 billion worth of stocks in 2025, the highest outflow in decades. When FPIs exit, they convert rupees into dollars — pushing the rupee down further.

What is RBI doing?

Unlike earlier years, the RBI is not spending huge amounts of dollars to defend the rupee. In past crises, it sold \$30–38 billion in a single quarter. This year it sold only around \$11 billion. So the RBI is allowing a controlled fall, smoothing the decline rather than stopping it.

Why would RBI allow this?

The RBI thinks a weaker rupee will help exporters by making Indian goods cheaper abroad. Economists disagree on this:

- Some say a slow, steady fall is healthy.
- Others say Indian inflation stays too high, so even if the rupee falls, Indian goods don't become cheaper in real terms.
- Weak demand in the US may cancel the benefit of a cheaper rupee anyway.

In short, the rupee's fall is not just market economics — it is also a deliberate RBI choice to intervene less and let the currency settle at a lower level.

Key Takeaways

- **Why Did the Rupee Fall Below ₹90?**
 - Market pressures + reduced RBI intervention.
 - Weak exports, high imports, and investor outflows created strong downward pressure.
 - RBI allowed a controlled depreciation instead of defending a fixed level.
- **Export Problems**
 - US imposed 50% tariffs → Indian goods became too expensive.
 - Exports to the US fell 9–12% in recent months.
 - Overall exports rose slightly because India diverted sales to other countries.
 - But PMI and export orders show weakness ahead.



| Clear your doubts now.



• **Import Surge (Gold & Silver)**

- Gold imports up 200%; silver imports up 528%.
- High buying due to fear and “flight to safety,” not festivals.
- Buying gold requires dollars → increases rupee supply → weakens rupee.

• **FPI Outflows**

- FPIs withdrew \$17 billion in 2025 — highest in 20 years.
- When FPIs exit, they buy dollars → rupee falls.

• **Change in RBI Strategy**

- Between 2022–2024, RBI sold massive amounts of dollars to defend the rupee.
- In 2025, RBI sold much less — intervention dropped sharply.
- New policy: allow rupee to “find its own level” (managed float).
- This policy shift enabled the breach of the ₹90 mark.

• **Why RBI Let It Slide**

- Belief that a weaker rupee will make Indian exports cheaper.
- Slow depreciation allows businesses time to adjust contracts.
- Sharp or sudden falls can create panic.

• **Expert Views: Mixed Opinions**

- Dr. Pronab Sen: Depreciation is healthy if gradual.
- Dr. Zico Dasgupta: India’s inflation cancels the effect → Indian goods don’t actually become cheaper in real terms.
- Also warns US demand is weak, so cheaper rupee may not help exports anyway.

• **Larger Message**

- Rupee’s fall signals structural weaknesses:
 - Overdependence on imports
 - Weakening export competitiveness
 - Declining investor confidence
 - RBI shifting to a more flexible exchange-rate approach

[What did Putin’s visit to India achieve?: TH FAQ](#)

International Relations

Easy Explanation

Russian President Vladimir Putin visited India and received a very warm welcome from the Indian government. Prime Minister Narendra Modi greeted him at the airport, hosted a private dinner, and the President of India held a banquet. However, despite the grand welcome, the actual results of the meeting were limited.

Many people expected big announcements on defence—new aircraft deals, missile systems, drones, and technology transfer. But there were **no major defence agreements**. Instead, both sides focused mainly on **economic cooperation**.



| Clear your doubts now.



A new **Labour Mobility Agreement** was signed, which will allow Indian skilled workers to work in Russia, where there is a shortage of 3 million workers. Both sides also agreed on building a urea plant in Russia, improving maritime cooperation, and making trade routes smoother (especially the Chennai-Vladivostok route and the North-South Transport Corridor). They also talked about using national currencies (rupee and ruble) for trade, but there was no big announcement on oil, nuclear energy, or space cooperation.

The Ukraine war was an important background factor. Modi said India stands for peace, not neutrality. Putin said he also wants peace and hinted that Russia is considering a U.S. peace proposal. But Western sanctions on Russia have affected India's decision-making. India has reduced its oil imports from Russia due to European sanctions on Russian and Indian companies. The U.S. has also put tariffs on Indian goods, making trade more difficult.

India avoided making major defence announcements during Putin's visit to prevent upsetting the U.S. or inviting sanctions under the CAATSA law (which punishes countries for big defence purchases from Russia). Also, just before the visit, three European ambassadors wrote a public article criticizing Russia, which may have made India more cautious.

Looking ahead, India wants the Ukraine war to end so that it can avoid choosing sides between Russia and the West. The coming months include major visits from German, EU, French, and American leaders. India is negotiating important trade agreements with both the EU and the U.S. So India wanted Putin's visit to reaffirm its friendship with Russia without upsetting Western countries. This helps India maintain its long-standing policy of **strategic autonomy**—not taking sides, building ties with everyone.

Key Takeaways

• **Warm Welcome but Modest Outcomes**

- Putin received an unusually warm protocol welcome.
- Despite this, the summit produced limited concrete results.
- Expected major defence deals did not materialise.

• **Focus Shifted to Economic Cooperation**

- Main emphasis was on implementing the 2030 economic roadmap.
- Labour Mobility Agreement signed → allows Indian workers to fill Russia's labour shortage.
- MoU signed to set up a urea plant in Russia.
- Agreements on maritime cooperation, ports, and customs.
- Focus on improving trade routes—Chennai-Vladivostok corridor and North-South Transport Corridor.
- Push for more trade using rupee and ruble.
- No major announcements on oil, nuclear, or space cooperation.

• **Ukraine War as a Backdrop**

- Putin's visit came during new U.S.-led peace talks.
- Modi said India "is not neutral" but stands for peace.
- Both leaders expressed hope for peace in Ukraine.
- Western sanctions on Russia are indirectly affecting India's oil trade and defence choices.

• **Impact of Western Pressure**

- European sanctions reduced India's imports of Russian oil (38% y-o-y fall).



| Clear your doubts now.



- Fear of U.S. CAATSA sanctions may have prevented India from announcing new defence deals.
- Critical article by UK, German, and French envoys indicated Western sensitivity.
- Ukraine's leadership remained silent on the visit due to ongoing peace negotiations.

• India's Diplomatic Balancing Act

- India aims to maintain strong traditional ties with Russia.
- At the same time, India must manage relationships with the U.S. and Europe.
- Several upcoming high-profile Western visits make this balancing important.
- EU-India and US-India trade negotiations are entering decisive phases.
- India seeks to protect its policy of **strategic autonomy**—engaging all sides without taking sides.

[One-atom experiment swings Einstein's debate in Bohr's favour: TH Science](#)

Science

Easy Explanation

About 100 years ago, Einstein suggested a new idea to test quantum physics. In the famous “double-slit experiment,” light behaves like a wave and creates an interference pattern. But Einstein imagined a situation where you could find out which path a photon (a tiny particle of light) actually took.

He said: what if the slit itself could move? Then the passing photon would give the slit a tiny push. If you measure that push (recoil), you could know which path the photon took. But if you also still saw an interference pattern, it would mean both “particle behaviour” and “wave behaviour” appear together — which would challenge quantum theory.

Bohr, another great scientist, argued this could never work. He said that if you measure which path the photon takes, the interference pattern must disappear. But nobody could test this idea properly for a century, because we couldn't create an experiment sensitive enough to detect recoil from just one photon.

Now researchers in China have found a way. Instead of a moving slit, they used a **single atom** trapped by a laser. They cooled the atom so much that it barely moved and reached a quantum-limited state. In this state, the uncertainty in the atom's momentum is as small as possible — comparable to the momentum of a single photon.

When a photon hit the atom, it could move the atom slightly up or down, depending on the photon's path. By measuring this recoil, scientists could get information about the photon's path. They then checked whether interference remained visible.

Their results matched quantum theory perfectly:

- When the atom's recoil was hard to distinguish (big uncertainty), you **could not** know the photon's path → but the interference pattern was **clear**.
- When the recoil was easy to distinguish (small uncertainty), you **could** tell the path → but the interference pattern **faded**.

This experiment supports Bohr's view and shows how quantum systems move gradually toward classical (everyday) behaviour. It may also help future quantum technologies where light and matter interact strongly.

Key Takeaways



| Clear your doubts now.



• Einstein's Thought Experiment (1920s)

- Einstein proposed a movable slit that would recoil when a photon passed.
- Measuring this recoil could reveal the photon's path.
- He hoped this would highlight a contradiction in quantum theory.

• Bohr's Counterargument

- Bohr said recoil measurement would destroy interference.
- Thus, both wave and particle information cannot be observed simultaneously.
- No experiment existed to test this for nearly a century.

• New Experimental Realisation (2025)

- Chinese researchers replaced the movable slit with a single trapped atom.
- Atom held with a focused laser and cooled to near its quantum ground state.
- Atom's momentum uncertainty became comparable to photon momentum.

• How the Experiment Worked

- A photon scattered off the atom creating two possible paths.
- These paths recombined to form an interference pattern.
- Photon gave the atom a small upward or downward "kick" depending on the path.
- Measuring the recoil helped determine the photon's likely path.

• Results Matching Quantum Theory

- Large momentum uncertainty: recoil states overlap → path unknown → sharp interference.
- Small momentum uncertainty: recoil states distinct → path known → weak interference.
- Confirms Bohr's argument and supports quantum complementarity.

• Scientific Importance

- Provides a platform to study the transition from quantum to classical behaviour.
- Helps understand how measuring information disturbs quantum systems.
- Useful for developing future quantum technologies involving strong light-matter interactions.

[Microbes can help low-pH cement protect nuclear waste: TH Science](#)

Science

Easy Explanation

Every year, nuclear activity around the world produces a lot of radioactive waste. Most of it is low-risk, but a small amount — about **10,000 m³** — is extremely dangerous and must be stored deep underground for **thousands of years**. This is done in **Geological Disposal Facilities (GDFs)**, which are carefully designed underground caverns filled with waste containers, cement, and rock to stop radiation from escaping.

A type of cement called **CEBAMA** is being considered for Europe's future waste sites because it is strong and chemically stable. It also has a **lower pH**, which is good because high-pH cement water can corrode steel waste containers. But we still don't know how this cement behaves over very long periods, especially when microbes (tiny organisms) are present.



| Clear your doubts now.



Microbes usually cause problems in concrete by making it crack or corrode. But some microbes can also do the opposite: they can create minerals (like calcium carbonate) that **fill cracks** — this process is called **microbially induced carbonate precipitation (MICP)**, meaning “microbes helping cement heal itself”.

The big question: **Can microbes help repair cement inside deep underground waste sites?**

Scientists from the University of Manchester tested this. They placed small CEBAMA cement tablets into bottles with synthetic groundwater and microbes from a natural high-pH environment. The bottles were sealed to mimic underground conditions:

- No oxygen (anoxic)
- High pH
- Lots of dissolved ions
- Low light and controlled temperature

They tested three conditions:

1. **High carbon** (extra organic carbon added)
2. **Low carbon**
3. **No added carbon**

They also added nitrate, which microbes can use to perform chemical reactions.

What they found:

- Microbes can indeed help heal cracks in low-pH cement **but only if there is enough organic carbon and nitrate available**.
- In such environments, microbes produce carbonate minerals that seal cracks over months.
- If carbon is limited, the cement loses calcium into the water and healing is very slow.

This means that some parts of a GDF — where organic nuclear waste breaks down — **may form “microbial pockets” where microbes promote self-healing in cement**.

However, this is not a perfect solution. When microbes seal cracks, gases like hydrogen and methane may get trapped and cause pressure, which may weaken the structure in other ways. Over centuries, cement will still degrade, cracks will form, and both microbe-based and non-microbe healing may fail.

But the cracks may also help by giving trapped gases pathways to escape, reducing pressure.

Scientists say more studies are needed, especially on gas flow, to fully understand whether microbial healing is helpful or harmful over hundreds of years.

Key Takeaways

• **Why Deep Geological Disposal Facilities (GDFs) Are Needed**

- Nuclear activity creates ~200,000 m³ of waste each year.
- About 10,000 m³ is highly radioactive and must be stored deep underground for centuries.
- GDFs use rock, cement, and engineered barriers to contain waste.



| Clear your doubts now.



• **Role of Cement in Nuclear Waste Storage**

- Cement keeps waste in place and slows movement of radioactive materials.
- CEBAMA cement is promising for Europe's GDFs due to strength and lower pH.
- Lower pH reduces risk of steel corrosion.
- But its long-term behaviour with microbes is unknown.

• **Microbes and Cement Interaction**

- Some microbes can harm cement, while others can help it heal via MICP.
- MICP fills cracks with calcium carbonate, increasing durability.
- Past studies mostly focused on normal concrete in oxygen-rich environments.

• **Challenges in GDF Environments**

- Conditions are anoxic, alkaline, and full of dissolved ions.
- Special microbes (alkaliphilic and anaerobic) can still survive in such niches.
- Organic nuclear waste releases pockets of organic carbon that could support microbial life.

• **The New Study: Setup and Experiment**

- CEBAMA cement tablets placed in synthetic groundwater with alkaliphilic microbes.
- Three carbon conditions tested: high-carbon, low-carbon, and no-carbon.
- Nitrate added as an electron acceptor to support microbial metabolism.
- Bottles kept oxygen-free, at 20°C, in the dark.

• **What the Researchers Found**

- **MICP occurs only when organic carbon and nitrate are available.**
- Microbes can fill cracks and seal pores in low-pH cement over months.
- Without carbon, cement loses calcium and magnesium into the water; healing remains slow.
- Organic-rich "pockets" inside GDF barriers may allow microbes to thrive and help healing.

• **Benefits and Trade-offs**

- Microbial healing strengthens cement locally by sealing small cracks.
- However, sealed pores may trap gases (hydrogen, methane).
- Gas buildup could destabilise barriers or create alternative pathways.
- Over centuries, cement will degrade anyway and create new cracks.

• **Long-Term Implications**

- Cracks may help by allowing gas escape.
- More studies needed: gas-flow experiments and long-term modelling.
- Results important for safety assessments of future nuclear waste repositories.

8th December 2025

[Why the rupee has a capital account problem-The Indian Express Explained Page](#)

Economy

Easy Explanation



| Clear your doubts now.



India's rupee is weakening not because of a current account crisis but because of a **capital account problem**. India normally runs a **Current Account Deficit (CAD)** because we import more goods than we export. Our **goods trade deficit** has become very large (likely to cross \$300 billion), but it is heavily cushioned by a **huge surplus in invisibles**—IT services, software exports, business services, and remittances. This invisibles surplus has grown sharply and keeps the CAD manageable. In recent quarters, the CAD has even **declined**, so it is not putting pressure on the rupee. The real problem is the **sharp fall in foreign capital inflows**, which finance the CAD. Capital inflows—FDI, FPI, NRI deposits, external borrowings—have dropped dramatically. FDI collapsed from around \$40 billion levels to **less than \$1 billion** in 2024–25, and FPIs have mostly withdrawn money. When foreign investors bring less money, fewer dollars enter India. With **lower dollar supply**, the rupee depreciates. Therefore, the rupee's recent fall is due to a **capital shortage**, not a widening CAD.

Key Takeaways

1. India's CAD is structural but not the current problem

The Current Account Deficit has remained manageable due to strong earnings from services and remittances.

2. Invisible surplus is India's shock absorber

A rising surplus in software exports, business services, and remittances offsets the large merchandise trade deficit.

3. Merchandise trade deficit is very high but cushioned

Goods trade deficit is ballooning, but invisibles prevent the CAD from becoming unsustainable.

4. The real stress is on the capital account

Foreign capital inflows have dropped to multi-year lows, falling below the level needed to finance the CAD.

5. FDI has collapsed sharply

FDI fell from \$40+ billion levels to under \$1 billion in 2024–25, showing a major decline in long-term investor confidence.

6. FPIs are mostly withdrawing

Foreign portfolio investors have pulled out in most recent years, reducing dollar inflows further.

7. Rupee weakness is capital-driven, not CAD-driven

The rupee is falling because fewer dollars are coming in through capital flows, not because imports exceed exports.

8. High GDP growth is not attracting capital

Despite 8% growth, foreign investors are not investing at earlier levels, worsening the capital shortage.

[How hate speech is regulated in India, and what a Karnataka Bill has proposed-The Indian Express Explained Page](#)

Polity

Easy Explanation



| Clear your doubts now.



India has no single law that clearly defines “hate speech.” Instead, police use different sections of the Bharatiya Nyaya Sanhita meant to maintain public order, such as promoting enmity between groups or insulting religious beliefs. These sections are frequently used, but conviction rates are very low. The Supreme Court has asked states to take action against hate speech even without complaints, but it has also admitted that defining and enforcing hate speech laws is difficult.

Because of this gap, Karnataka has proposed the **Hate Speech and Hate Crimes (Prevention) Bill, 2025**, the first of its kind in India. The Bill defines hate speech as any expression causing harm or disharmony against a person or group based on religion, caste, gender, sexual orientation, disability, place of birth, etc. It proposes **2–10 years of imprisonment**. A major feature is **collective liability**: if hate speech is linked to an organisation, its leaders can also be held responsible. The Bill also allows the government to block or remove hateful online content.

Key Takeaways

- 1. India has no specific law defining hate speech**, so police rely on general public-order provisions of the Bharatiya Nyaya Sanhita.
- 2. These laws are frequently used but conviction rates are very low**, showing weak enforcement.
- 3. The Supreme Court has urged proactive action**, but also admits defining and implementing hate speech laws is difficult.
- 4. Earlier attempts to define hate speech—Law Commission 2017 and a 2022 Private Member’s Bill—did not become law.**
- 5. Karnataka’s 2025 Bill is the first dedicated state law on hate speech**, expanding protected categories like gender and sexual orientation.
- 6. The Bill proposes strict punishment (2–10 years) and allows removal of online hate content.**
- 7. A major feature is collective liability**, meaning leaders of organisations can also be held responsible for hate speech linked to their groups.

[Economy beyond headline numbers better jobs, green growth needed-The Indian Express The Ideas Page](#)

Economy

Easy Explanation

India’s GDP growth looks strong at 8.2%, but this does not tell the full story. The IMF has given India’s national accounts a “**C**” grade, meaning the data used to calculate GDP has problems — especially because India still uses an old base year (2011–12) and underestimates the huge informal sector. So the headline numbers may not fully reflect reality.

The bigger issue is that **growth is not creating enough good jobs**. Almost half of India’s workforce still works in agriculture, which grows very slowly. Until people move into formal-sector jobs in manufacturing and services, India cannot achieve real economic transformation.

At the same time, India’s growth is becoming **environmentally unsustainable**. Air pollution is extremely high — Delhi is currently the most polluted city in the world, and 45 of the top 50 polluted cities are in India. This



| Clear your doubts now.



pollution crisis is harming health, reducing life expectancy, and showing that GDP can rise even while living conditions worsen. Water quality is also declining, with dangerous contamination in Delhi's groundwater.

The article argues that India must focus on three essentials:

1. **Create productive formal-sector jobs.**
2. **Improve data quality and statistical systems.**
3. **Clean up air and water through coordinated environmental action.**

Only then will India's growth be meaningful, sustainable, and trusted globally.

Key Takeaways

1. Strong GDP growth hides weaknesses.

India's 8.2% GDP growth is impressive, but the IMF has given India's national accounts a **"C" grade**, pointing to data quality issues—especially outdated base year (2011–12) and undercounting of the informal sector.

2. Growth is not creating enough productive jobs.

About **46% of India's workforce is still in agriculture**, a sector growing only 3.5%. Without shifting people into higher-productivity formal sectors, structural transformation will remain stalled.

3. Large informal sector distorts economic measurement.

Nearly **90% of India's economy is informal**, making GDP, employment, and welfare estimates unreliable. This underlines the IMF's concerns about data quality.

4. Job promises are not translating into employment.

Government job promises and cash handouts raise fiscal concerns and fail to generate long-term, productive employment.

5. India's growth is not environmentally sustainable.

Air pollution is severe—**Delhi is the world's most polluted city** at present; 45 of the top 50 polluted cities globally are in India.

EPIC estimates an **8.2-year life expectancy loss** for Delhi-NCR residents.

6. Pollution crisis masks itself as growth.

Sales of air purifiers and healthcare spending may increase GDP, but this is **"toxic GDP"**—growth that reflects environmental failure, not progress.

7. Water quality is also deteriorating.

Delhi's groundwater shows high levels of uranium, lead, nitrate, and salinity—posing long-term health risks.

8. To sustain meaningful growth, three fundamentals must improve:



| Clear your doubts now.



- **Productive formal jobs:** boost private investment, ease of doing business, and market-relevant skilling.
- **Reliable economic data:** update base year, strengthen national accounts, and improve high-frequency statistics.
- **Environmental sustainability:** coordinated action on air pollution, clean energy, crop-burning, transport, and emissions.

9. Conclusion:

Headline GDP numbers alone do not show real progress. India needs **better jobs, better data, and a cleaner environment** to make its growth story credible and sustainable.

[What are concerns over the draft ISI Bill, 2025?-The Hindu Text and Context](#)

Governance

Easy Explanation

The Indian Statistical Institute (ISI) is a historic and highly autonomous research institution founded by P.C. Mahalanobis. It has always functioned as a **registered academic society**, which allowed it to manage its own governance, appointments, and academic decisions independently.

The draft **ISI Bill, 2025** proposes to dissolve this society and replace it with a **statutory body controlled by the government**. This change has alarmed professors, students, and alumni because they believe it will **reduce ISI's academic autonomy**.

Under the proposed Bill, a new **Board of Governors**—mostly made up of government nominees—will run the institute. Earlier, ISI faculty had representation in decision-making, but under the new system they would have virtually none. Critics fear this could lead to **political interference in appointments, research priorities, and administration**.

The Bill also pushes a **corporate-style funding model**, encouraging revenue from consultancy, student fees, and sponsored projects. Academicians worry this will weaken ISI's emphasis on **basic research**, which often needs long-term support and does not generate quick profits.

Opponents argue that replacing the existing registered society violates legal norms and ignores the cooperative federal structure, as the original society was registered under a State law. They also say the government has not clearly explained why the successful **1959 ISI Act** must be repealed.

Meanwhile, the government says the Bill aims to modernise ISI, make its governance stronger, and help it become globally competitive. However, students, faculty, and Opposition parties are pushing back and plan to resist the Bill in Parliament.

Key Takeaways



| Clear your doubts now.



1. Threat to ISI's academic autonomy

The Bill converts ISI from a *registered academic society* into a *statutory body corporate*, which many scholars fear will weaken self-governance and academic freedom.

2. Governance shift toward government control

The proposed Board of Governors (BoG) is dominated by government nominees, reducing or eliminating representation of ISI faculty and elected academic members. This is seen as centralisation and a departure from the 1959 Act's academic-led Council structure.

3. Concerns over political interference in appointments

Under the draft Bill, all key appointments—including academic positions—will be controlled by the Union government through the BoG. Earlier, ISI had 10 internal representatives out of 33; under the new system, it will have none.

4. Fear of undermining basic research

The Bill promotes a corporate funding model (Section 29: revenue through consultancy, fees, sponsored projects). Academicians worry this will shift ISI toward applied or revenue-driven work, harming long-term basic research that does not yield quick returns.

5. Violation of federal and legal norms

Opponents argue that dissolving the existing registered society and replacing it with a statutory body bypasses the West Bengal Societies Registration Act and violates the cooperative federalism principle.

6. Lack of transparent rationale for repealing the 1959 Act

Academicians say the government has not explained why the existing Indian Statistical Institute Act, 1959—which already gives ISI the status of an Institution of National Importance—must be repealed.

7. Fear of reduced institutional independence

Students and staff highlight that ISI's historical strength came from its autonomy, which enabled world-class contributions such as the National Sample Survey and global-impact research.

8. Government argues reforms are for global competitiveness

MoSPI claims the Bill follows multiple review committees (latest in 2020) that recommended governance reforms to make ISI globally competitive as it nears its centenary.

9. Strong political and academic opposition

Faculty, students, and several Opposition MPs (TMC, CPI(M), DMK) have pledged to oppose the Bill in Parliament.

[What the Nithari acquittals reveal about the justice system-The Hindu Text and Context](#)

Polity

Easy Explanation

In the 2006 Nithari killings, dozens of children were found murdered near a house in Noida. Two men, Surinder Koli and the house owner Mohinder Singh Pandher, were arrested and spent 19 and 14 years in jail respectively. However, the Supreme Court has now acquitted both because the evidence against them was



| Clear your doubts now.



weak, improperly collected, or unreliable. Their release does not mean the case is solved — it means the **prosecution failed**.

This failure creates **two types of injustice**.

First, the accused lost years of their lives due to faulty investigation and weak evidence. India has no law to compensate people who are wrongly prosecuted or imprisoned, even though the Law Commission recommended such a system.

Second, the victims and their families still do not know the truth. No fresh investigation has been ordered, leaving families without closure. This pattern appears in other cases too: when someone is acquitted because of bad investigation, authorities rarely try to identify the real perpetrator.

A deeper problem is that **there is no accountability** in the justice system. Investigators, forensic experts, and prosecutors can make serious mistakes without facing consequences. There is also no proper data to track how well investigations and prosecutions are being conducted.

The Nithari acquittals thus show a system that finishes a case but often fails to find the truth. Justice must not stop at acquitting the innocent—it must also find the guilty and hold officials accountable for failures.

Key Takeaways

1. Acquittals highlight investigative failure, not proven innocence

Surinder Koli and Mohinder Singh Pandher were acquitted because evidence was weak or tainted — not because the truth was clearly established. This reflects a failed prosecution.

2. Double injustice: to accused and victims

The accused lost 14–19 years in prison due to wrongful prosecution, while victims' families received no accountability or closure.

3. India lacks a law for compensating the wrongly prosecuted

Despite Law Commission recommendations, there is still no statutory scheme to compensate people who spend years in jail due to investigative mistakes.

4. Victims' justice is ignored once acquittals occur

Courts often stop at acquitting the accused but do not order fresh investigations to find the real perpetrators, leaving serious crimes unresolved.

5. Lack of accountability in policing, forensics, and prosecution

No penalties exist for investigators or officials who mishandle evidence, use unscientific methods, or build weak cases.

6. Absence of data-driven evaluation

India lacks transparent data on investigative timelines, conviction quality, and prosecution performance, making systemic reform difficult.

7. Justice system focuses on completing cases, not discovering truth

The Nithari acquittals show that case closure often replaces real justice — truth-finding and victim protection remain secondary.



| Clear your doubts now.



Grassland soils, not trees, anchor India's climate resilience-The Hindu Science

Environment

Easy Explanation

India's semi-arid grasslands and savannahs have long been dismissed as "wastelands," but research now shows they are actually **high-value ecosystems**. Unlike forests, where most carbon is stored above ground, grasslands store **huge amounts of carbon in their soils** through deep, dense root systems. These roots improve soil health, prevent erosion, help water seep into the ground, and store carbon safely for centuries — even during fires or droughts.

Studies from Maharashtra's Malshiras grasslands and Gujarat's Banni Grassland show that **restoring native grasses can dramatically increase soil carbon** — by 21% in just two years and by 50% in three years. In Banni, community-led restoration and removal of invasive trees have made the region one of the **most carbon-rich arid ecosystems in the world**.

Grasslands also support millions of pastoralists who depend on them for livestock grazing. When these ecosystems are degraded or planted with invasive trees, both the environment and livelihoods suffer.

The core message:

India's climate resilience depends not just on planting trees but on restoring native grasslands, which store carbon securely underground and sustain biodiversity and rural communities. True climate solutions lie in protecting the soils beneath our feet.

Key Takeaways

1. India's grasslands are wrongly classified as "wastelands."

Colonial and post-independence policies mislabelled biodiverse savannahs and semi-arid grasslands as unproductive, leading to their neglect and degradation.

2. Grasslands store enormous carbon below ground — more than forests in many cases.

Their deep, fibrous root systems stabilise soil, improve water infiltration, reduce erosion, and store long-lasting soil organic carbon (SOC).

3. Grasslands support rich biodiversity and millions of pastoral livelihoods.

States like Maharashtra show that pastoral economies contribute massively to the rural economy and depend on healthy grassland ecosystems.

4. Afforestation in grasslands can be harmful.

Planting invasive or inappropriate trees (e.g., Prosopis in Banni) disrupts soil processes, reduces SOC, harms biodiversity, and destroys pastoral livelihoods.

5. Grassland restoration shows impressive climate benefits.

Studies (Malshiras, Maharashtra) show:

- 21% increase in SOC after 2 years



| Clear your doubts now.



- 50% increase after 3 years

Grassland restoration is thus a highly effective climate mitigation strategy.

6. The Banni Grassland (Gujarat) is globally significant for carbon storage.

Banni stores ~120 tonnes of carbon per hectare, making it one of the world's most carbon-rich arid ecosystems. Healthy native grasslands outperform invasive tree plantations.

7. Community-led management is crucial for success.

Pastoralists like the Maldharis use rotational grazing and traditional monitoring to maintain grassland health. Their governance is central to long-term ecological resilience.

8. Climate policy must shift from 'planting trees everywhere' to restoring native ecosystems.

Grasslands offer *stable* below-ground carbon that survives droughts and fires — an asset for India's climate resilience.

9. Real climate solutions lie in soil restoration.

The stability and longevity of soil carbon make grassland soils essential for achieving India's climate goals.

[A black Friday for aviation safety in India-The Hindu Editorial](#)

Governance

Easy Explanation

India's aviation safety came under question when Indigo cancelled many flights, and instead of enforcing safety norms, the government and DGCA suspended the **Flight Duty Time Limit (FDTL)** rules that prevent pilot fatigue. These rules were meant to protect passengers, but they were set aside to help airlines avoid cancellations — showing that **commercial interests were placed above safety**.

This is part of a long pattern: whenever airlines complain, safety rules on pilot rest and duty hours are diluted. Courts had earlier criticised this practice, but even they later allowed such relaxations. Airlines also hire fewer pilots than required, worsening the problem.

International bodies have repeatedly said India needs an **independent aviation regulator**, but the DGCA continues to act under government pressure. With recent actions, it is clear that safety oversight is weak. Despite past fatal crashes, authorities have not strengthened systems, and safety norms continue to be compromised.

The article argues that aviation safety in India remains unreliable because decisions repeatedly favour airline convenience over passenger protection.

Key Takeaways

1. Safety rules were suspended to help airline operations.

The government and DGCA put Flight Duty Time Limit (FDTL) norms on hold to reduce Indigo's cancellations, prioritising commercial convenience over pilot fatigue and passenger safety.



| Clear your doubts now.



2. Long history of diluting safety regulations.

Since 2007–08, every attempt to strengthen crew-rest rules has been weakened due to pressure from airlines, despite clear court warnings that safety must come first.

3. Airlines under-hire pilots to cut costs.

Regulations require about six pilot sets per aircraft for domestic operations, but many airlines employ far fewer, creating chronic shortages and pushing for relaxed duty norms.

4. DGCA lacks independence and strong oversight.

For nearly 20 years, ICAO has said India needs an independent aviation regulator. Recent events show DGCA still bends to government and airline pressure.

5. Judiciary's inconsistent stance weakens safety.

Courts initially criticised DGCA for risking lives but later upheld government decisions, reducing accountability.

6. Past accidents show lessons not learned.

Major crashes in Mangalore, Kozhikode, and Ahmedabad show systemic weaknesses, but accident reports are delayed and reforms remain superficial.

7. Overall message: aviation safety in India is compromised.

Repeated dilution of rules, lack of accountability, and airline influence reveal that safety claims are not matched by actions.

[Surveillance apps in welfare, snake oil for accountability-The Hindu Editorial](#)

Governance

Easy Explanation

India has increasingly turned to **surveillance-style digital tools** — biometric attendance, GPS tracking, photo uploads, and facial recognition — to monitor government workers and welfare delivery. These technologies are meant to ensure accountability, but in reality, they often **fail to stop corruption and instead create new problems**.

For example, in MGNREGA, fake attendance was earlier recorded through forged signatures. After the government introduced the NMMS photo-attendance app, the same fraud continued using fake photos or photos of photos. Similarly, in Anganwadi services, requiring mothers to blink for facial recognition did not prevent cheating; it only made the process harder for mothers and workers.

These tools also **hurt genuine workers**. Nurses, health workers, and Anganwadi staff must constantly upload photos or geo-tag visits, even in areas with poor connectivity. Sometimes, even when they do their job, the app flags them as “fraud” because the technology malfunctioned. This demotivates sincere workers instead of improving service delivery.

The article argues that focusing only on accountability through surveillance ignores the deeper need for **responsibility**, motivation, and supportive work culture. It also highlights the government's refusal to learn



| Clear your doubts now.



from repeated failures of tech fixes. Instead, even when one app system fails, new layers of surveillance are added — creating exclusion, inefficiency, privacy violations, and new avenues for corruption.

In short, digital surveillance tools are being treated as magical solutions for welfare leakages, but they often **do not solve the core problems** and may even make welfare systems harder, slower, and more unfair — functioning like “snake oil” sold as accountability.

Key Takeaways

1. Digital surveillance tools are replacing real accountability without solving core problems.

Apps for biometric attendance, photo uploads, GPS tagging, and facial recognition often fail to prevent corruption and instead shift focus to compliance rituals.

2. Tech fixes are easily manipulated.

In MGNREGA, fake signatures were replaced by fake photos; the fraud continued. NMMS misuse shows technology can be gamed as easily as paper systems.

3. Genuine workers are harmed and demotivated.

Frontline staff — ANMs, Anganwadi workers, cleaners — face poor connectivity, app glitches, and punitive notices, even when they perform their duties sincerely.

4. Welfare access becomes harder for beneficiaries.

Tools like Aadhaar-based authentication and FRT cause exclusion of the elderly, immobile, or digitally unskilled; the burden shifts to those needing support most.

5. Surveillance increases inefficiency and new forms of corruption.

Procedures become slower, and corruption adapts (e.g., claiming “biometric failure” to skim rations). Accountability theatre replaces actual improvement.

6. Privacy risks and dignity concerns rise.

Uploading photos of breastfeeding mothers or constant face-recognition checks intrude into personal dignity and violate privacy norms.

7. Government ignores evidence of failure.

Even after official acknowledgment of misuse, new apps are introduced. This reflects **agnotology** — deliberate cultivation of ignorance.

8. Possible vested interests behind tech push.

Surveillance systems require expensive hardware, servers, SIM cards, and authentication services, creating lucrative markets for tech companies.

9. Tech cannot replace responsibility and work culture.

Sen and Drèze argue accountability alone induces obedience, not public-spirited motivation. Surveillance tools cannot foster responsibility.

10. Conclusion: surveillance apps are “snake oil.”

They promise accountability but deliver exclusion, inefficiency, demotivation, and privacy harms — while corruption continues largely unchanged.



| Clear your doubts now.



9th December 2025

[Lessons from Beijing in clearing Delhi's air-The Indian Express Explained Page](#)

Environment

Easy Explanation



Delhi continues to struggle with toxic air, but Beijing — once one of the world's most polluted cities — managed to clean its air dramatically over the past decade. Beijing's success came from a strong, long-term action plan backed by strict policies, massive investment, and cooperation across government bodies, industries, and the public.

Beijing began with urgent measures before the 2008 Olympics and then introduced a comprehensive nationwide plan in 2013. It set strict pollution targets, upgraded monitoring, enforced emission controls, and focused heavily on cleaner transport. The push for electric vehicles (EVs) became central: public buses, taxis, and even private cars were rapidly electrified. China now has 90% of the world's electric buses.

In addition to transport, Beijing cracked down on industrial pollution. It shut or moved heavy industries away from the capital, replaced coal-based boilers with cleaner energy sources, strengthened standards, and increased green spaces. This required large investment, but PM2.5 levels dropped sharply — faster than in any other country.

India, in contrast, continues to run polluting thermal power plants without essential pollution-control technology such as FGD systems. While India is now discussing EV adoption and enforcement more seriously, Beijing's example shows that real success requires **strict rules, major investment, and multi-sector cooperation**, not just small incremental fixes. China's experience also shows that once one region cleans up, polluting industries may shift elsewhere — creating new hotspots.

The lesson: Delhi needs bold, coordinated, long-term action — not piecemeal steps — to reverse its severe air pollution crisis.

Key Takeaways



| Clear your doubts now.



1. Beijing cleaned its air through strict, long-term, well-funded action.

Strong policy frameworks, strict enforcement, and large public investment transformed Beijing from heavily polluted to significantly cleaner.

2. Major focus on clean transport, especially electric vehicles (EVs).

China electrified public buses, taxis, and encouraged private EVs through incentives and licence-plate restrictions on petrol cars.

3. Industrial pollution was aggressively controlled.

Coal boilers were replaced, industries were relocated, and strict emission standards were imposed on factories and trucks.

4. Public participation and transparency mattered.

Beijing published air-quality data regularly and built public support for action.

5. China's PM2.5 levels fell faster than any other country (2014–2022).

Three-quarters of Chinese cities now meet national PM2.5 standards.

6. India lags in enforcement and infrastructure.

Delhi's surrounding thermal power plants run without FGD units; enforcement on vehicular and industrial pollution remains weak.

7. EV adoption in India is still slow.

Despite policy pushes, China's EV infrastructure and fleet far outpace India's efforts.

8. Pollution shifts geographically.

As Beijing improved, polluting industries moved to China's south and west — a reminder that regional strategies must anticipate spillover.

9. Key lesson for India: incrementalism won't work.

Delhi needs strict, coordinated, well-funded measures across transport, power, industry, and urban planning — not piecemeal steps.

[As Thailand strikes Cambodia, recalling the conflict's colonial roots-The Indian Express Explained Page](#)

History

Easy Explanation

Thailand and Cambodia have resumed clashes along their disputed border, most recently after Thailand carried out airstrikes claiming its soldiers were killed by Cambodian forces. Cambodia denies firing first. Although tensions flare today, the **roots of this conflict go back more than a century**, to colonial-era decisions made by France when it controlled Cambodia.

The key dispute centres on the **Preah Vihear temple**, an ancient Khmer temple located on a mountain ridge between the two countries. Historically, the region changed hands many times between the Khmer Empire and Siam (modern Thailand). In 1904, France and Siam agreed that the border would follow the watershed



| Clear your doubts now.



of the Dangrek Mountains, which would have placed the temple in Siam. But the **1907 French-drawn map** put Preah Vihear inside Cambodia.

Siam did not strongly protest at the time, but decades later, when both modern nations had grown more assertive, the disagreement turned into a major nationalist issue. Cambodia took the dispute to the International Court of Justice (ICJ), which in 1962 ruled the temple belonged to Cambodia. This ruling has never been fully accepted in Thailand, especially by nationalist groups.

Tensions escalated again in 2008 when Cambodia applied to register the temple as a UNESCO World Heritage Site. Border skirmishes followed, as both governments used the issue to appeal to nationalist sentiment. In 2013, the ICJ reaffirmed Cambodia's sovereignty and called for a demilitarised zone — but Thailand rejected further ICJ authority.

The current flare-up is therefore not new but part of a long-standing, unresolved territorial and nationalist dispute shaped by colonial boundary-making, domestic politics, and the symbolic importance of Preah Vihear to both nations.

Key Takeaways

1. Recent clashes are part of a century-old border dispute

The conflict dates back to colonial-era boundary maps drawn by France in 1907, which placed Preah Vihear temple inside Cambodia.

2. The Preah Vihear temple is the central flashpoint

Both sides see the temple as culturally and historically important, making it a powerful nationalist symbol.

3. Colonial boundary decisions created long-term tension

The 1904 treaty suggested the temple should lie in Siam, but the French map overrode this, setting the stage for future disputes.

4. ICJ rulings favoured Cambodia, but Thailand resists

The ICJ awarded the temple to Cambodia in 1962 and reaffirmed Cambodia's position in 2013, but Thailand rejects the court's jurisdiction.

5. Domestic politics fuels the conflict

Leaders in both countries have used the dispute to rally nationalist support during political crises.

6. Border clashes recur frequently

Skirmishes erupted in 2008, again in July this year, and now once more, displacing civilians on both sides.

7. The issue remains unresolved and volatile

Without a mutually accepted border settlement, the conflict is likely to reappear whenever political tensions rise.

[How Bankim imagined nation as motherland in AnandaMath-The Indian Express Explained page](#)

History



| Clear your doubts now.



Easy Explanation

Bankim Chandra Chattopadhyay's 1882 novel **Ananda Math** is one of the earliest and most influential texts shaping Indian nationalism. Bankim imagined the nation not just as territory or political unit, but as a **mother** — a sacred, nurturing figure who must be protected by her children. This idea appears in the novel and in the hymn **Vande Mataram**, which became a powerful nationalist slogan.

Scholars like Benedict Anderson and Partha Chatterjee argue that nations are “**imagined communities**”, created through ideas, symbols, and stories. Bankim's novel did exactly this. Written at a time when British rule was consolidating and modern education was encouraging new political thinking, *Ananda Math* used history and myth to offer Indians a new way to imagine themselves as a nation.

The story is set during the Bengal famine and the **Sanyasi Rebellion**, but Bankim retells these events to portray a heroic Hindu nationalist struggle. The motherland is feminised — *Bharat Mata* — and the sanyasis are imagined as disciplined sons fighting to restore her glory. This gendered imagination of nationalism (sons defending mother) later shaped much of India's anti-colonial politics.

Vande Mataram became a rallying cry during the Swadeshi movement, turning Bankim's literary imagination into a political symbol that influenced decades of nationalist thought.

Key Takeaways

1. Bankim imagined the nation as 'mother'

In *Ananda Math*, the land of birth becomes the mother figure — a powerful emotional symbol that shaped early Indian nationalism.

2. Nations are “imagined communities”

Bankim's myth-making fits into scholarly theories that nations are created through shared ideas, symbols, and stories, not just geography or race.

3. The novel rewrites history into a nationalist narrative

Bankim retells the famine and Sanyasi Rebellion as a patriotic uprising against Muslim rulers and the East India Company.

4. Birth of *Bharat Mata* as a political symbol

Bankim's framing of the nation as a feminine mother (home, spirituality) and citizens as her sons (duty, sacrifice) gave nationalism a gendered structure.

5. Rise of the ascetic-nationalist hero

The sanyasis become disciplined, martial protectors of the motherland — a new ideal of the nationalist citizen.

6. *Vande Mataram* became a mass political mantra

The hymn from the novel emerged as a rallying cry during the Swadeshi movement and inspired nationalists like Aurobindo.

7. *Ananda Math* created a foundational myth for Indian nationalism

It consolidated ideas that people needed to imagine a unified nation against colonial rule.



| Clear your doubts now.



How can India benefit from neurotechnology? -The Hindu text and Context

Science and technology

Easy Explanation

Neurotechnology refers to tools that can interact directly with the brain — recording brain activity, decoding thoughts, or stimulating specific brain regions. The most important of these tools is the **Brain–Computer Interface (BCI)**, which translates brain signals into digital commands. BCIs allow paralysed people to move robotic limbs, help treat conditions like Parkinson’s disease or depression, and can even restore communication abilities.

For India, these technologies matter because **neurological diseases are rising**, especially stroke, paralysis, spinal injuries, and mental health disorders. Neurotechnology can help millions by restoring mobility, reducing long-term medication needs, and offering new forms of rehabilitation.

India also has strong scientific talent in AI, biotechnology, and engineering — making neurotechnology an economic and research opportunity. Indian institutions like IIT Kanpur, IISc, and the National Brain Research Centre are already building BCIs, while startups are innovating in unique areas, such as decoding dog brain signals to detect cancer.

Globally, the U.S., China, and Europe are far ahead, with major programmes like the U.S. BRAIN Initiative and Neuralink’s human trials. Countries are also beginning to create laws to protect neurorights and regulate BCIs.

For India to benefit, it must build a supportive regulatory framework, ensure public trust, protect privacy, and set ethical standards. With the right policies, India could become a major hub for neurotechnology in healthcare, research, and even industry.

Key Takeaways

1. Neurotechnology enables direct interaction with the brain.

Brain–Computer Interfaces (BCIs) record, decode, or stimulate neural activity, helping restore movement, communication, and treat neurological disorders.

2. Major healthcare potential for India.

With rising cases of stroke, paralysis, Parkinson’s disease, depression, and spinal injuries, BCIs and neuroprosthetics can significantly improve rehabilitation and reduce long-term drug dependence.

3. India’s large informal neurological burden makes BCIs valuable.

Non-communicable and injury-related neurological diseases are growing; neurotechnology can help bridge gaps in treatment and recovery.

4. India already has strong research foundations.

Institutions like IIT Kanpur, IISc, and NBRC, and startups like Dagnosis, are developing innovative neurotech — from robotic hands to neural-signal analysis.



| Clear your doubts now.



5. Huge economic and technological opportunity.

Neurotechnology sits at the intersection of AI, biotech, and engineering — sectors where India has competitive strengths and talent.

6. Other countries are far ahead, setting benchmarks.

The U.S. (BRAIN Initiative, Neuralink trials), China (China Brain Project), and the EU/Chile (neurorights laws) show how fast the field is advancing globally.

7. Ethical, privacy, and regulatory issues are critical.

BCIs raise concerns about data privacy, autonomy, and potential misuse (e.g., military enhancement). India needs clear, tailored regulations.

8. Public engagement and trust are essential.

Citizens must understand the benefits and risks; transparent dialogue will support safe adoption.

9. India needs a supportive regulatory ecosystem.

A flexible, risk-based regulatory framework — not a one-size-fits-all policy — will help responsible innovation and ensure BCIs are safe, ethical, and effective.

[What is the India Post's DHRUVA framework?-The Hindu Text and Context](#)

Science and technology

Easy Explanation

DHRUVA is a new digital addressing system proposed by India Post. Instead of writing long physical addresses, users will have a **digital address label** (like *amit@dhruva*), similar to an email ID. When a user shares this label with a platform (e.g., Amazon, Swiggy, Uber, or India Post), the platform will — with the user's consent — receive the person's full physical address and a **precise geo-location code** called DIGIPIN.

DIGIPIN is a 10-digit alphanumeric code that identifies a **12 square metre area** anywhere in India, giving extremely accurate location details — especially useful in rural areas where descriptive addresses can be unclear.

DHRUVA is designed as a **Digital Public Infrastructure (DPI)**, like Aadhaar or UPI, and will involve an ecosystem of service providers who generate address labels, validate them, manage user consent, and govern the system.

The aim is to make deliveries smoother, reduce address errors, support e-commerce and gig platforms, and allow people to easily update their addresses when they move homes.

However, experts warn that because the system ties addresses to **individuals** instead of **buildings**, and depends on consent, it may not fully help urban planning or governance. If people choose not to share their address labels, the dataset may become incomplete, limiting its usefulness.

Key Takeaways



| Clear your doubts now.



1. DHRUVA is a digital addressing framework

It creates a simple address label (like an email ID) that platforms can use to access a person's actual address and location *with consent*.

2. Powered by DIGIPIN (precise geo-code)

DIGIPIN assigns a unique alphanumeric code to every 12 sq. meter block in India, helping with accurate deliveries, especially in rural areas.

3. Designed as Digital Public Infrastructure

Like UPI/Aadhaar, it will involve service providers, validators, intermediaries, and a central governing body.

4. Major benefits: convenience + privacy control

Users can:

- Share their address securely
- Control who accesses it and for how long
- Update address easily when they move homes
- Enable better doorstep service discovery

5. Needed for logistics, e-commerce, gig work

Companies like Amazon, Uber, and India Post can avoid address errors and improve delivery accuracy.

6. Concerns about urban governance usefulness

Because addresses are **linked to people, not buildings**, and rely on **user consent**, the system may produce incomplete data — limiting its value for city planning.

7. Requires a legal framework

Since it involves collecting and sharing personal address data, experts say a dedicated law is needed to authorise DHRUVA.

10th December 2025

[Why India is not 'dumping' rice in the US as Trump says - The Indian Express Explained Page](#)

Economy

Easy Explanation

Former US President Donald Trump claimed that **India is "dumping" rice in the US** and harming American farmers. He said he would fix it using tariffs.

But the data does not support this claim.

1. The US is not a big rice producer



| Clear your doubts now.



- The **US produces far less rice** than India (7 million tonnes vs. India's 150 million tonnes).
- Even with low production, the **US exports more rice than it imports** (exports: 3 million tonnes, imports: 1.6 million tonnes).
- A country that exports more than it imports **cannot complain of dumping**.

2. US rice imports are mainly premium rice

- The US imports **aromatic, high-value rice** from India and Thailand (Basmati, Jasmine, Hom Mali).
- These are expensive specialty varieties, not cheap rice.
- Prices of imported premium rice (\$880–\$1,125/tonne) are **higher** than US rice export prices (\$560–\$675/tonne).
- So India is **not selling cheap rice** to undercut US farmers.

3. India's exports to the US are very small

- India is the world's largest rice exporter (22–25 million tonnes annually).
- But the **US buys very little Indian rice**:
 - **Basmati**: Only **2.7 lakh tonnes** out of 60.6 lakh tonnes exported.
 - **Non-basmati**: Only **0.6 lakh tonnes** out of 141 lakh tonnes exported.
- The US is not a major market; West Asia (Saudi, UAE, Iran, Iraq) dominates for basmati, and Africa dominates for non-basmati.

4. Any new US tariffs will not hurt India

- The US share in India's rice exports is **tiny**.
- Even if tariffs increase, India's rice exports will be **largely unaffected**, unlike sectors like shrimp, garments, gems & jewellery which depend on the US market.

Key Takeaways

1. India is not dumping rice in the US.

US rice imports from India are premium varieties (Basmati), not cheap subsidised rice.

2. The US exports more rice than it imports.

Hence, the narrative of Indian rice "hurting" US farmers is incorrect.

3. US imports mostly high-value aromatic rice.

These are priced **higher** than US's own export rice; no price undercutting happens.

4. Extremely small share of India's rice exports go to the US.

The US accounts for **less than 3 lakh tonnes** of basmati and **less than 1 lakh tonnes** of non-basmati.

5. Major rice markets for India:

- **Basmati**: West Asia (Saudi, Iraq, Iran, UAE).
- **Non-basmati**: West Africa (Benin, Togo, Ivory Coast, etc.).

6. Tariffs will have negligible effect on Indian rice exports.

India's rice export ecosystem depends little on the US.

7. Dumping claims are politically motivated, not data-based



| Clear your doubts now.



[Yellow Line that may define Gaza border-The Indian Express Explained Page](#)

International relations

Easy Explanation

Israel currently controls **a little more than half of Gaza**.

Under the ongoing ceasefire plan (whose first phase is nearly done), Israel is **supposed to withdraw** from almost all areas of Gaza **except a small security buffer** along the border.

But Israel's military chief, **Lt. Gen. Eyal Zamir**, has now talked about a **"Yellow Line"** — an internal dividing line that separates the Israeli-held part of Gaza from the rest.

He called it a **"new border"** and a **"forward defensive line"** to protect Israeli communities.

What does this mean?

If Israel treats this Yellow Line as a permanent border:

- It will **continue controlling more than half of Gaza**.
- It will control **most of Gaza's agricultural land**.
- It will control the **Rafah crossing with Egypt**.
- It will **not fully withdraw**, even though the ceasefire plan expects it to.

This complicates the next phase of the US-backed ceasefire plan proposed by former US President Donald Trump, which aims for:

- Rebuilding a **demilitarised Gaza** under international supervision.
- **Normalising relations** between Israel and Arab states.
- Creating a **pathway to Palestinian independence**.

The plan says Israel's withdrawal must follow certain **"standards and milestones"** related to demilitarisation, but these are **not clearly defined**.

Because there is **no fixed timeline**, Zamir's statement may signal that Israel intends to **delay or even refuse further withdrawal**.

Key Takeaways

1. **Yellow Line = New claimed border**

Israel's military chief calls the internal dividing line within Gaza a **"new border"**, implying long-term control over the area.

2. **Continued Israeli control**

If enforced, Israel would still control **over half of Gaza**, including major agricultural land and the Egypt border crossing.

3. **Contradiction to ceasefire expectations**

The ongoing ceasefire plan requires Israel to withdraw from almost all areas except a narrow border buffer.

The Yellow Line would **block this withdrawal**.



| Clear your doubts now.



4. **Second phase of Trump's 20-point plan at risk**

The next phase involves:

- Rebuilding Gaza under international oversight
- Normalising Israel–Arab relations
- Creating a path toward Palestinian statehood

This becomes harder if Israel holds on to large parts of Gaza.

5. **No clear withdrawal timeline**

The ceasefire plan links withdrawal to **demilitarisation milestones**, but provides **no deadlines**, giving Israel room to delay.

6. **Zamir's statement suggests Israel might not pull back further**, making the ceasefire plan's political goals less achievable.

[Blue-Corner Notice against Goa club owners-The Indian Express Explained Page](#)

Internal security

Easy Explanation

A deadly fire at the **Goa club 'Birch by Romeo Lane'** killed **25 people**.

The club's owners — **Saurabh and Gaurav Luthra** — are **suspected to have fled India to Thailand**.

To trace them, the **CBI asked Interpol** to issue a **Blue-Corner Notice**.

What is a Blue-Corner Notice?

It is one of Interpol's colour-coded alert systems.

A **Blue Notice** is used **not to arrest**, but to:

- **Identify a person**
- **Verify background or criminal record**
- **Locate someone** who is missing or wanted
- Track an **unidentified or suspected international criminal**

It helps countries share **information worldwide** so that someone who has left their country can still be traced.

Blue Notice vs Red Notice

- **Blue Notice:** For information-gathering, locating, or verifying a person.
Issued *before or just after* charges are filed.
- **Red Notice:** For arrest of a fugitive.
Usually issued *after a criminal conviction* or strong charges.

Interpol issues **7 types of notices** in total, based on the purpose.

Key Takeaways



| Clear your doubts now.



1. **Blue-Corner Notice** issued for **Saurabh and Gaurav Luthra**, owners of a Goa club where 25 died in a fire.
2. The brothers are believed to have **fled to Thailand**.
3. **Blue Notice = information notice**, not an arrest notice.
It helps:
 - Verify identity
 - Get criminal background
 - Locate a person internationally
4. The CBI refers to it as a **“B Series (Blue) Notice”** or **“enquiry notice.”**
5. Blue Notices are issued **before or soon after filing charges**, unlike Red Notices, which are issued to **arrest a fugitive**.
6. **Interpol issues 7 kinds of colour-coded notices**, helping countries share critical crime-related data

[How countries like Myanmar and Cambodia turned into hubs of cyber slavery-The Indian Express Explained Page](#)

International relations



Easy Explanation

Countries like **Myanmar, Cambodia, and Laos** have become centres for **cyberslavery** — where people are trapped and forced to run online scams.

Indian job-seekers are offered **fake IT or data-entry jobs** in Thailand with high salaries.

When they reach Thailand:

1. The agents **take away their passports**.
2. They are **smuggled** to Myanmar, Cambodia, or Laos.
3. They are forced to work in **scam call centres** for long hours.
4. If they refuse, they face **beatings and torture**.



| Clear your doubts now.



These scam centres are run by **rebel groups**, criminal gangs, and corrupt networks.

After COVID-19, many casinos in these countries turned into scam centres, making the problem worse.

India found out about this in **2022**, when many IT workers from Tamil Nadu were trapped.

Since then, thousands of Indians have been rescued, but **many are still stuck**.

India is now:

- Checking passengers more strictly at airports
- Conducting awareness campaigns
- Working with embassies for rescue operations
- Investigating agents who send people into cyberslavery

Key Takeaways

1. **Myanmar, Cambodia, Laos = major cyberslavery hubs** due to rebel groups, corruption, and weak law enforcement.
2. **Fake job offers** lure Indians with promises of high pay.
3. Victims' **passports are seized**, and they are **trafficked** to illegal scam compounds.
4. They are forced to run **online scams**, working 15–18 hours in harsh, abusive conditions.
5. Issue identified first in **Tamil Nadu in 2022**; later seen in Gujarat, Delhi, UP, and Haryana.
6. India has **rescued 1,500+ people**, but **20,000+ still remain trapped** in Southeast Asia.
7. Government response includes strict airport checks, embassy raids, awareness drives, and joint investigations with CBI and I4C.
8. Long-term solution requires **international cooperation and treaties** with these countries.

[What Indians eat, and how being unhealthy is easier and cheaper - The Indian Express The Ideas](#) Page

Sociology

Easy Explanation

India today produces and exports huge amounts of food, but Indians are **not eating very healthy**.

A new national survey (HCES 2022–23) shows major changes in how Indians spend on food:

1. Spending on cereals has reduced, but eating cereals has not

People spend less on cereals like rice/wheat, but **still consume too many low-quality carbs** (refined grains, sugar).

ICMR's dietary study shows **62% of energy** in an average Indian diet comes from these low-quality carbs — the main cause of obesity and diabetes today.

2. Spending on better foods has increased

Indians now spend more on:



| Clear your doubts now.



- Milk, eggs, meat
- Fruits and vegetables
- Nuts

But consumption levels of healthy foods are **still below recommended levels**, especially:

- Vegetables
- Pulses
- Protein in general

3. Processed food consumption is rising very fast

Spending on packaged and ready-to-eat foods has jumped by:

- **353% in rural areas**
- **222% in urban areas**

Processed food has shifted from being a **luxury** to becoming a **daily necessity**, driven by:

- Busier lifestyles
- Less home cooking
- More women in the workforce
- Easy availability of packaged food

This shift is linked to a huge rise in **non-communicable diseases (NCDs)** like diabetes, cancers, heart disease, and obesity.

4. India is becoming wealthier, but not healthier

Even though incomes have doubled in 20 years:

- Poor diets now cause **57% of India's total disease burden**
- Years of life lost due to poor diet may rise from **50 million to 72 million** by 2050
- Obesity, diabetes, and cancer cases are projected to increase sharply

5. Healthy food is harder and costlier to access

There is a large gap between what Indians should eat and what they actually eat:

- Vegetable intake far below the target of **400g/day**
- Protein intake **20% below requirement**
- Ultra-processed foods are cheaper and more convenient, so people choose them more often

6. Fixing diets requires system-wide action

Improving public health is not just about individuals choosing better foods — the **environment makes unhealthy choices easier**.

Solutions proposed:



| Clear your doubts now.



- Tax sugary drinks & ultra-processed foods
- Front-of-pack labeling (FOPL) to warn consumers
- Support farmers to grow nutritious crops
- Invest in millets, pulses, high-protein rice, cold storage
- Encourage food companies to make affordable healthy products
- Transform the food system so that **healthy choices become the easiest choices**

Key Takeaways

1. **India's food spending patterns have shifted** — less on cereals, more on fruits, vegetables, dairy, and meat, yet diets remain carb-heavy.
2. **62% of Indian diet energy comes from refined carbs and sugars**, contributing to the obesity and NCD crisis.
3. **Processed food consumption has risen 200–350%**, becoming a daily necessity.
4. **Despite rising incomes**, India suffers from:
 - Low vegetable intake
 - Low protein intake (20% deficit)
 - High obesity, diabetes, and NCD surge
5. **Poor diets account for 57% of India's disease burden.**
6. By 2050, diet-related diseases will drastically increase:
 - Cancer cases +148%
 - Diabetes +229%
 - Respiratory diseases +40%
7. **Healthy food remains costlier and less accessible**, while unhealthy food is cheap and convenient.
8. Solutions require **whole-of-society action**:
 - Taxes on ultra-processed foods
 - Strong labeling rules
 - Support to farmers for nutritious crops
 - Investment in millets, pulses, cold chains
 - Food companies producing healthier, affordable products
9. **India is becoming wealthier, but not healthier** because the food ecosystem pushes people toward unhealthy choices.

[MAGA agenda is now America's global strategy-The Indian Express The Ideas Page](#)

International relations

Easy Explanation

The **US National Security Strategy 2025 (NSS 2025)** reflects Donald Trump's **America First / MAGA agenda**.

It represents a **major shift** in US foreign policy compared to the last 75 years.

The strategy shows a more **inward-looking, nationalist, and economically protectionist** America that wants:



| Clear your doubts now.



- Less responsibility for global leadership
- More focus on US borders, economy, and sovereignty
- Less concern for promoting democracy or liberal values abroad

For India, this change brings **challenges**, but also **opportunities**.

Main changes in the new US strategy

1. Top priority: Western Hemisphere (Latin America)

US wants to revive the **Monroe Doctrine**—dominance over its neighbourhood.

2. Not isolationist, but selective

US will be active where its **core interests** are involved but will not act as the **global policeman** anymore.

3. Civilizational pluralism replaces liberal universalism

US will not try to push democracy on other countries.

It accepts that nations like India, China, Russia can choose their own systems.

4. Economic nationalism = national security

Trade, industry, tariffs (including on India) become the main tools of foreign policy.

New approach toward Russia and China

- The NSS says **Russia & China are not “existential threats”**—a big shift.
- Trump signals potential **friendlier ties** with Russia (good for India).
- But he also shows **openness to deal-making with China** (concerning for India).

Harsh on Europe

The strategy criticizes:

- Europe’s liberal politics
- The European Union’s supranational power

It even supports **right-wing parties** in Europe — a revolutionary shift.

Asia still remains important

- Indo-Pacific remains a **priority** for the US.
- But allies must take **more responsibility** for regional security.
- US wants strong commercial ties with China but also wants to **contain its military expansion**.
- This creates uncertainty for Asian partners, including India.

For India

- India is not a US ally, so it has **more freedom**, but must quickly strengthen its own military power.
- Opportunity: take a larger role in shaping Asian geopolitics as the US steps back.
- But India must also:

- Maintain good relations with the US



| Clear your doubts now.



- Stabilize relations with China
- Deepen ties with Europe, Russia, Japan, ASEAN, Australia

Middle East

US says **oil is no longer the main reason** for its involvement.

It is shifting to technology, nuclear energy, AI, and defence cooperation.

But for India, the Gulf remains vital for:

- Oil
- Trade
- Diaspora

Key warning for India

Any India–Pakistan conflict could push Trump to intervene as a “peacemaker,” something India wants to avoid.

Key Takeaways

1. **NSS 2025 = formalisation of MAGA / America First** — nationalist, protectionist, sovereignty-focused.
2. **Four major shifts:**
 - Western Hemisphere becomes top priority; revival of Monroe Doctrine.
 - US becomes selective, not isolationist.
 - Civilizational pluralism replaces democracy promotion.
 - Economic nationalism becomes core national security.
3. **US no longer sees Russia or China as existential threats**, opening space for diplomacy.
4. **Harsh approach to Europe**, supports right-wing movements, criticizes EU.
5. **Indo-Pacific remains important**, but allies must carry more defence burden.
6. **Dual approach to China:**
 - Maintain economic ties
 - Deter military expansion
7. **For India:**
 - More autonomy as a non-ally
 - Must strengthen military and deterrence
 - Maintain active engagement with US despite tariff frictions
 - Improve ties with China
 - Deepen partnerships with Europe, Russia, ASEAN, Australia, Japan
8. **Middle East strategy shifts to tech & nuclear**, but India’s interests in Gulf remain energy-heavy.
9. **Risk for India:** US may intervene in India–Pakistan issues if tensions rise.



| Clear your doubts now.



10. Overall:

NSS 2025 marks a **historic reset of US foreign policy**, creating both strategic risks and opportunities for India.

[India's small enterprises hold key to job growth-The Indian Express The Ideas Page](#)

Economy

Easy Explanation

India talks a lot about “creating more jobs,” but the real issue is **where most Indians actually work**.

Most Indians are **self-employed** in **tiny household businesses** — shops, workshops, services — that:

- Have very little capital
- Use low technology
- Earn low income
- Don't hire workers

These small units are called **Own Account Enterprises (OAEs)**.

They form **87% of all non-agricultural enterprises**, but they hire **no workers**.

Only a small share of firms — called **Hired Worker Enterprises (HWEs)** — hire people, and they produce **7.5 times more output** than OAEs.

Key insight

When small businesses grow and earn more (higher GVA), they start **hiring workers**.

So job creation in India depends on **helping small enterprises grow**, not just on big factories.

Why don't small enterprises grow?

1. They stay unregistered

Because formalising increases paperwork and costs, and benefits seem unclear.

2. They cannot recover payments easily

Dues remain unpaid — a big problem for MSMEs.

3. Weak access to credit

Only **10–12%** have formal loans.

With credit:

- Medium firms can increase GVA by **72%**
- Large firms can triple their GVA

4. Low technology use

Even basic digital tools (online sales, digital payments) increase productivity.

But most micro-enterprises aren't digitally skilled.

What should India do?

- Improve ease of doing business for very small firms



| Clear your doubts now.



- Boost access to credit (tailored to each stage: subsistence → stability → growth)
- Improve digital skills and technology adoption
- Provide market linkages through UPI, ONDC, Digital MSME, etc.
- Give vocational training and handholding support

Big idea

India's job growth will come **not from a few big factories**, but from enabling **millions of tiny enterprises** to become slightly bigger and start hiring.

Key Takeaways

1. **Small, unincorporated household enterprises employ 12+ crore workers**, forming the backbone of India's labour market.
2. **87% of enterprises are OAEs** (no hired workers).
HWEs generate **7.5 times more GVA** per unit.
3. Dominance of self-employment reflects **economic compulsion**, not entrepreneurship.
4. **Increase in GVA → more hiring.**
A 10% rise in GVA leads to a **4.5% rise in hired workers**.
5. **Barriers to growth:**
 - High perceived cost of formalisation
 - Poor recovery of dues
 - Very low credit access (only 10–12%)
 - Limited technology adoption
6. **Formal credit sharply boosts productivity:**
 - Medium firms: GVA rises from ₹3 lakh → ₹5 lakh
 - Large firms: GVA rises from ₹11 lakh → ₹36 lakh
7. **Digital tools raise productivity**, especially for larger firms; micro-firms need digital handholding.
8. **Policy needs:**
 - Tailored credit (Shishu/Kishor/Tarun must match growth stages)
 - Better digital infrastructure + skills
 - Stronger market linkages
 - Support for small firms to grow into HWEs
9. **Core message:**
India's employment future lies in **lifting productivity and growth of small enterprises**, not just promoting large industry.

[Does Google's Quantum Echoes bring Q-day closer?-The Hindu text and Context](#)

Science and technology

Easy Explanation

Google used a 65-qubit quantum computer called Willow to study how quantum information spreads inside a system and then returns like an "echo." This experiment, called Quantum Echoes, helps scientists understand how quantum particles behave but does not help in breaking encryption or



| Clear your doubts now.



bringing “Q-day” closer. Q-day is the future moment when a very powerful quantum computer could break today’s encryption systems, but that requires millions of stable qubits, while current machines have only a few hundred. So Q-day is still far away. Governments are preparing early because stolen encrypted data today could be decoded in the future. That is why countries, including India, are shifting to quantum-safe encryption. Overall, Google’s experiment is a scientific achievement, not a cybersecurity threat.

Key Takeaways

- **Google’s Quantum Echoes experiment** used a 65-qubit processor (Willow) to study how quantum information spreads and returns, like an “echo.”
- The experiment aims to **understand quantum physics**, not to achieve faster computing or break encryption.
- **Q-day** is the future day when quantum computers may break current encryption systems like RSA-2048, but **we are nowhere close** to that.
- Breaking RSA would require **millions of stable, error-corrected qubits**, while today’s quantum computers have **only a few hundred noisy qubits**.
- The main cybersecurity risk today is “**harvest now, decrypt later**”—data stolen now may be decrypted in the future.
- To prepare, NIST has approved **post-quantum cryptography algorithms** (Kyber and Dilithium), and India is urging early adoption.
- Quantum Echoes and **Shor’s algorithm** are very different—Shor’s algorithm breaks encryption, but Quantum Echoes only studies quantum behaviour.
- Google’s experiment is a **scientific milestone**, not a step toward Q-day.

[Value of water: evaluating the pricelessness of clean, potable water-The Hindu Text and Context](#)

Environment

Easy Explanation

The article examines a study conducted in Odisha that directly measures how much households value clean, potable water when all non-monetary burdens such as collection time, taste issues, and irregular access are removed. Unlike earlier studies that inferred valuation through adoption of chlorine, filters, or piped-water take-up, this study delivers clean water directly to households and uses three experimental arms—price, free-water, and exchangeable entitlements—to estimate both **Willingness to Pay (WTP)** and **Willingness to Accept (WTA)**.

The study finds that households place **much higher value** on clean water than previously believed. WTP and WTA were significantly higher than indirect estimates, with WTA especially large, showing strong reluctance to give up clean water even for cash equivalents. Households shifted from unsafe sources, saved time, and reported better health. The findings challenge narratives that poor households do not value water quality; rather, they resist the burdens of accessing and treating water, not the quality itself.



| Clear your doubts now.



The study suggests policy pathways such as subsidised home-delivery models, entitlement-based support, and pricing strategies aligned with WTP, acting as interim solutions where piped infrastructure is weak. It reframes water access as a question of **service delivery**, not technology adoption.

Key Takeaways

1. Why this study matters

- Traditional research measures water valuation *indirectly*; this study provides a **direct, behaviour-based valuation** by delivering clean water to households.
- Highlights the gap between actual value of clean water and what earlier studies captured due to burden-related distortions.

2. Context: Odisha's poor water access

- Odisha ranked **32nd of 37 States** in piped-water coverage (2021).
- **83% households lack piped connections**; 41% villages still lack safe drinking water (2023).
- Local dissatisfaction and protests underline the urgency of improved access.

3. Study design

- Conducted across **160 villages; 99 implemented**.
- Three experimental arms:
 - **Price arm** — households buy water at subsidised prices → reveals WTP.
 - **Free-water arm** — unlimited access at zero cost → shows unconstrained demand.
 - **Exchangeable entitlement arm** — water vs. cash choice → reveals WTA.
- Removes non-monetary costs: collection, labour, transport, taste issues.

4. Key findings

- **WTP and WTA are far higher** than earlier estimates.
- WTA especially high → households strongly prefer not to lose access to clean water.
- **Demand moderately responsive to price**, indicating water is a **necessity**, not a discretionary item.
- Households often chose **water over equivalent cash**, showing prioritisation of health and reliability.
- Direct access led to:
 - Shift away from unsafe water sources
 - Reduced collection time
 - Lower household treatment burden
 - Self-reported improvements in health

5. What the findings reveal about behaviour

- Low uptake of chlorine/filters does *not* mean people undervalue cleanliness.
- They resist **burdens** associated with accessing and treating water.
- Once convenience improves, valuation becomes visible and significantly higher.
- Large WTP-WTA gap suggests psychological loss aversion and fear of losing reliable water access.



| Clear your doubts now.



6. Policy implications

- Strengthen **decentralised, home-delivery models** where piped supply is inadequate.
- Offer **subsidies aligned with WTP**, ensuring affordability without distorting value.
- Use **entitlement-based cash-or-water schemes** for vulnerable groups.
- Such approaches serve as **effective interim solutions** until long-term infrastructure expands.

7. Conceptual contribution

- Reframes water access as a **service delivery challenge** rather than a problem of technology adoption.
- Shows that improving convenience and reliability is key to unlocking true demand for clean water.

11th December 2025

[In Australia's social media ban,template for the world-The Indian Express Explained Page](#)

Governance

Easy Explanation

Australia has passed a new law that says **children under 16 cannot use social media**. This makes Australia the **first country in the world** to do this.

What the law does:

- Platforms like **Instagram, YouTube, TikTok, Snapchat, Facebook** must now
 - **Find all accounts** belonging to children under 16
 - **Delete or deactivate** those accounts
 - **Stop them from opening new accounts**
- If platforms do not follow the law, they can be fined up to **USD 33 million**.

Why Australia did this:

The government found that:

- Many children face **cyberbullying** and **harmful content** online.
- Social media keeps children **glued to screens** using addictive design features.
- Kids are at risk of **grooming, stalking, and hateful content**.

So the aim is to **protect children's mental health and safety**.

Which platforms are covered:

From December 10, the law applies to **10 major platforms**:

Facebook, Instagram, TikTok, YouTube, Snapchat, Reddit, Threads, X (Twitter), Twitch, and Kick.

What is not included:



| Clear your doubts now.



- Dating apps
- Gaming platforms
- AI chatbots

How tech companies reacted:

- They **oppose** the law.
- YouTube says kids will lose safety features if they use the platform without accounts.
- Meta and Snap say the law may **not make kids safer** and may push them to unsafe apps.
- X says it may affect children's **freedom of expression**.

How it compares with India:

India does **not ban social media for children**.

Instead, India's **Digital Personal Data Protection Act (2023)** says:

- Platforms must get **parental consent** for users **under 18**.
- They cannot **track or show targeted ads** to children.

Australia: **Age ban (under 16)**

India: **Data protection + parental consent (under 18)**

Key takeaways

- **Australia is the first country** to legally enforce a **minimum age of 16** for using major social media platforms.
- Under the new law, platforms must **identify, deactivate, and block** accounts of all users **below 16**, and prevent them from creating new accounts.
- Law name: **Online Safety Amendment (Social Media Minimum Age) Act**.
- **Reason:** Rising concerns over **cyberbullying, grooming, harmful content**, and **screen addiction** among children.
- A majority of young Australians have reported **online harm**, prompting the move.
- Non-compliance can attract **heavy fines up to USD 33 million** for platforms.
- The ban applies to **10 major platforms**: Facebook, Instagram, YouTube, TikTok, Snapchat, Reddit, Threads, Twitch, X, and Kick.
- YouTube was initially exempt but later included due to being highly cited for **harmful content exposure**.
- Tech companies (Meta, YouTube, Snap, X) **opposed the law**, stating it may reduce safety controls and impact children's rights.
- **Not included:** dating platforms, gaming sites, AI chatbots.
- **Comparison with India:**
 - India does **not ban** children from social media.
 - Under the **DPDP Act, 2023**, platforms must obtain **verifiable parental consent for users under 18**.
 - India also bans **tracking, profiling, behavioural monitoring and targeted ads** for children.



| Clear your doubts now.



- **FACTS**

Australia's online safety regulator **eSafety** surveyed children between **December 2024 and February 2025**.

The results show that a **very large number of children face serious online harm** while using social media.

What children are seeing online:

- **74%** came across **harmful content** (violent, sexual, disturbing material).
- **60%** saw or heard **online hate**.

What children personally experienced

- **53%** faced **cyberbullying**.
- **27%** personally experienced **online hate**.
- **38%** had someone say **hurtful things** to them online.
- **25%** experienced **non-consensual tracking, monitoring, or harassment**.
- **17%** had their private messages or information **shared without consent**.
- **16%** were **sent or tagged in offensive photos or videos**.
- **13%** were told online to **hurt themselves or die** (extremely serious psychological harm).

Meaning of these findings:

The survey shows that:

- Children are **highly exposed** to harmful content and bullying.
- Online platforms have not been able to protect young users.
- The mental health risks are **major**, which is why Australia introduced a strict **minimum age law** for social media.

[**A glowing recognition:How Diwali made it to UNESCO list-The Indian Express Explained**](#)

[**Page**](#)

Art and Culture

Easy Explanation

Diwali (Deepavali), one of India's most important festivals, has been officially added to UNESCO's **Intangible Cultural Heritage List** for 2025.

This list recognises **living cultural traditions**—such as festivals, rituals, performing arts, and traditional skills—that communities practice and pass down through generations.

UNESCO's list does not include monuments or physical sites. Instead, it focuses on traditions that shape identity and cultural continuity.



| Clear your doubts now.



India already has several cultural practices on this list, such as **Garba, Durga Puja, Kumbh Mela, Yoga, Ramlila, and Vedic chanting**. With Diwali, the total becomes **16 elements**. India has also nominated **Chhath Puja** for the next cycle.

A tradition is added only if it is **inclusive, representative, community-based**, and holds social or cultural value.

Diwali's inclusion means the festival gains **global recognition**, support for preserving its rituals and practices, more **tourism potential**, and better livelihood opportunities for artisans who keep Diwali traditions alive (such as diya-makers, rangoli artists, craftsmen, etc.).

Overall, the inscription strengthens Diwali's status as a **living cultural expression** of humanity.

Key Takeaways

- Diwali has been officially added to the **UNESCO Intangible Cultural Heritage List for 2025**.
- The list recognises **living traditions** like festivals, rituals, arts, and community practices—not physical monuments.
- With this addition, India now has **16 cultural elements** on the list, including Yoga, Garba, Durga Puja, Kumbh Mela, Vedic chanting, and Ramlila.
- India has proposed **Chhath Puja** for the next nomination cycle.
- UNESCO requires that listed traditions be **inclusive, representative, and community-driven**.
- The goal is to protect cultural diversity and safeguard practices at risk.
- Diwali's inclusion increases **global visibility**, encourages preservation of its traditions, boosts **tourism**, and supports artisans who contribute to the festival.

[Did US 'second tap' a Venezuelan boat? The legal questions at play - The Indian Express Explained Page](#)

International relations

Easy Explanation

A major controversy has emerged in the US over a **boat strike conducted by the US military** in September. The strike targeted a Venezuelan boat that the US claimed was involved in drug trafficking. The central question now is whether the US military carried out an illegal **"second tap"**—a second strike aimed at killing survivors of the first attack.

International law clearly states that:

- You **cannot kill survivors** who are surrendering or unable to fight ("hors de combat").
- A **"no-quarter" order**, meaning no survivors should be spared, is illegal.
US military rules also prohibit attacking wounded or shipwrecked people.

What triggered the debate?

The Washington Post reported that:



| Clear your doubts now.



- Two people survived the initial attack,
- A US aircraft **returned and killed them**,
- Video footage shows survivors signalling—possibly surrendering or asking for help.

There is disagreement among experts. Some say they may have been signalling drug traffickers, which could make them legitimate targets. Others believe they were clearly seeking help.

Mixed official responses

Statements by US officials have been contradictory:

- Reports said the operation commander ordered a second strike under instructions.
- US Secretary of War and the President denied this.
- Later, the White House admitted the commander ordered the second strike but claimed he had the authority.

Larger legal question: Can the US be “at war” with drug traffickers?

Usually, the Coast Guard handles drug-interdiction missions—seizing boats, arresting people.

Using the **military** is a major shift.

Only **Congress** can declare war; the President can order limited operations.

Experts say Venezuela is **not a major drug source** for the US. They argue Trump’s claim of a “war on narco-terrorists” is politically driven, not fact-based.

What is Trump’s broader strategy?

According to experts:

- The US military buildup in the Caribbean is meant to increase pressure on Venezuela.
- Trump hopes the pressure will force President **Nicolás Maduro** to step down.
- Venezuela’s large **oil reserves** are a key factor in US interest.
- But the Venezuelan regime is held together by a tight network of loyalty and control, not just Maduro’s leadership—meaning it is unlikely to collapse easily.

Key Takeaways

- A US military strike on a Venezuelan boat is under scrutiny due to allegations of an illegal “**second tap**” killing survivors.
- International law forbids killing surrendering or incapacitated people, and US rules also prohibit attacking shipwrecked survivors.
- Video footage shows survivors signalling; experts differ on whether they were surrendering or signalling accomplices.
- US official statements on who ordered the second strike have been inconsistent.
- The US claims the operation is part of a “**war on narco-terrorists**,” but experts say Venezuela is not a major drug source.
- Using the military for drug-related missions is a major shift from the usual Coast Guard operations.



| Clear your doubts now.



- Analysts believe the real goal is to increase pressure on President **Nicolás Maduro** and influence political outcomes in oil-rich Venezuela.

[Amid Macaulay row, let's not forget, India increasingly speaks in English to itself-The Indian Express The Ideas Page](#)

History

Easy Explanation

This article discusses the ongoing debate in India about **English**, triggered by Prime Minister Narendra Modi's criticism of the "Macaulay mindset".

Thomas Macaulay, a British official in 1835, pushed for English education in India to create a class of Indians loyal to the British. His policies led to English replacing many Indian knowledge systems in schools.

However, over time, Indians **appropriated English** and used it not just for government work, but also for nationalism, journalism, literature, and global engagement. English became a **tool of empowerment**, not just colonial control.

The article argues that the real issue today is not the **English language**, but the **mindset** that sees Western knowledge as superior and Indian knowledge as inferior. Many Indians, even the poorest, see English as a path to opportunities, education, and jobs.

The writer says India must strike a balance:

- English has helped India in global diplomacy, science, IT, and literature.
- But Indian languages and knowledge systems must also be valued.
- The National Education Policy's emphasis on mother tongues is a positive step.

The solution is not to reject English, but to **reject the colonial mindset**. India should teach **Kalidasa along with Shakespeare, the Upanishads with Plato, the Ramayana with the Bible**, and celebrate its own stories in all languages—including English.

English is no longer foreign; Indians have made it their own. But India must ensure that learning English does not mean **forgetting its own cultural roots**.

Key Takeaways

- PM Modi revived the debate on the "Macaulay mindset", which refers to favouring Western knowledge over Indian traditions.
- Macaulay introduced English education in 1835 to create a class useful to British rule, not to uplift Indians.
- Over time, Indians adopted English and used it for nationalism, journalism, and political resistance.
- The problem is not the **English language**, but the **colonial bias** that values English knowledge over Indian wisdom.
- Indian students historically studied Shakespeare but not Kalidasa, Bible stories but not the Ramayana—reflecting an epistemic imbalance.



| Clear your doubts now.



- English remains central in India today—for jobs, IT, courts, diplomacy, science, and global communication.
- For many ordinary Indians, English is a language of opportunity, not betrayal.
- India must **retain English** but remove its monopoly; Indian languages must be strengthened at par with English.
- National Education Policy's promotion of mother tongues is a step toward correcting imbalance.
- India must teach Indian classics alongside global classics, ensuring children know Indian stories before foreign myths.
- The goal is to shed the **colonial mindset**, not the English language.
- English is now Indian in accent, usage, and creativity; India must use it wisely without losing cultural identity.

[Satellites, science, and the new fight for spectrum in space-The Hindu Text and Context](#)

Science and technology

Easy Explanation

A new kind of global competition is unfolding in outer space — not just for the Moon or Mars, but for **radio spectrum and orbital slots**, which are essential for satellite communication.

Companies launching **megaconstellations** (thousands of satellites working together) are racing to secure the best frequencies and orbits so they can provide high-speed internet around the world.

What is the spectrum fight about?

Satellites use **radio frequencies** (like Ku-band, Ka-band, L-band) to send data to Earth.

But these frequencies are **limited**, and if two satellites use the same band without coordination, their signals will interfere.

Along with spectrum, satellites also need **specific orbital slots** to broadcast properly.

This makes both resources extremely valuable — almost like “real estate in space”.

Why is competition rising?

New megaconstellations like:

- Starlink (8,000 satellites already, plans for 42,000)
- OneWeb (648 satellites)
- Amazon Kuiper (3,200 planned)
- China's GuoWang (13,000 planned)

are rapidly filling up space and demanding more spectrum. The market for such constellations is expected to grow **six times by 2032**.

How does the ITU govern spectrum?



| Clear your doubts now.



The **International Telecommunication Union (ITU)**, a UN agency, assigns frequencies and orbital positions. Its system is **first-come, first-served**, giving early and wealthy entrants a big advantage.

The 2023 World Radiocommunication Conference added rules such as:

- Companies must deploy 10% of their constellation in 2 years, 50% in 5 years, and 100% in 7 years.
- Operators must inform the ITU if they deviate from their approved orbit.

Still, the system was designed decades ago and is struggling with the explosion of thousands of satellites.

Digital divide angle

Megaconstellations can help connect remote regions because:

- Low-earth orbit (LEO) satellites offer very low latency (20–40 ms).
- They can bring internet to places where laying cables is expensive or impractical.

But the challenge is **cost**:

- Starlink hardware costs around \$600, too expensive for most rural users.
- ITU estimates around **\$2.6 trillion** is needed to close the global digital gap by 2030.

India, with OneWeb participation and ISRO's satellites, is trying to balance **affordability** and **spectrum access**. TRAI prefers administrative allocation (not auctions) because satellite spectrum can be shared efficiently.

Sustainability concerns

By 2030, over **50,000 satellites** may be in orbit. Space is becoming crowded, and debris is piling up. ITU's Resolution 74 (2023) asks countries to ensure:

- Satellites must be deorbited within 25 years after mission completion.
But compliance is only around 70%, meaning debris continues to grow.

Why does governance matter?

If spectrum and orbits are monopolised by a few powerful countries or companies, others will be left out. Without global rules, space could become:

- congested
- conflict-prone
- unequal

For emerging space powers like India, shaping these rules now is critical to ensure space remains a **shared and sustainable global resource**.

Key Takeaways

- Satellites need two things to work: **radio frequencies** (to send signals) and **space in orbit**. Both are limited, so there is a growing fight to secure them.



| Clear your doubts now.



- Big companies are putting thousands of satellites in space (Starlink, OneWeb, Amazon, China). This is causing **heavy competition** for these limited resources.
- A UN body called **ITU** decides which satellite can use which frequency and orbit. It follows a **first-come, first-served** rule, so early applicants get priority.
- New ITU rules say companies must actually launch parts of their planned satellite networks on time — they cannot simply “reserve” space without using it.
- These satellite networks can help bring **internet to remote areas** because low-earth orbit satellites give **faster and smoother** connections.
- But they are still **too expensive** for many people — for example, Starlink equipment costs around **\$600**, which rural families cannot afford.
- Space is getting **crowded**, with more than **50,000 satellites** expected by 2030, increasing the risk of space debris.
- ITU asks countries to remove satellites within **25 years** after their mission, but many companies do not follow this rule.
- Without better global rules, powerful countries and companies may dominate space resources, making it **unfair and unsafe**.
- India needs to shape these rules now to ensure **affordable satellite internet** and **fair access to space**.

[Breeding project gives endangered western tragopan breathing space-The Hindu Science](#)

Environment

Easy Explanation

The **western tragopan** is a rare Himalayan pheasant and the state bird of Himachal Pradesh. Its population is very small — only **3,000 to 9,500 individuals remain** in the wild — and it survives in small, fragmented forests across J&K, Himachal Pradesh, Uttarakhand, and northern Pakistan. Habitat loss, human disturbance, and climate change threaten its long-term survival.

To save the species, Himachal Pradesh started a **captive breeding programme** at the **Sarahan Pheasantry**. After early struggles, it became the **world’s first successful breeding programme** for this bird in 2005. Today, about **46 birds** are maintained in captivity, with 6–8 eggs and 4–5 chicks successfully surviving each year. The success came through carefully redesigning enclosures, food, vegetation, and nesting materials to mimic natural conditions.

However, experts warn that **breeding alone cannot save the species**. Without strong **habitat protection**, reintroduction will not work. Climate change also disrupts the natural timing between breeding and food availability, putting chicks at risk of starvation.

Attempts to **release captive-bred tragopans into the wild** showed promise — one bird survived nearly a year — but the programme has been on hold since 2023 due to **budget constraints** and the need for more research.

Community involvement is emerging as a crucial factor. In some areas, local villagers have stopped disturbing breeding zones, supported tourism, and helped increase sightings. Long-term survival will depend on a mix of **habitat conservation, scientific breeding, community support, and climate adaptation**.



| Clear your doubts now.



Key Takeaways

1. Status of the western tragopan

- The western tragopan is one of India's **rarest Himalayan birds**, with only **3,000–9,500 individuals** remaining.
- Its habitat is **shrinking and fragmented** due to human disturbance and climate change.
- The entire wild population forms **one vulnerable group**, increasing the risk of extinction.

2. Captive breeding progress at Sarahan

- The Sarahan Pheasantry achieved the **world's first successful captive breeding** of this species in 2005.
- Breeding initially failed because the birds are **highly sensitive** to stress, enclosure conditions, and diet.
- Scientists stabilised breeding by **recreating natural forest conditions**—proper nesting materials, vegetation, and seasonal diets.
- The pheasantry now has **around 46 birds**, with **6–8 chicks hatching and 4–5 surviving each year**.

3. Why captive breeding alone is not enough

- Captive breeding is meant to be an **insurance strategy**, not a replacement for protecting wild habitats.
- Without **in-situ conservation** (forest protection), releasing birds will not rebuild wild populations.
- Much effort has gone into breeding, but **habitat protection has lagged**, limiting overall progress.

4. Impact of climate change

- Climate change disrupts the tragopan's **breeding timing**, which must align with insect availability.
- If insects are not plentiful when chicks hatch, many **may starve**, reducing wild survival.
- Rising temperatures and altered seasonal cycles further stress the species.

5. Reintroduction attempts and challenges

- Trial releases in 2020–21 showed promise; one bird survived nearly a year in the wild.
- Reintroductions paused after 2023 due to **budget cuts** and the need for more scientific protocols.
- Successful release requires checking **food, predators, habitat quality**, and the bird's ability to adapt.
- Experts emphasise that reintroduction is a **slow, long-term process** requiring patience.

6. Role of local communities

- Conservation improves when locals are involved.
- **Community-based tourism** gives villagers income that does not depend on forest use, leading to better protection of breeding areas.
- In regions where villagers avoid disturbing forests (e.g., Rakhundi, Shilt), **tragopan sightings have increased**.

7. Overall conclusion



| Clear your doubts now.



- Long-term survival of the western tragopan requires a **combined approach**:
 - captive breeding
 - habitat protection
 - climate-sensitive management
 - active community involvement
- Without protecting forests, breeding successes cannot translate into recovery of wild populations.

[EU scientists say 2025 set to be second or third warmest year-The Hindu Science](#)

Environment

Easy Explanation

EU climate scientists say that **2025 is likely to become the world's second or third warmest year ever recorded**, coming close to or just behind 2024 — the hottest year in history. This shows that global warming is accelerating far faster than expected.

For the **first time**, the world has now gone through **three consecutive years** (2023–25) where the **average global temperature stayed above 1.5°C** compared to pre-industrial times (1850–1900). This 1.5°C threshold is extremely important because the **Paris Agreement** set it as the limit to avoid the worst climate impacts.

Scientists stress that crossing 1.5°C for a few years does **not** mean the Paris target is officially breached — the target is measured over decades — but it shows the world is getting dangerously close. The UN has already warned that **meeting the 1.5°C goal is no longer realistic** and that countries must immediately cut emissions to limit how far we overshoot.

Extreme weather is becoming more severe:

- A typhoon in the Philippines killed more than 200 people.
- Spain saw its **worst wildfires in 30 years**, made worse by climate change.

Climate experts confirm that the main driver of rising temperatures is **greenhouse gas emissions from burning fossil fuels**. The last **10 years have all been the hottest ever recorded**.

Global assessments show the world is currently headed toward **2.3–2.8°C of warming** by the end of the century — far beyond safe limits — unless rapid emission cuts happen. Scientists also note an alarming fact: the global temperature has risen **0.4°C in just two years**, a highly unusual and worrying jump.

Key Takeaways

1. 2025 will be among the hottest years ever

- EU scientists (Copernicus C3S) say 2025 will likely be the **2nd or 3rd warmest year** ever recorded.
- Only 2024 is expected to be hotter.

2. The world is crossing critical temperature zones



| Clear your doubts now.



- 2023–25 will be the **first three-year period** with global temperatures **above 1.5°C** compared to pre-industrial levels.
- 1.5°C is the Paris Agreement's danger limit; crossing it shows accelerated warming.

3. Extreme weather linked to climate change is increasing

- Deadly typhoon in the Philippines and Spain's **worst wildfires in 30 years** are linked to warming.
- Such events are becoming more frequent and more severe.

4. Human emissions remain the main cause

- Scientists confirm that the continued burning of **coal, oil, and gas** is the primary reason global temperatures keep rising.
- The last **10 years have been the warmest decade ever recorded**.

5. Paris climate goals are slipping out of reach

- The UN says meeting the **1.5°C target is no longer realistic**, even with full implementation of current climate plans.
- Present national policies put the world on track for **2.3–2.8°C warming** by 2100 — far above safe limits.

6. A worrying recent temperature jump

- Scientists note an **unprecedented 0.4°C rise in just two years**, indicating the climate system may be entering a more unstable phase.

7. Massive emission cuts are urgently needed

- UNEP says **global emissions must fall by half by 2035** to keep even a brief chance of staying near 1.5°C.
- Without deeper cuts, warming will continue to worsen, bringing more extreme weather and ecological damage.

12th December 2025

[Behind China's \\$1-tn trade surplus-'Surplus is as much a sign of imbalance as it is of strength'-
The Indian Express Explained Page](#)

Economy

Easy Explanation

China has recorded **over \$1 trillion in trade surplus** in the first 11 months of 2025 — the highest any country has ever achieved in such a short period. While this looks like a sign of economic strength, experts say it also reveals a **deep imbalance** in China's economy.

Why the surplus is so high



| Clear your doubts now.



China has built a massive manufacturing ecosystem over two decades. Even though **domestic demand in China is weak**, its factories keep producing more. Since Chinese consumers and investors are not spending enough, the extra goods are being pushed abroad — increasing the surplus.

A weaker Chinese currency (renminbi) also made exports slightly cheaper this year.

What products are driving exports?

China is now exporting **more high-value goods**:

- Machinery
- Electronics
- Automobiles
- Integrated circuits

Meanwhile, **low-margin sectors** like apparel, toys, and footwear are shrinking because of global competition and China's own push against "involution".

What is 'involution'?

When domestic demand is low, companies keep cutting prices to survive.

This triggers a **race to the bottom**, where firms undercut each other continuously — hurting profits and long-term stability.

The government is trying to stop this.

What about China–US trade?

Exports going to the US have fallen. But China hasn't replaced the US; instead:

- It is exporting **more to the Global South**.
- Some exports are being **rerouted via Southeast Asia** to avoid US tariffs.
- Diversification is helping sustain the surplus.

Dumping accusations and China's dilemma

Globally, countries — especially in Europe — accuse China of **dumping**, meaning exporting goods at ultra-low prices because of domestic overcapacity.

Inside China, officials warn against producing too much and starting endless price wars.

This creates a **policy dilemma**:

- If China reduces capacity → jobs and growth may suffer
- If China keeps exporting excessively → more global backlash and trade restrictions

Is export-led growth sustainable?

In the short run, yes — because China still has unmatched supply-chain strength.

But in the long run, many countries are trying to reduce dependency on China, especially in:



| Clear your doubts now.



- EVs
- Batteries
- Solar
- Electronics

Experts say a **second China Shock** may occur — but this time in **advanced manufacturing technology**, not cheap goods. This could disrupt industries globally and lead to more protectionist policies.

Key Takeaways

1. Record Surplus = Strength + Imbalance

China's \$1 trillion surplus reflects strong manufacturing but also weak domestic demand.

2. Shift to High-Value Exports

Machinery, electronics, EVs, and chips are driving export growth. Low-margin goods continue to decline.

3. Involution Problem

Overcapacity + weak demand → price-cutting wars among Chinese firms. Government wants to curb this.

4. US Demand Weak, Global South Strong

China hasn't replaced the US but diversified toward developing countries. Some rerouting through ASEAN exists.

5. Trade Tensions Rising

Europe and others accuse China of dumping due to excess capacity. This increases global trade friction.

6. Sustainability Question

Short-term exports remain strong; long-term risks include global decoupling and strategic diversification away from China.

7. Possible 'Second China Shock'

Likely in high-tech sectors (EVs, batteries, solar) rather than cheap consumer goods — could trigger more global protectionism.

[Behind China's \\$1-tn trade surplus-Numbers hide domestic weaknesses:imports, consumption,currency-The Indian Express Explained Page](#)

Economy

Easy Explanation

China has hit a **record \$1 trillion trade surplus in 2025**, meaning it exports far more than it imports. This happened **despite Donald Trump's tariff war**, which reduced exports to the US but **pushed China to expand heavily into South Asia, Southeast Asia, Latin America, and Africa**.

Many experts warn this could become a **"second China shock"**—another wave of cheap Chinese goods flooding global markets, harming local industries in developing countries.



| Clear your doubts now.



Why is China dominating?

1. **Manufacturing power:** China remains the world's largest manufacturer of many goods. Only Britain during the Industrial Revolution and the US after World War II had similar dominance.
2. **Weak domestic demand:** China is not buying enough from the world. Normally, as countries get richer, they import more. China has *not* shifted away from low-value manufacturing, so it keeps exporting massive volumes while importing little.
3. **Cheap prices globally:** Chinese overcapacity has caused prices of many goods to collapse, making Chinese products extremely competitive.

Why is this a problem for the world?

- **Other countries' industries get wiped out** because they can't match China's low prices.
- Consumers get cheap goods, but **local factories lose**—leading to job losses and political backlash.
- Developed economies (US, Europe) respond with **tariffs and protectionism**.
- Developing economies (India, Indonesia, Thailand, Africa) risk being **flooded with redirected Chinese exports**.

What global institutions are saying

- The **IMF says** the yuan is weak in real terms because China's prices are very low, making exports even cheaper.
- IMF wants China to **boost domestic consumption** and allow more **exchange rate flexibility**.

China's strategic direction

Xi Jinping wants China to dominate **both traditional and advanced industries**, including:

- Electric vehicles (EVs)
- High-end electronics
- Defence technology
- Apparel and consumer goods

China is still holding on to **low-cost exports** while moving some production to Vietnam and the Philippines to avoid tariffs.

Impact on India

- India supports global action to correct China-led imbalances, but **Trump's tariffs also hurt India and Brazil** unintentionally.
- India fears a **surge of Chinese goods diverted from the US**, especially after New Delhi loosened some quality-control restrictions.
- Chinese imports into India are already rising sharply in 2025, worsening the trade deficit.

Key Takeaways



| Clear your doubts now.



1. **China's trade surplus hit \$1 trillion in 2025**, despite US tariffs.
2. China diverted exports from the US to **South & Southeast Asia, Africa, Latin America**, creating a *second China shock* risk.
3. China has an **extreme manufacturing dominance**, only seen historically with the UK (Industrial Revolution) and US (post-WWII).
4. **Weak Chinese domestic demand** means China imports very little but exports a lot, worsening global trade imbalances.
5. Chinese overproduction has **lowered global prices**, damaging other countries' manufacturers.
6. The **IMF warns** that China's low inflation has caused the yuan to depreciate in real terms, making exports unfairly competitive.
7. Xi Jinping wants China to dominate **high-tech sectors** while still retaining low-value manufacturing.
8. **US and Europe** are increasingly using tariffs and industrial policies to counter China.
9. **India fears a surge of diverted Chinese goods**, and imports from China are rising fast.
10. This situation could strain India's manufacturing and widen the **India–China trade deficit** further.

[Taking stock of Syria, a year after the civil war ended-The Indian Express Explained Page](#)

International relations

Easy Explanation

After **14 years of civil war**, Syria is now under a new leader: **Ahmed al-Sharaa**, the head of rebel group **Hay'et Tahrir al-Sham (HTS)**. He replaced Bashar al-Assad after rebels forced Assad to flee to Russia in a rapid offensive last year.

Al-Sharaa's transformation

Al-Sharaa was once a **designated terrorist with a \$10 million bounty**, but he has rebranded himself as a modern, diplomatic leader. He even visited the **White House**, becoming the first Syrian president in 80 years to do so, receiving public approval from Donald Trump.

What Syria looks like now

The country is **economically devastated** and deeply **divided along ethnic lines**. Millions live in refugee camps, lack clean water, and face hunger. Key infrastructure—water systems, electricity grids—has collapsed.

To address wartime abuses, Syria created:

- **National Commission for Transitional Justice (NCTJ)**
- **Commission for Missing Persons**

These are positive steps, but they are criticised for focusing only on crimes by Assad's regime and **ignoring abuses by HTS**, the group now in power.

Ethnic tensions remain high



| Clear your doubts now.



After Assad's fall, violence surged:

- Sunni groups aligned with the new regime have targeted **Alawites, Druze, Shias, and Kurds**.
- The **interim constitution does NOT guarantee Kurdish rights**, which Kurds see as a betrayal.

Al-Sharaa is criticised for **not controlling the violence** and for decisions that worsen distrust.

Economic and humanitarian collapse

- Over **40% of water networks** and **80% of electricity grids** are destroyed.
- Cost of reconstruction: **up to \$345 billion**.
- Millions still need **ongoing foreign aid**.

India's position

India supported Assad for decades and kept its embassy open even during the war. After the regime change:

- India has shifted to engaging with the **new Sharaa government**.
- An Indian delegation visited Damascus to discuss:
 - **Pharmaceutical cooperation**
 - **Medical training**
 - **Scholarships for Syrian students**
 - **Engineering capacity building** for Syrian government officials

India is signalling a willingness to work with Syria's new leadership while emphasising an **inclusive, Syrian-led political process**.

Key Takeaways

1. **Ahmed al-Sharaa (HTS leader)** is now Syria's president after Assad fled to Russia.
2. Once labelled a **terrorist**, al-Sharaa has rebranded himself as a diplomatic leader and gained **US support**.
3. Syria remains **ethnically fractured**, with rising violence against minorities (Alawites, Druze, Kurds).
4. The interim constitution's **lack of Kurdish rights** has triggered resentment.
5. Transitional justice efforts are criticised for **ignoring HTS war crimes**.
6. The humanitarian crisis remains severe:
 - Half of water networks destroyed
 - 80% of electricity grids non-functional
 - Millions in refugee camps
7. Reconstruction costs could reach **\$345 billion**.
8. India is recalibrating from Assad-era ties to engagement with the new regime.
9. Recent India–Syria meetings focused on **health, pharmaceuticals, training, scholarships, and engineering cooperation**.
10. Stability in Syria is still uncertain due to **ethnic tensions** and **weak governance capacity**.



| Clear your doubts now.



[How Nehru, not Patel, became first PM: The politics behind 1946 Cong poll - The Indian Express](#) [Explained Page](#)

Polity

Easy Explanation

In 1946, the Congress party had to choose its President. This choice was extremely important because **whoever became Congress President would effectively become the head of the Interim Government**, and later, the **first Prime Minister of independent India**.

What actually happened?

Most **provincial Congress committees (12 out of 15)** supported **Sardar Vallabhbhai Patel** for the post. But ultimately, **Jawaharlal Nehru became Congress President**, and later, the Prime Minister.

This led to political debates in modern times, including Amit Shah accusing the Congress of “vote chori”.

But why did Nehru become the President if Patel had more support?

Because **Mahatma Gandhi intervened**.

Gandhi personally preferred Nehru as the leader while negotiating the final transfer of power with the British. He told Maulana Azad (the outgoing President) that Nehru was better suited for the role.

When Patel and Kripalani initially filed nominations, Gandhi made it known that he desired Nehru to be the candidate. As a result:

- Kripalani withdrew his nomination.
- Patel was asked by Gandhi to withdraw.
- Nehru, when told that no provincial committee supported him, stayed silent—interpreted as his unwillingness to accept any position except the top post.
- Gandhi then asked Patel to step aside. Patel obeyed without protest.

Thus, **Nehru was elected unopposed**.

A month later, the Viceroy invited him to form the Interim Government.

Why did Gandhi prefer Nehru?

Gandhi believed:

1. **Nehru was more acceptable to the British**, given his elite education and international exposure.
2. He had **wider global goodwill**, useful for a soon-to-be independent nation.
3. Nehru enjoyed **some support among Muslims**, which made him a unifying figure.
4. Gandhi thought Patel and Nehru would work together like “two oxen yoked to the governmental cart”.



| Clear your doubts now.



How did Patel react?

Accounts differ:

- He felt **deeply hurt**, as this was his last chance at leadership (he was 71).
- But he **accepted Gandhi's decision without protest**.
- Within a week, contemporaries reported he was **back to working and even joking**, showing his commitment to the national cause.

Michael Brecher, Nehru's biographer, later wrote that **if Gandhi had not intervened, Patel would have been the first Prime Minister**.

Key Takeaways

1. **1946 Congress President = Future PM:** The election was crucial because the Congress President would lead the Interim Government and effectively become the first Prime Minister of independent India.
2. **Patel had majority support:**
12 of 15 provincial Congress committees nominated **Sardar Vallabhbhai Patel**, making him the clear organisational choice.
3. **Gandhi intervened decisively:**
Despite Patel's support, **Mahatma Gandhi preferred Nehru** and communicated this privately to senior leaders.
4. **Nehru did not step aside:**
When Gandhi suggested Nehru withdraw since no provincial committee backed him, Nehru remained silent—interpreted as unwillingness to accept any position other than the top one.
5. **Patel withdrew out of loyalty:**
Gandhi asked Patel to step down; Patel complied without protest, despite personal disappointment.
6. **Nehru became unopposed candidate:**
With Patel and Kripalani withdrawing, Nehru was elected unopposed as Congress President.
7. **Reason behind Gandhi's preference:**
Gandhi believed Nehru was:
 - Better suited to negotiate with the British (elite education, global exposure)
 - More acceptable to minorities
 - Internationally well-known, helpful for India's global standing
8. **Patel deeply hurt but disciplined:**
Though the loss hurt him, Patel's commitment to nation-building did not waver.
9. **Historians agree Gandhi's choice was decisive:**
Without Gandhi's intervention, Patel would almost certainly have been India's **first Prime Minister**.
10. **Modern political debate:**
The event is cited today (e.g., "vote chori" claims) to question the democratic nature of Nehru's selection.



| Clear your doubts now.



[Karnataka Bill can constrict free speech-The Indian Express The Ideas Page](#)

Polity

Easy Explanation

The Karnataka Hate Speech and Hate Crimes (Prevention) Bill, 2025, says it wants to stop hate speech and protect society from hostility. But the problem is **how the law is written and how it can be used**.

1. Very broad definitions

The Bill defines “hate speech” in a very loose, vague way. Almost any strong opinion, criticism, or uncomfortable statement can be called hate speech.

This gives **huge power to the government and police** to decide what counts as an offence.

2. Very harsh punishments

People can be jailed for **up to 10 years**.

Such heavy punishment makes people fearful of speaking freely, especially about the government or powerful groups.

3. Exceptions don't really protect citizens

The Bill says artistic, academic, or journalistic work is exempt.

But these protections **only apply after you go to court**, which takes years.

So the fear of arrest still remains.

4. We already have laws for this

India's criminal laws (BNS) already punish:

- inciting violence
- hurting religious sentiments
- hate speech against marginalised groups

So this new law is **not necessary**.

5. Real danger: misuse

Like sedition and UAPA, such laws often end up being used **against dissenters, activists, minorities, journalists**, rather than stopping actual hate-mongers.

6. Social issues can't be solved by criminal laws

Hate and polarisation are deep social problems. They arise from politics, prejudice, and division — not from a lack of laws.

7. The Bill may hurt the very people it claims to protect

Because of its vague wording and heavy punishment, it could be used against vulnerable communities and critics.

Main point:

The Bill looks like it protects harmony, but in reality **it restricts free speech, increases government power, and risks misuse**.

The editorial argues that the Bill is ineffective, unnecessary, and should be scrapped.



| Clear your doubts now.



Key Takeaways

1. **The Karnataka Hate Speech and Hate Crimes (Prevention) Bill, 2025** claims to curb hate speech and hate crimes, but in practice it **poses a serious threat to free speech**.
2. The Bill defines “hate speech” and “hate crime” in **vague, overly broad terms**, allowing almost any critical or disfavoured expression to be criminalised.
3. It proposes **stringent punishments — up to 10 years in prison**, making the law even more intimidating for ordinary citizens.
4. Although the Bill mentions exceptions for artistic, academic, and journalistic work, these **protections are weak**, because they can only be invoked in court, after long and difficult legal processes.
5. Existing laws — including BNS provisions on incitement, hurting religious sentiments, and prejudicial speech — **already address such offences**, raising the question of why a new law is needed.
6. The Bill risks becoming another tool like sedition or UAPA, which have historically been **misused to curb dissent** rather than protect harmony.
7. Karnataka’s political response oversimplifies a **deep, structural social problem** — prejudice, polarisation, and political rhetoric — none of which can be solved through punitive legislation.
8. Instead of healing social divisions, the Bill may be **weaponised against vulnerable and dissenting groups**, the very people it claims to protect.
9. The Bill reflects a broader pattern: governments using **lofty ideals (harmony, security)** to justify laws that shrink democratic space.
10. The editorial argues that the Bill is **ineffective, dangerous, and should be scrapped**, as it undermines free expression and democratic debate rather than addressing real social causes of hate.

[Party-state is marching into public universities. There is no one to say no - The Indian Express](#)
[The Ideas Page](#)

Sociology

Easy Explanation

This article argues that **India’s public universities are collapsing**, not because of one government but due to decades of political interference, weakening institutions, and the rise of party-controlled student and teacher bodies. But the situation today is described as *far worse* — with the university structure itself disappearing.

1. Public universities have been weakening for decades

- Since the 1970s, universities have faced funding cuts, poor governance, and political meddling.
- Even when expansion happened, quality was ignored.
- Still, universities remained functioning and somewhat free spaces.

2. That old system is now breaking down completely

Recent events, like removing five Vice-Chancellors in Rajasthan after ABVP protests, show that even basic administrative norms are being abandoned.

3. ABVP’s dominance is a major concern

Across many states, professors say the ABVP now has a **virtual veto**:



| Clear your doubts now.



- Pre-censoring speakers
- Protests or threats determining academic activities
- Allegations of political pressure and extortion

This level of political control resembles the Left Front's control of universities in Bengal — but now on a **national scale**.

4. The deeper issue: all student and teacher bodies became partisan

SFI, NSUI, ABVP — all turned student politics into **party politics**.

This erased the real “student” as a category.

Unions cared more about political agendas and less about **education or student welfare**.

5. Consequence: no collective voice to defend the university

Students and teachers, who should be protecting academic freedom, cannot speak collectively because their organisations are party-controlled.

6. Even elite central universities are now under political control

Reports from DU, JNU and others describe:

- Fear of organising seminars
- Faculty needing pre-clearance to speak
- Pressure to attend ideological events
- Poor-quality appointments
- Universities run as extensions of political ministries
- CUET becoming a mechanical exam system disconnected from real academics

7. The public university is no longer a space of intellectual freedom

Where debate once thrived, institutions are now silent, fearful, and tightly controlled.

8. The tragedy is the silence

Earlier, DU would erupt in protest over even small issues.

Now, despite far greater intervention, there is **no resistance left**.

9. The final metaphor

Traditionally, rulers laid down weapons before entering places of learning.

Now, political power enters universities “fully armed” — and **there is no one left to say no**.

Key Takeaways

1. **Indian public universities are undergoing a severe decline**, worse than anything seen in previous decades of political interference and funding stress.
2. **Basic institutional norms have collapsed** — even routine administrative procedures (like proper enquiries before removing V-Cs) are being bypassed for political reasons.
3. **ABVP now holds unprecedented influence** in many campuses, often exercising a *virtual veto* over events, speakers, and academic activity, reflecting deeper party-state control.
4. All major student groups (ABVP, SFI, NSUI) have long turned student politics into **extensions of national party politics**, erasing the idea of the student as an independent academic constituency.
5. Because student and teacher unions are party-aligned, the two groups most invested in academic excellence **cannot collectively defend the university**.



| Clear your doubts now.



6. Even prestigious institutions such as **Delhi University and JNU** are described as suffering:
 - Fear of holding seminars
 - Pre-clearance requirements for academic talks
 - Ideological pressure to attend certain events
 - Sharp fall in quality of appointments
7. The CUET-driven expansion focuses on **mechanical admission processes**, not educational improvement, further weakening academic standards.
8. The universities that once encouraged dissent, debate, and free thought are now **silent and intimidated**, with little resistance to state and party intervention.
9. This transformation marks a shift from the idea that universities are autonomous spaces of learning to **spaces subdued by political power**, reversing long-held academic traditions.
10. The article concludes that Indian public universities have been “**domesticated**” by the party-state, and there is now almost *no one left to say no* or defend academic autonomy.

[Savings shift reshapes India's markets-The Hindu Text and Context](#)

Economy

Easy Explanation

India's stock market is changing in a big way. Earlier, **foreign investors** played the biggest role in moving the market up or down. Now, **Indian households**—people investing through mutual funds, SIPs, and direct stocks—are becoming the main force.

1. Domestic investors are replacing foreign investors

Foreign Portfolio Investor (FPI) ownership is going down, while Indian mutual funds and SIP investors are putting in more money than ever.

This makes the market **more stable**, because domestic money is more consistent than foreign money.

2. RBI gets more freedom

With domestic investors driving the market and inflation very low, the RBI doesn't have to worry as much about sudden foreign withdrawals.

So, it can focus on **credit growth, interest rates, and inflation control**, rather than defending the rupee.

3. IPOs and corporate investments are booming

More companies are launching IPOs (71 so far this year, raising over ₹1 lakh crore).

Corporate investment announcements have also jumped sharply.

This shows **confidence in India's economy**.

4. But retail investors face risks

Many new investors don't fully understand market risks.

Some IPOs (like Mamaearth, Nykaa, Lenskart) are being valued at very high prices, raising concerns that investors may overpay and later face losses.



| Clear your doubts now.



5. Most investors don't beat the market

Financial studies show that active fund managers usually **cannot consistently outperform** the market after fees.

So, simply investing more money does not guarantee better returns.

6. Inequality may worsen

Wealth from the stock market is mostly going to richer households who have better access to financial services.

If losses occur (like the recent ₹2.6 lakh crore fall in household equity wealth), poorer or new investors may suffer more.

7. What needs to be fixed?

India must focus on:

- Better **financial literacy**
- Lower-cost passive investment options (index funds)
- Protecting small investors through simpler products
- Strengthening **corporate governance**
- Using data to include more women and rural investors

Bottom line

India's market is becoming stronger and more stable because of domestic savings.

But unless small investors are protected and educated, this shift could also increase inequality and expose vulnerable investors to higher risks.

Key Takeaways

1. Shift from foreign to domestic dominance:

Household savings flowing into equities via SIPs and mutual funds have reduced reliance on volatile FPI flows. Domestic investors now own nearly **19%** of the market.

2. Lower FPI ownership:

FPI ownership is at a **15-month low (16.9%)**, giving India greater market stability and reducing vulnerability to global capital swings.

3. Policy flexibility improves for RBI:

With stronger domestic inflows and CPI inflation at **0.3%**, the RBI can prioritize **credit growth** and **growth-inflation trade-offs**, rather than defending the rupee against capital flight.

4. Primary market boom:

IPO activity is strong — **71 listings** have raised over **₹1 lakh crore** this year. Corporate investment announcements have surged **39%**, with private sector accounting for **~70%** of it.

5. Risks of exuberance and weak financial advice:

High P/E valuations for companies like Lenskart, Mamaearth, and Nykaa raise concerns that retail



| Clear your doubts now.



investors face **overvaluation risks** without adequate financial literacy.

6. **“Performance problem” in finance:**

Most active fund managers **fail to beat the market** after fees and risks — meaning higher retail participation does **not guarantee better returns**.

7. **Wealth inequality concerns:**

Equity participation is concentrated among higher-income groups. A recent **₹2.6 lakh crore decline** in household equity wealth risks disproportionately hurting vulnerable investors and widening inequality.

8. **Consumption impact:**

Wealth concentration dampens aggregate demand because the rich have a **lower marginal propensity to consume**.

9. **Need to fix “access asymmetry”:**

India must move beyond disclosures to **actively protect investors** — reduce fees, promote passive funds, strengthen governance, and ensure transparency.

10. **Passive investing remains underdeveloped:**

Active funds hold **9%** of market assets, but passive funds hold only **1%**, making index education and fee reduction critical.

11. **Governance and promoter holding concerns:**

Promoter shareholding in NIFTY 50 is at a 23-year low (**40%**). It must be ensured that this reflects healthy capital raising, not opportunistic exits.

12. **Need for inclusive market development:**

Gender- and location-based data can help bring **women and marginalised investors** into the formal financial system, strengthening long-term trust.

[What does Supreme Court’s ruling on narco tests mean?-The Hindu text and Context](#)

Polity

Easy Explanation

1. What is a narco test?

A narco test uses drugs like Sodium Pentothal to make a person drowsy and lower their inhibitions so they may reveal hidden information. It is similar to lie-detector or brain-mapping tests. This is **not torture** but still **interferes with mental privacy**.

2. Why did the Supreme Court strike down the Patna High Court order?

Because the High Court allowed a **forced** narco test. The Supreme Court said this directly violates the earlier judgment **Selvi vs State of Karnataka (2010)**, which clearly banned any **involuntary** narco test.

3. Why are forced narco tests unconstitutional?

- **Article 20(3):** An accused **cannot be forced** to testify against himself.
- A narco test, if forced, is basically **compelling the accused to give information**, so it violates this right.



| Clear your doubts now.



- **Article 21:** Guarantees **personal liberty and privacy**. Forcing such a test invades bodily and mental privacy.
- Articles **14, 19, and 21** together form the **Golden Triangle** of fundamental rights. Violating privacy = violating liberty and equality protections as well.

4. What about consent?

The Supreme Court says the test can be done **only if**:

- Consent is **free, informed, written**,
- Given **before a magistrate**,
- Conducted with **medical, legal and procedural safeguards**.

No one can be forced. Even volunteering for the test creates **no automatic right** to undergo it.

5. What is the evidentiary value?

Courts have held:

- A narco test **cannot prove guilt**.
- Information obtained must be **verified and corroborated** with independent evidence.
- Case laws: **Manoj Kumar Saini (2023)** and **Vinobhai (2025)** reaffirm this.

6. Ethical basis

Consent reflects **individual autonomy**. As Kant said, an act is ethical only if done with consent. Forcing such a test violates human dignity and natural justice.

Key Takeaways

- **Forced narco tests are unconstitutional** because they violate **Article 20(3)** (self-incrimination) and **Article 21** (personal liberty + privacy).
- Supreme Court set aside Patna High Court's order allowing an **involuntary** narco test in *Amlesh Kumar v State of Bihar (2025)*.
- **Selvi (2010) judgment** is the governing precedent: narco, polygraph, brain mapping all need **voluntary consent**.
- **Consent must be informed, recorded before a magistrate, and follow strict safeguards**.
- Narco test **results cannot prove guilt**; they need corroboration.
- Accused may **voluntarily** take the test at the defence stage under Section 253 BNSS, but they **cannot demand it as a right**.
- Ethical and constitutional principles emphasise **autonomy, privacy, and fairness**, which forced tests violate.

[Why human-rating matters as India prepares for Gaganyaan-The Hindu Text and Context](#)

Science and technology

Easy Explanation



| Clear your doubts now.



1. What is “human-rating”?

Human-rating means modifying and certifying a rocket or spacecraft so it can safely carry **humans** instead of just satellites.

This requires:

- Redundant systems (multiple backups)
- Ability to abort the mission safely at any time (crew escape system)
- Stronger engines and structures
- Extremely rigorous testing and documentation

NASA’s standard: the chance of losing the crew during launch and return must be **less than 0.2%**.

2. Why is human-rating difficult?

Sending humans to space is much riskier than flying planes because rockets:

- Accelerate to **28,000 km/h in 8–10 minutes**
- Face huge vibrations and extreme pressure
- Cannot “glide” or make an emergency landing like aircraft

Even the best rockets have only **98–99.5%** success rates, while commercial airlines have incredibly low accident rates (1 fatal accident per 10–20 million flights).

3. Which rockets are human-rated today?

Operational human-rated rockets include:

- **Russia:** Soyuz-2
- **China:** Long March 2F
- **U.S.:** Falcon 9 + Crew Dragon

Others like NASA’s SLS and ULA’s Atlas V are human-rated but not yet fully operational for routine missions.

4. Who certifies human-rating?

- **NASA** certifies rockets for crew missions involving U.S. astronauts.
- **FAA** only ensures public safety for launch operations, not astronaut safety.
- **China:** CMSA
- **Russia:** Roscosmos

5. How successful are human-rated vehicles?

- **Soyuz:** ~98% success; 100% survival since 1971 due to excellent escape system
- **Space Shuttle:** 98.5% success (2 fatal accidents)
- **SpaceX Falcon 9 + Crew Dragon:** 100% success in 20 crewed missions
- **China’s Shenzhou:** 16 successful missions, except one capsule damaged by space debris (crew unharmed)

6. Why aren’t all rockets human-rated?

Because human-rating:



| Clear your doubts now.



- Adds **costs, weight, and complexity**
 - Reduces **payload capacity**
 - Requires years of testing and documentation
- Cargo rockets don't need these extra systems.

7. Which Indian rocket is being human-rated for Gaganyaan?

LVM-3, ISRO's most powerful and reliable rocket, is being upgraded and certified.

Once human-rated, it will be called **HLVM-3**.

ISRO has:

- Added backup systems
- Strengthened engines
- Improved reliability
- Built a **Crew Escape System** for emergencies
- Conducted extensive testing

LVM-3 was chosen because of its **consistent performance, indigenous technology**, and alignment with **Atmanirbhar Bharat**.

Key Takeaways

1. **Human-rating = making a rocket safe for astronauts** through stronger systems, redundancy, fault-tolerance, and abort capability.
2. **Risk threshold is extremely strict** — NASA allows only a **0.2% chance** of losing crew during launch/return.
3. **Rockets face far harsher conditions** than aircraft (28,000 km/h in ~10 minutes, extreme vibrations, high structural loads).
4. Only a **few rockets worldwide are human-rated**: Russia's Soyuz-2, China's Long March 2F, SpaceX's Falcon 9; others like SLS and Atlas V still progressing.
5. **Human-rating is certified by national space agencies** (NASA, Roscosmos, CMSA) — not aviation bodies like the FAA.
6. **Safety track records are strong**:
 - Soyuz: ~98% success, 100% crew survival since 1971
 - Falcon 9 + Crew Dragon: 100% success in 20 crewed flights
 - Shenzhou: 16 successful missions, one capsule damaged by debris but crew safe
7. Human-rating is **costly, complex, and reduces payload capacity**, hence not used for routine cargo rockets.
8. **India is human-rating the LVM-3 rocket** for Gaganyaan; once certified, it will be called **HLVM-3**.
9. ISRO has added **backup systems, strengthened engines, higher reliability, and a Crew Escape System** to protect astronauts.
10. Human-rating LVM-3 aligns with **Atmanirbhar Bharat**, aiming for full self-reliance in human spaceflight.

[Invisible epidemic: why air pollution is India's largest health threat?-The Hindu Science](#)

Environment



| Clear your doubts now.



Easy Explanation

1. Why is air pollution India's biggest health threat?

Air pollution is no longer a seasonal Delhi problem. It is now a **year-round, nationwide health emergency**. Most Indian cities regularly exceed safe PM2.5 limits, causing diseases across all age groups and reducing life expectancy.

2. How widespread is the crisis?

- 150 out of 256 monitored cities (2025) violate PM2.5 standards.
- Indo-Gangetic Plain is the worst, with Delhi often recording **PM2.5 levels of 107–130 $\mu\text{g}/\text{m}^3$** — many times the WHO limit of 15 $\mu\text{g}/\text{m}^3$.

3. Why is India's AQI misleading?

- India's AQI **stops at 500**, even when real pollution often exceeds 600–1000.
- This old scale hides the true severity of air pollution.
- Experts demand an **updated, uncapped AQI** that reflects modern science.

4. What damage does PM2.5 do inside the body?

PM2.5 particles are tiny enough to enter the lungs, bloodstream, and even the brain.

- **Heart:** Causes inflammation → hypertension, heart attacks, strokes.
- **Lungs:** Asthma, COPD, breathing distress; children lose **10–15% lung capacity**.
- **Brain:** Higher risk of memory loss, poor cognition, dementia (35–49% higher risk).
- **Pregnancy:** Preterm birth, low birth weight, stillbirths.

Nearly 2 million Indians died due to air pollution in 2023.

5. Who suffers the most?

Poor communities, because they live near roads, industries, waste-burning sites, and have less access to clean fuels or healthcare.

6. What actually causes India's pollution?

Not only stubble burning or Diwali firecrackers.

Major **year-round contributors** are:

- Vehicular emissions
- Industries
- Construction dust
- Waste burning
- Biomass cooking fuels

Seasonal events only worsen an already bad baseline.

7. What must India do?

A health-centred, multi-sectoral strategy:

- **Transport:** Electrify buses, autos, two-wheelers; shift freight to rail; low-emission zones.



| Clear your doubts now.



- **Industries:** Strict pollution control, reduce coal use.
- **Construction:** Mandatory dust rules, mechanised cleaning.
- **Waste:** Stop open burning, decentralised processing.
- **Health System:** AQI-based advisories, lung tests in schools, COPD screenings.

8. Why clean air must be a fundamental right?

Because without clean air, development, health, and equality all break down.

India needs to legally and practically treat clean air as essential for life and growth.

Key Takeaways

1. **Air pollution is India's biggest health threat**, no longer seasonal but a persistent nationwide crisis.
2. **150 of 256 cities** (2025) exceed PM2.5 standards; Indo-Gangetic Plain remains the worst-affected.
3. **India's AQI scale is outdated and capped at 500**, hiding pollution levels that often exceed 600–1000.
4. PM2.5 exposure significantly **reduces life expectancy**—Delhi residents lose over **8 years** compared to WHO norms.
5. Air pollution caused **~2 million deaths in 2023**, mainly from cardiovascular disease, stroke, COPD, and diabetes.
6. PM2.5 damages **multiple organ systems**:
 - Heart: inflammation, hypertension, heart attacks, stroke
 - Lungs: asthma surge, reduced lung capacity in children, COPD
 - Brain: cognitive decline, memory impairment, higher dementia risk
 - Maternal/child health: low birth weight, preterm birth, stillbirth
7. Pollution impacts are **inequitable**, hitting low-income communities hardest due to proximity to roads, industries, waste-burning sites.
8. The main contributors are **year-round structural sources**—vehicles, industries, construction dust, waste burning, biomass use—not just stubble burning or firecrackers.
9. Current policies like NCAP show **limited impact** due to weak enforcement and modest targets.
10. India needs a **health-centred, multi-sector strategy**: clean transport, industrial controls, dust suppression, waste management reforms, and integrating air-quality alerts into healthcare.
11. Clean air must be treated as a **fundamental right**, essential for health, development, and equity.

[Notional security-The Hindu Editorial](#)

International relations

Easy Explanation

1. What is the new U.S. National Security Strategy (NSS)?

The U.S. under Trump's second term released a new NSS outlining how America plans to maintain global dominance. It presents itself as a roadmap for ensuring the U.S. stays the world's most powerful nation.

2. What are the five foreign policy priorities?

- **End of mass migration:** The U.S. claims the era of large-scale immigration is over.
- **Protection of core rights and liberties** (speech, religion).



| Clear your doubts now.



- **Retreat from global policing:** The U.S. says it will no longer “hold up the world order like Atlas,” signalling isolationist tendencies.
- **Broker peace deals** worldwide to strengthen U.S. influence.
- **Economic security:** The top priority—balanced trade, secure supply chains, reindustrialisation, energy dominance, and strengthening U.S. defence and financial systems.

3. The biggest emphasis: economic security

The NSS makes clear that America’s national security = economic supremacy.

It focuses on:

- Reindustrialising the U.S.
- Controlling critical minerals and supply chains
- Reducing reliance on foreign manufacturing
- Expanding the defence industry
- Dominating global energy markets
- Supporting Wall Street and U.S. digital finance

4. Why is Europe upset?

The U.S. document uses a harsh tone toward Europe:

- Claims Europe faces a “civilizational decline.”
- Criticises Germany and the EU for weak governments.
- Suggests European actions do not match their rhetoric on Russia-Ukraine.

Germany’s Foreign Minister sharply dismissed these remarks, calling them unnecessary and intrusive.

5. What does this mean for NATO?

The NSS pushes for “**burden sharing**”—telling allies to take more responsibility for regional security.

This raises fears that the U.S. might reduce its commitment to NATO, weakening the alliance and potentially emboldening authoritarian leaders.

6. Why is this concerning globally?

If the U.S. steps back while demanding others handle their own regions, autocrats may feel freer to violate borders and human rights.

This mix of **U.S. dominance + selective isolationism** creates uncertainty for global stability.

Key Takeaways

1. The new U.S. National Security Strategy (NSS) seeks to **preserve long-term American global dominance**, positioning the U.S. as the world’s strongest power.
2. Five priority areas shape the NSS:
 - Ending the era of mass migration
 - Protecting core liberties
 - Reducing America’s role as global “Atlas”
 - Using peace deals to expand U.S. influence
 - Making **economic security the centrepiece** of foreign policy



| Clear your doubts now.



3. Economic security goals include **balanced trade**, securing **critical supply chains**, **reindustrialising** the U.S., expanding **defence infrastructure**, ensuring **energy dominance**, and empowering Wall Street globally.
4. The NSS takes an **unusually harsh, patronising tone towards Europe**, accusing it of decline and weak governance.
5. Germany publicly rejected the U.S. criticism, signalling **growing tensions between the U.S. and European allies**.
6. The NSS's "burden-sharing" approach implies the U.S. wants allies to take more responsibility for their own security.
7. This raises concerns about **NATO cohesion** and the future of Europe's security architecture.
8. A reduced or conditional U.S. security presence may **embolden authoritarian regimes** to violate territorial and human rights norms.
9. The document reflects a combination of **American exceptionalism + selective isolationism**, creating uncertainty in the global order.

13th December 2025

[India is focusing on PM10, but PM2.5 is the real threat-The Indian Express Explained Page](#)

Environment

Easy Explanation

- **What's the core problem?**

India's air pollution policy mainly targets **PM10** (larger dust particles), but **PM2.5** (much finer particles) is **far more dangerous** for human health. PM2.5 penetrates deep into the lungs and even enters the bloodstream.
- **Why is pollution not a big political issue?**

Air pollution spikes mainly in winter, so it becomes a **seasonal concern**, not a year-round political priority. Also, governments have failed to clearly communicate how bad air directly harms people's **health, productivity, and income**.
- **Who pushed air pollution reforms in India?**

Major action didn't start from governments themselves. It came from **courts and PILs**, especially the Supreme Court, which led to bodies like the EPCA. This shows pollution control was **reactive**, not policy-led.
- **What do other countries do differently?**
 - **China (Beijing):** Used a **top-down approach**. The political leadership declared a "war on pollution," set clear deadlines, moved industries out of the city, and mobilised the entire state machinery.
 - **Poland:** Change came **bottom-up**. Civil society movements (like Polish Smog Alert) forced governments to act.
 - **Mexico City:** Despite bad geography (mountains trapping pollution), it succeeded by adopting **health-based standards**, cleaner fuels, vehicle emission controls, and expanding public transport.



| Clear your doubts now.



- **What's wrong with India's current strategy?**

India's **National Clean Air Programme (NCAP)** focuses only on **PM10 reduction**, mainly because PM10 monitoring was easier and already available. This leads to **misplaced actions** like smog guns, road sweeping, and construction dust control—while ignoring PM2.5 from vehicles, industry, and burning.

- **Why regulators are failing?**

Pollution control boards are **severely understaffed and underfunded**. Industrial activity has grown massively, but regulatory manpower has not. Engineers have unrealistically little time to inspect industries, leading to poor on-ground monitoring and sometimes outsourcing to consultants—creating conflicts of interest.

Key Takeaways

- **PM2.5 is more toxic than PM10**, but India's policy focus is still on PM10.
- **Air pollution is not a decisive political issue** in India due to poor public communication and its seasonal nature.
- **Judicial intervention**, not executive leadership, drove India's initial air pollution reforms.
- **China's success** came from strong political ownership and clear targets; **Poland's** from civil society pressure; **Mexico City's** from science- and health-based planning.
- **NCAP ignores PM2.5**, leading to cosmetic solutions like smog guns rather than real emission cuts.
- **Pollution regulators in India are resource-poor**: staff shortages, excessive workload, weak inspections.
- **Geography worsens pollution**, but it is not destiny—Mexico City and Beijing show policy can overcome it.
- **Without health-based air quality standards and PM2.5-centric planning**, India's clean air goals will remain superficial.

[IMF's 11 new conditions for cash-strapped Pakistan to avail loans-The Indian Express Explained](#)

[Page](#)

International relations

Easy Explanation

- **Why is this happening?**

International Monetary Fund has imposed **11 new structural conditions** on **Pakistan** to ensure reforms before releasing further loan money. Pakistan is facing severe **balance of payments stress** and needs IMF funds to stabilise its economy.

- **What loans is Pakistan getting?**

Pakistan is availing two IMF facilities:

- **Extended Fund Facility (EFF)** – \$7 billion, for long-term structural reforms and macroeconomic stability.
- **Resilience and Sustainability Facility (RSF)** – \$1.3 billion, focused on climate resilience.

- **Why stricter conditions now?**

An IMF **Governance and Corruption Diagnostic (GCD) Assessment** found corruption to be a **persistent feature** of Pakistan's governance. Hence, the IMF tightened reform requirements.

- **What are the most urgent conditions? (Deadline: end of December)**



| Clear your doubts now.



- **Tax reforms** – A medium-term tax reform strategy with a clear roadmap.
- **Asset declarations** – Mandatory publication of asset declarations of high-level federal civil servants.
- **Energy sector reforms** – Finalising preconditions for **private sector participation** in two state-owned power utilities (Hyderabad and Sukkur).
- **What comes next in 2026?**
 - **By March:** A detailed fiscal reform roadmap with timelines, staffing plans, revenue impact, and performance indicators.
 - **By end-May:** Review of remittance costs and barriers to cross-border payments to boost foreign exchange inflows.
 - **By end-June:** Adoption of a national policy to liberalise the sugar market.
- **India's position**

India abstained from voting at the IMF Board, citing Pakistan's poor track record and concerns that IMF funds could be misused, including for cross-border terrorism. Earlier, IMF staff had also flagged **reputational risks** due to India–Pakistan tensions, though these concerns later eased.
- **IMF's assessment now**

Despite risks, the IMF says Pakistan's programme is **restoring macroeconomic stability and market confidence**, which helped clear the latest loan tranche.

Key Takeaways

- IMF has imposed **11 new structural benchmarks** on Pakistan to access further loans.
- **Three critical conditions must be met by end-December:** tax reforms, asset declarations, and energy sector privatisation steps.
- Pakistan is currently under **\$8.3 billion worth of IMF support** (EFF + RSF).
- The move follows IMF's finding that **corruption is deeply embedded** in Pakistan's governance.
- **India abstained** from the IMF vote, raising concerns about misuse of funds.
- IMF believes Pakistan's reform programme is **improving stability**, despite political and security risks.

[The link between inequality and public education-The Indian Express Explained Page](#)

Sociology

Easy Explanation

- **What does the latest data show?**

The **World Inequality Report 2026** highlights that inequality is **deepening worldwide**, both within countries and across regions.

 - The **top 10%** of people earn **more than the remaining 90% combined**.
 - The **bottom 50%** of the global population gets **less than 10% of global income**.
 - Wealth is even more unequal: the **top 10% own about 75% of global wealth**, while the bottom half owns just **2%**.
- **Why regional averages matter**

Global averages hide stark regional gaps. The world is split into clear income tiers:

 - **High-income regions** (North America & Oceania, Europe)



| Clear your doubts now.



- **Middle-income regions** (East Asia, Middle East & North Africa, Russia & Central Asia)
- **Low-income, populous regions** (Latin America, South & Southeast Asia—including India—and Sub-Saharan Africa)
- **How big is the income gap?**

An average person in **North America & Oceania** earns **13 times more** than someone in **Sub-Saharan Africa**, even after adjusting for price differences.

 - Average daily income: **€125** vs **€10**.

These are averages—many people live on far less.
- **The policy debate problem**

Public discussion often gets stuck on *whether* inequality exists, instead of focusing on *what actually reduces it*. This delays action on proven solutions.
- **The report's top solution: Public education (and health)**

The report clearly identifies **public investment in education** as one of the **most powerful equalisers**. Free, high-quality schooling reduces early-life disadvantages and ensures that **talent and effort—not family background—shape life outcomes**.
- **Education spending shows why gaps persist**

In **2025**, public education spending per school-age individual (0–24 years):

 - **Sub-Saharan Africa: ~€220**
 - **North America & Oceania: ~€9,025**

That is a **1:41 gap**. Regions that spend less on education continue to lag—almost inevitably.

Key Takeaways

- **Global inequality is extreme:** The **top 10%** earn more than the **bottom 90% combined**; the **bottom 50%** get **<10% of global income**, while owning just **2% of global wealth**.
- **Regional divides are stark:** High-income regions (North America & Oceania, Europe) vastly outperform low-income, populous regions (South & Southeast Asia, Sub-Saharan Africa), even after price adjustments.
- **Income gaps are massive:** Average daily income is about **€125** in North America & Oceania versus **€10** in Sub-Saharan Africa—**~13x difference**.
- **Education is the strongest equaliser:** The **World Inequality Report 2026** identifies **public investment in education (and health)** as the most effective policy to reduce inequality.
- **Spending gaps explain persistence:** Public education spending per school-age person ranges from **~€220** (Sub-Saharan Africa) to **~€9,025** (North America & Oceania)—a **1:41 gap**.
- **Low investment locks in disadvantage:** Underfunded education leads to weaker skills, lower productivity, and sustained low incomes—inequality reproduces across generations.
- **Policy focus is misplaced:** Debates often question whether inequality exists instead of scaling **proven solutions** like free, high-quality public education.
- **Bottom line:** Without closing education spending gaps, lagging regions will continue to lag; **education spending is economic strategy, not welfare**.

[On healthcare, Rajasthan model showed the way, needs to be built on-The Indian Express](#)
[Explained Page](#)

Governance



| Clear your doubts now.



Easy Explanation

- **The problem:** In India, serious illness often means **financial ruin**. Many families stop treatment not because it won't work, but because it would push the entire household into lifelong debt.
- **What Rajasthan tried to change:** The Rajasthan model was built on one simple idea — **no one should be denied treatment because they don't have money**.
- **Free treatment in government hospitals:** Over time, Rajasthan made **everything free** in government hospitals — OPD registration, medicines, tests, MRI/CT scans, surgeries, and hospital stays. Patients didn't even need to pay for a painkiller or a blood test.
- **Including private hospitals for the poor:** Through the **Chiranjeevi Health Insurance Scheme**, poor families could get treatment in **private hospitals** too, with insurance cover up to **₹25 Lakh**, including expensive treatments like cancer care.
- **Near-universal health coverage:** Because the scheme was free for the poor and very affordable for others, about **88% of families in Rajasthan** ended up having health security — far higher than in many other states.
- **Less money from people's pockets:** As a result, people in Rajasthan spent **much less from their own pockets** on healthcare compared to earlier years and compared to the national average.
- **Stronger hospitals and infrastructure:** The state invested heavily in health — opening **medical colleges in almost every district**, increasing doctor seats, and creating specialised institutes so patients wouldn't need to travel to big cities.
- **Health as a right, not charity:** The **Right to Health Act** was meant to make healthcare a **legal right**, so treatment depends on need, not on government discretion.
- **The larger message:** Rajasthan showed that **universal, free public healthcare is possible in India** if health is treated as a priority. Stepping back from this approach risks pushing families back into the same helplessness caused by medical debt.

Key Takeaways

- **Medical costs drive poverty:** Expensive healthcare forces families to abandon treatment and pushes **millions into poverty every year** in India.
- **Rajasthan offered a workable solution:** The state built a **near-universal public healthcare model** ensuring treatment is not denied due to lack of money.
- **Free care in government hospitals:** OPD, IPD, medicines, diagnostics, scans, and surgeries were made **completely free at the point of care**.
- **Private hospitals were brought in for the poor:** Through the **Chiranjeevi Health Insurance Scheme**, families received insurance cover up to **₹25 Lakh**, including cancer treatment.
- **Very high health security coverage:** About **88% of Rajasthan's families** had some form of health protection—far higher than many large states.
- **Lower out-of-pocket spending:** Patient-borne costs (OOPE) fell significantly, performing **better than the national average**.
- **Massive investment in health infrastructure:** Medical colleges expanded to most districts; doctor seats and specialised institutes increased sharply.
- **Public hospitals became financially stronger:** Insurance reimbursements generated substantial revenue for government hospitals, reducing dependence on state grants.
- **Health spending was prioritised:** Rajasthan's health budget increased from **~₹600 crore to over ₹20,000 crore**, showing sustained political commitment.



| Clear your doubts now.



- **Healthcare as a legal right:** The **Right to Health Act** aimed to make treatment a **right, not welfare**.
- **National lesson:** Universal, free-at-point-of-care healthcare is **feasible in India** and crucial to preventing debt, inequality, and avoidable suffering.

[From Licence Raj to Jan Vishwas, what we need to set our entrepreneurs free-The Indian Express](#)

[The Ideas Page](#)

Economy

Easy Explanation

- **What went wrong historically?**

India's business environment became heavily regulated during the **Licence Raj** years (1950s–70s). Entrepreneurs needed *permission before action*—licences, NOCs, approvals—making innovation slow and risky. Reforms in **1991** reduced controls but **did not finish the job**.

- **Why regulation hurts entrepreneurship today**

Innovation is *permissionless* by nature, yet Indian businesses face thousands of approvals and compliances. Entrepreneurs spend more time satisfying regulators than building products, hiring people, or finding markets.

- **Six core problems (“regulatory cholesterol”)**

- **Prior approval culture:** Businesses must ask for permission before doing anything, even though doing business is a fundamental right.
- **Too many instruments:** Beyond laws and rules, there are circulars, FAQs, SOPs, orders—often with penalties—creating confusion and discretion.
- **Compliance overload:** Policymakers miss the cumulative burden; outcomes matter less than paperwork. India began 2025 with ~69,000 compliances.
- **Unenforceable laws:** The state promises more than it can enforce, breeding corruption and weak enforcement.
- **Punishment-first mindset:** Criminal penalties (jail) are used despite low prosecution rates, clogging courts and creating fear rather than compliance.
- **No single source of truth:** Entrepreneurs can't easily verify what is legally required, pushing them toward rent-seeking and arbitrariness.

- **What the Jan Vishwas Siddhant proposes**

A shift from *permission to trust*:

- Most licences become **perpetual self-registration**.
- **Everything is allowed unless prohibited**.
- Inspections are **random, risk-based, and often third-party**.
- **Decriminalisation** and proportionate penalties.
- **Consultation and transition time** for regulatory changes.
- **Digitisation** and a **single authoritative database** of obligations.

- **Why this matters**

India has **6.3 crore enterprises**, but only ~**30,000** have paid-up capital above ₹10 crore.

Overregulation keeps firms small (“dwarfs, not babies”), limits capital formation, and constrains job creation. Trust-based regulation can unlock scale, productivity, and non-farm jobs.

Key Takeaways



| Clear your doubts now.



- India's post-1991 deregulation is **unfinished**; overregulation still stifles entrepreneurship.
- **Prior approvals, excessive compliances, and criminal penalties** are the biggest barriers to doing business.
- Unenforceable and over-specified laws **increase corruption** and weaken governance.
- **Jan Vishwas Siddhant** aims to replace permission with trust through self-registration, risk-based inspections, and decriminalisation.
- Creating a **single source of legal truth** is essential for transparency and fairness.
- Freeing entrepreneurs from “ijaazat” can **boost firm scale, capital formation, and job creation**.
- Entrepreneurship thrives on **experimentation**, not paperwork—policy must reflect this reality.

[The Indian Ocean as cradle of a new blue economy-The Hindu Text and Context](#)

Geography

Easy Explanation

- **India's long connection with the oceans**
India has always seen the ocean as central to its security and prosperity. During the making of **United Nations Convention on the Law of the Sea (UNCLOS)**, India supported small island nations and argued that the deep seabed belongs to **all humanity**, not just powerful countries.
- **Why the Indian Ocean matters today**
The Indian Ocean supports **one-third of the world's population** but is under severe stress from climate change, rising sea levels, ocean warming, acidification, and illegal fishing. These problems directly threaten livelihoods, food security, and stability.
- **A new role for India**
India now has the chance to lead again—not by writing new laws, but by **showing how oceans should be managed in practice**. The goal is to make the Indian Ocean a space of cooperation and sustainability, not rivalry.
- **What a “Blue Economy” means**
A blue economy uses ocean resources to create jobs and growth **without damaging marine ecosystems**. It links prosperity with environmental protection.
- **Three pillars of India's Blue Ocean strategy**
 1. **Stewardship**: Protect marine ecosystems, biodiversity, and fisheries; treat the ocean as a shared commons.
 2. **Resilience**: Help countries adapt to climate risks through early-warning systems, ocean data, and disaster preparedness.
 3. **Inclusive growth**: Promote green shipping, offshore renewable energy, sustainable aquaculture, and marine biotechnology so all coastal nations benefit.
- **Money is finally flowing to oceans**
Global forums like COP30 and blue economy finance initiatives show that **billions of dollars are now being committed** for ocean-related projects—something that was missing earlier.
- **What India should do next**
India can channel this money into regional priorities by creating an **Indian Ocean Blue Fund**, turning global promises into real projects on the ground.



| Clear your doubts now.



- **Rethinking maritime security**

Real security is not just about naval power. **Damaged ecosystems and climate shocks create instability.** Protecting the ocean is therefore a form of long-term security.

- **India's guiding vision**

India's maritime approach, reflected in the **Security and Growth for All in the Region (SAGAR)** doctrine, focuses on peace, cooperation, and shared prosperity.

- **Why this moment is crucial**

With new global agreements like the **BBNJ Agreement** and growing climate urgency, the coming years are decisive for ocean governance.

- **Bottom line**

The Indian Ocean can become the **cradle of a new blue economy**—one that balances growth with sustainability and justice. If India leads with cooperation and responsibility, it can shape a model the world can follow.

Key Takeaways

1. **India's ocean leadership legacy:** India has historically supported fairness in ocean governance, notably during **United Nations Convention on the Law of the Sea**, aligning with vulnerable island states and defending the oceans as a shared global commons.
2. **Indian Ocean under severe stress:** Climate change, rising sea levels, ocean warming, and illegal fishing threaten the Indian Ocean, which sustains **one-third of humanity** and is among the world's most climate-vulnerable regions.
3. **Need to shift from rivalry to sustainability:** The Indian Ocean should be shaped as a **zone of cooperation and resilience**, not just a theatre of geopolitical competition.
4. **Three pillars of a Blue Economy strategy:** India's approach must focus on **stewardship of marine ecosystems, climate resilience, and inclusive economic growth** through green shipping, renewables, and sustainable fisheries.
5. **Finance for oceans is gaining momentum:** Global commitments from COP processes and blue-finance forums show oceans are finally receiving **significant climate and development funding**.
6. **Security through sustainability:** Long-term maritime security depends on **healthy ecosystems and stable coastal livelihoods**, not only naval strength—aligning with India's **Security and Growth for All in the Region (SAGAR)** vision.
7. **India's opportunity and responsibility:** By ratifying the **BBNJ Agreement** and leading regional initiatives, India can help make the Indian Ocean the **cradle of a just and sustainable blue economy**.

[A critical story that a chunk of the media missed-The Hindu text and Context](#)

Economy

Easy Explanation

- **What happened recently?**

India's GDP data for **Quarter 2** showed a strong **8.2% growth**, which was widely celebrated. But at the same time, the **International Monetary Fund (IMF)** gave India's national accounts statistics a '**C**' grade—its second-lowest rating—raising serious doubts about how reliable these numbers are.

- **Why is the IMF unhappy?**

The problem lies in **how India estimates GDP**, especially the **unorganised (informal) sector**. India



| Clear your doubts now.



uses data from the **organised sector as a proxy** to estimate growth in the unorganised sector. But the informal sector still makes up **around 30% of GDP (excluding agriculture)**.

- **Why is this method risky?**

This approach assumes that the organised and unorganised sectors move **in the same direction**. That assumption breaks down during shocks like **demonetisation, GST rollout, and COVID-19**.

- Organised sector: expanded
- Unorganised sector: contracted

Using the organised sector as a proxy during such periods likely **overstates GDP growth**.

- **Why quarterly GDP numbers are especially shaky**

As former Chief Statistician **Pronab Sen** points out, India **does not have adequate quarterly data** for many sectors. Quarterly GDP estimates rely heavily on **assumptions and past trends**, not real-time data—making them inherently uncertain.

- **Can this problem be fixed soon?**

The government is updating the **GDP base year and methodology**, but even experts are sceptical about whether this will truly solve the unorganised sector estimation problem. Prof. Sen's blunt assessment: **India may not be able to fully resolve the IMF's concern**.

- **Why this is also a media failure**

Except for **The Hindu**, most major newspapers either ignored or buried the IMF's criticism. As a result, the public celebrated growth numbers **without knowing their weaknesses**.

Key Takeaways

- **IMF concern ignored by media:** The **International Monetary Fund (IMF)** gave India's national accounts statistics a **'C' grade** (second lowest), but this serious issue received **minimal media attention**, except for **The Hindu**, which reported it prominently.
- **Why the 'C' grade matters:** The IMF's grading reflects **structural weaknesses in how India calculates GDP and GVA**, not just a technical quibble.
- **Core methodological problem:** India estimates growth in the **unorganised sector (about 30% of GDP excluding agriculture)** by using the **organised sector as a proxy**. This assumes both sectors move similarly—an assumption that often fails.
- **Crisis periods broke the linkage:** During **demonetisation, GST rollout, and COVID-19**, the organised sector **expanded**, while the unorganised sector **contracted**. Using the former as a proxy led to **systematic overestimation** of unorganised sector performance.
- **Quarterly GDP figures are assumption-heavy:** India lacks comprehensive **quarterly data**, so estimates rely on **past trends and assumptions**, reducing reliability—especially during economic shocks.
- **High growth numbers may mislead:** The widely celebrated **8.2% Q2 growth** should be viewed with caution given the weak measurement of the unorganised sector.
- **Fixing the issue is hard:** Even with plans to **update the GDP base year and methodology**, experts doubt whether India can **adequately resolve** the IMF's core concerns about unorganised sector estimation.
- **Expert verdict is pessimistic:** Former Chief Statistician Pronab Sen bluntly states that **India may not be able to fully fix** these measurement problems in the near term.
- **Media's role questioned:** By downplaying or ignoring the IMF's critique, much of the media **failed to inform and contextualise** an issue critical for understanding India's true economic performance.



| Clear your doubts now.



- **Bottom line:** The problem is not just about statistics—it affects **policy credibility, public understanding, and trust** in headline growth numbers.

14th December 2025

[Assam's Demow Model to be studied in ICMR project for attaining 'zero snakebite deaths': TH News](#)

Easy Explanation

India faces a very serious public health problem due to snakebites. Around **58,000 people die every year** because of snakebite envenoming. To address this, the **Indian Council of Medical Research (ICMR)** has approved a large research project to study and scale up successful local models of snakebite prevention and treatment.

One such successful system is the **Demow Model** from **Sivasagar district in eastern Assam**. This model has been selected for scientific study and may be expanded across the country if proven effective.

The project is called the **Zero Snakebite Death Initiative** and has been sanctioned for **four years with a budget of ₹13.5 crore**. Its aim is to create a **single, practical national model** that can reduce snakebite deaths through better prevention, faster treatment, and strong community involvement.

The study will be carried out in **seven States** — Assam, Himachal Pradesh, Jharkhand, Kerala, Maharashtra, Odisha, and West Bengal — and is being led by **Jaideep Menon from Amrita Institute, Kerala**.

Different States will contribute different successful ideas. Assam's Demow Model focuses on **community awareness, trained volunteers, and strong referral networks** so that victims reach hospitals quickly. Other States have shown success with methods like **providing protective equipment, giving anti-snake venom during transport, and using digital tools for coordination and real-time monitoring**.

All these approaches will be combined under a single framework called **SARPA (Snakebite Awareness, Response, Prevention, and Action)**. The main goal is to ensure that snakebite victims receive treatment within the **"golden hour"**, which is critical to saving lives.

The project will begin in **January 2026**, and ICMR has already assigned scientists and technical staff to each State to ensure proper research and data collection.

If successful, this project could greatly reduce snakebite deaths and suffering in India.

Key Takeaways

- **Snakebite as a Public Health Challenge**
 - India records about **58,000 snakebite deaths annually**.
 - Snakebite envenoming is a major but often neglected health issue.
- **ICMR's New Initiative**
 - Four-year project approved with **₹13.5 crore funding**.



| Clear your doubts now.



- Project name: **Zero Snakebite Death Initiative**.
- Aim: create a **replicable national model** for prevention and management.

- **Demow Model (Assam)**
 - Located in **Sivasagar district, eastern Assam**.
 - Selected as a successful system for national study.
 - Focuses on **community engagement, volunteers, awareness, and referral networks**.
 - Study in Assam will focus on **Demow and Gelekey blocks**.

- **Other State-Level Innovations**
 - Maharashtra: **Protective equipment distribution**.
 - Himachal Pradesh: **Anti-snake venom during transport**.
 - Kerala: **Digital tools for coordination and real-time surveillance**.

- **Integrated Framework – SARPA**
 - Stands for **Snakebite Awareness, Response, Prevention, and Action**.
 - Bridges the gap between communities and formal health systems.
 - Ensures treatment within the **golden hour**.

- **Research Implementation**
 - Study begins in **January 2026**.
 - Covers **7 States** across different regions.
 - Each State assigned a research scientist and 4 technical staff.

- **Expected Impact**
 - Generation of strong implementation evidence.
 - Significant reduction in snakebite deaths and illness.
 - Addresses India's disproportionately high snakebite burden.

[How will Australia's social media ban work?: TH FAQ](#)

Sociology

Easy Explanation

Australia has become the **first country in the world** to completely ban children under the age of **16** from using major social media platforms. From December 10, platforms like Facebook, Instagram, X, TikTok, Snapchat, YouTube, Reddit and others are legally required to block under-16 users. If companies fail to do this, they can be fined up to **\$33 million**.

The Australian government believes that social media harms children's **mental health and safety**. According to it, these platforms expose children to cyberbullying, harmful content, addiction-like behaviour, and online predators. The new law does **not allow parents to give consent** for their children to use social media — the ban is absolute.



| Clear your doubts now.



Social media companies have started complying, though reluctantly. Meta warned Australian users aged 13–15 to download their data and prepare for account deletion. However, verifying age is difficult and time-consuming. Australia has hundreds of thousands of teenage users on Facebook and Instagram alone.

Companies argue that a **blanket ban is not the solution**. Meta says it could isolate teenagers from online communities and information, and that enforcement may be inconsistent. The Australian Prime Minister has admitted that flaws are likely, but said this is inevitable when a law like this is introduced for the first time.

Age verification is a major challenge. Facial recognition systems are being used, but government studies show these systems wrongly block many users aged 16–17. If a user is incorrectly flagged, Meta allows age verification through government ID or a video selfie using a third-party service. This has raised **privacy and surveillance concerns**, especially when children are involved.

The real push for this law came from court cases and investigations that revealed how social media companies knew their platforms were harming children. Internal documents showed executives comparing Instagram to a “drug” and admitting that minors lack the mental control to manage screen time. Evidence linking social media to depression, anxiety and loneliness was allegedly hidden.

Australia’s move has triggered global interest, with several countries now considering similar bans.

Key Takeaways

• What Australia Has Done

- First country to ban social media use for children under 16
- Covers nearly 10 major platforms including Meta, X, TikTok, Snapchat, YouTube
- Non-compliant platforms face fines up to \$33 million

• What the Law Says

- Introduced through the Online Safety Amendment Bill, 2024
- Minimum age of 16 for social media accounts
- Parents cannot override the ban with consent
- Aim: protect children’s mental health and safety

• Government’s Reasoning

- Social media linked to cyberbullying and harmful content
- Platforms enable addictive behaviour
- Risk of online predators targeting minors
- Teen mental health seen as a public responsibility

• How Companies Are Responding

- Meta warned users aged 13–15 to back up data and delete accounts
- Platforms are legally required to take “reasonable steps” to block minors
- Companies are complying but have criticised the blanket ban

• Age Verification Challenges

- Facial recognition systems have high error rates
- Government study shows false rejections for 16–17-year-olds



| Clear your doubts now.



- Users wrongly flagged can verify age using government ID or video selfie
- Serious privacy and surveillance concerns raised
- **Criticism and Drawbacks**
 - Risk of isolating teenagers from online communities
 - Unclear enforcement standards
 - Potential misuse of biometric data
 - Fear that children will find loopholes
- **Why This Law Was Passed Now**
 - Lawsuits revealed companies knew their platforms harmed minors
 - Internal chats compared Instagram to a drug
 - TikTok admitted minors lack control over screen time
 - Evidence of links to depression, anxiety and loneliness was allegedly buried
- **Global Impact**
 - Other countries are studying Australia's model
 - Could shape future global regulation of social media
 - Raises bigger questions about digital rights, privacy and child protection

[America, First in the World: TH Profiles](#)

International Relations

Easy Explanation

A country's strategy depends on how it sees itself, its friends, its enemies, and its interests. Donald Trump's second-term **National Security Strategy (NSS 2025)** shows a much sharper break from past U.S. policies than his first-term document in 2017.

In his first term, Trump was still guided by traditional U.S. strategic thinking. The 2017 NSS largely followed the old "Washington playbook." But the **2025 NSS clearly reflects Trump's "America First" worldview** and marks a deeper shift in how the U.S. wants to deal with the world.

The biggest change is in how the U.S. looks at **Russia and China**. Earlier, both were described as enemies and threats. In the new document, they are **not clubbed together**, and the tone is much softer. Russia is now seen as a **potential future partner for stability in Europe**, while China is discussed in a more **pragmatic and even admiring tone**, especially for its success in manufacturing and technology. The document criticises earlier U.S. policies that allowed China to rise through globalisation.

Europe, not Russia, receives the strongest criticism. Trump's NSS argues that Europe is dominated by pro-globalisation elites who suppress free speech, weaken national sovereignty, encourage mass migration, and undermine traditional values. The document openly encourages **nationalist movements in Europe** and signals a future European order that **includes Russia but excludes China**.

A major shift is that the U.S. no longer wants to **lead the world or build nations abroad**. Trump rejects the idea of global dominance, international institutions, and interventionism. Instead, the U.S. should focus on



| Clear your doubts now.



protecting its homeland, re-industrialising, tightening borders, restricting immigration, and preserving cultural and spiritual identity.

This approach could suit India, because it avoids forcing countries into rigid blocs. However, the NSS also contains contradictions: it rejects global dominance but insists on U.S. leadership in technology, finance, AI, and critical minerals. Whether this vision can overcome resistance from America's strategic establishment remains uncertain.

Key Takeaways

• What is the NSS?

- National Security Strategy outlines a President's foreign policy thinking.
- NSS 2025 reflects Trump's second-term worldview more clearly than in 2017.

• Break from the "Washington Playbook"

- 2017 NSS followed traditional U.S. strategic ideas.
- 2025 NSS openly rejects interventionism and liberal globalism.
- Emphasises "America First" more strongly.

• Shift in Approach to Russia and China

- Russia mentioned less and no longer framed as a primary enemy.
- Russia seen as a potential partner for European stability.
- China discussed pragmatically, with admiration for its development success.
- Blame placed on past U.S. globalisation policies for China's rise.

• Europe Under Pressure

- Europe criticised for mass migration, censorship, weak sovereignty.
- EU seen as undermining political liberty and national identity.
- NSS encourages nationalist movements across Europe.
- Envisions Europe aligned with Russia and excluding China.

• End of U.S. Global Dominance Doctrine

- U.S. will not seek to dominate the world or build nations.
- Nation-state declared the core unit of global politics.
- Non-interference unless core U.S. interests are threatened.

• Redefining American Interests

- Core goals: homeland security, prosperity, stability.
- Strong borders, restricted immigration, re-industrialisation.
- Emphasis on cultural and spiritual health of society.
- Focus on traditional families and demographic revival.

• Implications for India

- Less pressure on India to choose sides.
- More space for strategic autonomy.
- Reduced bloc politics may benefit India's multi-alignment.



| Clear your doubts now.



• **Internal Contradictions**

- Rejects dominance but insists on leadership in tech, finance, AI.
- Proud of alliances yet critical of past alliance-based strategies.
- Anti-war stance clashes with U.S. strategic and military-industrial interests.

• **Key Uncertainty**

- Vision is clear, but implementation is uncertain.
- Strong resistance expected from U.S. strategic elites and institutions.

[Turbulent skies: TH Profiles](#)

Economy

Easy Explanation

India's air travel has grown very fast in the last 10 years. More people are flying because incomes have risen, cities are better connected, and regional airports have expanded. Today, India is the world's third-largest domestic aviation market.

But while airports have increased, airlines have reduced. Many airlines shut down or failed, like Jet Airways and Go First. This has made IndiGo extremely dominant. Right now, almost two out of every three domestic passengers fly IndiGo.

This dominance came under question after large-scale cancellations of IndiGo flights recently. These cancellations disrupted air travel across the country. Regulators found that IndiGo had not properly managed aircraft availability and pilot scheduling. Because of this, the government ordered a cut of at least 10% in IndiGo's winter flight schedule.

The issue was also discussed in Parliament. The Civil Aviation Minister said the government would take very strict action to set an example. He blamed IndiGo's internal failures, especially poor crew planning.

At the same time, stricter pilot working rules have come into force. These new Flight Duty Time Limitation rules require pilots to get more rest and reduce night landings. Airlines say these rules make operations difficult, but pilot unions say they are necessary to prevent fatigue and improve safety.

Financial data shows why IndiGo is so dominant. It is the only major airline making profits, while most others are running heavy losses. Despite current troubles, IndiGo is planning massive expansion and has ordered 500 new aircraft, which will make it even bigger in the future.

The episode highlights a bigger issue: how to balance fast growth, passenger safety, fair competition, and accountability in a market where one airline is becoming too powerful.

Key Takeaways

Growth of India's aviation sector

- India is now the world's third-largest domestic aviation market



| Clear your doubts now.



- Growth driven by economy, middle-class travel, and regional connectivity
- Number of airports increased, but number of airlines decreased

Market dominance of IndiGo

- IndiGo holds 65% of domestic market share
- Air India Group has 26%, Akasa Air 5%, SpiceJet 2%
- Collapse of Jet Airways and Go First increased consolidation

Recent flight disruptions

- Mass cancellations by IndiGo caused nationwide disruption
- Regulators found poor aircraft and crew management
- Government ordered a 10% cut in IndiGo's winter schedule

Government and parliamentary response

- Issue raised in Rajya Sabha
- Civil Aviation Minister warned of strict action
- Government wants to "set an example" for the industry

New pilot safety rules (FDTL norms)

- Pilots now need 48 hours of weekly rest (earlier 36 hours)
- Night landings limited to 2 instead of 6
- Rules aimed at reducing fatigue and improving safety

Airlines vs pilot unions

- Airlines say stricter rules hurt scheduling and efficiency
- Pilot unions say rules are essential for flight safety

Financial health of airlines

- IndiGo made ₹7,253 crore profit in FY 2024-25
- Air India, Akasa, SpiceJet and others reported heavy losses
- Air India undergoing restructuring under Tata Group

IndiGo's future expansion

- Ordered 500 Airbus A320 family aircraft
- Deliveries planned between 2030-2035
- Will further strengthen IndiGo's dominance

Bigger lesson

- Rapid growth must be balanced with safety and accountability
- Excessive market concentration raises regulatory concerns
- India's aviation sector needs competition, discipline, and oversight

[How mangroves' cells help plants survive in saltwater: TH Science](#)

Science



| Clear your doubts now.



Easy Explanation

Most land plants die if they are exposed to salty water. But mangroves are different. They grow along seashores and survive in salty conditions where most plants cannot. Scientists wanted to understand how mangroves manage to live in such harsh environments.

Researchers studied the cells of mangrove plants and compared them with normal land plants. They discovered that mangroves have some special cell-level features that help them tolerate saltwater, especially as rising sea levels increase salinity due to climate change.

Mangroves did not survive by having more pores on their leaves or by increasing photosynthesis. Instead, their secret lies in their leaf cells. Mangroves have very small leaf surface cells and thick cell walls. These features give their leaves extra strength, allowing them to handle the stress caused by salty water.

Different mangrove species use different tricks. Some stop salt from entering their bodies by filtering it out at the roots using a waxy layer. Others allow salt inside but then push it out through their leaves using special tissues.

Apart from surviving saltwater, mangroves play a crucial role in protecting coastlines from erosion and providing homes for many animals and birds. Since many people live near coasts, mangroves indirectly protect human communities too.

The findings could help scientists design salt-tolerant crops in the future, which is important as soil salinity increases due to climate change and rising sea levels.

Key Takeaways

Why mangroves are special

- Mangroves survive in salty coastal water where most plants die
- They have evolved independently many times over millions of years

Cell-level adaptations

- Mangroves have unusually small leaf surface cells
- They have thick cell walls that provide extra mechanical strength
- These traits help them tolerate high salt stress

Salt-handling mechanisms

- Some mangroves block salt at the roots using waxy filters
- Others absorb salt and later secrete it through their leaves
- Different species use different strategies

Role in climate resilience

- Rising sea levels increase salt stress on plants
- Mangroves are naturally adapted to these changing conditions

Environmental importance

- Protect coastlines from erosion



| Clear your doubts now.



- Provide habitats for marine life and birds
- Support coastal communities indirectly

Future applications

- Study offers ideas to develop salt-tolerant crops
- Useful for agriculture in areas facing increasing salinity

[The snail as a model for restoring vision in humans: TH Science](#)

Science

Easy Explanation

In Hindu mythology, Lord Shiva's third eye represents deep power and transformation. Scientists now use this idea as a metaphor to explain something equally powerful in biology: regeneration. Regeneration means the ability of a body part to grow back after being damaged or lost. Humans cannot regrow eyes, but some animals can.

A recent scientific study shows that a golden apple snail can fully regrow its eye after losing it. This snail is a mollusc that lives both on land and in water. When its eye is removed, the process of regrowth is not random. Instead, thousands of genes switch on and off in a very precise order.

First, genes responsible for wound healing become active. Next, genes that help cells multiply start working. Finally, specialised genes create the retina, lens, photoreceptor cells and nerve connections needed for vision. One important gene involved is PAX6, which is also crucial for eye development in humans. In snails, PAX6 works along with many other genes to ensure that the eye develops correctly.

Humans cannot yet regrow eyes like snails, but scientists are learning from such animals. Other species like frogs, axolotls, planaria and the African spiny mouse also show strong regenerative abilities. In some of these animals, damaged tissue can revert to a stem-cell-like state and rebuild entire organs.

Modern gene-editing tools like CRISPR are helping scientists move closer to applying these ideas to humans. In India, researchers at the L.V. Prasad Eye Institute have used CRISPR to correct genetic eye diseases in zebrafish. Globally, CRISPR has already been tested in humans for diseases like sickle cell anaemia and certain types of inherited blindness.

A recent clinical trial showed improved vision in patients with a genetic form of blindness using CRISPR-based treatment. These developments suggest that regeneration is not magic, but an ancient biological program that science is slowly learning to reactivate in humans.

Key Takeaways

What regeneration means

- Regeneration is the ability to regrow damaged or lost body parts
- Humans have very limited regenerative ability compared to some animals



| Clear your doubts now.



Golden apple snail discovery

- The snail can fully regrow a complex, camera-type eye
- Eye regeneration happens through precise activation of thousands of genes

Role of genes

- Genes activate in stages: wound healing → cell growth → eye formation
- PAX6 gene plays a key role in early eye development
- Other genes guide nerve formation, light detection and lens development

Lessons from other animals

- Frogs, axolotls, planaria and spiny mice show strong regeneration
- Axolotls can rebuild bones, muscles and organs

CRISPR and human medicine

- CRISPR allows precise editing of faulty genes
- Used in research to correct genetic eye diseases
- Early human trials show improved vision in inherited blindness

Why this matters

- Regeneration is an ancient biological ability, not a miracle
- Understanding animal regeneration may help restore human vision in future
- Science is moving from observation to gene-guided regenerative medicine

15th December 2025

[New Insurance Bill:Major reforms it seeks to bring-The Indian Express Explained Page](#)

Economy

Easy Explanation

The Union Cabinet has approved the **Sabka Bima Sabki Raksha (Amendment of Insurance Laws) Bill, 2025**, which aims to modernise India's insurance sector by amending three core laws — the Insurance Act, 1938; the LIC Act, 1956; and the IRDAI Act, 1999.

At its core, the Bill tries to **globalise, strengthen regulation, and improve efficiency** in insurance. The most headline-grabbing reform is allowing **100% Foreign Direct Investment (FDI)** in insurance companies, up from the earlier 74%. This is expected to attract large global capital, improve technology use, and help India move towards the goal of **“Insurance for All by 2047.”**

The Bill also tries to make regulation sharper. The insurance regulator, **Insurance Regulatory and Development Authority of India (IRDAI)**, will get stronger enforcement powers, including the ability to recover illegal gains from insurers and intermediaries. Business processes are being simplified through one-time registration for intermediaries, clearer penalty rules, and structured rule-making procedures.



| Clear your doubts now.



Another major reform is easing entry norms for **foreign reinsurance companies** by sharply reducing the capital they must bring in. This is meant to increase reinsurance capacity in India and reduce dependence on the public sector reinsurer.

The Bill also gives greater operational freedom to **Life Insurance Corporation of India (LIC)**, allowing it to open offices faster and manage overseas operations with less government approval.

However, despite these positives, the Bill **falls short on several long-pending industry demands**. Crucial reforms such as **composite licences** (allowing one insurer to sell life, health, and general insurance), lower entry capital for new insurers, captive insurance companies for large firms, and multi-company agency models have been left out or diluted. This has left stakeholders divided on whether the Bill truly transforms the sector or only partially reforms it.

Key Takeaways

- **100% FDI allowed in insurance:**

The FDI cap is raised from 74% to 100%, signalling confidence in India's insurance market and expected to bring in long-term global capital, technology, and best practices.

- **Push towards Insurance for All by 2047:**

Higher capital inflows and competition are expected to improve insurance penetration, especially in underserved segments.

- **Easier entry for foreign reinsurers:**

Net Owned Fund requirement for foreign reinsurers reduced from ₹5,000 crore to ₹1,000 crore to deepen reinsurance capacity and competition.

- **Stronger powers for IRDAI:**

IRDAI can now disgorge wrongful gains, impose clearer penalties, and follow a formal SOP for rule-making — aligning it closer to regulators like SEBI.

- **Business process simplification:**

One-time registration for intermediaries and higher thresholds for regulatory approval in equity transfers reduce compliance burden.

- **Greater autonomy for LIC:**

LIC can open zonal offices without prior government approval and restructure overseas operations more flexibly.

- **Major reform left out – composite licence:**

Insurers are still restricted to either life or general insurance, preventing bundled, integrated insurance products.

- **No relief for new entrants:**

High minimum capital requirements for insurers and reinsurers remain, limiting entry of niche, regional, and micro-insurance players.

- **Captive insurance not allowed:**

Large corporations cannot yet set up captive insurers to manage their own risks, unlike global practice.

- **Overall assessment:**

The Bill is a **significant but incomplete reform** — strong on foreign capital and regulatory enforcement, weak on market structure reforms and competition at the grassroots level.



| Clear your doubts now.



[Concerns around Karnataka's expansive Bill to tackle hate speech-The Indian Express Explained](#)

[Page](#)

Polity

Easy Explanation

The Karnataka government has introduced a **new and expansive law** — the **Karnataka Hate Speech and Hate Crimes (Prevention) Bill, 2025** — aimed at curbing hate speech and hate crimes and compensating victims. It is among the **first state-level laws** to specifically target hate speech as a separate offence.

The Bill gives a **very broad definition of hate speech**, covering spoken, written, visual, and electronic communication that may cause hatred, disharmony, or ill-will against individuals or groups based on religion, caste, gender, sexual orientation, language, place of birth, disability, tribe, etc. While it exempts bona fide artistic, academic, scientific, and journalistic expression, the **breadth and vagueness** of the definition raise serious concerns.

A major shift is that the Bill gives the **state government wide powers to order takedown of online content** deemed to be hate speech, through designated officers. Challenging such takedown orders is procedurally difficult and often requires approaching courts, raising fears of **overreach and censorship**.

The Bill also introduces **collective liability**: organisations and institutions (loosely defined) can be punished for hate crimes. Although there is a defence of “lack of knowledge” or “due diligence,” the **burden of proof shifts to the accused**, which departs from standard criminal law principles.

Punishments under the Bill are **much harsher** than existing provisions. A first offence carries **mandatory minimum imprisonment of one year**, extending up to seven years; repeat offences can lead to **up to 10 years in jail**. This is significant because harsher punishment affects bail rights and can dilute the Supreme Court's principle of “**bail, not jail**” for less serious offences.

Critically, the article argues that the **problem in India has not been the absence of laws**, but **selective and biased enforcement** of existing laws. The Supreme Court has repeatedly flagged that hate speech persists because authorities fail to act impartially, not because legal provisions are insufficient.

Key Takeaways

- **New state-level law:**
The Karnataka government has tabled a first-of-its-kind legislation specifically targeting hate speech and hate crimes.
- **Very broad definition of hate speech:**
The Bill covers almost all forms of expression and a wide range of identity markers, increasing the risk of **arbitrary application**.
- **Risk to free speech:**
Overbroad and vague definitions can have a **chilling effect** on citizens, journalists, academics, and artists.



| Clear your doubts now.



- **Expanded takedown powers:**
The state can order removal or blocking of online content, raising concerns about **censorship without adequate safeguards**.
- **Collective punishment:**
Organisations and institutions can be held liable, with the **onus shifting to the accused** to prove innocence or due diligence.
- **Much harsher punishment:**
Mandatory minimum sentences (1–7 years; up to 10 years for repeat offences) exceed those under existing criminal law.
- **Impact on bail rights:**
Higher punishments weaken the Supreme Court’s “bail, not jail” principle and may bypass safeguards like the **Arnesh Kumar guidelines**.
- **Existing laws already exist:**
Hate speech is currently dealt with under the **Bharatiya Nyaya Sanhita**, suggesting the issue is enforcement, not legal vacuum.
- **Supreme Court’s view:**
The **Supreme Court of India** has held that hate speech persists due to **selective state action**, not lack of law.
- **Core concern:**
The key question is whether a **new, stringent law** will genuinely reduce hate speech or simply **expand state power at the cost of civil liberties**.

[How AI tool developed with Microsoft is helping Maharashtra police solve crime-The Indian Express Explained Page](#)

Science and technology

Easy Explanation

The Maharashtra Police have started using an **AI-based investigation tool** called **MahaCrimeOSAI**, developed jointly by the Maharashtra government and **Microsoft**. The statewide rollout was announced by Microsoft Chairman and CEO **Satya Nadella**.

Think of **MahaCrimeOSAI** as an **AI copilot for police officers**. Instead of spending hours on paperwork, file reading, and procedural checks, officers can now rely on AI to **organise information, analyse data, and suggest next steps** in an investigation.

The platform was piloted in Nagpur Rural and is now being extended to **all 1,100 police stations** in the state.

What exactly does the system do?

- It can **read complaints in any form** — PDFs, audio recordings, handwritten notes, images — and in **any language, including Marathi**.
- It automatically **extracts key facts** like names, phone numbers, transactions, locations, and timelines.
- Based on the crime type, it **creates a detailed investigation plan**, following Maharashtra Police rules and court guidelines.



| Clear your doubts now.



- It helps police analyse **telecom records**, trace links between suspects, and gather **open-source intelligence** from social media and online platforms.
- It prepares **court-ready case diaries** with proper dates and timestamps.

In simple terms, the AI handles the **routine and technical workload**, so officers can focus more on **actual crime-solving and helping victims**.

The system has been customised under **MARVEL (Maharashtra Research and Vigilance for Enhanced Law Enforcement)** — a specialised AI-policing initiative of the state government.

Key Takeaways

- **What it is:** MahaCrimeOSAI is an AI-powered crime investigation platform for the **Maharashtra Police**.
- **Who developed it:** Joint effort of the Maharashtra government, Microsoft, and MARVEL, using Microsoft's AI infrastructure.
- **Where it's used:** Initially tested in Nagpur Rural; now rolling out to **1,100 police stations statewide**.
- **Main benefit:** Saves time by automating paperwork, data analysis, and investigation planning.
- **Language advantage:** Can read Marathi FIRs and automatically generate investigation plans.
- **Crime categories covered (currently):**
 - Cybercrime
 - Narcotics
 - Crimes against women
 - Financial fraud
- **Real-world impact:** Helped solve a ₹38 lakh fraud case by analysing telecom data and online traces, leading to arrests across states.
- **Judicial compliance:** Investigation steps are aligned with **High Court and Supreme Court guidelines**, reducing procedural errors.
- **Capacity building:** Officers are being trained; over 120 officers already using it in pilot areas.
- **Future scope:** More crime categories will be added as new AI models are developed.

[Beyond big sales: Divergences in the US-Saudi defence ties-The Indian Express Explained Page](#)

International relations

Easy Explanation

Recently, the **United States** approved **\$1.4 billion worth of military sales** to **Saudi Arabia**, including a major package to train Saudi land forces. This was the first such deal after Saudi Arabia was designated a **Major Non-NATO Ally** during Crown Prince **Mohammed bin Salman's** visit to Washington.

At first glance, this looks like a strengthening of US–Saudi defence ties. But in reality, the relationship is becoming **more transactional and less strategic**.

What's changing in the relationship?

1. Saudi Arabia wants self-reliance



| Clear your doubts now.



- Saudi Arabia is one of the world's biggest defence spenders, but around **75% of its military needs are imported**.
- Under **Vision 2030**, Riyadh wants **50% of defence spending to be localised**.
- It has reached about **25% localisation**, signalling a long-term plan to reduce dependence on foreign suppliers — including the US.

2. US security guarantees are weakening

- Saudi Arabia has long wanted a **formal mutual defence agreement** with Washington.
- However, the **Donald Trump** administration prefers arms sales over long-term security commitments.
- The US is unwilling to expand its military footprint in the Middle East.

3. Regional threats worry Riyadh

- Israel's ability to reshape regional security on its own and the persistent **Iranian threat** have increased Saudi insecurity.
- Yet, Washington has not offered the kind of guarantees Riyadh seeks.

4. Saudi Arabia is diversifying partners

- Frustrated with US hesitation, Saudi Arabia is strengthening ties with **China**, which is now:
 - Its biggest crude oil customer
 - Largest source of imports
 - Major investor in Vision 2030 projects
- Still, China cannot yet replace US military power.

5. Turning to Pakistan

- Saudi Arabia is pursuing a **Strategic Mutual Defence Agreement** with **Pakistan**.
- This is less about protection and more about **military training, doctrine-sharing, and capacity building** based on Pakistan's operational experience.

6. Political friction with Israel

- The US wants Saudi Arabia to normalise ties with Israel under the **Abraham Accords**.
- Riyadh refuses without a credible path to a **Palestinian state**, reducing incentives to align fully with Washington.

Key Takeaways

- **Big arms deals don't mean deeper alliance:** Despite \$1.4 billion in sales, US–Saudi defence ties are becoming **transaction-based**, not strategic.
- **Saudi priority is autonomy:** Vision 2030 aims to build a domestic defence industry and cut import dependence.
- **US reluctance is a core problem:** Washington wants arms sales, not mutual defence obligations or a larger military role.
- **Diversification is deliberate:** Saudi Arabia is hedging by engaging China and Pakistan alongside the US.
- **Israel–Palestine issue matters:** Saudi refusal to normalise ties with Israel limits US leverage.
- **Future outlook:**
 - The US will remain Saudi Arabia's biggest defence supplier in the near term.
 - But Riyadh is clearly preparing for a future where it **cannot rely on US security guarantees alone**.





[From Brazil, a lesson on antibiotic use for India - The Indian Express The Ideas Page](#)

Science and technology

Easy Explanation

During a visit to **Brazil** for **COP30**, the author fell ill with a **viral infection** and experienced first-hand how differently antibiotics are treated there compared to **India**.

In India, viral illnesses like cold or fever are **routinely prescribed antibiotics**, even though antibiotics **do not work on viruses**. They are given “*just in case*” to prevent a secondary bacterial infection.

In Brazil, the system works very differently:

- Pharmacies **cannot sell antibiotics without a local prescription**.
- Doctors **do not prescribe antibiotics for viral infections**, even if symptoms worsen or sputum changes colour.
- Treatment focuses on **symptom relief** and letting the body heal naturally.

The Brazilian doctor clearly explained that:

- Coloured sputum **does not automatically mean bacterial infection**
- Mild bacterial growth often **resolves on its own**
- Antibiotics should be used **only when strictly necessary**

The author followed this advice, avoided antibiotics, and **recovered fully** — reinforcing that restraint, not overmedication, often leads to better outcomes.

Key Takeaways

- **Core difference:**
 - Brazil uses antibiotics as a **curative tool**
 - India uses antibiotics **preventively**, even for viral illnesses
- **Why this matters:**

Overuse of antibiotics is a major driver of **Antimicrobial Resistance (AMR)** — where bacteria stop responding to medicines.
- **India's AMR problem:**
 - Routine antibiotic prescriptions for viral infections
 - Easy over-the-counter availability
 - Heavy use of antibiotics in **poultry and livestock**
 - Weak regulation and surveillance
- **Result:**

India is now considered the **global epicentre of AMR**, meaning common infections may soon become **hard or impossible to treat**.
- **Policy gap in India:**
 - India created a detailed **National Action Plan on Antimicrobial Resistance (NAP-AMR)** in 2017
 - Implementation remained weak due to poor enforcement and a “quick-fix” medical culture



| Clear your doubts now.



- A revised plan (2025–2029) exists, but success depends on execution

- **Key lesson from Brazil:**

The difference is **not medical knowledge**, but **strict enforcement**:

- Doctors refuse unnecessary prescriptions
- Chemists refuse illegal sales
- Public healthcare supports rational treatment

The central message

“Use antibiotics when they are needed, not when you are worried.”

[Why was Elon Musk’s X platform fined \\$140 million by the EU?-The Hindu Text and Context](#)

International relations

Easy Explanation

The European Union fined X (formerly Twitter), owned by **Elon Musk**, about **€120 million (around \$140 million)** for violating rules under the **Digital Services Act (DSA)**.

This is the **first-ever non-compliance fine under the DSA**, the EU’s flagship law to regulate large online platforms and protect users from deception, misinformation, and opaque advertising.

At the centre of the case is X’s **paid blue check mark system**, which the EU said **misleads users** rather than helping them verify authentic accounts.

What exactly went wrong?

1. Blue check marks became misleading

- Before Musk bought Twitter in 2022, blue ticks were given only to **verified public figures** after checks.
- After the takeover, verification became a **paid feature**, available to almost anyone.
- This led to **impersonation, scams, and confusion**, as paid users appeared “verified” without identity checks.
- Multiple check marks (blue, gold, grey, company logos) further blurred distinctions.
- The EU concluded that this system **“deceives users”**, violating transparency obligations.

2. Poor ad transparency

- X’s **advertisement repository** did not clearly show:
 - Who paid for ads
 - Who they targeted
 - Whether ads posed risks (e.g., political or misleading content)
- This prevented meaningful public scrutiny.

3. Blocking researchers

- Under the DSA, platforms must give **approved researchers access to public data**.
- X failed to provide such access and introduced **delays and design hurdles**, limiting independent investigation into misinformation and harmful content.



| Clear your doubts now.



Because of these issues, the **European Commission** ruled that X undermined user rights and accountability mechanisms required by EU law.

Key Takeaways

- **Why the fine?**
X violated the Digital Services Act by **misleading users with paid verification**, failing ad transparency norms, and restricting researcher access.
- **Amount fined:**
€120 million (~\$140 million), based on the **severity, duration, and impact on EU users**.
- **Why it matters:**
This is the **first enforcement action under the DSA**, setting a precedent for regulating Big Tech.
- **Blue tick controversy:**
The EU says paid verification without identity checks **creates false trust** and enables impersonation.
- **What X must do now:**
 - Within **60 working days**: Explain steps to fix deceptive blue check usage
 - Within **90 working days**: Submit a plan to fix ad transparency and researcher access
- **Musk's reaction:**
 - Publicly attacked the EU, calling for it to be dismantled
 - Accused regulators of overreach
 - Claimed the fine targeted him personally
- **Geopolitical angle:**
The fine triggered criticism from **Donald Trump** and other US officials, who argued the EU is unfairly targeting American tech companies.

16th December 2025

[20 yrs on, a radical revamp of the rural jobs framework - The Indian Express Explained Page](#)

Economy

Easy Explanation

The government is planning a **major overhaul of India's rural employment guarantee system**, nearly **20 years after** the launch of **Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA)**.

The proposed law is called the **Viksit Bharat–Guarantee for Rozgar and Aajeevika Mission (Gramin) Bill (VB-GRAMG Bill)**.

While MGNREGA was mainly a **demand-driven social security scheme**, the new Bill aims to make rural employment more **structured, planned, and fiscally shared with states**.

1. Increase in Guaranteed Workdays

- Under MGNREGA, rural households are guaranteed **100 days** of unskilled manual work per year.



| Clear your doubts now.



- The new Bill increases this to **125 days**.
- However, in reality, **very few households actually complete 100 days** even today.
 - Average employment is about **50 days per household**.
 - Only **6–7 lakh families** reach the 100-day limit annually, out of **8.6 crore job cards**.

So, while the number looks generous on paper, **actual access may not increase much**.

2. States Will Share the Wage Burden

- Under MGNREGA:
 - The **Centre pays 100% of unskilled wages**.
- Under the new Bill:
 - **States will also have to pay a share of wages**.

This is a major shift. States are already under financial stress due to:

- GST-related revenue constraints
- High spending on subsidies, pensions, salaries, and debt

Experts estimate this could add **₹30,000 crore per year** to states' fiscal burden.

3. “Normative Allocation” – A Top-Down Model

- Currently, MGNREGA follows a **bottom-up approach**:
 - Villages estimate demand → districts → states → Centre.
- The new Bill introduces “**normative allocation**”:
 - The **Centre decides in advance** how much money each state will get.
 - If a state spends more than its allocation, **it must bear the extra cost itself**.

This change may hurt states with **high demand for rural jobs**, such as:

- Tamil Nadu
- Uttar Pradesh
- Rajasthan
- Bihar
- Andhra Pradesh

4. 60-Day Pause During Agricultural Seasons

- For the first time, the scheme will be **paused for 60 days** during:
 - Sowing season
 - Harvesting season
- The aim is to ensure **availability of labour for agriculture**.

However, India has **different cropping calendars across regions**, so:

- This pause could **reduce the effective working days**
- Poor households may lose income exactly when they need it most



| Clear your doubts now.



5. New Planning Framework

- All works will originate from **Viksit Gram Panchayat Plans**.
- These will be consolidated at:
 - Block → District → State → National level
- Works will focus on:
 - Water security
 - Core rural infrastructure
 - Livelihood infrastructure
 - Climate and extreme weather mitigation

These plans will be integrated with the **PM Gati Shakti National Master Plan**, linking rural employment with national infrastructure goals.

6. Job Cards Will Be Replaced

- Existing MGNREGA job cards will be replaced by:
 - **Gramin Rozgar Guarantee Cards**
- Special coloured cards will be issued for vulnerable groups:
 - Single women
 - Persons with disabilities
 - Elderly (60+)
 - Released bonded labourers
 - Particularly Vulnerable Tribal Groups (PVTGs)
 - Transgender persons

7. Budgetary Implications

- Current MGNREGA allocation (2024–25): **₹86,000 crore**
- Estimated annual cost of the new scheme: **₹1.51 lakh crore**
 - This includes **Centre + State share**

This indicates a **much larger and more complex fiscal commitment**.

Key Takeaways

- The VB-GRAMG Bill seeks to **replace MGNREGA**, marking a fundamental shift in rural employment policy.
- Guaranteed employment increases from **100 to 125 days**, but real utilisation remains low.
- **States will now share wage costs**, unlike earlier when wages were fully funded by the Centre.
- Introduction of **normative allocation** shifts power from states to the Centre.
- A **60-day pause during peak agricultural seasons** may reduce income security for rural workers.
- Planning becomes more **centralised and infrastructure-oriented**, linked to national development goals.
- Special job cards aim to improve inclusion of **vulnerable social groups**.



| Clear your doubts now.



- Overall, the Bill reflects a move from a **rights-based welfare scheme** to a **planned, fiscally disciplined employment programme**, raising concerns about access, federalism, and social protection.

[At Bondi Beach, an older question: How must open societies respond to terror? - The Indian Express The Ideas page](#)

International relations

Easy Explanation

Bondi Beach is not just a tourist spot in Australia. It symbolises an **open, democratic public space** where people of different backgrounds casually share daily life — families, migrants, worshippers, tourists, joggers, surfers.

When a **terrorist attack during a Hanukkah gathering** took place there, the damage went beyond loss of life. It **shook a deeper assumption**: that public life can be lived **without fear**.

The author argues that terrorism does not merely aim to kill people. Its **real objective** is to:

- Break social trust
- Turn shared spaces into sites of suspicion
- Replace ease with fear
- Make communities withdraw from one another

Because the attack targeted a **religious community** in a **beloved public space**, it struck at the heart of **pluralism** — the idea that different identities can coexist peacefully in everyday settings.

Drawing from personal experience in both **Australia** and **India**, the author highlights a common truth:

- The most lasting damage of terrorism is not the act itself
- It is the **slow erosion of civic trust** that follows

Australia has historically avoided large-scale political violence due to:

- High social trust
- Strong institutions
- Gun control reforms after the **Port Arthur massacre**

But this safety is **not permanent**. It must be **actively renewed**, especially when antisemitism and extremist hatred are re-emerging even in liberal democracies.

The article warns against two dangers:

- **Overreaction**, which can hollow out freedoms and public life
- **Underreaction**, which can normalise hatred and embolden extremists

The real challenge, therefore, is **normative and moral**:

How can open societies respond to terror **without abandoning openness itself?**



| Clear your doubts now.



The author concludes that the defence of plural societies lies not in retreat or fear-driven security politics, but in the **everyday courage of continuing to live together without suspicion**.

Key Takeaways

- **Bondi Beach represents open civic life**, where coexistence is practised, not proclaimed.
- Terror attacks on public spaces aim to **destroy social trust**, not just cause physical harm.
- Violence in shared spaces transforms:
 - Trust into suspicion
 - Openness into withdrawal
- Antisemitism and extremist hatred are **re-entering public life** in liberal democracies.
- Australia's past resilience to political violence must be **actively sustained**, not taken for granted.
- The Indian experience shows that terrorism's deepest harm is the **long-term erosion of everyday normalcy**.
- Overreaction threatens civil liberties; underreaction legitimises extremism.
- The core question is **not only about policing or intelligence**, but about values.
- Open societies are strong **because** they are open — and vulnerable for the same reason.
- The true defence of democracy lies in **continuing shared life without fear**, even after violence.

[Does India need to upgrade its biosecurity measures?-The Hindu Text and Context](#)

Science and technology

Easy Explanation

Biosecurity refers to the systems and practices used to prevent the **intentional misuse of biological agents**, toxins, or biotechnology to harm humans, animals, or crops. It includes protecting laboratories, monitoring disease outbreaks, preventing bioterrorism, and safeguarding agriculture and livestock. Biosecurity is different from biosafety, which focuses on preventing **accidental leaks** of pathogens. Strong biosafety automatically strengthens biosecurity.

Global concern over biological weapons led to the **Biological Weapons Convention**, which bans the development, production, and use of biological weapons and requires destruction of stockpiles. However, weak enforcement means countries must rely mainly on their own biosecurity systems.

India needs stronger biosecurity due to its **large population, dependence on agriculture, ecological exposure, and porous borders**. Even a small biological incident can spread rapidly and damage public health and food security. Reports of alleged preparation of **Ricin toxin** show that **non-state actors are exploring biological tools**. Rapid advances in biotechnology further increase the risk of misuse.

India has several institutions working on bio-risk reduction, including laboratory regulation, disease surveillance, animal health monitoring, and plant quarantine. Laws such as the Environment (Protection) Act, 1986 and the Weapons of Mass Destruction Act, 2005 address biosafety and biosecurity. India also participates in international arrangements like the **Australia Group**.



| Clear your doubts now.



Despite this, India lacks a **single, coordinated national biosecurity framework**. This weakness is reflected in India's ranking of **66** on the **Global Health Security Index**, where response capacity has declined.

Key Takeaways

- **Biosecurity** focuses on preventing the **intentional misuse** of biological agents and technologies; it is different from biosafety, which prevents accidental leaks.
- Advances in biotechnology make biological tools **easier to misuse**, increasing biosecurity risks.
- The **Biological Weapons Convention** bans biological weapons but has weak enforcement, so national systems are crucial.
- India is vulnerable due to its **large population, dependence on agriculture and livestock, and exposure to cross-border diseases**.
- **Non-state actors** pose a real threat because biological weapons are relatively **low-cost, covert, and hard to detect**.
- India has multiple laws and agencies for bio-risk management, but **coordination remains fragmented**.
- India's **response capacity has weakened**, as reflected in its ranking on the **Global Health Security Index**.
- A **unified national biosecurity framework** is urgently needed to integrate health, agriculture, security, and disaster-response systems.

[How is Asia-like artemisinin resistance emerging in Africa?-The Hindu Science](#)

Science and technology

Easy Explanation

Artemisinin is the backbone of modern malaria treatment. It was discovered from the plant *Artemisia annua* during China's **Project 523** in the 1960s and developed under the leadership of **Tu Youyou**, who later won the Nobel Prize. Artemisinin-based combination therapies (ACTs) rapidly kill the malaria parasite **Plasmodium falciparum**, including strains resistant to older drugs like chloroquine.

However, history is repeating itself. Just as chloroquine resistance first emerged in Southeast Asia and then spread globally, **artemisinin resistance also first appeared in Southeast Asia** around 2007–10. Patients there began showing delayed parasite clearance despite treatment.

Scientists traced this resistance to mutations in a parasite gene called **kelch13**. These mutations allow the parasite to enter a temporary slow-growth state, survive the short action window of artemisinin, and later recover.

A new global genetic study (published in *eLife*) shows worrying signs that **Asia-like resistance patterns are now emerging independently in Africa**, especially in parts of East and Northeast Africa such as Rwanda, Uganda, Tanzania, Ethiopia, Sudan, and Eritrea. About **10% of samples** in Northeast Africa already carry kelch13 resistance markers, though levels elsewhere in Africa remain low.



| Clear your doubts now.



Crucially, this resistance is **not being imported from Asia**; it is arising locally due to factors like heavy drug use, incomplete treatment, weak surveillance, and limited drug diversity. This mirrors the early stages of resistance seen earlier in Southeast Asia.

The good news is that Africa still has a **window of opportunity**. Most regions show low resistance levels, meaning strong surveillance, diversified drug use, and timely policy changes could prevent a continent-wide crisis.

Key Takeaways

- **Artemisinin** revolutionised malaria treatment but is now under threat from emerging resistance.
- Resistance first appeared in **Southeast Asia**, driven by mutations in the **kelch13 gene**.
- New evidence shows **independent emergence of similar resistance mutations in Africa**, especially East/Northeast Africa.
- Resistance develops faster where there is:
 - Heavy artemisinin use
 - Poor treatment adherence
 - Weak surveillance
 - Limited drug diversity
- Africa is at a **critical early stage**: resistance levels are rising but still relatively low.
- If unchecked, resistance could spread widely, as happened earlier with chloroquine.
- **Urgent actions needed**:
 - Strengthen genetic surveillance
 - Diversify antimalarial drugs
 - Monitor resistance to partner drugs
 - Ensure flexible and rapid treatment policy changes
- Artemisinin's history shows that **scientific breakthroughs can be undone by complacency**.

[2025 ICTP Prize awarded to Titas Chanda, Sthitadhi Roy-The Hindu Science](#)

Science and technology

Easy Explanation

The **2025 ICTP Prize** has been awarded to **Titas Chanda** and **Sthitadhi Roy** by the **International Centre for Theoretical Physics (ICTP)**.

The prize recognises their **original contributions to quantum many-body systems**, a field that studies how **large numbers of interacting quantum particles** behave collectively. Such systems cannot be understood by analysing particles individually because their interactions dominate the behaviour.

Their work lies at the intersection of:

- **Condensed matter physics** (which studies materials like magnets and superconductors), and
- **Quantum information science** (which treats quantum states as carriers of information using ideas like entanglement and entropy).



| Clear your doubts now.



This research is important for understanding and controlling **quantum technologies** such as **quantum computers, sensors, and communication systems**, especially when these systems are **out of equilibrium**.

- **Titas Chanda** (IIT Madras) was recognised for work on **quantum correlations, open quantum systems**, and applications such as **quantum batteries, communication protocols, and resource theories**. His research also contributes to areas like **quantum optics, cold atoms, and strongly correlated systems**.
- **Sthitadhi Roy** (ICTS Bengaluru, under TIFR) was recognised for work on **non-equilibrium dynamics of quantum many-body systems**, including **measurement-induced phase transitions, many-body localisation**, and **hybrid quantum circuits**, where measurements themselves help create new quantum phases.

The **ICTP Prize** has been awarded **annually since 1982** to **young scientists from developing countries**. ICTP was founded in **1964** by **Abdus Salam**, a Nobel laureate, to support advanced research in developing nations.

Key Takeaways

- **2025 ICTP Prize winners:** Titas Chanda (IIT Madras) and Sthitadhi Roy (ICTS Bengaluru).
- **Awarding body:** International Centre for Theoretical Physics (ICTP), Trieste, Italy.
- **ICTP founded in 1964** by Nobel laureate Abdus Salam.
- **ICTP Prize instituted in 1982** for young scientists from developing countries.
- Awarded for work on **quantum many-body systems**.
- **Quantum many-body systems** involve many interacting quantum particles whose behaviour is collective.
- Research lies at the interface of:
 - **Condensed matter physics**
 - **Quantum information science**
- Key research themes include:
 - Non-equilibrium quantum dynamics
 - Quantum correlations and entanglement
 - Measurement-induced phase transitions
 - Open quantum systems
- Applications include **quantum computing, quantum sensing, quantum communication**, and future quantum technologies.
- Past Indian ICTP Prize winners include **Ashoke Sen, Shiraz Minwalla, G. Baskaran**, among others.

[The Oman visit is more than a routine diplomatic trip-The Hindu Editorial](#)

International relations

Easy Explanation

The visit of **Narendra Modi** to **Oman** is not a routine diplomatic trip. It comes at a time when West Asia is facing uncertainty due to regional conflicts, energy transition, tariff wars, and shifting connectivity routes.



| Clear your doubts now.



The visit marks **70 years of diplomatic relations** between India and Oman. Oman has long followed a foreign policy based on **moderation, neutrality, and mediation**, making it a rare **stable and trusted partner** in a conflict-prone region. Even in the past, when much of the Gulf was hesitant about India, Oman maintained close ties.

For India, Oman is a **key pillar of its West Asia Policy**. The relationship deepened with the **Strategic Partnership Agreement (2008)** and has expanded strongly in defence, maritime security, trade, energy, and digital cooperation.

Defence ties are especially significant. Oman is the **first Gulf country** with which India conducts **joint exercises of all three armed forces**. The **Duqm Port logistics agreement (2018)** allows the Indian Navy access for refuelling and maintenance, strengthening India's presence in the Indian Ocean and Gulf of Oman.

Economic relations are also growing. Bilateral trade has crossed **\$10.6 billion**, and investment ties are supported by the **Oman-India Joint Investment Fund (OIJIF)**. Cooperation in digital payments, including the launch of **RuPay cards in Oman**, reflects India's Digital Public Infrastructure outreach.

Looking ahead, the visit could see the signing of a **Comprehensive Economic Partnership Agreement (CEPA)**, expansion of cooperation in **green energy, IMEC connectivity**, defence production, space, education, and health. Overall, the visit reinforces Oman's importance as a **strategic, economic, and maritime partner** for India.

Key Takeaways

- The visit marks **70 years of India–Oman diplomatic relations** and is strategically significant, not ceremonial.
- **Oman** follows a foreign policy of **neutrality, moderation, and mediation**, making it a stable partner in West Asia.
- Oman is India's **oldest and most trusted strategic partner in the Gulf**.
- India–Oman relations were elevated through a **Strategic Partnership Agreement (2008)**.
- Defence cooperation is a major pillar:
 - Joint exercises involving **all three Indian armed forces**
 - Indian naval presence for **anti-piracy operations in the Gulf of Oman**
 - **Duqm Port logistics agreement (2018)** enhancing India's naval reach
- Oman's strategic location is vital for **India's maritime security and Indian Ocean interests**.
- Bilateral trade has grown steadily to **over \$10.6 billion (FY 2024–25)**.
- Investment ties are strengthened through the **Oman–India Joint Investment Fund (OIJIF)**.
- Digital cooperation, including **RuPay cards in Oman**, reflects India's **Digital Public Infrastructure diplomacy**.
- A **Comprehensive Economic Partnership Agreement (CEPA)** is likely, making Oman the **second Gulf country after the UAE** to sign one with India.
- Future cooperation areas include **IMEC connectivity, green energy (including green hydrogen), defence production, space, education, and health**.



| Clear your doubts now.



17th December 2025

[NREGS may not be cause of farm labour shortage-The Indian Express Explained Page](#)

Economy

Easy Explanation

The Modi government has introduced a new Bill — **Viksit Bharat–Guarantee for Rozgar and Ajeevika Mission Gramin (VB-GRAMG)** — which will **replace the existing rural employment law**, the **Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA)**.

One important provision in the new Bill is that **rural employment works will be stopped for up to 60 days in a year during peak agricultural seasons**, such as sowing and harvesting.

The government says this is needed to **ensure enough labour is available for farming activities**.

This idea is not new. Earlier, many farmers and even leaders like Sharad Pawar argued that MGNREGA **pulls labour away from farms**, creating shortages during crucial crop periods. The new Bill partially accepts this concern by imposing a seasonal break.

However, when we look at **actual wage data**, the argument becomes weaker.

Data from the Labour Bureau (covering 25 rural occupations across 20 states) shows that **rural wages have grown slowly over the last 10 years**. In several years, **wage growth was even lower than inflation**, meaning workers were worse off in real terms.

If MGNREGA were truly causing labour shortages, **wages should have risen sharply** — but that did not happen.

Another major factor explains why wages stayed low: **a sharp rise in rural women joining the workforce**. Rural female labour force participation increased from about **25% in 2017–18 to nearly 48% in 2023–24**.

Government schemes like Ujjwala (LPG), Har Ghar Jal (water), Saubhagya (electricity), and Swachh Bharat (toilets) **reduced the time women spent on household chores**, enabling them to seek paid work.

This led to **more people willing to work**, especially in agriculture near their homes. Economically, this **increased labour supply**, which **kept wages from rising**, even if some farmers still felt short of workers at specific times.

Therefore, while farmers may face **timing problems in getting labour**, the data does **not strongly prove that MGNREGA caused a general labour shortage**. More on-ground evidence is needed before justifying seasonal restrictions.

Key Takeaways

- The new **VB-GRAMG Bill** proposes to **replace MGNREGA** and introduces a **60-day ban on rural works during peak farming seasons**.



| Clear your doubts now.



- The stated aim is to **ensure availability of agricultural labour**, especially during sowing and harvesting.
- **Rural wage data (2015–25)** shows **no major wage surge**, which weakens the claim of labour shortages caused by MGNREGA.
- In **4 out of 10 years**, rural wage growth was **lower than inflation**, leading to a fall in real wages.
- **Agricultural wages grew slightly faster** than overall rural wages, but still barely beat inflation.
- A key reason for weak wage growth is the **sharp rise in rural female labour force participation**.
- Government welfare schemes **freed women's time**, increasing labour supply and exerting **downward pressure on wages**.
- Increased participation of women likely **offset any labour withdrawal due to MGNREGA**.
- Farmers' complaints may reflect **local, seasonal mismatches**, not a nationwide labour shortage.
- **Policy decisions like seasonal bans need stronger ground-level evidence**, not assumptions.

[Climate change, deforestation worsened impact of SEAsia cyclones-The Indian Express](#) [Explained Page](#)

Environment

Easy Explanation

A new scientific study shows that **climate change, deforestation, and rapid urbanisation together worsened the impact of cyclones and floods** in parts of Southeast and South Asia last month.

Countries such as **Sri Lanka, Indonesia, Malaysia and Thailand** saw unusually severe flooding that killed at least **1,600 people**.

The floods were triggered by **Cyclone Ditwah** in Sri Lanka and **Cyclone Senyar** in Indonesia and Malaysia. While floods occur every year during the monsoon, **this time the rainfall and flood heights were unprecedented**.

Role of climate change

The study, conducted by the **World Weather Attribution (WWA)**, found that **global warming has intensified extreme rainfall**.

- The Earth is now about **1.3°C warmer** than in pre-industrial times.
- A warmer atmosphere can hold **about 7% more moisture per 1°C rise**, leading to **heavier and longer rainfall**.
- In Sri Lanka, intense five-day rainfall events are now **28% to 160% stronger**.
- In the Malacca Strait region, extreme rainfall has increased by **9% to 50%**.

Additionally, **sea surface temperatures in the North Indian Ocean were higher than normal**, providing more energy to cyclones and increasing rainfall intensity.

Role of deforestation

The impact of rainfall was made worse by **massive loss of forest cover**.



| Clear your doubts now.



- Sri Lanka's forest cover fell from **90% in 1900 to about 20% by 2002**, due to plantations, infrastructure, and illegal logging.
- Indonesia lost **around 25% of its old-growth forests** between 1991 and 2020, largely due to palm oil cultivation.

Forests normally **absorb rainwater and stabilise slopes**. Their loss led to:

- Faster runoff
- Higher flood peaks
- More landslides, especially in hilly regions like Sumatra

Role of rapid urbanisation

Rapid and unplanned urban growth increased damage:

- More people now live in **high flood-risk zones**
- Roads, railways, dams, and cropland expanded into floodplains
- Natural drainage systems were disrupted

As a result:

- Indonesia suffered losses of **\$4.13 billion**
- Sri Lanka lost **\$6–7 billion (3–5% of GDP)** and over **137,000 acres of farmland**

Key Takeaways

- Recent cyclones in South and Southeast Asia caused **exceptionally severe floods**, leading to **around 1,600 deaths** across Sri Lanka, Indonesia, Malaysia, and Thailand.
- **Climate change has intensified extreme rainfall**: rising global temperatures allow the atmosphere to hold more moisture, increasing rainfall intensity and duration.
- The world is now about **1.3°C warmer than pre-industrial levels**, significantly worsening storm-related flooding.
- **Sea surface temperatures in the North Indian Ocean were higher than average**, supplying extra energy to cyclones and amplifying rainfall.
- In Sri Lanka, intense multi-day rainfall events have become **28%–160% stronger**; in the Malacca Strait region, increases range from **9%–50%**.
- **Deforestation sharply increased flood damage** by reducing water absorption, accelerating runoff, and destabilising slopes.
- Sri Lanka's forest cover declined dramatically over the last century, while Indonesia lost large areas of old-growth forests, especially to plantation expansion.
- **Rapid and unplanned urbanisation** pushed people, farms, and infrastructure into flood-prone zones, magnifying losses.
- Economic damage was severe: **Indonesia lost over \$4 billion**, while **Sri Lanka lost \$6–7 billion (about 3–5% of GDP)**, with large-scale agricultural destruction.



| Clear your doubts now.



- The study highlights that **flood disasters are no longer purely natural events** but are shaped by **climate change, land-use decisions, and development patterns**, underscoring the need for climate-resilient planning and ecosystem protection.

[At 100, Indian communism has unfinished business, too early to write its obituary - The Indian Express](#) [The Ideas Page](#)

Sociology

Easy Explanation

Indian communism has completed **100 years**, but it is currently at its weakest point. Once a powerful force in national politics, it now has very limited electoral presence, especially when compared to organisations like the RSS, which dominate today's political landscape.

This decline happened mainly over the last two decades. In the mid-2000s, Left parties strongly influenced the UPA government and ruled major states like West Bengal and Tripura. Their political fall accelerated after **withdrawing support to the UPA in 2008**, which cost them credibility and relevance.

However, losing elections does **not mean the end of communist ideas**. Political ideologies rarely disappear. Issues such as inequality, farmer distress, job insecurity, and economic instability — the very problems communism sought to address — are **more serious today than before**.

Indian communism also made lasting contributions: it pushed **land reforms**, strengthened **workers' rights**, defended **secularism and federalism**, and deeply influenced literature, cinema, and public debate.

The main reasons for decline have been **internal divisions, ideological rigidity, and failure to build broad alliances**. If the Left can overcome these weaknesses, unite its fragmented groups, and work with other democratic forces, it may still play a meaningful role in India's future.

In short, Indian communism is **down but not finished** — its journey remains unfinished.

Key Takeaways

Centenary Contrast

- RSS marks 100 years as the political establishment.
- CPI marks 100 years amid deep political marginalisation.

Rise and Fall

- Peak influence around **2004–08** at the national level.
- Steep decline after withdrawal of support to the UPA in **2008**.
- Electoral presence today is minimal, except in Kerala.

Reasons for Decline

- **Internal splits and sectarianism.**



| Clear your doubts now.



- Ideological rigidity and failure to adapt to change.
- Weak coalition-building with other democratic forces.

Historical Contributions

- Pushed **land reforms, labour rights, and welfare policies**.
- Strong defender of **secularism and federalism**.
- Major influence on **culture, literature, theatre, and cinema**.

Continuing Relevance

- Core issues like **inequality, job insecurity, agrarian distress** remain acute.
- Global resurgence of interest in left-wing and socialist ideas.

Way Forward

- Need for **unity among fragmented Left groups**.
- Shift from ideological purity to **pragmatic democratic alliances**.
- Revival depends on adapting to India's social and political realities.

[The future of governance in post-Maoist India-The Hindu Text and Context](#)

Internal security

Easy Explanation

Discussions on the Maoist (Left-wing extremism) problem in India have mostly focused on **poverty, underdevelopment, and security operations**, but **governance failures** are a missing but crucial part of the story.

The Maoist movement grew mainly in **Fifth Schedule areas** of central and eastern India — regions with large **Adivasi (tribal)** populations. These areas were given **special constitutional protection** under the Fifth Schedule to address historical injustice through self-governance, land protection, and special financial support.

However, **poor implementation** of these safeguards turned the promise into failure. Despite constitutional provisions, tribal communities faced **land alienation, displacement, corruption, weak justice delivery, and absence of local representation** in administration. Development remained extractive, benefiting outsiders rather than locals.

Because the State failed to deliver governance and justice, Maoists filled the vacuum by running **parallel systems** — offering quick justice, basic services, and asserting control over land and forests under the slogan “**Jal, Jungle, Zameen**”. This explains why Maoism gained support despite being an armed insurgency.

Even progressive laws like **Panchayats (Extension to Scheduled Areas) Act (PESA)** and the **Forest Rights Act (FRA)** were poorly enforced or actively diluted by States, especially in mineral-rich regions like Chhattisgarh.



| Clear your doubts now.



Although infrastructure and welfare delivery have improved in recent years, **core governance institutions** — justice, policing, health, education, and revenue administration — remain weak and alienating. This leaves behind deep mistrust even as Maoist violence declines.

The article argues that **post-Maoist India needs a new governance vision**, focused on genuine self-rule, political representation, protection of land and forest rights, and accountable administration — not just security and development spending.

Key Takeaways

1. Governance as the Missing Link

- Maoism is often explained through poverty and underdevelopment.
- **Governance failure** played an equally important role in its spread.

2. Failure of the Fifth Schedule

- Fifth Schedule promised autonomy, protection of land, and self-governance.
- In practice, **state neglect and poor implementation** rendered safeguards ineffective.

3. Land Alienation and Displacement

- Large-scale dispossession due to mining, dams, and forests policies.
- Tribals lost land despite constitutional and legal protections.

4. Absence of Local Representation

- Administration dominated by **outsiders**, insensitive to tribal realities.
- Governors and tribal institutions failed to act as constitutional protectors.

5. Maoists Filling the Governance Vacuum

- Maoists ran **parallel governments** providing services and quick justice.
- This helped them gain legitimacy among alienated tribal communities.

6. Weak Implementation of Progressive Laws

- **PESA** and **FRA** aimed to empower Gram Sabhas and protect rights.
- States routinely violated or diluted these laws, especially in mining areas.
- Laws like the CAF Act further weakened tribal safeguards.

7. Limits of the Security–Development Approach

- Infrastructure and welfare delivery have improved.
- But **justice, policing, health, and education systems remain weak.**



| Clear your doubts now.



8. The Way Forward

- Reverse political and administrative **under-representation of Adivasis**.
- Strengthen Gram Sabhas with real powers and finances.
- Learn from **Sixth Schedule–style autonomy models**.
- Build a **new governance charter for post-Maoist India**, centred on trust, rights, and self-governance.

Bottom line:

Maoism thrived not just because of poverty, but because the State failed to govern fairly. Ending insurgency sustainably requires **fixing governance, not just defeating rebels**.

[Inhalable microplastics, a hidden toxin worsening the air in our cities-The Hindu Science](#)

Environment

Easy Explanation

Air pollution in Indian cities is usually discussed in terms of **PM2.5, PM10, and toxic gases**, but a new study highlights a **largely ignored threat: inhalable microplastics**.

Inhalable microplastics are **plastic particles smaller than 10 micrometres**, tiny enough to be breathed deep into the lungs. A first-of-its-kind Indian study published in *Environment International*, led by **Gopala Krishna Darbha** from **Indian Institute of Science Education and Research Kolkata**, measured these particles at breathing height in busy markets of Delhi, Mumbai, Kolkata, and Chennai.

The study found that an average urban Indian **inhales about 132 micrograms of microplastics every day** — a dangerously high exposure. These particles are especially harmful because they are small enough to **bypass the body's natural defence mechanisms** and lodge deep in the lungs.

The real danger, however, is that microplastics act like “**Trojan horses**”. They carry **toxic heavy metals (lead, cadmium)**, **hormone-disrupting chemicals (phthalates)**, and even **harmful microbes and antibiotic-resistant fungi**, transporting them directly into the human respiratory system.

Exposure levels were found to be **much higher in Delhi and Kolkata**, especially during winter, due to poor dispersion conditions, dense population, and waste mismanagement. Coastal cities like Mumbai and Chennai showed lower concentrations.

The findings suggest that **current air quality monitoring systems do not adequately capture this emerging pollutant**, and that vulnerable groups such as traffic police, construction workers, and sanitation workers face especially high risks.

The study calls for **urgent policy action**, including stricter plastic control, better waste management, and expanded air pollution standards to account for microplastics.

Key Takeaways

1. What are inhalable microplastics?



| Clear your doubts now.



- Plastic particles **smaller than 10 µm** that can be inhaled.
- Can penetrate deep into the lungs and cause chronic health damage.

2. Scale of the problem

- Average concentration across four cities: **8.8 µg/m³**.
- Urban residents inhale about **132 µg of microplastics daily**.
- Winter levels are **74% higher** than non-winter periods.

3. Health risks

- Microplastics carry **lead, cadmium, and hormone-disrupting chemicals**.
- Can transport **pathogenic microbes and antibiotic-resistant fungi**.
- Linked to **cancer risk, hormonal disorders, respiratory illnesses**, and breast-related diseases.

4. City-wise exposure

- **Highest exposure:** Kolkata and Delhi.
- **Lower exposure:** Mumbai and Chennai (coastal dispersion advantage).
- Winter smog significantly worsens microplastic inhalation.

5. Sources of airborne microplastics

- Synthetic textiles, packaging waste, tyre wear, cosmetics.
- Construction activity, household dust, waste burning.
- Poor waste segregation and plastic mismanagement.

6. Policy gaps

- Current **AQI does not adequately track microplastics**.
- Workers like traffic police and labourers face disproportionate risk.

7. Way forward

- Stricter control and **ban on single-use plastics**.
- Improved **waste management and segregation**.
- Prefer **natural fibres over synthetic clothing**.
- Expand air pollution monitoring to include **microplastics**.

Bottom line:

Inhalable microplastics are an **invisible but serious air pollutant**, worsening urban health risks. Addressing air pollution without tackling plastic pollution will leave a major part of the problem unsolved.

[Stepping stone-The Hindu Editorial](#)

Economy



| Clear your doubts now.



Easy Explanation

Nuclear power currently contributes **only about 3%** of India's electricity. Yet, the government has set an ambitious goal of **100 GW of nuclear capacity by 2047**, including **small modular reactors (SMRs)**. To support this expansion, the proposed **SHANTI Bill** seeks to overhaul India's nuclear governance framework.

The Bill's key change is **who can build and operate nuclear power plants**. Until now, nuclear energy has been almost entirely state-controlled. SHANTI allows the Centre to license **government entities, joint ventures, and even private Indian companies** to participate. The aim is to **mobilise large domestic capital**, reduce construction risk for the state, and speed up capacity expansion — without opening the sector to foreign plant ownership.

Importantly, the Bill keeps **sensitive nuclear fuel-cycle activities** (linked to national security and non-proliferation) under state control, while allowing private players mainly in **plant construction, delivery, and supply chains**. By putting safety rules, liability, licensing, and dispute resolution in one law, SHANTI also seeks to reduce legal uncertainty and delays for new entrants.

However, the Bill raises concerns. It **caps operator liability at ₹3,000 crore** in case of a nuclear accident, with the Centre stepping in beyond that limit or even taking full liability in some cases. While this makes investments easier, it raises doubts about **whether victims and environmental damage would be adequately compensated**.

Another issue is **regulatory independence**. Although SHANTI creates a statutory framework, it leaves major influence over appointments with the Centre and the **Atomic Energy Commission**. Without a clearly independent regulator, **public trust and investor confidence may suffer**.

In short, SHANTI is a **necessary stepping stone** for expanding nuclear power, but unless it strengthens accountability, liability, and regulatory independence, it risks weakening trust even as it seeks to accelerate growth.

Key Takeaways

1. Why SHANTI Bill matters

- Nuclear power is only ~3% of India's electricity mix.
- India targets **100 GW nuclear capacity by 2047**.
- Massive capital mobilisation is required to meet this goal.

2. Opening the sector

- Allows **licensed private Indian entities and joint ventures** to operate nuclear plants.
- Aims to share construction risk and speed up capacity addition.
- Foreign ownership remains excluded.

3. Strategic balance

- **Sensitive fuel-cycle activities** remain with the state.
- Private role limited to **plant delivery and supply chains**.



| Clear your doubts now.



- Protects non-proliferation and national security concerns.

4. Legal and operational clarity

- Brings safety, licensing, liability, and dispute resolution into one statute.
- Can reduce uncertainty, transaction costs, and project delays.

5. Liability concerns

- Operator liability capped at **₹3,000 crore**.
- Centre bears excess liability or full liability in public interest.
- Raises concerns about **adequacy of compensation and environmental remediation**.

6. Accountability gaps

- Supplier liability depends largely on **contract terms**, not statute.
- Recourse against suppliers may vary across projects.

7. Regulatory independence

- Significant control over appointments remains with the Centre and Atomic Energy Commission.
- Weak independence may **erode public trust and deter investors**.

8. Overall assessment

- SHANTI is a **necessary reform for nuclear expansion**.
- Success depends on **stronger liability safeguards and an independent regulator**.

18th December 2025

[Nov exports to US surge, but a trade deal is still key-The Indian Express Explained Page](#)

Economy

Easy Explanation

In **November**, India's exports rose sharply, especially to the **US**, after falling for two months (September and October). Exports to the US jumped **22%**, making November one of the strongest months on record **des noted high US tariffs (up to 50%)**.

This surge did **not happen because tariffs were reduced**. Instead, many Indian exporters **absorbed the extra tariff costs themselves** to keep their foothold in the US market, hoping that an **India-US trade deal** will soon lower tariffs and make exports profitable again.

The export growth was **not limited to the US**. Exports to **China and Hong Kong** also rose sharply. One reason is geopolitical tension — China has restricted imports from Japan, which benefited Indian exporters (especially seafood).



| Clear your doubts now.



Exports to **Europe** increased as well because companies rushed to ship goods **before the EU's new carbon tax** (Carbon Border Adjustment Mechanism) comes into force from January. This kind of advance shipping is called **stocking**.

Another important reason for the surge is the **low base effect**. Last year, exports were badly hit due to the **Red Sea shipping crisis** (attacks by Houthi rebels), which increased costs and disrupted trade. Since last year's numbers were weak, this year's growth looks larger.

Some categories did particularly well:

- **Electronics** and **pharmaceuticals** grew strongly because they are **tariff-exempt**.
- **Engineering goods** exports revived, especially to Europe.
- A **weaker rupee** made Indian goods cheaper for foreign buyers, helping exporters.

However, exporters warn that this boom may be **temporary**. New orders from the US have slowed, and countries like **Vietnam and Bangladesh** are getting fresh orders instead. Textile exporters in **Tiruppur** report heavy losses, indicating possible trouble ahead.

Key Takeaways

- **Exports to the US rose 22% in November**, despite high tariffs, as exporters absorbed costs to retain market access.
- **Overall goods exports grew ~20%**, helped by strong demand from the US, China, Hong Kong, and Europe.
- **China import restrictions on Japan** boosted Indian exports (especially seafood) to China and Hong Kong.
- **European exports surged** due to advance shipments ahead of the EU's **CBAM** carbon tax.
- Growth is partly due to a **low base effect**, as last year's exports were hit by the **Red Sea crisis**.
- **Electronics (+38%) and pharmaceuticals (+20%)** led growth due to tariff exemptions.
- **Engineering goods (+23.76%)** showed recovery, especially in European markets.
- **Rupee depreciation** made Indian exports more competitive globally.
- Warning signs remain: **new US orders are drying up**, and competitors like Vietnam and Bangladesh are gaining.
- **A trade deal with the US remains crucial** for sustaining export growth beyond the short term.

[Philippines island visited by Bondi shooters has a history of violence beyond IS-The Indian Express Explained Page](#)

International relations

Easy Explanation



| Clear your doubts now.



The **father-son duo accused in the Bondi Beach shooting** had travelled to the **southern Philippines**, specifically to **Mindanao**, shortly before the attack. Australian authorities say they **underwent military-style training** there, raising concerns because Mindanao has a **long history of militancy and armed conflict**.

Mindanao is very different from the rest of the Philippines. While the country is overwhelmingly **Christian**, Mindanao has a **large Muslim population** and many distinct ethnic groups. For decades, Muslim communities — collectively called **Moros** — have felt **politically, economically, and culturally marginalised** in their own homeland. This historical grievance is known as the **Bangsamoro problem**.

Colonial policies under **Spain** and later the **United States**, followed by post-independence government actions, led to **loss of ancestral land**, migration of Christian settlers to the south, and deepening poverty among Moros. Over time, this created fertile ground for **armed**

separatist and Islamist movements.

Several militant groups emerged from the 1960s onwards. Some sought **self-rule**, while others adopted **violent jihadist ideologies**. The most notorious among them became known for **kidnappings, bombings, and beheadings**, worsening Muslim-Christian tensions.

In the 2010s, the region also became linked to **Islamic State (IS)** networks. Militants inspired or supported by IS briefly seized **Marawi city in 2017**, leading to one of the worst urban battles in Southeast Asia. Although the Philippine military eventually defeated the militants, the conflict left **large-scale destruction, displacement, and lingering instability**.

Since then, peace efforts have brought **partial stability**, including the creation of an autonomous Muslim region. However, **isolated attacks, radicalisation risks, and militant training networks** still exist, making Mindanao a continuing security concern for countries like Australia.

Key Takeaways

- The Bondi Beach shooters had travelled to **Mindanao**, a region with a **long history of militancy**, shortly before the attack.
- Mindanao's conflict is rooted in the **Bangsamoro problem** — historic marginalisation of Muslim Moro communities in their ancestral land.
- Colonial-era and post-independence policies led to **land loss, poverty, and social exclusion**, fuelling armed resistance.
- Militant groups such as the **Moro National Liberation Front** and **Abu Sayyaf Group** emerged, some using extreme violence.
- The region later saw the rise of **Islamic State-linked groups**, culminating in the **2017 Marawi siege**, which killed over 1,100 people and displaced around 600,000.
- **Islamic State East Asia** represented a new phase of jihadist militancy in Southeast Asia.
- Australia and other countries assisted the Philippines during the Marawi conflict and have **banned several Mindanao-based terror groups**.



| Clear your doubts now.



- Peace deals, including autonomy for the **Bangsamoro Autonomous Region**, have reduced violence but not eliminated radical threats.
- **Lone-wolf attacks and training camps** remain a concern despite the decline of large militant operations.
- The case highlights how **local conflicts in fragile regions can have global security implications**.

[National Herald case: Why special court ruled against ED - The Indian Express Explained Page](#)

Internal security

Easy Explanation

A special court in Delhi refused to start proceedings in the National Herald money-laundering case filed by the **Enforcement Directorate (ED)** against **Sonia Gandhi, Rahul Gandhi**, and others. This does not mean they are innocent or guilty; it only means the court found that the case was **not legally fit to begin a trial**.

The ED alleged that Congress leaders misused party funds to take control of properties worth about ₹2,000 crore belonging to Associated Journals Limited, which publishes the National Herald newspaper. According to ED, a company called Young Indian, controlled by Sonia and Rahul Gandhi, acquired the right to recover a large loan for a very small amount, and this was projected as money laundering.

The court rejected this case mainly for two reasons. First, the case was based on a **private complaint** filed by Subramanian Swamy. The court said that under the **Prevention of Money Laundering Act (PMLA)**, ED cases must be based on investigations by authorised agencies, not on private complaints. Second, there was **no predicate (scheduled) offence**. Under PMLA, money laundering can be charged only if there is a prior criminal offence registered through an FIR. In this case, no such FIR was ever filed by the CBI, so legally there were no “proceeds of crime”.

The court clarified that money laundering is **not a completely independent offence** and cannot exist without a scheduled offence. Other probes, such as those by the Income Tax Department or Delhi Police, may continue, but they do not automatically revive the ED’s case.

Key Takeaways

What the case is about

- The case relates to alleged money laundering linked to the National Herald newspaper
- The **Enforcement Directorate (ED)** accused Congress leaders of illegally taking control of AJL assets

Who is involved

- **Sonia Gandhi** and **Rahul Gandhi** are among the accused
- The case involves Associated Journals Limited (AJL) and Young Indian company

Core allegation by ED

- Congress party loan to AJL was allegedly converted in a way that benefited Young Indian
- ED claimed this amounted to laundering of ₹2,000 crore worth of assets



| Clear your doubts now.



Why the court rejected the case

- The case was based on a **private complaint**, which is not permitted under PMLA
- There was **no predicate (scheduled) offence** registered through an FIR

Importance of predicate offence

- Under the **Prevention of Money Laundering Act (PMLA)**, money laundering exists only if linked to a scheduled crime
- Without an FIR for such an offence, there are no “proceeds of crime”

Court's legal position

- Money laundering is **not a completely standalone offence**
- ED cannot proceed independently without a scheduled offence

What happens next

- Income Tax and Delhi Police EOW investigations may continue
- These probes do not automatically revive the ED's PMLA case
- ED may challenge the order in a higher court

[Navy inducts 2nd Seahawk chopper squadron in boost to anti-sub combat-The Indian Express](#) [Explained Page](#)

Science and technology

Easy Explanation

The **Indian Navy** has inducted its **second squadron of MH-60R Seahawk helicopters** at INS Hansa in Goa. This squadron, called **INAS 335**, strengthens India's ability to protect its seas, especially against enemy submarines.

These helicopters are modern, US-made naval versions of the Black Hawk. They can operate both from land bases and from large warships, including aircraft carriers. This makes them very useful for long-distance or **blue-water naval operations**.

The MH-60R is mainly designed to hunt submarines. It uses advanced sensors like dipping sonar and sonobuoys to detect submarines underwater and can destroy them using torpedoes. Apart from this, it can also track enemy ships, help in rescue operations, evacuate injured personnel, and carry supplies between ships at sea.

The helicopters are also effective against **non-traditional threats** such as piracy, maritime terrorism, smuggling, sea-borne infiltration, and drone attacks. Because such threats come from non-state actors and use concealment, they are called asymmetric threats.

India has bought **24 MH-60R helicopters** to replace its old Sea King helicopters. To keep these helicopters operational, India has also signed a long-term maintenance and support agreement with the US. Overall, the induction of this squadron significantly improves India's naval combat readiness and maritime security.

Key Takeaways



| Clear your doubts now.



What happened

- The **Indian Navy** inducted its second MH-60R Seahawk helicopter squadron
- The new squadron, **INAS 335**, was commissioned at INS Hansa, Goa
- The squadron is nicknamed '**Ospreys**'

Why it matters

- It significantly boosts India's **anti-submarine warfare (ASW)** capability
- Enhances surveillance and **blue-water naval operations**
- Strengthens India's maritime security posture

About MH-60R Seahawk helicopters

- US-origin maritime helicopters, a naval version of the Black Hawk
- Developed by Sikorsky (a Lockheed Martin company)
- Distinct from the V-22 Osprey tilt-rotor aircraft

Deployment and integration

- Can operate from shore bases, aircraft carriers, and large warships
- Fully integrated with fleet operations
- First squadron (INAS 334) was inducted at Kochi in March 2024

Operational roles

- Anti-submarine warfare
- Anti-surface warfare
- Search and rescue missions
- Medical evacuation
- Vertical replenishment between ships and shore

Key combat features

- Advanced mission systems for surface and underwater surveillance
- Equipped with dipping sonar, sonobuoys, and torpedoes
- Can carry missiles, rockets, and onboard guns

Conventional threat response

- Detects, tracks, and neutralises enemy submarines
- Supports sea-denial and mine-reconnaissance operations
- Extends the strike range of naval warships

Asymmetric threat response

- Counters maritime terrorism, piracy, and smuggling
- Detects sea-borne infiltration and sabotage threats
- Can respond to drone and other unmanned threats

Procurement and sustainment

- India has acquired **24 MH-60R helicopters** for over ₹15,000 crore
 - Replacing ageing British-origin Sea King helicopters
- A ₹7,995-crore five-year sustainment pact signed with the US
- Covers spares, repairs, and technical maintenance support



| Clear your doubts now.



[Over Taiwan, China and Japan are playing a risky game-The Indian Express The Ideas Page](#)

International relations

Easy Explanation

Tensions between **Japan** and **China** have sharply increased after Japan's Prime Minister **Sanae Takaichi** said Japan could intervene if China invades **Taiwan**. This is significant because it is the **first time since World War II** that a Japanese Prime Minister has openly linked the Taiwan issue to the possible use of Japan's Self-Defence Forces.

China reacted strongly. Foreign Minister **Wang Yi** accused Japan of crossing a red line and said China would respond firmly to protect its sovereignty and post-war order. The dispute has now reached the **United Nations**, showing how serious the situation has become.

China has responded using both **military and economic pressure**. Militarily, Chinese ships and aircraft have confronted Japanese forces near disputed areas like the **Senkaku Islands** and near **Okinawa**. Economically, China has targeted Japan by cancelling cultural events, discouraging Chinese tourists from visiting Japan, and banning Japanese seafood imports.

For China's President **Xi Jinping**, Taiwan is a core national issue and reunification is seen as essential to China's national revival. Japan has refused to withdraw the statement, even while calling it "hypothetical". This signals that Japan may no longer stay neutral if China uses force against Taiwan.

Overall, the episode shows a **dangerous shift in East Asian geopolitics**. China's increasing assertiveness is making its neighbours more willing to push back, raising the risk of regional instability.

Key Takeaways

What triggered the tension

- Japan's PM said Tokyo could intervene if China invades Taiwan
- First explicit link since WWII between Taiwan crisis and Japan's military

China's reaction

- China said Japan crossed a red line
- Issue escalated to the United Nations
- Strong diplomatic warnings issued by Beijing

Military dimension

- Chinese and Japanese ships faced off near Senkaku Islands
- Chinese fighter jets allegedly targeted Japanese aircraft near Okinawa

Economic pressure by China

- Ban on Japanese seafood imports
- Cancellation of Japanese films and music events in China
- Travel advisory discouraging Chinese tourists from visiting Japan



| Clear your doubts now.



Why Taiwan matters to China

- Taiwan is seen by Xi Jinping as a “sacred territory”
- Reunification is linked to China’s national rejuvenation

Why Japan’s stance is significant

- Challenges China’s claim that Taiwan is purely an internal issue
- Signals Japan may not remain passive in a future conflict

Bigger picture

- Reflects China’s growing assertiveness in East Asia
- Neighbouring countries are increasingly uneasy
- Higher risk of miscalculation and regional instability

[How is the Aravalli range to be protected?-The Hindu Text and Context](#)

Environment

Easy Explanation

The **Supreme Court of India** has taken an important step to protect the **Aravalli Range** by fixing a **uniform definition** of what counts as Aravalli hills and temporarily **stopping new mining leases** across Delhi, Haryana, Rajasthan and Gujarat.

The Aravallis are India’s **oldest mountain range**, nearly two billion years old. They act as a **natural barrier against desertification**, stopping the Thar Desert from spreading eastward into fertile regions like Haryana, western Uttar Pradesh and parts of Rajasthan. They also help regulate climate, support biodiversity, and **recharge groundwater**. Many important rivers such as the Chambal, Sabarmati and Luni originate here.

Over the past few decades, however, the Aravallis have faced **excessive and often illegal mining**, especially for stone and sand. This has worsened air pollution, damaged ecosystems and reduced groundwater recharge. India is also internationally obligated under the **UN Convention to Combat Desertification** to protect such fragile ecosystems.

Although mining regulations have existed since the 1990s, they were frequently violated. The Supreme Court has intervened multiple times, including banning mining in parts of Haryana in 2009. In 2024–25, it again stepped in, pausing fresh mining leases and asking its Central Empowered Committee (CEC) to study the issue in depth.

A major problem was that **States used different definitions of the Aravallis**, allowing mining in disputed areas. To end this confusion, the Court set up a committee involving the Environment Ministry, the **Forest Survey of India**, Geological Survey of India and State forest departments. The committee finally recommended that **only hills above 100 metres** be classified as Aravalli hills. Though some experts felt this was too narrow, the Court accepted it as a workable and inclusive standard.

Instead of a total mining ban, the Court chose a **balanced approach**. It allowed existing legal mining to continue under strict regulation, paused new leases, and ordered preparation of a **Management Plan for Sustainable Mining (MPSM)**. The Court reasoned that complete bans often lead to illegal mining and sand mafias.



| Clear your doubts now.



Key Takeaways

Why the SC intervened

- Unchecked and illegal mining severely damaged the Aravalli ecosystem
- Different States used different definitions, enabling exploitation

Why the Aravallis matter

- Oldest mountain range in India
- Prevent desertification of the Indo-Gangetic plains
- Recharge groundwater and support rivers, biodiversity and climate stability

Uniform definition decision

- Only hills **above 100 metres** qualify as Aravalli hills
- Aims to remove ambiguity and stop misuse by States

Mining policy approach

- No blanket ban on all mining
- Fresh mining leases and renewals paused
- Existing legal mining allowed under strict regulation

Future roadmap ordered by SC

- Preparation of a **Management Plan for Sustainable Mining (MPSM)**
- Identification of no-mining zones, sensitive habitats and wildlife corridors
- Scientific assessment of ecological carrying capacity and restoration plans

Additional government action

- Launch of the Aravalli **Green Wall Project** in 2025
- Expansion of green cover in a 5-km buffer across 29 districts
- Target to restore 26 million hectares of degraded land by 2030

[Why have Thailand-Cambodia border clashes flared up again?-The Hindu Text and Context](#)

International relations

Easy Explanation

Clashes have flared up again between **Thailand** and **Cambodia** because of a **long-running border dispute** that was never fully settled after colonial rule. In early December, fighting resumed along disputed border areas, prompting **Thai airstrikes inside Cambodia**, despite a ceasefire that had been brokered earlier with U.S. involvement.

The immediate trigger was a series of incidents in **2025**. In May, a Cambodian soldier was killed during a border skirmish, leading to troop build-ups. By July, fighting escalated into heavy clashes involving artillery, rockets and airstrikes, killing dozens and displacing hundreds of thousands of civilians. Under pressure from the U.S. and mediation by Malaysia, both sides agreed to a ceasefire, which was formally signed in October. However, the truce soon weakened after Thailand accused Cambodia of planting fresh landmines following an incident in which a Thai soldier was injured.



| Clear your doubts now.



The deeper cause lies in **unclear border demarcation**. The 817-km Thailand–Cambodia border was shaped by treaties signed in 1904 and 1907 between colonial France (which ruled Cambodia) and Siam (Thailand). Although the border was supposed to follow natural watershed lines, French maps placed several **ancient Khmer temples** on the Cambodian side, creating lasting disputes.

The most sensitive symbol is the **Preah Vihear Temple**, an 11th-century Hindu temple. In 1962, the **International Court of Justice (ICJ)** ruled that the temple belongs to Cambodia. A 2013 clarification further affirmed Cambodian sovereignty over most surrounding areas. Despite this, nationalist sentiments in both countries keep the dispute alive, with temples tied to identity, pride and territorial integrity.

Repeated mediation efforts by **ASEAN**, the ICJ, and neighbouring countries have struggled. Thailand has generally resisted third-party involvement, preferring bilateral talks, while Cambodia is more open to external mediation. In 2025, U.S. pressure — including threats of steep tariffs — helped secure a temporary ceasefire, but it remains fragile.

Key Takeaways

Why clashes have resumed

- A fragile ceasefire broke down after renewed accusations of border violations
- Thailand launched airstrikes citing security threats

Immediate triggers (2025)

- Killing of a Cambodian soldier in May
- Heavy fighting in July causing dozens of deaths and mass displacement
- Ceasefire agreed in October but weakened in November after landmine allegations

Core dispute

- Undemarcated sections of the 817-km border
- Colonial-era treaties and disputed maps

Role of Preah Vihear

- Ancient Khmer Hindu temple at the heart of nationalist tensions
- ICJ rulings (1962, 2013) favoured Cambodia but did not end tensions

Mediation efforts

- ASEAN and ICJ involvement since 2008–11 had limited success
- Thailand resists third-party monitoring; Cambodia supports it
- U.S. pressure in 2025 helped broker a ceasefire

Way forward

- Border-level de-escalation: troop withdrawals, joint de-mining, military hotlines
- Long-term solution: sustained bilateral dialogue and clear border demarcation
- Reconciling Thailand's bilateral approach with Cambodia's openness to mediation

[Pamir ice cores could provide answers to the loss of glaciers-The Hindu Science](#)

Geography



| Clear your doubts now.



Easy Explanation

Scientists are studying **ancient ice cores** from the **Pamir Mountains** in **Tajikistan** to understand why glaciers there are **not melting like glaciers elsewhere in the world**.

Japanese scientist **Yoshinori Iizuka** from **Hokkaido University** is leading this research. While climate change is causing glaciers globally to shrink fast, glaciers in the Pamir–Karakoram region have **remained stable or even grown slightly**. This unusual behaviour is called the **Pamir–Karakoram anomaly**.

To study this, scientists drilled **two long ice cores (about 105 metres each)** from a high-altitude ice cap in the Pamirs at nearly 5,800 metres above sea level. One ice core is stored safely in Antarctica, while the other is being analysed in Japan.

Ice cores act like **natural climate records**. Different layers of ice reveal information about past temperatures, snowfall, volcanic eruptions, and melting events. By analysing snow density, ice structure, chemical traces, and water isotopes, scientists can reconstruct climate conditions from **hundreds or even thousands of years ago**.

Researchers believe that understanding why snowfall increased and melting slowed in the Pamirs could help scientists **better protect glaciers worldwide**, and improve climate models. The ice may even contain information dating back **10,000 years**, offering rare insight into Earth's ancient climate.

Key Takeaways

Why this research matters

- Most glaciers worldwide are rapidly shrinking due to global warming
- Pamir glaciers are an exception, showing unusual stability or growth

What is the Pamir–Karakoram anomaly

- A rare phenomenon where glaciers resist melting
- Found only in the Pamir–Karakoram region

What scientists did

- Drilled deep ice cores from a high-altitude glacier
- Stored one core in Antarctica and analysed one in Japan

What ice cores reveal

- Clear ice layers show past melting and refreezing
- Low-density layers indicate snowfall and precipitation levels
- Cracks reveal partial melting events
- Volcanic particles act as time markers
- Water isotopes help estimate past temperatures

Why it is important for the future

- Helps explain why some glaciers survive climate change
- Can improve predictions of glacier loss worldwide
- May guide strategies to slow or reduce glacier melting



| Clear your doubts now.



Big picture

- Glaciers are disappearing at an alarming rate
- Studying rare surviving glaciers may offer clues to protecting others
- Ice cores provide one of the most reliable records of Earth's climate history

19th December 2025

[India-Russia logistics agreement, with eye on Arctic, Indo-Pacific-The Indian Express Explained](#)

[Page](#)

International Relations

Easy Explanation

India and Russia have signed a **military logistics agreement** called **RELOS (Reciprocal Exchange of Logistics Support)**. This agreement allows the armed forces of both countries to **use each other's military bases** for practical needs such as **refuelling, repairs, maintenance, port calls, and transit**.

It was ratified by Russia shortly after **Vladimir Putin's** visit to New Delhi and will come into force once both countries formally exchange ratification documents.

What does RELOS practically mean?

- Indian and Russian **warships, aircraft, and military units** can move more easily between the two countries.
- When operating far from home, they can **refuel, repair equipment, rest crews, and get supplies** at each other's bases.
- The agreement applies during:
 - Joint military exercises
 - Training missions
 - Humanitarian assistance and disaster relief (HADR)
 - Other missions with mutual consent

Why is this important for India?

- India gets **access to key Russian bases**, especially:
 - **Vladivostok** (Pacific Ocean)
 - **Murmansk** (Arctic region)
- As **Arctic ice melts due to climate change**, new **sea routes, energy resources, and minerals** are opening up.
- RELOS gives India a **logistics foothold in the Arctic**, supporting:
 - Energy security (gas and minerals)
 - Protection of emerging sea lanes
 - Long-range naval and air operations
- It also strengthens India's **Indo-Pacific strategy**, allowing Indian forces to operate **far beyond nearby waters**.



| Clear your doubts now.



Why is it important for Russia?

- Russia gets greater **access to Indian ports and airfields**.
- This strengthens Russia's **presence in the Indian Ocean Region (IOR)**.
- It helps Moscow project power in a **multipolar world**, beyond its immediate neighbourhood.

How is RELOS different from India's US agreements?

India already has similar logistics and defence pacts with the US:

- **LEMOA** – mutual refuelling and logistics
- **COMCASA** – secure encrypted communications
- **BECA** – sharing satellite and geospatial data

RELOS is **similar in function** but is **tailored to the India–Russia defence relationship**, especially useful because much of India's military equipment is of **Russian origin**.

Key Takeaways

- **RELOS (Reciprocal Exchange of Logistics Support)** allows India and Russia to **use each other's military bases** for refuelling, repairs, maintenance, and transit.
- The agreement was ratified by Russia after **Vladimir Putin's** December visit to India and will take effect after exchange of ratification instruments.
- Covers **warships, military aircraft, and troops**, and applies to **joint exercises, training, HADR missions**, and other mutually agreed operations.
- Gives India **institutional access to Russian bases** from **Vladivostok (Pacific)** to **Murmansk (Arctic)**, extending operational reach.
- Strengthens India's **Arctic footprint**, important due to melting ice, emerging sea routes, and access to **energy and mineral resources**.
- Enhances India's **Indo-Pacific strategy** by enabling long-range naval and air deployments beyond home waters.
- Supports India's forces operating **Russian-origin equipment** through easier logistics and maintenance.
- Provides Russia **greater access to Indian ports and airfields**, reinforcing its presence in the **Indian Ocean Region**.
- RELOS is comparable to India's US logistics and defence pacts—**LEMOA, COMCASA, BECA**—but tailored to the **India–Russia** defence relationship.
- Reflects India's approach of **strategic autonomy and multi-alignment** in a multipolar world.

[Domestic market stagnant, japan's mega banks set sights on India-The Indian Express Explained](#)
[Page](#)

Economy

Easy Explanation



| Clear your doubts now.



Japan's big banks are **running out of growth opportunities at home**. The Japanese economy has been growing very slowly for years because interest rates are very low, the population is ageing rapidly, and the workforce is shrinking. As a result, banks in Japan find it difficult to earn profits by lending more within the country.

India, on the other hand, offers the **exact opposite picture**.

India's economy is growing fast, people are borrowing more, consumption is rising, and the financial system is becoming clearer and more regulated. This makes India an **attractive destination for long-term banking and financial investments**.

That is why Japanese megabanks are increasingly buying stakes in Indian banks, NBFCs, and investment firms. For example, **Mizuho Financial Group** buying control of Avendus is not a one-off deal—it reflects a **strategic shift**. Similarly, **Sumitomo Mitsui Banking Corporation** investing in Yes Bank and **Mitsubishi UFJ Financial Group** exploring Shriram Finance show growing confidence in India's credit ecosystem.

Japanese banks are not focusing on retail customers yet. Instead, they are targeting **corporate banking, investment banking, NBFCs, and digital lending**, where growth is faster and risks are more manageable.

For India, this brings **stable long-term capital, better risk management practices, and global expertise** into its financial system. For Japan, it provides a way to **escape domestic stagnation and earn returns in a high-growth economy**.

In short, Japanese megabanks see India as the **future growth engine** that their own economy can no longer provide.

Key Takeaways

- Japanese megabanks are **shifting focus to India** due to **stagnant growth, low interest rates, and ageing demographics** in Japan.
- India's **fast-growing credit market, rising consumption, and regulatory stability** make it an attractive destination for long-term banking investments.
- **Mizuho Financial Group** acquiring a controlling stake in Avendus reflects a **strategic, long-term commitment**, not a one-off deal.
- **Sumitomo Mitsui Banking Corporation's** 20% stake in Yes Bank is the **largest cross-border investment** in India's banking sector.
- **Mitsubishi UFJ Financial Group's** interest in Shriram Finance shows Japanese capital moving beyond banks into **NBFCs**.
- Japanese investments now span **banks, NBFCs, small finance banks, and digital lending platforms**, indicating ecosystem-wide interest.
- The trend reflects a **more open RBI approach** towards foreign participation in India's financial sector.
- India's strong growth outlook (over **7% GDP growth**) strengthens investor confidence.
- For India, benefits include **long-term capital inflows, global best practices, and improved risk management**.
- For Japan, India offers a **high-growth alternative** to a saturated domestic financial market.



| Clear your doubts now.



- Overall, the trend highlights a **win-win financial realignment** driven by Japan's structural slowdown and India's growth momentum.

[The Islamic State's long shadow on Australia-The Indian Express Explained Page](#)

International relations

Easy Explanation

The **Bondi Beach attack** shows that the ideology of the **Islamic State (IS)** still influences violence in **Australia**, even though IS has weakened globally.

After 2014, Australia saw a rise in **IS-inspired lone-actor attacks**, driven mainly by **English-language online propaganda** targeting a small section of **urban, socially alienated youth**. Several **homegrown influencers** amplified IS messaging far beyond their actual operational role.

Although the attackers' **Indian origin** has raised scrutiny, past cases like **Mohammed Haneef** show how terror laws can wrongly target minorities.

Australia responded with **very strict counterterror laws**, which reduced attacks but raised **civil liberties concerns**. Security agencies now warn that the **biggest threat is lone actors inspired online**, not organised terror networks.

Key Takeaways

- The **Bondi Beach attack** was inspired by the ideology of the **Islamic State**, showing its ideas still motivate violence.
- Australia saw a **clear rise in IS-inspired attacks after 2014**, mainly by **lone actors or small cells**.
- **English-language online propaganda** played a key role in radicalising a small section of **urban, digitally connected but socially alienated youth**.
- Australia produced several **"homegrown" IS influencers**, whose propaganda impact was larger than their operational role.
- Nearly **500 Australians** either travelled or tried to travel to join IS—**disproportionately high** compared to countries like India.
- The **Indian origin of some suspects** should be treated with caution; past cases show terror laws can **misfire against minorities**.
- **India witnessed minimal IS recruitment**, despite a large Muslim population, due to strong social structures and early security action.
- Australia enacted **very tough counterterror laws**, reducing attacks but raising **civil liberties concerns**.
- IS as an organisation is weaker, but its **ideological influence remains**, especially through online inspiration.
- The **main threat today is lone-actor terrorism**, not organised terror cells.

[MGNREGA was the ground beneath our feet.It's slipping away-The Indian Express Ideas Page](#)

Governance



| Clear your doubts now.



Easy Explanation

The **MGNREGA** was never just a welfare handout. It was a **fundamental shift in how India tackled poverty, rural distress, and labour markets**.

At its core, MGNREGA guaranteed work to anyone willing to do manual labour. This simple, demand-driven design did something powerful: it **raised workers' bargaining power**. When rural workers knew the state would employ them, they were no longer forced to accept exploitatively low wages. As a result, wages rose, poverty fell, and local economies became more active.

Research shows that MGNREGA increased household incomes, reduced poverty sharply, and even created **more non-farm jobs** by boosting rural demand. Importantly, higher wages did **not reduce employment**, contradicting a common economic fear.

During the **Covid-19 crisis**, MGNREGA became a lifeline, sustaining rural incomes and preventing economic collapse. Even governments critical of the scheme had to rely on it.

The programme also had major **social effects**, especially for women. Over half of all MGNREGA workdays now go to women, transforming female labour participation in rural India.

What made MGNREGA work was its **universality and simplicity**. Instead of complex targeting, anyone could demand work. This reduced corruption and exclusion.

However, recent proposals and administrative changes risk weakening the scheme by:

- Making it **budget-capped instead of demand-driven**
- Shifting financial burden to states
- Limiting flexibility and decentralisation
- Undermining the role of local panchayats

In trying to “reform” MGNREGA, policymakers may be **dismantling the very features that made it successful**. The danger is not inefficiency—but erosion. What once provided economic and political stability is slowly slipping away.

Key Takeaways

- **MGNREGA** was not just a welfare scheme but a **structural reform of rural labour markets**.
- It **raised labour bargaining power**, leading to **higher wages, higher incomes, and lower poverty** without reducing employment.
- Rigorous studies show:
 - **Household incomes rose (~14%)**
 - **Poverty declined (~26%)**
 - **Non-farm employment increased** due to higher rural demand.
- Wage increases under MGNREGA were a **feature, not a flaw**, given extreme rural precarity.
- The scheme played a **critical stabilising role during Covid-19**, sustaining rural incomes and demand.
- One of India's most **gender-transformative policies**:
 - Over **57% of workdays** nationally go to women



| Clear your doubts now.



- Nearly **80% in states like Tamil Nadu**.
- Its success rested on **simplicity and universality**:
 - Demand-driven
 - Self-targeting (anyone willing to work qualifies)
 - Reduced exclusion and manipulation.
- It strengthened **decentralisation**, empowering gram panchayats.
- Current policy changes risk weakening the scheme by:
 - Making it **budget-capped and supply-driven**
 - Shifting financial burden to states
 - Curtailing local flexibility and panchayat autonomy.
- Political mis-framing reduced public support, allowing the scheme to be portrayed as a symbol of “low ambition”.
- Over two decades, MGNREGA acted as a **bedrock safety net**, supporting economic stability and social cohesion.
- The real risk today is **erosion through dilution**, not inefficiency.

[Inside the DHRUV64 microprocessor-The Hindu Text and Context](#)

Science and technology

Easy Explanation

DHRUV64 is an **indigenously designed microprocessor** announced by India’s Ministry of Electronics and IT to reduce dependence on foreign chips. It is meant to be a **general-purpose processor** that can run operating systems and also work in embedded and industrial systems.

Who developed it?

DHRUV64 was developed by **Centre for Development of Advanced Computing (C-DAC)** under the **Ministry of Electronics and Information Technology (MeitY)** as part of India’s **Microprocessor Development Programme**.

What kind of chip is it?

- **64-bit, dual-core processor**
- Runs at **1 GHz**
- Built for **reliability and control systems**, not high-end smartphones or laptops
- Suitable for **telecom equipment, industrial automation, routers, and embedded systems**

The idea is not to beat Intel or Qualcomm, but to ensure **strategic autonomy** in areas where reliability, security, and long-term availability matter more than raw speed.

How does it fit into India’s processor ecosystem?

DHRUV64 is part of a wider Indian effort that includes:

- **SHAKTI** (IIT Madras)



| Clear your doubts now.



- **AJIT** (IIT Bombay)
- **VIKRAM** (ISRO / SCL)
- **THEJAS64** (C-DAC)

All aim to serve **strategic, industrial, and research needs** rather than consumer gadgets.

What is DIR-V and why RISC-V matters?

DHRUV64 is built under the **Digital India RISC-V (DIR-V)** programme.

RISC-V is an **open instruction set**:

- No licence fees
- Anyone can design chips using it
- Modular and customisable

This makes it attractive for governments seeking **control over design, security, and supply chains**.

What hasn't the government revealed?

MeitY has **not disclosed crucial technical and commercial details**, including:

- Benchmark performance data
- Power efficiency and memory architecture
- Where the chip was **fabricated** (foundry and process node)
- Yield, reliability, and lifecycle guarantees
- Software ecosystem, security features, and OEM readiness

Because of this, it's **unclear how ready DHRUV64 is for mass adoption**.

What is the bigger plan?

The government is backing chip design and fabs through:

- **Chips to Startup** programme
- **Design Linked Incentive (DLI)** scheme
- **INUP-i2i** initiative
- **India Semiconductor Mission**, with ₹1.6 lakh crore approved for semiconductor projects

Future chips like **DHANUSH** and **DHANUSH+** are planned to be faster and more advanced.

Key Takeaways

- **DHRUV64** is an **indigenously designed 64-bit, dual-core, 1 GHz microprocessor**.
- Developed by **Centre for Development of Advanced Computing (C-DAC)** under **Ministry of Electronics and Information Technology (MeitY)**.
- Intended for **strategic, industrial, telecom, and embedded systems**, not high-end consumer devices.
- Part of India's **RISC-V-based Digital India RISC-V (DIR-V) programme**.
- RISC-V offers an **open, licence-free instruction set**, enabling design autonomy and security control.



| Clear your doubts now.



- Fits into a wider Indian processor ecosystem including **SHAKTI, AJIT, VIKRAM, and THEJAS64**.
- Aims to reduce dependence on **foreign processor designs and supply chains**.
- MeitY has **not disclosed key technical details** such as benchmarks, power efficiency, memory architecture, or I/O capabilities.
- **Fabrication details** (foundry, process node, yields) have not been revealed, raising supply-chain questions.
- The claim of being “**fully indigenous**” is **ambiguous** without clarity on IP, tools, and manufacturing.
- OEM-related aspects remain unclear: **software support, security features, developer boards, and adoption plans**.
- Future processors **DHANUSH and DHANUSH+** are planned with higher speeds and more cores.
- Government support includes **Chips to Startup, Design Linked Incentive, INUP-i2i**, and the **India Semiconductor Mission**.
- Strategic objective: build **domestic chip capability and ecosystem**, not compete with top global consumer processors.

[A bold step amid an ambitious nuclear energy target-The Hindu Editorial](#)

Economy

Easy Explanation

Human development rises with **energy consumption**. As economies move from agriculture to industry and now to **digital technologies**, they need much more reliable energy. A common way to measure development is the **Human Development Index (HDI)**, which combines income, education, and health.

Countries with an HDI above **0.9** consume very high amounts of energy. Studies suggest that for India to reach this level, it would need to generate around **24,000 TWh of energy per year**. Today, India produces only about **1,950 TWh** annually. At current growth rates, reaching that level could take **40–50 years**.

But growth alone is not enough. India must also **decarbonise** its energy system. Fossil fuels dominate India’s energy mix, while electricity makes up only about **22%** of final energy use. To reduce emissions, electricity use must rise sharply, and power must increasingly come from **non-carbon sources**.

Why renewables alone are not enough

Solar and wind are essential, but they have limits:

- They are **intermittent** (depend on weather and time of day)
- Large-scale **storage is very expensive**
- Land and hydro potential in India are limited

For affordable, reliable electricity, India needs **baseload power**—generation that runs continuously. **Nuclear power** provides this baseload without carbon emissions.

India’s nuclear readiness

India has built strong indigenous capabilities:



| Clear your doubts now.



- Designs and operates **Pressurised Heavy Water Reactors (PHWRs)** of up to **700 MW**
- Has functioning reactors and many more under construction
- Possesses domestic capability in fuel fabrication, heavy water, reactor equipment, and waste handling
- Has experienced institutions like **Nuclear Power Corporation of India Limited** and **Bhabha Atomic Research Centre**

Only uranium needs to be imported.

The SHANTI Bill, 2025

To accelerate nuclear growth, Parliament passed the **SHANTI Bill, 2025**. It:

- Integrates earlier nuclear laws
- Sets a clear legal framework for safety, security, and liability
- Targets **100 GW of nuclear capacity by mid-century**

The Bill reflects a recognition that **ambitious development goals require bold energy choices**.

Key Takeaways

- **Human development is closely linked to energy consumption**; higher HDI requires much higher per-capita energy use.
- To reach an **HDI above 0.9**, India may need to generate around **24,000 TWh of energy annually**, compared to about **1,950 TWh today**.
- Economic growth alone is insufficient; India must **simultaneously decarbonise its energy mix**.
- Electricity's share in India's Final Energy Consumption (FEC) is only **~22%** and must rise sharply through electrification.
- **Fossil fuels dominate** the current energy mix and must be progressively replaced by low-carbon sources.
- **Solar and wind**, while essential, face constraints:
 - Intermittency
 - High storage costs
 - Land and hydro potential limitations in India
- A decarbonised system needs **reliable baseload power**, which renewables alone cannot provide affordably.
- **Nuclear power offers carbon-free, non-intermittent baseload electricity**, making it critical for India's transition.
- India has developed strong **indigenous nuclear capabilities**, especially in **Pressurised Heavy Water Reactors (PHWRs)**.
- Multiple **700 MW PHWR units** are operational or under construction, with more sanctioned.
- India has domestic expertise in **fuel fabrication, heavy water production, reactor manufacturing, waste handling, and regulation**.
- Parliament has passed the **SHANTI Bill, 2025**, consolidating nuclear laws and clarifying safety and liability.
- The government has set an **ambitious target of 100 GW nuclear capacity by mid-century**.
- Nuclear energy is positioned as **essential for development, energy security, and climate goals**.



| Clear your doubts now.



- The SHANTI Bill represents a **bold policy step aligned with India's ambition to become a developed country.**

20th December 2025

[How India is overhauling its nuclear power regime-The Indian Express Explained Page](#)

Economy

Easy Explanation

India has passed a new law called the **SHANTI Bill, 2025**, to change how the nuclear power sector works. Until now, nuclear power was almost entirely controlled by the government. This new law opens the door for **private companies** to participate, while still keeping strict safety controls.

The SHANTI Bill **replaces two old laws** — the Atomic Energy Act, 1962 and the Civil Liability for Nuclear Damage Act, 2010 — and redesigns the entire nuclear governance framework.

1. Entry of private players

Earlier, only government-owned companies could build and operate nuclear power plants.

Now, **both public and private companies** can:

- Build and operate nuclear power plants
- Handle nuclear fuel and equipment
- Transport, store, import and export nuclear-related materials

However, **critical activities** such as enrichment of nuclear material, reprocessing of spent fuel, and management of high-level radioactive waste will **remain under exclusive Central government control.**

2. Safety still tightly controlled

Every company — public or private — must get safety clearance from the Atomic Energy Regulatory Board.

This approval is mandatory for:

- Nuclear plants
- Radioactive materials
- Radiation equipment
- Transport, storage, import/export, and decommissioning

So, even though the sector is opening up, **safety oversight remains strict.**

3. Foreign investment: indirect opening

The law does **not clearly allow foreign companies** to enter directly.

Instead, it allows “any other person” permitted by the Central government to operate, which means:

- Foreign investment **may be allowed later through rules**



| Clear your doubts now.



- It is likely to follow existing FDI norms under the government's general investment policy

4. Major change in accident liability

This is the **most controversial part** of the law.

Under the old law, if a nuclear accident happened, the plant operator could demand compensation from **equipment suppliers** if faulty equipment caused the accident.

The new law:

- **Removes supplier liability for defective equipment**
- Keeps the operator primarily responsible
- Allows recourse only if:
 - It is written into a contract, or
 - The damage was caused intentionally

This change is meant to make India **more attractive for nuclear vendors**, but critics say it **reduces accountability**.

5. New liability caps and insurance rules

- Earlier: a flat liability cap of ₹1,500 crore
- Now: **graded liability caps**, based on the size of the nuclear installation

Only **private operators** must take insurance or financial security.

Government-owned nuclear plants are exempt, but the Centre can create a **Nuclear Liability Fund** to cover its responsibility.

6. Stronger and more independent regulator

Earlier, the Atomic Energy Regulatory Board was not an independent statutory body and depended on the Department of Atomic Energy for money and administration.

The new law:

- Gives **statutory status** to the AERB
- Separates the regulator from the department it regulates
- Fixes long-standing conflicts of interest flagged by the CAG

7. New dispute resolution and compensation bodies

The law creates new institutions to handle disputes and claims:

- **Atomic Energy Redressal Advisory Council** – for grievances, disputes, and review of government orders
- **Nuclear Damage Claims Commission** – for serious nuclear accident cases
- Appeals will go to the **Appellate Tribunal for Electricity**



| Clear your doubts now.



Key Takeaways

- The **SHANTI Bill, 2025** overhauls India's nuclear power framework by replacing the **Atomic Energy Act, 1962** and the **Civil Liability for Nuclear Damage Act, 2010**.
- It allows **private companies** to build and operate nuclear power plants, ending the earlier public-sector monopoly.
- **Safety oversight remains stringent**: all nuclear activities require authorisation from the **Atomic Energy Regulatory Board (AERB)**.
- **Critical and sensitive activities**—uranium enrichment, spent fuel reprocessing, high-level radioactive waste management, and heavy water production—remain under exclusive **Central government control**.
- The law **removes supplier liability for defective equipment**, retaining operator liability and limited right of recourse only through contracts or intentional acts.
- Nuclear accident liability now follows a **graded cap system** based on plant size, replacing the earlier flat ₹1,500 crore cap.
- **Insurance or financial security** is mandatory only for **private operators**; government installations are exempt, though a **Nuclear Liability Fund** may be created by the Centre.
- The **AERB is granted statutory status**, strengthening regulatory autonomy and addressing past conflicts of interest flagged by the CAG.
- New institutions are created for governance and justice: **Atomic Energy Redressal Advisory Council**, **Nuclear Damage Claims Commission**, and appellate oversight by the **Appellate Tribunal for Electricity**.
- The reforms aim to attract investment and technology to achieve India's target of **100 GW nuclear power capacity by 2047**, but raise concerns about **accountability and public safety**.

[By overriding RTI Act, new law triggers transparency concerns-The Indian Express Explained](#)

[Page](#)

Governance

Easy Explanation

The **SHANTI Bill, 2025** introduces a new secrecy clause — **Section 39** — which explicitly overrides the **Right to Information Act, 2005**. This has triggered concerns because it weakens the transparency safeguards that already exist under the RTI framework.

What Section 39 does

Section 39 allows the Central government to **declare certain nuclear-related information as “restricted”**. This includes:

- Location, quantity, quality, and transactions involving nuclear material
- Design, construction, siting, and operation of nuclear power plants and reactors
- Information submitted to regulators that is labelled strategic, sensitive, or commercially confidential

Once information is declared “restricted”:



| Clear your doubts now.



- No one can seek or disclose it without government authorisation
- **RTI Act does not apply at all** to such information

In simple terms, if the government notifies information as restricted, **citizens cannot even ask for it under RTI.**

How this differs from the RTI Act

The RTI Act already allows the government to withhold sensitive information:

- National security, strategic and scientific interests
- Commercial secrets, fiduciary information, cabinet papers
- Personal information

But under RTI:

- Denials must be **justified**
- Applicants can file **first and second appeals**
- Information Commissions and courts can review decisions
- A **public interest override** exists — information can still be disclosed if public interest outweighs harm

What the SHANTI Bill changes

Section 39 **removes this entire accountability structure:**

- No balancing test
- No appeal mechanism
- No public interest override
- No review by Information Commissions

Once information is restricted, **it is permanently outside RTI scrutiny.**

Why this is controversial

Critics argue that the problem is **not secrecy itself**, but:

- The **absolute and final nature** of secrecy
- The loss of transparency tools that citizens and media rely on
- Reduced scope for whistleblowing, especially with **private companies entering nuclear operations**
- Difficulty in independent scrutiny after nuclear accidents or safety lapses

Activists warn that this creates **new secrecy categories** that undermine the RTI Act, India's core transparency law.

Key Takeaways

1. What Section 39 does



| Clear your doubts now.



- Section 39 of the SHANTI Bill empowers the Centre to classify nuclear-related information as “restricted”
- Such information cannot be accessed or disclosed without government authorisation

2. RTI Act override

- Section 39 explicitly overrides the **Right to Information Act, 2005**
- Once information is declared restricted, RTI does not apply at all

3. Scope of restricted information

- Includes location, quantity, quality and transactions of nuclear material
- Covers design, construction, siting and operation of nuclear power plants
- Extends to submissions made to nuclear regulators marked as strategic or confidential

4. How RTI normally works

- RTI already allows exemptions for national security and strategic interests
- Denials must be justified and are subject to appeal
- A public interest override allows disclosure when public interest outweighs harm

5. What changes under the SHANTI Bill

- No justification is required once information is notified as restricted
- No appeal, review or oversight by Information Commissions or courts
- Public interest override is completely removed

6. Why concerns are raised

- Secrecy becomes absolute rather than conditional
- Transparency and accountability are weakened in a high-risk sector
- Whistleblowing and independent scrutiny may be discouraged

7. Broader implications

- Reverses the transparency-first framework established after 2005
- Concentrates discretionary power with the executive
- Raises serious concerns about democratic oversight with private sector entry into nuclear operations

[Behind rupee's weakness against the dollar:trade head winds,RBI policies-The Indian Express](#)
[Explained Page](#)

Economy

Easy Explanation

The Indian rupee has **lost nearly 6% against the US dollar over the past year**, even though India's economy appears strong on paper. This has raised questions because normally, high growth and stable inflation should **strengthen a country's currency**.



| Clear your doubts now.



What happened recently

The **Reserve Bank of India (RBI)** recently sold large amounts of US dollars in the market.

- This increased the supply of dollars
- As a result, the dollar weakened slightly and the rupee strengthened temporarily

But apart from such interventions, the **overall trend of the rupee remains weak**.

Why this is puzzling

1. India is one of the **fastest-growing major economies**
2. Inflation is relatively under control
3. External sector indicators like trade deficit look manageable

Despite this, the rupee is weakening — **even at times when the dollar itself is weak globally**.

Trade-related pressures

India imports more than it exports, which means:

- Higher demand for dollars
- Continuous pressure on the rupee

This pressure has increased because:

- The US has imposed **high tariffs on Indian goods**
- Indian exports have become costlier and less competitive
- Uncertainty over an **India-US trade deal** discourages investors

Weak capital inflows

Foreign investors have shown **less interest in Indian markets**:

- US, China, Japan, and Hong Kong markets have delivered far higher returns
- Indian markets (Sensex) have underperformed

Investors may believe:

- Indian equities are overvalued, or
- Corporate profit growth will be limited

Lower foreign portfolio inflows reduce demand for the rupee.

RBI's role in exchange rate movement

The RBI actively manages the rupee using:

- Spot market intervention (buying/selling dollars immediately)
- Forward contracts (agreements to buy/sell dollars in the future)



| Clear your doubts now.



A study by **Bank of Baroda** found:

- RBI's **forward market intervention** has more impact than spot sales
- Forward intervention sends a strong signal about future policy intentions

Surprisingly, trade deficit matters less

The study found that the trade deficit **did not significantly explain rupee movements**, because:

- Export earnings may be held abroad temporarily
- Trade data does not always reflect actual dollar flows in real time

Beyond economics

Even the most important factors explained only **13–14% of rupee movement**.

This suggests that:

- Geopolitics
- Investor sentiment

- Global uncertainty
also play a major role.

Key Takeaways

1. Rupee performance paradox

- The rupee has weakened despite strong economic growth and stable inflation
- It has fallen even when the US dollar has not strengthened globally

2. Trade headwinds

- India's import-heavy trade structure increases dollar demand
- US tariffs on Indian goods reduce export competitiveness
- Delay in an India–US trade deal adds uncertainty

3. Capital flow weakness

- Foreign investors are shifting money to better-performing global markets
- Indian equity markets have underperformed peers
- Lower portfolio inflows weaken rupee demand

4. RBI's influence

- The RBI actively manages the exchange rate
- Forward market intervention is more effective than spot dollar sales
- Forward actions shape market expectations about future policy



| Clear your doubts now.



5. Trade deficit not decisive

- Trade deficit data does not fully capture real-time dollar flows
- Exporters may delay bringing dollars into India

6. Role of non-economic factors

- Economic variables explain only a small part of rupee movement
- Geopolitics, sentiment, and global risk perception matter significantly

[Trump reclassifies cannabis, marking new milestone in legalisation push - The Indian Express](#)
[Explained Page](#)

International relations

Easy Explanation

US President **Donald Trump** has signed an executive order **reclassifying cannabis (marijuana)** from **Schedule I** to **Schedule III** under US federal law. This marks a significant shift in America's long and controversial approach to drugs, especially cannabis.

Under the **Controlled Substances Act, 1970**, drugs are classified into five schedules based on how dangerous they are and whether they have medical use. Cannabis was earlier placed in **Schedule I**, alongside heroin and LSD — meaning it was considered highly dangerous with no accepted medical value.

Reclassification to **Schedule III** acknowledges that cannabis has **medical uses** and a **lower risk of abuse**, even though it remains illegal at the federal level.

Key Takeaways

1. What Trump's order does

- Cannabis is moved from **Schedule I to Schedule III** under federal law
- This recognises medical value and lowers its perceived danger
- Cannabis still remains **federally illegal**, but restrictions are eased

2. Background: the "War on Drugs"

- US drug policy hardened after President **Richard Nixon** launched the "war on drugs" in 1971
- Successive administrations, especially under **Ronald Reagan**, expanded harsh enforcement
- The policy failed to reduce addiction but led to mass incarceration

3. Cost and incarceration impact

- The war on drugs cost **over \$1 trillion**
- By 2016, about **20% of US prisoners** were jailed for drug-related offences
- Minor drug crimes contributed heavily to overcrowded prisons



| Clear your doubts now.



4. Racial bias in drug enforcement

- Drug laws, especially cannabis enforcement, showed strong racial bias
- In New York City (2016), **92% of marijuana possession arrests** involved Black and Latino people
- Black men were **six times more likely** than white men to be imprisoned for drug offences

5. Shift at the state level

- California legalised medical cannabis in **1996**
- Colorado and Washington legalised recreational use in **2012**
- Today, most US states allow medical cannabis, and many allow recreational use

6. Federal–state policy mismatch

- Despite state-level legalisation, federal law continued to treat cannabis as highly dangerous
- Trump’s move helps **align federal policy with state laws**

7. Why reclassification matters

- Makes it easier to conduct **scientific and medical research**
- Reduces legal and regulatory barriers for medical use
- Strengthens the case for **future federal legalisation**

8. Bigger picture

- Reflects changing public opinion in favour of cannabis reform
- Acknowledges the failure of punitive drug policies
- Seen as a milestone in the long-term shift from criminalisation to regulation

[Three countries, one new story-The Indian Express The Ideas Page](#)

International relations

Easy Explanation

Prime Minister **Narendra Modi**’s three-nation visit to **Jordan, Ethiopia, and Oman** highlights India’s effort to **strengthen its strategic presence in the Middle East and the Horn of Africa** at a time of rapid geopolitical change.

The regional context is volatile:

- The US is reshaping the Middle East through ceasefire diplomacy in Gaza, pressure on Iran, deeper engagement with Gulf states, and attempts to expand the Abraham Accords.
- Saudi–Pakistan ties are seeing renewed warmth, and Washington is exploring Pakistan’s role in regional security.
- China is expanding its **economic footprint**, while Pakistan is increasing its **security engagement** in the region.



| Clear your doubts now.



Against this backdrop, India is signalling that it wants to be a **reliable, balancing partner across regional divides**.

What the visits achieved

- **Jordan:** On the 75th anniversary of diplomatic ties, India and Jordan reviewed relations, focusing on trade, regional security (including Gaza), and counter-terrorism.
- **Ethiopia:** India upgraded ties to a **Strategic Partnership**, with a roadmap for trade, investment, defence cooperation, and coordination with the African Union, reinforcing India's Global South outreach.
- **Oman:** India signed a **Comprehensive Economic Partnership Agreement (CEPA)** to boost trade, jobs, and investment, while also deepening defence and maritime security cooperation.

Each stop reflected a different strategic pillar:

- Middle East security (Jordan)
- African development and Global South politics (Ethiopia)
- Indian Ocean connectivity and trade (Oman)

The challenge ahead

India's biggest weakness is **implementation**. Announcements during high-level visits often face delays in follow-through. With China and Pakistan accelerating their regional engagement, India can no longer rely only on goodwill and symbolism.

Key Takeaways

- PM Modi's tour reflects India's push to **consolidate its strategic footprint** in West Asia and the Horn of Africa.
- The visits come amid **major geopolitical churn**, including US diplomacy, Iran tensions, and shifting Saudi-Pakistan ties.
- India maintains productive relations with almost all regional actors, showing its ability to **engage across divides**.
- **Jordan** talks focused on regional security, Gaza, trade, and counter-terrorism.
- **Ethiopia** ties were upgraded to a Strategic Partnership, strengthening India's Africa and Global South agenda.
- **Oman** signed a CEPA with India, boosting trade while deepening defence and maritime cooperation.
- The three countries together cover **security, development, and connectivity** priorities for India.
- China's economic push and Pakistan's security role in the region intensify strategic competition.
- India's key challenge is **effective implementation** of agreements announced during high-level visits.
- Sustained diplomatic follow-through is essential if India is to remain a **relevant and influential regional player**.



| Clear your doubts now.



The significance of a strong defence industrial base-The Hindu Editorial

Science and technology

Easy Explanation

India's goal of becoming a **developed nation by 2047** depends not only on economic growth but also on **strong strategic and defence capabilities**. A robust defence industrial base is crucial because it determines how much a country can **design, produce, and sustain its own military equipment** without depending on foreign suppliers.

Past weaknesses

For decades, India's defence manufacturing sector was **highly restricted**:

- Private Indian companies were largely excluded
- Imports from foreign private firms were freely allowed
- This led to **heavy import dependence**, loss of economic opportunity, and **strategic vulnerability**

In times of crisis, dependence on external suppliers weakens national security.

Recent reforms and progress

In recent years, there has been a clear shift:

- Opening defence manufacturing to the private sector
- Liberalisation of FDI norms
- Corporatisation of the Ordnance Factory Board
- Expansion of "Make in India" procurement in defence
- Promotion of startups and defence innovation

As a result:

- Defence production has increased
- Defence exports now reach **80+ countries**
- India is gradually becoming part of **global defence supply chains**

Global context and opportunity

Ongoing conflicts in **Europe, West Asia, and Asia** have exposed global supply-chain fragility. Countries with strong domestic defence industries have proven more resilient.

At the same time:

- Europe is increasing defence spending
- Traditional suppliers are saturated
- Demand is rising for **cost-effective and reliable defence platforms**



| Clear your doubts now.



India's strategic location in the **Indian Ocean Region** and its growing diplomatic influence position it well as a credible defence supplier.

What still needs reform

Despite progress, challenges remain:

- Complex regulations discourage MSMEs and startups
- Delays in export licences, joint ventures, and technology transfers
- Lack of long-term demand visibility for private investors

Achieving the target of **₹50,000 crore in defence exports by 2029** will require simpler procedures and policy stability.

Rethinking the role of DRDO

The **Defence Research and Development Organisation (DRDO)** has built India's strategic capabilities, but its role must evolve:

- Focus on **frontier research and core technologies**
- Leave production, scaling, and commercialisation to industry
- This mirrors global best practices and improves competitiveness

Export facilitation and financing

India also needs:

- A dedicated defence export facilitation agency
- Single-window coordination across ministries
- Better export financing, testing, and certification systems
- Faster trials and adoption of international certification standards

Defence exports require not just products, but **long-term service commitments, financing support, and government-to-government trust.**

Key Takeaways

- A strong defence industrial base is central to India's goal of becoming a **developed nation by 2047.**
- Past policies restricted private participation, leading to **high import dependence** and strategic vulnerability.
- Recent reforms—private sector entry, FDI liberalisation, OFB corporatisation, and Make-in-India procurement—have strengthened the ecosystem.
- Defence production and exports have grown significantly, with Indian equipment reaching **80+ countries.**
- Global conflicts have exposed supply-chain risks, highlighting the importance of **self-reliance in defence.**
- Changing geopolitics and rising defence spending abroad create new export opportunities for India.



| Clear your doubts now.



- Regulatory complexity, slow approvals, and lack of demand visibility continue to deter private investment.
- Achieving **₹50,000 crore defence exports by 2029** requires simplified procedures and policy continuity.
- DRDO's role should evolve toward **frontier research**, with industry leading production and commercialisation.
- Dedicated export facilitation, better financing, testing, and certification are crucial for competitiveness.
- Defence exports enhance not only revenue but also **technological maturity, skilled jobs, and geopolitical influence**.

21st December 2025

[Why does the govt. want to replace MGNREGA?: TH FAQ](#)

Sociology

Easy Explanation

The government has passed a new law called the Viksit Bharat Guarantee For Rozgar and Ajeevika Mission (Gramin) or VB-G RAM G Bill, which replaces the Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA). This happened on December 18, just three days after the Bill was circulated, and despite strong protests from the Opposition and civil society groups, who argued that there were no proper consultations.

MGNREGA was introduced in 2005 to guarantee rural households the right to demand work. The idea came soon after the Congress-led UPA government took power in 2004. A group of civil society leaders, economists and retired officials, working through the National Advisory Council, pushed for rights-based laws. Two key proposals emerged from this group: the Right to Information Act and a rural employment guarantee programme. After protests and parliamentary scrutiny, MGNREGA was passed with its original strength intact.

MGNREGA was unique because it gave every rural household a legal right to demand up to 100 days of work each year. It was universal, not limited to people below the poverty line, and did not target specific social groups. Anyone willing to do unskilled manual work could participate. Over time, it became a crucial safety net, especially for women, Dalits and Adivasis. It reduced distress migration, improved consumption during lean agricultural seasons, and played a major role during the COVID-19 pandemic.

The government argues that MGNREGA suffers from corruption and misuse of funds by States. Critics say these were problems of implementation, not design, and point out that MGNREGA already had strong social audits and digital tracking of work and payments.

The new VB-G RAM G Bill changes the nature of the programme. Instead of being demand-driven, where people could ask for work as a right, it becomes supply-driven, where the Centre decides how much money is available and where the scheme will run. Although the guaranteed days of work are increased from 100 to 125, States now have to bear a much larger share of the cost. The Centre also gains more control over which rural areas are covered and can even pause the scheme during peak agricultural seasons. Critics fear that this weakens the original spirit of MGNREGA as a universal, rights-based programme.



| Clear your doubts now.



Key Takeaways

Background of MGNREGA

- Passed in 2005 and expanded nationwide by 2008
- Conceptualised by civil society leaders and economists
- Designed as a rights-based, universal rural employment guarantee

Why MGNREGA was unique

- Guaranteed 100 days of work per rural household on demand
- Universal access, not linked to poverty cards or social categories
- Strong participation of women (around 58%)
- Benefited Scheduled Castes and Scheduled Tribes significantly
- Reduced distress migration and supported villages during COVID-19

Government's criticism of MGNREGA

- Allegations of corruption and misuse of funds
- Government claims States failed in implementation
- Critics argue the scheme already had strong audits and transparency

What the new VB-G RAM G Bill changes

- Shifts from demand-driven to supply-driven approach
- Centre decides budget limits and eligible rural areas
- Increases guaranteed workdays from 100 to 125
- Raises States' financial burden from about 10% to up to 40%
- Allows temporary suspension during peak farming seasons

Why the new Bill is controversial

- Reduces universality of employment guarantee
- Gives greater control to the Centre over States
- Weakens the legal "right to work" aspect
- Passed without wide consultations, according to critics

[Will new Act aid India's nuclear development?: TH FAQ](#)

Polity

Easy Explanation

Parliament has passed a new law called the SHANTI Act, which replaces two older laws that governed India's nuclear sector — the Atomic Energy Act of 1962 and the Civil Liability for Nuclear Damage (CLND) Act of 2010. This change is important because it opens the door for private companies, and possibly foreign investors, to participate in building and running nuclear power plants in India. Until now, only government-owned companies were allowed to do this.

India wants to massively expand its nuclear power capacity, from the current 8.8 GW to about 100 GW by 2047. Nuclear power today contributes only around 3% of India's electricity. Government-owned companies expect to add about half of this new capacity, while the rest is expected to come from private players. SHANTI is meant to make that possible.



| Clear your doubts now.



One major reason private and foreign companies stayed away earlier was fear of liability in case of a nuclear accident. Globally, the rule is that victims must be compensated immediately, and later the plant operator can recover money from equipment suppliers if faulty equipment caused the accident. The older Indian law allowed operators to seek compensation from suppliers if defective equipment was proven to be the cause. SHANTI removes this provision. By doing so, it protects suppliers from huge legal risks and makes India's nuclear market more attractive to them.

The new law also changes how compensation is handled. Instead of one flat liability limit, SHANTI introduces a graded system where liability depends on the size of the plant. Smaller plants face much lower penalties. The government says this is necessary so that private companies are not scared away by the risk of massive financial losses. Critics argue that real nuclear disasters often cost far more than these caps and that victims may be inadequately compensated.

Finally, the law raises questions about India's long-term nuclear vision. India's original plan, designed by Homi Bhabha, focused on eventually using thorium, which India has in abundance. That plan has faced long delays, especially in developing fast breeder reactors. India is now increasingly looking at Small Modular Reactors (SMRs), which are easier to deploy but rely on enriched uranium that India lacks and do not significantly help the thorium programme. SHANTI may help India produce more nuclear electricity, but it does not necessarily bring the country closer to its original self-reliant, thorium-based nuclear future.

Key Takeaways

What SHANTI Act does

- Repeals the Atomic Energy Act (1962) and CLND Act (2010)
- Allows private and foreign participation in nuclear power
- Aims to help India expand nuclear capacity to 100 GW by 2047

Why the change was needed

- India's nuclear share in electricity is very low (around 3%)
- Government companies alone cannot meet future capacity targets
- Private and foreign firms were hesitant due to liability risks

Key change in liability rules

- Removes operator's right to recover damages from suppliers for faulty equipment
- Protects reactor suppliers from large legal claims
- Makes India more attractive to global nuclear companies

Compensation structure under SHANTI

- Introduces graded liability based on plant size
- Smaller reactors face lower compensation caps
- Government argues this will encourage private investment
- Critics warn caps may be too low for major nuclear accidents

Impact on India's nuclear vision

- Original three-stage plan focused on thorium remains delayed
- Fast breeder reactor programme is still behind schedule
- Increasing reliance on Small Modular Reactors
- SMRs help electricity generation but not thorium self-reliance



| Clear your doubts now.



Overall concern

- SHANTI boosts investment prospects
- Raises questions about safety, compensation adequacy, and long-term strategy

[Counting electrons reveals thorium's nuclear tick in solid clock: TH Science](#)

Science

Easy Explanation

Atomic clocks keep time by tracking how electrons jump between energy levels inside atoms. Scientists have long wanted to build an even better clock by tracking changes inside an atomic nucleus instead. A nucleus is much more protected from outside disturbances than electrons, so a “nuclear clock” could be far more stable and accurate.

The best candidate for such a clock is an unusual form of thorium called thorium-229. Its nucleus has a special excited state that needs very little energy to reach — so little that it can be triggered using a special kind of ultraviolet laser. In theory, this makes it possible to build a clock based on nuclear transitions rather than electronic ones.

The problem has been detecting when the nucleus is actually excited. Normally, scientists look for a photon (light particle) emitted when the nucleus relaxes back to its normal state. But in many solid materials, the nucleus instead releases its energy by kicking out an electron — a process called internal conversion — without emitting light. This made detection difficult.

Researchers from Germany, the U.K. and the U.S. turned this problem into a solution. Instead of trying to detect emitted light, they decided to detect the electrons released during internal conversion. They embedded thorium-229 in thorium dioxide, used vacuum-ultraviolet laser pulses to excite the nuclei, and then counted the electrons emitted when the nuclei relaxed.

To avoid interference from ordinary electrons knocked out by the laser itself, the team used carefully timed electric fields. These fields suppressed the initial burst of unwanted electrons and allowed only the delayed, nucleus-related electrons to reach the detector. This method revealed a clear nuclear resonance and allowed the researchers to measure how long the excited nuclear state lasts.

Their measurements suggest that a clock built using this nuclear transition would lose just one second in about 15.8 billion years — far more accurate than today's best atomic clocks. This approach could also make nuclear clocks smaller and simpler, since measuring electron currents is easier than detecting faint ultraviolet light.

Key Takeaways

What is new here

- Scientists detected a nuclear transition using emitted electrons instead of light
- Internal conversion was used as a signal rather than treated as a problem

Why thorium-229 matters

- Has a uniquely low-energy nuclear excited state



| Clear your doubts now.



- Can be triggered using vacuum-ultraviolet laser light
- Ideal candidate for a nuclear clock

How the experiment worked

- Thorium-229 embedded in thorium dioxide
- Laser excites the nucleus
- Relaxation ejects electrons via internal conversion
- Electric fields filter out unwanted electrons

Accuracy achieved

- Measured nuclear transition at 2,020,407.5 GHz
- Clock would lose one second in ~15.8 billion years

Why this is important

- Nuclear clocks are more stable than atomic clocks
- Less sensitive to environmental disturbances
- Potential for compact, high-precision clocks and sensors

Future impact

- Enables miniaturised nuclear clocks
- Opens new tools to study nuclear behaviour in materials

[Rewiring macrophage metabolism may shorten TB treatment: study: TH Science](#)

Science

Easy Explanation

Tuberculosis (TB) bacteria are clever. Instead of being destroyed by immune cells called macrophages, they hide and survive inside them. Once inside, the bacteria create a safe space where they can live for months or even years. This is one big reason TB treatment takes so long and why patients need to take antibiotics for months, which often leads to missed doses and drug resistance.

Scientists now think the solution to TB may not lie only in stronger antibiotics. Instead, it may lie in changing how the infected immune cells themselves work. A new study shows that the metabolism of macrophages — how they produce energy — directly affects how well TB bacteria survive and resist drugs.

Macrophages can generate energy in two main ways. One is oxidative phosphorylation (OXPHOS), which uses oxygen and is more efficient. The other is glycolysis, which is faster but produces more oxidative stress inside the cell. The researchers found that TB bacteria survive better inside macrophages that rely on OXPHOS. In these cells, oxidative stress is low, allowing bacteria to stay in a protected, drug-tolerant state.

In contrast, macrophages that rely more on glycolysis create higher oxidative stress. This stress weakens the bacteria and makes them much more sensitive to TB drugs. In simple terms, when the immune cell's environment becomes harsher, the bacteria lose their ability to tolerate antibiotics.

The study also identified a key protein called NRF2. This protein helps macrophages reduce oxidative stress and maintain OXPHOS. But this turns out to help TB bacteria survive. When researchers blocked NRF2,



| Clear your doubts now.



macrophages shifted toward glycolysis, oxidative stress increased, and the bacteria became easier to kill with drugs like isoniazid.

Even more promising, the researchers tested an existing drug, meclizine, which can push macrophages toward glycolysis. When combined with standard TB treatment in mice, it reduced bacterial levels much more than antibiotics alone. This suggests TB treatment could become faster and more effective by targeting the host's immune cells, not just the bacteria.

Key Takeaways

Why TB is hard to treat

- TB bacteria survive inside macrophages
- They tolerate antibiotics for long periods
- This forces long treatment durations and causes resistance

Key scientific insight

- The metabolism of macrophages affects TB survival
- Energy pathways inside immune cells shape drug response

Two metabolic states of macrophages

- OXPHOS-based metabolism
 - Low oxidative stress
 - Bacteria remain drug-tolerant
- Glycolysis-based metabolism
 - High oxidative stress
 - Bacteria become drug-sensitive

Role of NRF2

- NRF2 reduces oxidative stress in macrophages
- Helps maintain OXPHOS
- Unexpectedly supports TB survival
- Blocking NRF2 increases drug effectiveness

New treatment approach

- Target host cell metabolism instead of bacteria alone
- Shift macrophages toward glycolysis
- Makes existing TB drugs work better

Role of meclizine

- Existing drug identified in the study
- Increases oxidative stress and glycolysis
- When combined with isoniazid, reduced TB bacteria 20-fold in mice

Why this matters

- Offers a new way to fight drug-resistant TB
- May shorten treatment duration
- Reduces reliance on developing new antibiotics
- Opens path for host-targeted TB therapies



| Clear your doubts now.



22nd December 2025

[GDP is growing rapidly. Why isn't private capex?-The Indian Express Explained Page](#)

Economy

Easy Explanation

Despite strong GDP growth of over 8%, private capital expenditure in India remains weak because firms do not see enough sustained demand to justify expanding capacity. Private corporate investment has been stuck at around 12% of GDP since 2011–12, and its share in total investment has declined. Although company profits improved after the 2019 corporate tax cut, most firms used the surplus to reduce debt or invest in financial assets rather than build factories or buy machinery. The key reason is low capacity utilisation, which has mostly remained below 75%, meaning existing facilities are sufficient to meet demand. Data on private capex is mixed, as project announcements often do not translate into actual investment and informal sector investment remains stagnant. Structural problems such as high input costs, regulatory delays, weak export demand and global competition, highlighted by bodies like the Federation of Indian Chambers of Commerce and Industry, further discourage investment. As a result, growth is driven mainly by government spending, and private capex will revive only when demand strengthens and capacity utilisation rises.

Key Takeaways

1. Long-term stagnation in private investment

- Private corporate investment has remained around **12% of GDP since 2011–12**
- No major break-out despite reforms, tax cuts and post-Covid recovery
- Share of private sector in total investment has declined

2. Demand uncertainty is the core problem

- Firms do not see **sustained future demand**
- High GDP growth alone does not guarantee higher investment
- Businesses expand capacity only when demand pressure is clear

3. Low capacity utilisation

- Manufacturing capacity utilisation mostly **below 75%**
- 75% is seen as the threshold for fresh capacity expansion
- Existing facilities are sufficient to meet current demand

4. Profits not translating into physical investment

- Corporate tax cut raised profits and cash flows
- Companies preferred **debt reduction and financial investments**
- Physical investment in plant and machinery remained limited

5. Mixed and unreliable investment indicators



| Clear your doubts now.



- Project announcements often do not turn into real investment
- Surveys show falling investment intentions but have coverage limits
- Informal sector investment remains largely stagnant

6. Structural and cost-related constraints

- High raw material costs and land prices
- Regulatory and approval delays
- Weak export demand and global competition
- Issues highlighted by bodies like the Federation of Indian Chambers of Commerce and Industry

7. Resulting growth pattern

- Economic growth driven mainly by **government capex**
- Private capex revival depends on stronger demand and higher capacity utilisation

[In push for drug data exclusivity, pharma industry sees a bitter pill-The Indian Express](#) [Explained Page](#)

Governance

Easy Explanation

When a company invents a new medicine, it conducts clinical trials and submits the data to the drug regulator. In India, once the patent period ends, other companies can make cheaper generic versions by relying on this data, which helps keep medicines affordable.

Data exclusivity would change this system. It would prevent regulators from using the original company's trial data for a fixed number of years. As a result, generic companies would have to wait longer or conduct expensive trials themselves. This would delay the availability of cheaper medicines.

The government is discussing data exclusivity to encourage innovation and attract investment. However, since most Indian pharmaceutical companies produce generics, this move could weaken India's generics industry and increase medicine prices. India is not legally required to introduce data exclusivity, and the debate is about balancing innovation incentives with public access to affordable drugs, an issue also flagged by the Central Drugs Standard Control Organization.

Key Takeaways

1. What data exclusivity means

- Protects clinical trial data submitted by innovator drug companies
- Regulators cannot use this data to approve generic medicines for a fixed period
- Different from patents, which protect the invention itself

2. How it affects generic medicines

- Delays the entry of cheaper generic drugs
- Generic companies must wait or conduct expensive clinical trials
- Reduces competition in the medicines market



| Clear your doubts now.



3. Why the government is considering it

- Seen as a way to promote pharmaceutical innovation
- Expected to attract foreign investment into drug research
- Being discussed despite earlier rejection in trade negotiations

4. Concerns of the Indian pharma industry

- Nearly 90% of Indian pharma firms manufacture generic drugs
- India's global strength lies in low-cost medicines
- Risk of weakening the generics-based business model

5. Risk of extended monopoly

- Data exclusivity can apply even after patent expiry
- Late launch of patented drugs can prolong market control
- May block generics even for off-patent medicines

6. Impact on access to medicines

- Delayed availability of affordable drugs
- Possibility of higher medicine prices
- Adverse public health implications

7. International obligation and regulatory debate

- No WTO or legal requirement for India to adopt data exclusivity
- Trade deals only mention future discussion, not enforcement
- Concerns flagged by the Central Drugs Standard Control Organization

[Curbing elephant deaths on tracks needs blend of infra,tech-The Indian Express Explained Page](#)

Environment

Easy Explanation

India has more than half of the world's Asian elephant population, but train collisions have become a major cause of elephant deaths. Railways and other linear transport infrastructure like roads and canals cut through elephant habitats and migration paths. This not only kills elephants directly but also traps herds, restricts access to food and water, and increases stress. Studies show that most train–elephant collisions happen at night, and male elephants are more affected because they cross tracks more often, especially during crop-raiding seasons.

Experts agree that the best solution is to **avoid building railways through elephant habitats**, but this is often not practical. Therefore, mitigation measures are essential. The most effective solution is building **wildlife crossing structures**, such as underpasses and overpasses, designed specifically for elephants. When combined with fencing, these crossings can reduce animal deaths by up to 98%. However, crossings must be placed at locations that match elephant movement patterns and designed to feel open so elephants actually use them.

Technology is now adding another layer of protection. Early-warning systems using infrared cameras, seismic sensors, and acoustic devices can detect elephants near tracks and alert train operators in advance. With advances in artificial intelligence and machine learning, these systems are becoming more accurate and useful. Overall, reducing elephant deaths on railway tracks requires a **blend of better infrastructure planning, scientific data on elephant movement, and modern technology**.



| Clear your doubts now.



Key Takeaways

1. Scale of the problem

- India hosts over half of the world's Asian elephant population
- Train collisions are a major cause of non-natural elephant deaths

2. Role of railways and linear infrastructure

- Railway lines cut through elephant habitats and migration corridors
- Fragmentation limits access to food and water and increases stress

3. Collision patterns

- Most elephant–train collisions occur at night
- Male elephants are more frequently affected due to crop-raiding movements

4. Avoidance and planning

- Avoiding elephant habitats during infrastructure planning is the most effective solution
- Complete avoidance is often difficult, making mitigation essential

5. Wildlife crossing structures

- Underpasses and overpasses allow safe elephant movement
- When combined with fencing, they can reduce deaths by up to 98%

6. Scientific and technological support

- Camera traps and GPS telemetry help identify key crossing points
- Early-warning systems using sensors and infrared cameras alert train operators

7. Need for an integrated approach

- Infrastructure design, ecological science and technology must work together
- A blended strategy is essential to curb elephant deaths on railway tracks

[What is the Aland voter fraud case?-The Hindu Text and Context](#)

Polity

Easy Explanation

The Aland voter fraud case refers to an organised attempt to delete genuine voters' names from the electoral rolls in the Aland Assembly constituency of Kalaburagi district, Karnataka, ahead of the 2023 Assembly elections. What makes this case unusual is that the fraud was officially flagged by the election machinery itself, not by a political party. The Returning Officer of Aland discovered that thousands of voter deletion requests (Form 7) were forged and filed a police complaint. The Election Commission of India also alleged a deliberate attempt to disenfranchise voters.

The fraud involved submitting forged Form 7 applications online through the National Voters' Service Portal (NVSP) to delete voters suspected of supporting a rival candidate. A Special Investigation Team (SIT) later found that a private "call-centre-like" firm was hired to file these fake applications using fake online accounts created through illegally obtained OTPs. The investigation eventually linked the conspiracy to former BJP MLA Subhash Guttedar and his son. The case gained national attention after allegations of "vote chori" were raised by Opposition leader Rahul Gandhi, making Aland the most well-documented example cited in the debate on electoral integrity.

Key Takeaways



| Clear your doubts now.



1. Why the Aland case is significant

- One of the most documented voter fraud cases in India
- Complaint was filed by the Returning Officer, not a political party
- Election Commission itself alleged a mala fide attempt

2. Nature of the fraud

- Forged Form 7 applications used to delete voters' names
- Nearly 5,994 out of 6,018 Form 7s were found to be fake
- Targeted voters were suspected supporters of a rival candidate

3. How the fraud was uncovered

- A Booth Level Officer noticed a deletion request for her own brother
- Verification showed the application was forged
- Further scrutiny revealed mass forgery in the village

4. Role of digital manipulation

- Fake NVSP accounts created using illegally obtained OTPs
- OTPs sourced through an online service selling temporary mobile numbers
- Multiple forged applications filed from a limited set of devices

5. Investigation and evidence

- CID and later an SIT probed the case
- Digital devices, IP data and money trails were recovered
- Private operators were allegedly paid per forged Form 7

6. Political linkages

- SIT chargesheet named former BJP MLA Subhash Guttedar and his son
- Alleged marking of voters to be deleted
- Accused also charged with destruction of evidence

7. Systemic loopholes exposed

- NVSP allowed account creation with any mobile number
- No OTP required for repeated logins
- No alerts sent to voters whose names were deleted

8. Reforms initiated after exposure

- EC introduced Aadhaar-linked e-sign verification
- Aimed at improving security of voter-related online applications
- Unclear if all loopholes flagged by SIT have been fully fixed

[Southern Ocean carbon 'anomaly' reveals what models can still miss-The Hindu Science](#)

Environment

Easy Explanation

The **Southern Ocean** plays a very important role in controlling Earth's climate. Even though it covers only about a quarter of the global ocean area, it absorbs nearly **40% of the carbon dioxide** taken up by all oceans. This happens because its cold, relatively fresh surface waters form a "lid" over warmer, saltier, carbon-rich deep waters, allowing more CO₂ to be stored than released.

For many years, climate models predicted that global warming would weaken this carbon sink. Stronger westerly winds were expected to bring more deep, carbon-rich water to the surface, releasing CO₂ into



| Clear your doubts now.



the atmosphere. Surprisingly, real-world observations since the early 2000s showed the opposite: the Southern Ocean absorbed **more**, not less, carbon.

New research explains this mismatch. While deep carbon-rich waters are indeed rising, increased rainfall and Antarctic ice melt have made surface waters fresher and lighter. This strengthened **stratification** (layering), trapping carbon-rich water below the surface and preventing it from escaping into the atmosphere. However, this protection may be temporary. Recent signs suggest the surface “lid” is thinning, meaning the Southern Ocean could start releasing more carbon in the future. The study shows that climate models were not wrong, but they missed some short-term surface processes that delayed the expected outcome.

Key Takeaways

1. Importance of the Southern Ocean

- Covers about 25–30% of the global ocean
- Absorbs nearly 40% of oceanic CO₂ uptake
- Plays a disproportionate role in climate regulation

2. Why it is such a strong carbon sink

- Cold, fresh surface waters sit above warm, carbon-rich deep waters
- This layering traps more carbon dioxide than it releases

3. What climate models predicted

- Stronger westerly winds would increase upwelling
- Carbon-rich deep waters would reach the surface
- Southern Ocean would emit more CO₂ over time

4. What observations actually showed

- Deep waters have risen closer to the surface
- Yet carbon absorption increased instead of decreasing
- Created a gap between models and observations

5. What models missed

- Freshwater from rainfall and ice melt strengthened surface stratification
- This “lid” trapped carbon 100–200 m below the surface
- Short-term surface processes were underrepresented in models

6. Why this is only a temporary reprieve

- Stratified layer is becoming thinner
- Rising salinity suggests weakening of the surface lid
- Carbon-rich water may soon mix with the atmosphere

7. Broader lesson for climate science

- Models identify long-term risks and vulnerabilities
- Observations reveal short-term exceptions
- Continuous monitoring is essential to predict future climate behaviour

[Unlocking the potential of India-Africa economic ties-The Hindu Editorial](#)

International relations

Easy Explanation



| Clear your doubts now.



India's recent high-level visits to African countries signal a renewed push to strengthen economic relations with Africa. While India and Africa share a long history of political solidarity and cultural ties, their relationship today is increasingly driven by economic needs. With exports to the US and EU forming around 40% of India's total exports and these markets becoming uncertain, Africa offers India a crucial alternative growth destination.

India is currently Africa's fourth-largest trading partner, with trade close to \$100 billion, but it lags far behind China, which dominates Africa's imports, especially in machinery and electronics. To bridge this gap, India aims to double its trade with Africa by 2030. This requires moving beyond petroleum and traditional exports towards value-added manufacturing, services, and deeper integration with African regional groupings like the African Continental Free Trade Area.

Africa also presents major opportunities for Indian MSMEs, which struggle in Western markets. Better trade finance, logistics, and risk mitigation can unlock this potential. At the same time, Indian public sector enterprises are expected to play a leading role in investing in African infrastructure, mining, renewable energy, and manufacturing. Overall, India's Africa strategy must shift from short-term trade to long-term, sustainable economic partnerships.

Key Takeaways

1. Strategic importance of Africa for India

- Western markets like the US and EU are becoming uncertain
- Africa offers a fast-growing alternative export destination
- Economic engagement is now central to India–Africa ties

2. Current trade position

- India is Africa's fourth-largest trading partner
- Bilateral trade is around \$100 billion
- China remains far ahead, especially in industrial goods

3. Need to diversify exports

- India's exports are concentrated in petroleum and traditional goods
- Africa imports large volumes of machinery and electronics
- India must move towards value-added and manufacturing exports

4. Role of regional integration

- Deeper engagement with African regional blocs is essential
- AfCFTA can open wider market access for Indian firms
- Preferential trade agreements can reduce trade barriers

5. Opportunities for MSMEs

- African markets are more accessible than US and EU markets
- MSMEs need better trade finance and policy support
- Local currency trade and risk insurance can help

6. Investment and public sector role

- Indian investment in Africa remains limited and uneven
- Public sector units can lead in mining, energy and infrastructure
- Long-term investments strengthen strategic ties

7. Long-term vision

- India–Africa ties must move beyond transactional trade



| Clear your doubts now.



- Focus on sustainable partnerships, services and people-to-people links
- Africa is central to India's role in a multipolar global economy

23rd December 2025

[Aravalli benchmark could have effects beyond mining-The Indian Express Explained Page](#)

Environment

Easy Explanation

The **Aravalli Hills** are one of India's oldest mountain ranges and play a critical role in ecology, groundwater recharge, climate moderation, and preventing desertification in north-west India.

The controversy arises from a **new definition of what counts as "Aravalli Hills"**, approved by the **Supreme Court of India** on November 20, based on a proposal by the Union Environment Ministry.

What is the new definition?

Under the new benchmark:

- A landform is considered part of the Aravallis **only if it rises at least 100 metres above its immediate surroundings (local profile)**.
- Slopes and nearby land are included **only when two such hills are within 500 metres** of each other.
- Height is **not measured from a common baseline** (like sea level or the state's lowest point), but from nearby terrain.

Why is this controversial?

Earlier, the **Forest Survey of India (FSI)** used a **3-degree slope method**, which classified land as Aravalli if:

- It was above the state's minimum elevation (115 m in Rajasthan), and
- Had a slope of at least 3 degrees.

This older method included **large hilly tracts** that the new definition now **excludes**, even if they are ecologically important.

Because the Aravallis are ancient and heavily eroded, many of their hills are **low in height but environmentally crucial**. The new definition risks treating them as non-Aravalli land.

Government's stand

- Mining would be allowed in only **0.19%** of the Aravalli area.
- No new mining leases will be granted until further studies are completed.
- Protected areas like **tiger reserves, national parks, sanctuaries, eco-sensitive zones, wetlands, and compensatory afforestation lands** remain protected regardless of the new definition.

What critics point out



| Clear your doubts now.



The story behind this number comes from a visit by **G. H. Hardy** to **Srinivasa Ramanujan** in a hospital in Putney, England. Hardy mentioned that the taxi he came in had a “dull” number — 1729. Ramanujan immediately corrected him, saying it was actually **very interesting**, and explained its unique mathematical property on the spot.

This instant recognition is often portrayed as pure genius or intuition. But in reality, it came from **years of deep and rigorous engagement with numbers**. Ramanujan had already encountered 1729 in his earlier mathematical work, especially while studying problems related to cubes and number patterns explored earlier by **Leonhard Euler**.

The number also connects indirectly to **Pierre de Fermat** and his famous *Last Theorem*. If $9^3+1039^3 + 10^393+103$ had equalled 12312^3 (which is 1728), it would have violated Fermat’s claim that **two cubes cannot add up to another cube**. Ramanujan was fascinated by such “**near misses**” — cases that almost break deep mathematical laws but don’t.

So, Ramanujan’s response was not mystical or accidental. It was the outcome of a mind trained to **see structure, patterns, and exceptions** through sustained and unconventional study.

Key Takeaways

- **1729** is the smallest number expressible as the sum of two cubes in two different ways.
- The famous taxi anecdote highlights Ramanujan’s **pattern-recognition ability**, not random intuition.
- Ramanujan had **previously studied 1729** through work related to Euler’s studies on cubes.
- The number is linked to “**near violations**” of **Fermat’s Last Theorem**, showing Ramanujan’s interest in edge cases.
- His genius combined **innate talent with rigorous, lifelong mathematical engagement**.
- Ramanujan’s work shows that extraordinary insights often arise from **deep familiarity with fundamentals**, not miracles.

[Higher education Bill puts focus on simplifying governance-The Indian Express Explained Page](#)

Sociology

Easy Explanation

India’s higher education system is currently regulated by **multiple bodies**, each responsible for different aspects such as funding, standards, and accreditation. This has often led to **overlap, confusion, and delays**.

To address this, the government has introduced the **Viksit Bharat Shiksha Adhishtan Bill**, which proposes creating **one umbrella higher education commission** instead of several separate regulators. The Bill is now being examined by a **Joint Parliamentary Committee**.

What the Bill proposes

- **Merger of existing regulators:**
The Bill seeks to merge the **University Grants Commission, All India Council for Technical Education, and National Council for Teacher Education**.



| Clear your doubts now.



- Creation of a new umbrella body called **Viksit Bharat Shiksha Adhishthan**, supported by **three specialised councils**:
 - **Regulatory Council** – permission to grant degrees, compliance, penalties
 - **Standards Council** – learning outcomes and academic benchmarks
 - **Accreditation Council** – quality assessment framework
- Coverage includes **IITs, IIMs, NITs, IISERs, and central/state universities**, but **excludes** medical, legal, dental, and other professional institutions governed separately.
- **Appointments** to these councils will be made by the **President on the recommendation of the Central government**.
- **Funding powers** shift directly to the **Education Ministry**, not the regulatory council.

Why the government says this is needed

- To **reduce duplication and overlap** among regulators.
- To provide **clarity, uniformity, and faster decision-making**.
- To simplify compliance for institutions operating across disciplines.

Concerns raised

- **Centralisation of power:**
Control over funding and appointments may reduce institutional autonomy.
- **Autonomy of premier institutions:**
IITs and similar institutions are governed by separate Acts and may resist being brought under a common regulator.
- **Technical vs general education:**
Technical education has many specialised fields; a single framework may not suit all.
- **Fear of government control:**
Teachers' associations argue that direct funding control by the Ministry could undermine academic freedom.

Key Takeaways:

- **Single regulator proposed:** The Bill seeks to merge **University Grants Commission, All India Council for Technical Education, and National Council for Teacher Education** into one overarching body — the *Viksit Bharat Shiksha Adhishthan*.
- **Three-council structure:** The new body will function through
 - a **Regulatory Council** (permissions, compliance, penalties),
 - a **Standards Council** (learning outcomes, academic norms), and
 - an **Accreditation Council** (quality assurance).
- **Wide institutional coverage:** The Bill will apply to institutions such as **Indian Institutes of Technology, Indian Institutes of Management, National Institutes of Technology, Indian Institutes of Science Education and Research**, and Central and State universities.
- **Key exclusions:** Medical, legal, dental, and other professionally regulated universities remain outside the Bill's ambit.
- **Funding control shifts:** While UGC and AICTE earlier disbursed grants, funding powers will now rest with the **Education Ministry**, not the new regulatory council.



| Clear your doubts now.



- **Increased central role:** Appointments to the new councils will be made by the **President on the recommendation of the Central government**, raising concerns about centralisation.
- **Penalty powers:** The Regulatory Council can impose fines up to ₹2 crore for non-compliance.
- **Rationale for reform:** The government argues that multiple regulators created overlaps and confusion; a single framework could bring clarity and uniformity.
- **Concerns on autonomy:** Critics fear erosion of institutional autonomy, especially for institutes governed by separate Acts, and greater governmental control via funding.
- **Parliamentary scrutiny ahead:** The Bill has been referred to a Joint Parliamentary Committee, indicating that significant debate and possible revisions are still expected.

[For a choking capital, going electric is the way out-The Indian Express The Ideas Page](#)

Environment

Easy Explanation

Delhi's air pollution becomes dangerously bad every winter. Emergency steps like traffic curbs, school closures, and GRAP are taken, but these are **temporary fixes**. They treat the symptoms, not the real cause.

The **biggest controllable source of Delhi's air pollution is transport**. Vehicles contribute about **25–40% of PM2.5 pollution** due to exhaust fumes, traffic congestion, idling, and old vehicles. Despite this, Delhi's progress on clean transport has slowed down exactly when it is most needed.

Earlier, Delhi was a leader in **electric vehicles (EVs)**, but that momentum has weakened:

- Electric auto registrations dropped to **zero in 2025**.
- Electric two-wheeler sales have declined.
- Key schemes like the Fleet Aggregator Scheme are not fully implemented.
- A new EV policy is delayed, creating uncertainty for buyers and businesses.

This is **not a market failure**, but a **policy failure**.

The solution proposed is a **long-term, well-planned clean transport mission**, treating clean mobility as **public health infrastructure**, not just a transport issue.

The article suggests **four clear steps**:

1. **Go fully electric for small vehicles**

Delhi should phase out new petrol/diesel two-wheelers and three-wheelers from **2026**. Clear deadlines and stable incentives give confidence to manufacturers and consumers and help cities clean their air.

2. **Build a strong electric bus system**

No city has improved air quality without good public transport. Delhi has too few buses for its population. It needs **at least 20,000 electric buses in five years**, frequent services, and good last-mile connectivity. More buses mean fewer private vehicles and faster pollution reduction.

3. **Remove old, polluting vehicles**

Delhi must strictly phase out older vehicles and restrict entry of non-BS-IV/VI vehicles throughout the year, not just during emergencies. This needs strong enforcement and a proper scrappage policy.



| Clear your doubts now.



4. Expand charging and swapping infrastructure

EVs cannot grow without reliable charging. Delhi needs thousands of well-maintained charging and battery-swapping stations. Charging should be treated like a **public utility**, with proper monitoring and accountability.

In short, **Delhi already knows what to do**. It has the tools, money, and capacity. What is missing is **clear political choice and consistent execution**. A five-year clean transport plan can dramatically improve air quality and give people the basic right to breathe clean air.

Key Takeaways:

- **Delhi's air pollution crisis is structural, not seasonal**
Emergency measures like GRAP, school closures, and traffic restrictions only manage short-term spikes; they do not address the root causes.
- **Transport is the biggest controllable pollution source**
Vehicular emissions contribute **25–40% of PM2.5**, making clean mobility the most effective intervention for cleaner air.
- **Delhi is losing its EV leadership**
 1. Zero electric auto registrations in 2025 (vs 1,426 in 2024)
 2. Decline in electric two-wheelers
 3. Fleet Aggregator Scheme remains under-implemented
This reflects a **policy vacuum**, not lack of market demand.
- **Absence of a new EV policy has stalled momentum**
With incentives withdrawn and policy clarity missing, consumers and manufacturers face uncertainty, slowing adoption.
- **Clean mobility must be treated as public health infrastructure**
The city needs a **permanent clean-transport war room** and a **five-year mission** with clear targets, funding, and accountability.
- **Four-pillar strategy proposed**
 1. **Go all-electric for small vehicles**
Phase out new non-electric two- and three-wheelers starting 2026 with stable incentives and firm deadlines.
 2. **Massively expand electric public transport**
Scale up to **20,000 electric buses in five years**, improve frequency, routes, and last-mile connectivity.
 3. **Phase out old, polluting vehicles**
Enforce year-round restrictions on non-BS IV/VI vehicles and implement aggressive scrappage and replacement programmes.
 4. **Build charging infrastructure ahead of demand**
Treat charging as a public utility with large-scale tenders, reliable uptime, transparent pricing, and accountability.
- **Electric buses offer the fastest pollution reduction**
Each electric bus replaces thousands of kilometres of daily tailpipe emissions, making buses the backbone of clean mobility.



| Clear your doubts now.



- **Infrastructure gaps undermine EV confidence**
Fragmented charging networks, non-functional chargers, and lack of monitoring discourage users from switching to EVs.
- **The opportunity is still open—but shrinking**
Delhi has the policy tools, institutional capacity, and public need; what is missing is **clear political choice and sustained execution**.

Bottom line:

Delhi cannot breathe clean air without a decisive shift to electric mobility. Incrementalism will fail; only a bold, time-bound, and well-executed clean transport transition can deliver lasting relief.

[On the right to a healthy environment-The Hindu Text and Context](#)

Environment

Easy Explanation

Every winter, **Delhi–NCR** is covered in thick smog, pushing air quality to dangerous levels and threatening public health. Temporary measures like work-from-home or hybrid schooling offer little relief because the main sources of pollution—vehicles, fossil fuels, industries, construction, waste and agriculture—continue. The most harmful pollutant is **particulate matter**.

- **PM10** damages the lungs.
- **PM2.5** enters the bloodstream, causing heart and lung diseases and strokes.
- **Diesel particulate matter** is especially harmful, even for children.

To tackle this, the **Graded Response Action Plan (GRAP)** was strengthened. Under stricter phases, school closures and staggered office timings in Delhi–NCR are now mandatory, showing that air pollution is a serious **public health issue**.

Though the Constitution originally did not mention the environment, the Supreme Court interpreted **Article 21 (Right to Life)** to include the right to a clean and healthy environment. This was reinforced by:

- **Article 48A:** Duty of the State to protect the environment.
- **Article 51A(g):** Duty of citizens to safeguard nature.

With environmental damage increasing after liberalisation, courts intervened through **Public Interest Litigations (PILs)** to balance development and ecology. Key principles evolved by the judiciary include:

- **Absolute liability** for hazardous activities,
- **Precautionary principle**, and
- **Polluter pays principle**.

The **public trust doctrine** treats the State as a trustee of natural resources for public benefit. Courts have also linked climate change impacts to fundamental rights. Despite this, protection remains inadequate, making a strong case for **explicitly recognising the right to a clean and healthy environment as a Fundamental Right**.

Key Takeaways



| Clear your doubts now.



Winter air pollution in Delhi–NCR

- Severe smog every winter pushes air quality to hazardous levels.
- Health risks persist despite temporary measures like WFH and hybrid schooling.

Main causes and health impact

- Pollution sources include vehicles, industries, fossil fuels, construction, waste and agriculture.
- **PM10** harms the lungs, while **PM2.5** enters the bloodstream causing heart disease, stroke and lung disorders.
- Diesel particulate matter is especially dangerous, even for children.

Government response (GRAP)

- GRAP has been strengthened to address extreme pollution episodes.
- School closures and staggered office timings are now mandatory under severe phases.

Environment as a constitutional right

- The Supreme Court interpreted **Article 21 (Right to Life)** to include the right to a clean environment.
- Pollution-free air and water are essential for living with dignity.

Constitutional duties

- **Article 48A**: Duty of the State to protect and improve the environment.
- **Article 51A(g)**: Fundamental duty of citizens to safeguard nature.

Role of judiciary and PILs

- Courts intervened due to environmental degradation after economic liberalisation.
- **Public Interest Litigations (PILs)** became a key tool for environmental justice.

Key environmental principles

- **Absolute liability** for damage from hazardous activities.
- **Precautionary principle** to prevent irreversible environmental harm.
- **Polluter pays principle** to ensure accountability.

Public trust doctrine

- The State holds natural resources in trust for public welfare.
- Resources cannot be used for private or commercial gain alone.

Climate change and rights

- Adverse effects of climate change are linked to fundamental rights under Articles 21 and 14.

Way forward

- Judicial interpretation alone is insufficient.



| Clear your doubts now.



- Explicit recognition of the **right to a clean and healthy environment as a Fundamental Right** is needed for stronger enforcement.

[How are we protecting astronauts from deadly space debris?-The Hindu Text and Context](#)

Science and technology

Easy Explanation

Space around Earth is crowded with **Micrometeoroids and Orbital Debris (MMOD)**—tiny natural particles and human-made junk moving at very high speeds. Even very small pieces can damage spacecraft or endanger astronauts, as shown by the recent damage to China's Shenzhou-20 capsule.

Micrometeoroids come mainly from asteroid and comet collisions, while **orbital debris** includes old satellites, rocket parts and fragments from collisions or weapon tests. If debris keeps increasing, collisions could trigger a chain reaction called the **Kessler Syndrome**, making space travel unsafe.

Most debris is concentrated in **Low Earth Orbit (LEO)**, where many satellites operate. To manage the risk, space agencies use tracking data and computer models to estimate impact chances and design spacecraft accordingly.

The main protection method is the **Whipple shield**, which breaks incoming debris into fragments and spreads their energy before it reaches the spacecraft. For large, trackable debris, spacecraft perform **avoidance manoeuvres** by slightly changing their orbit.

For India's human mission **Gaganyaan**, astronaut safety is ensured through Whipple shields tested to strict human-rating standards. As space activity grows, long-term safety will depend on **global cooperation and strict debris-control practices** to keep Earth's orbits sustainable.

Key Takeaways

What is the MMOD threat?

- **Micrometeoroids** are natural, dust-sized to millimetre-sized particles moving at extremely high speeds (11–72 km/s).
- **Orbital debris** consists of defunct human-made objects like old satellites and rocket fragments, travelling at ~10 km/s.
- Even tiny particles carry enough kinetic energy to cause serious or catastrophic damage to spacecraft.

Why space debris is a growing concern

- A recent incident involving China's Shenzhou-20 highlighted the real risk to crewed missions.
- Rising debris density could trigger cascading collisions, known as the **Kessler Syndrome**, potentially making some orbits unusable.

Global governance of space debris

- The Inter-Agency Space Debris Coordination Committee (IADC), involving agencies like NASA, ESA and ISRO, develops technical standards.
- These standards inform UN guidelines under UNCOPUOS, but they are **non-binding (soft law)**.



| Clear your doubts now.



Distribution of MMOD in space

- Orbital debris is concentrated mainly in **Low Earth Orbit (LEO)** between 200–2,000 km.
- Around Earth, there are ~34,000 tracked debris objects larger than 10 cm and millions of smaller fragments.
- Micrometeoroids are widespread and cause billions of tiny impacts on spacecraft every year.

How spacecraft are designed to survive impacts

- MMOD risk is **directional**, with the highest danger on the forward-facing side of spacecraft.
- Space agencies use modelling and tracking data to calculate MMOD flux and assess failure probabilities.
- If risks exceed safety limits, **physical shielding** becomes mandatory.

Protection techniques against MMOD

- **Whipple shields** are widely used:
 - An outer bumper shatters the debris.
 - A gap spreads the energy.
 - An inner wall safely absorbs the impact.
- For larger tracked debris, **collision avoidance manoeuvres** are performed by adjusting spacecraft orbits.

How Gaganyaan crew is protected

- Gaganyaan is a short-duration, standalone human mission with no space station support.
- Risk from large tracked debris is low, but protection from small, high-speed fragments is essential.
- ISRO uses **Whipple shields** designed to human-rating standards.
- Designs are validated using high-speed impact tests, including gas gun facilities at DRDO's TBRL.

The way forward

- As human activity in space expands beyond Earth and the Moon, debris risks will grow.
- Long-term safety requires **global cooperation**, strict debris-mitigation norms, and **zero-junk practices** to ensure sustainable and safe orbital space.

[NASA loses touch with MAVEN craft which reached Mars just before Mangalyaan-The Hindu Science](#)

Science and technology

Easy Explanation

NASA has temporarily **lost contact with its Mars spacecraft MAVEN**, which has been studying how Mars's atmosphere is slowly escaping into space. The spacecraft went silent in early December, and engineers are still trying to restore communication.



| Clear your doubts now.



MAVEN's main job is to study **Mars's upper atmosphere and ionosphere** and how sunlight and solar wind strip gases away. This helps scientists understand how Mars changed from a planet that once had flowing water into the cold, dry world we see today. MAVEN also plays a practical role by acting as a **communication relay** between Earth and rovers on Mars.

The problem began after MAVEN passed behind Mars, causing a routine communication blackout. However, when it was expected to reappear, its normal signal was not detected. Later, NASA recovered a small fragment of data suggesting that **MAVEN may be rotating abnormally and its orbit may have changed**, though the exact cause is still unknown.

To avoid disruption, NASA has shifted relay duties to other Mars orbiters and coordinated with European spacecraft. MAVEN, launched in 2013 and operating since 2014, had already far exceeded its planned two-year mission.

India's **Mangalyaan** also reached Mars in 2014, just days after MAVEN. While the two missions were often compared because of their costs, they had **very different objectives**—MAVEN being a long-term, high-end science mission, and Mangalyaan primarily a technology demonstrator with limited scientific payload.

Key Takeaways

What happened to MAVEN

- MAVEN has gone silent after more than a decade in Mars orbit.
- Contact was lost after a routine blackout when the spacecraft passed behind Mars.
- A brief data fragment suggests **unexpected rotation and a possible orbital change**.

Why MAVEN is important

- Studies **Mars's upper atmosphere and ionosphere**.
- Helps explain how Mars lost much of its atmosphere and surface water.
- Acts as a **communication relay** for Mars rovers.

NASA's response

- NASA is attempting to re-establish communication.
- Relay duties shifted to other Mars orbiters to avoid mission disruption.

Mission background

- Launched in 2013 and entered Mars orbit in 2014.
- Designed for a 2-year mission but operated successfully for over 10 years.

MAVEN vs Mangalyaan

- India's Mars Orbiter Mission **Mangalyaan** arrived days after MAVEN in 2014.
- MAVEN was a **high-end science mission**; Mangalyaan was mainly a **technology demonstrator**.
- Cost comparisons are misleading due to **different goals and payloads**.

Overall significance



| Clear your doubts now.



- Loss of MAVEN would be a setback for long-term Mars atmospheric science.
- Highlights the challenges of maintaining aging spacecraft in deep space.

[Step up-The Hindu Editorial](#)

Economy

Easy Explanation

The Supreme Court's December 19 judgment marks an important shift in how **Corporate Social Responsibility (CSR)** is understood in India. The Court has clearly said that CSR is **not optional charity**, but a **legal obligation**, especially when it comes to protecting the environment and wildlife.

The Court linked CSR directly to **Article 51A(g)** of the Constitution, which places a duty on citizens to protect nature. Since companies are treated as legal persons, they too share this duty. This means that when companies spend CSR funds on environmental protection, they are not doing charity—they are **fulfilling a constitutional responsibility**.

This interpretation is especially significant for the conservation of the **Great Indian Bustard**, a critically endangered bird threatened by overhead power transmission lines. The Court's earlier orders (from 2021 onwards) restricted such infrastructure and called for undergrounding power lines in sensitive areas. The latest judgment strengthens the legal basis for **compelling corporate funding** to support conservation efforts like habitat restoration, grassland maintenance, and breeding programmes.

At the same time, the Court has tried to balance conservation with **renewable energy expansion**. Instead of blanket restrictions, it has now focused on **priority habitats**, reducing conflict with clean energy projects while still protecting the species.

However, the judgment has limits. It does not clearly state **which companies must pay, how much they must contribute, or how spending will be audited**. Penalties for non-compliance remain under existing laws. Also, success will depend less on legal interpretation and more on **effective implementation**—accurate habitat mapping, timely undergrounding of power lines, and ensuring that corporate funds lead to real conservation results on the ground.

In short, the ruling strengthens environmental protection through CSR, but its real impact will depend on how well governments, utilities, and companies act on it.

Key Takeaways

Supreme Court ruling on CSR

- The December 19 judgment by the **Supreme Court of India** treats **Corporate Social Responsibility (CSR)** as a **legally enforceable obligation**, not voluntary charity.
- CSR is interpreted to include **environmental and wildlife protection** under the **Companies Act**.

Constitutional basis

- Corporations, as legal persons, share duties under **Article 51A(g)**.



| Clear your doubts now.



- Spending CSR funds on environmental protection is framed as **discharging a constitutional duty**, not philanthropy.

Impact on Great Indian Bustard conservation

- Strengthens the legal basis to demand **corporate funding** for protecting the **Great Indian Bustard**.
- Builds on the Court's 2021 and 2024 orders restricting overhead power lines and mandating expert-led planning.

Balancing conservation and energy goals

- The Court moved from a broad-area restriction to **priority habitat zones**, reducing conflict with renewable energy expansion.
- Expert committees now balance **species protection, climate commitments, and power infrastructure**.

What the judgment does not do

- Does **not specify** which companies must pay, how much, or with what audit mechanism.
- Penalties remain under existing legal provisions.

Implementation challenges

- Success depends on accurate habitat mapping, despite bustards' wide movement.
- Outcomes hinge on governments and utilities executing **undergrounding and rerouting of power lines** on time.
- Corporate funding must translate into **real conservation outcomes**, not just legal compliance.

Overall significance

- Improves the legal position for making companies pay for **prevention and ecological recovery**.
- Actual impact will depend more on **execution and coordination** than on legal doctrine alone.

24th December 2025

[OTPs to food orders: The digital clues helping police - The Indian Express Explained Page](#)

Internal security

Easy Explanation

Modern policing is increasingly driven by **digital footprints** left behind in everyday life. In the BlueChip Group case, the alleged scamster **Ravindra Soni** was not caught through traditional surveillance but because of a **food delivery order**. One-time passwords (OTPs), delivery logs, and app data helped police trace him to Dehradun after nearly a year on the run.

This case shows how apps designed for convenience—food delivery, e-commerce, messaging, toll payments—generate **digital residue** that can be crucial evidence. Criminals may change phones, SIM cards,



| Clear your doubts now.



hotels, and locations, but even brief moments of app usage (such as switching on a phone to receive an OTP) can expose their location and movement.

Investigators now routinely analyse data from platforms like food delivery apps, FASTag toll records, and messaging services to triangulate suspects' movements. Privacy policies of these platforms generally allow sharing user data with law enforcement when required by law, making such cooperation legally possible.

This reliance on digital evidence goes beyond financial fraud. Globally, prosecutors are also using **online interactions and AI chat records** as supporting evidence in serious crimes. In India, the sharp rise in cybercrime has pushed regulators to tighten controls.

To strengthen tracing and accountability, the **Department of Telecommunications (DoT)** has directed messaging platforms to enforce **SIM-to-device binding**, ensuring accounts remain linked to the SIM used for registration. New rules under telecom cybersecurity law expand the scope of regulation to include apps that rely on mobile numbers to identify users, potentially covering even food delivery platforms.

Overall, policing is shifting from physical trails to **digital clues**, reflecting how deeply technology is embedded in daily life—and crime.

Key Takeaways

Digital footprints as evidence

- OTPs, food delivery logs, e-commerce data, FASTag records and app usage now play a key role in investigations.
- Even brief phone activity can reveal a suspect's location.

BlueChip Group case

- Ravindra Soni, accused of a ₹1,000-crore scam, was traced through a food delivery order .
- Highlights how digital convenience tools can expose fugitives.

Policing methods evolving

- Authorities increasingly rely on data analytics instead of traditional stakeouts.
- Digital evidence helps track suspects who frequently change phones and locations.

Role of private platforms

- Apps like Zomato and Swiggy can share user data with police under legal provisions.
- Messaging and e-commerce apps are becoming part of the investigative ecosystem.

Regulatory response

- Department of Telecommunications has mandated SIM-to-device binding for messaging apps.
- New telecom cybersecurity rules expand oversight to apps using mobile numbers for user identification.

Broader trend



| Clear your doubts now.



- Rise in cybercrime is driving tighter digital surveillance and regulation.
- Law enforcement is moving decisively into the **digital-first era** of crime detection.

[ISRO's heaviest-ever launch today is test of capability, cost-The Indian Express Explained Page](#)

Science and technology

Easy Explanation

ISRO is set to launch its **heaviest-ever satellite, BlueBird Block-2**, weighing about **6,100 kg**, using the **LVM-3 rocket**. This rocket is also the one chosen for **India's first human spaceflight mission, Gaganyaan**, making the launch technologically and strategically important.

The satellite will be placed in **Low Earth Orbit (LEO)** at around **520 km altitude**. BlueBird Block-2, built by the US company **AST SpaceMobile**, is part of a satellite constellation designed to provide **direct-to-mobile connectivity**. Unlike conventional satellites that depend on ground stations, these satellites can communicate **directly with ordinary smartphones**, enabling 4G and 5G calls, texts, data, and video streaming even in remote areas.

This mission highlights ISRO's growing role in the **global commercial launch market**. Earlier, LVM-3 was used to launch OneWeb satellites after Russia and Europe became unavailable due to geopolitical reasons. With this launch, ISRO aims to show that it can carry **very heavy payloads at a competitive cost**, rivaling rockets like SpaceX's Falcon-9.

The launch also reflects ISRO's rapid progress. It is the **shortest gap between two LVM-3 launches** and the second year in which ISRO flies two LVM-3 missions, showing improved assembly speed and operational readiness.

Behind this capability is continuous upgrading of LVM-3. ISRO is improving its **cryogenic upper stage**, planning a more powerful version, and considering **semi-cryogenic engines** to increase payload capacity and reduce costs. These upgrades are crucial not just for commercial launches, but also for **Gaganyaan** and India's future **Bharatiya Antariksh Station**.

Key Takeaways

Launch & payload

- ISRO launching **BlueBird Block-2 (6,100 kg)** on **LVM-3**
- Heaviest satellite ever launched by India
- Placed in **Low Earth Orbit (~520 km)**

Why BlueBird Block-2 matters

- Built by **AST SpaceMobile**
- Enables **direct-to-mobile connectivity**
- Supports 4G/5G calls, data, texts, and streaming without ground stations

Strategic importance



| Clear your doubts now.



- Strengthens ISRO's position in the **commercial launch market**
- Alternative to Falcon-9 and Ariane-6 at lower cost
- Builds confidence ahead of **Gaganyaan**

Operational achievement

- Shortest gap between two LVM-3 launches
- Second year with two LVM-3 missions, showing faster readiness

Technology upgrades

- More powerful **cryogenic upper stage (C32)** planned
- Shift towards **semi-cryogenic engines** for higher payload and lower cost
- Future capacity: up to **10,000 kg to LEO**

Long-term vision

- Supports **Gaganyaan**
- Enables launch of modules for **Bharatiya Antariksh Station**
- Marks India's transition to a reliable heavy-lift space power

[Punjab's 3 new 'holy cities', chosen for milestones in Sikhism history-The Indian Express](#)
[Explained Page](#)

Art and Culture

Easy Explanation

The Punjab government has declared **Amritsar, Anandpur Sahib, and Talwandi Sabo** as "**Holy Cities**", recognising their central place in Sikh history and tradition. The decision was approved unanimously by the Punjab Legislative Assembly during a special session held in Anandpur Sahib to mark the 350th martyrdom anniversary of **Guru Tegh Bahadur**.

These three cities are especially significant because they host **three of the five Takhts of Sikhism**, which are the highest seats of religious authority. Amritsar houses the **Akal Takht**, the supreme Takht, while Anandpur Sahib has **Takht Keshgarh Sahib** and Talwandi Sabo has **Takht Damdama Sahib**. The remaining two Takhts are located outside Punjab, in Patna Sahib (Bihar) and Hazur Sahib (Maharashtra).

The Akal Takht, established in 1606 by **Guru Hargobind**, symbolises the union of **spiritual authority (piri)** and **temporal power (miri)** in Sikhism. It is from here that community-wide religious edicts (hukumnamas) are issued. The other Takhts are closely associated with the life of **Guru Gobind Singh**, including the creation of the Khalsa at Anandpur Sahib and the preparation of the final recension of the Guru Granth Sahib at Damdama Sahib.

Granting Holy City status will have **practical and social effects**. It will lead to bans on the sale of liquor, tobacco, cigarettes, and meat within specified areas of these cities. The government also plans to improve facilities such as minibuses and e-rickshaws to promote religious tourism and ease movement for devotees.



| Clear your doubts now.



However, the decision has raised **concerns and debates**. Questions have emerged around the practice of **jhatka meat**, which is traditionally consumed by **Nihangs**, a warrior Sikh group. There are also worries about the livelihoods of small traders affected by the bans and how rehabilitation will be handled. While many see the move as respecting Sikh sentiments and long-standing demands (including by the **Shiromani Gurdwara Parbandhak Committee**), others point out that defining and enforcing “holiness” in everyday life may prove challenging.

Key Takeaways

Holy City declaration

- Punjab declares **Amritsar, Anandpur Sahib, and Talwandi Sabo** as Holy Cities.
- Decision passed unanimously by the Punjab Assembly.

Religious significance

- These cities host **3 of the 5 Sikh Takhts**.
- **Akal Takht (Amritsar)** is the supreme religious authority in Sikhism.
- Other Takhts linked to the life of **Guru Gobind Singh**.

Meaning of Takhts

- “Takht” means throne.
- They issue hukumnamas and guide the Sikh community on religious matters.

Administrative impact

- Ban on liquor, tobacco, cigarettes, and meat in notified areas.
- New transport facilities to promote religious tourism.

Long-standing demand

- Sikh religious bodies have demanded Holy City status for decades.
- Seen as cultural and religious recognition rather than an election promise.

Concerns and challenges

- Debate over **jhatka meat** and Nihang traditions.
- Livelihood concerns for traders affected by bans.
- Enforcement may be difficult due to differing interpretations of “holiness”.

Overall significance

- Strengthens cultural and religious identity of Sikh sacred centres.
- Success will depend on sensitive implementation and rehabilitation measures.

[Macaulay is only a punching bag.His ghost is resurrected to bury inconvenient ideas-The Indian Express](#)
[The Ideas Page](#)





Easy Explanation

Macaulay is often used today as a **symbolic villain**—a convenient shorthand for English, modern education, and an “un-Indian” mindset. Invoking his name helps dismiss criticism of tradition as colonial and puts defenders of English or modernity on the defensive. But this reduces a complex history to an easy political slogan.

The reality is more nuanced. **English never replaced Indian languages**; instead, Indian languages absorbed English words while continuing to grow, modernise, and produce rich literature. Social reformers like **Jyotirao Phule** and **Periyar (EV Ramasamy)** used Indian languages to challenge caste and patriarchy, while others like **Bal Gangadhar Tilak** used English pragmatically without losing cultural roots. This shows a **two-way interaction**, not cultural surrender.

Similarly, **modern education** was not merely a colonial imposition but a tool that expanded access and empowered marginalised groups. Resistance to early education reforms often came from those who wanted to preserve caste-based occupational hierarchies. Attacks on figures like **Savitribai Phule** happened not because education was “Western”, but because it threatened social privilege.

The claim that modern education produced an elite alienated from Indian culture is also overstated. While “brown sahibs” existed, Indian society did not abandon its traditions, epics, philosophies, or everyday cultural practices. Instead, India developed a habit of **self-critique and reform**—questioning texts, challenging caste, advancing women’s dignity, and rethinking justice—without losing its civilisational anchors.

Nearly two centuries after Macaulay’s Minute, India did not become a copy of the West. It followed a **selective, confident modernity**, drawing equally from the Buddha, the Constitution, and global ideas of equality and liberty. The problem today is not Macaulay’s legacy, but how his “ghost” is repeatedly revived to **shut down uncomfortable debates** about reform, inequality, and the meaning of Indianness.

In short, **Macaulay is a convenient punching bag**. Using him to reject modern ideas risks burying India’s own long tradition of critical thinking, reform, and aspirational modernity.

Key Takeaways

Macaulay as a political symbol

- Macaulay is often used as a shorthand to attack English, modern education, and self-criticism.
- Invoking him helps brand inconvenient ideas as “un-Indian” without engaging with them seriously.

English and Indian languages

- English never displaced Indian languages; it coexisted with them.
- Indian languages absorbed English terms while continuing to modernise and remain culturally rich.

Role of social reformers

- Reformers like **Jyotirao Phule** and **E. V. Ramasamy (Periyar)** used Indian languages to fight caste and patriarchy.
- Even those who used English, such as Tilak, thought and acted through Indian cultural frameworks.



| Clear your doubts now.



Modern education and access

- Modern education expanded access, especially for women and lower castes.
- Early resistance came from those defending caste-based hierarchies, not from cultural concerns.

Myth of cultural loss

- Claims that modern education created an elite alienated from Indian culture are overstated.
- Indian society retained deep links with its epics, philosophies, and everyday traditions.

Indian modernity

- India's engagement with modernity involved critique, reform, and reinterpretation, not imitation.
- Movements against caste, for women's dignity, and for social justice show a home-grown modern sensibility.

Tradition vs modernity

- Tradition and modernity are not opposites in the Indian experience.
- India has historically reworked tradition to address inequality and injustice.

Why Macaulay keeps returning

- Macaulay's "ghost" is revived to shut down debates on reform and inequality.
- He serves as a **convenient punching bag** to bury uncomfortable ideas about India's present and future.

[SHANTI Bill is India's second shot at nuclear energy leadership-The Indian Express The Ideas](#)

[Page](#)

Economy

Easy Explanation

India's nuclear power programme has long struggled due to complex laws and strict liability rules that discouraged private and foreign investment. The **SHANTI Bill (Sustainable Harnessing and Advancement of Nuclear Energy for Transforming India)** aims to reset this framework and make nuclear energy a key pillar of clean power, with a target of **100 GW capacity by 2047**.

The Bill replaces two older laws with a **single umbrella law**, simplifies governance, and aligns India with global nuclear norms. It allows **public and private participation**, but within a state-led system: foreign companies cannot be operators, and sensitive fuel-cycle activities remain with the government.

SHANTI strengthens safety oversight by giving a clearer and stronger role to the **Atomic Energy Regulatory Board**, separating regulation from operations. It also reforms liability by placing primary responsibility on operators, supported by insurance and a government-backed fund, while capping total liability at **300 million SDR**. In cases of terrorism, liability shifts to the central government, treating it as a sovereign risk.



| Clear your doubts now.



The Bill improves **victim protection** by widening the definition of nuclear damage and speeding up compensation. It also enables **patents for nuclear-related inventions**, encouraging innovation, domestic manufacturing, and skilled jobs. Overall, SHANTI may not be perfect, but it offers India a **credible second chance** to scale nuclear power and re-engage with global partners.

Key Takeaways

Why SHANTI matters

- Attempts to unlock India's stalled nuclear power programme
- Targets **100 GW nuclear capacity by 2047**

Legal and policy reset

- Replaces two old laws with a single umbrella framework
- Aligns India with global nuclear commerce norms

Who can build

- Allows public and private players
- Foreign firms excluded as operators
- Sensitive fuel-cycle activities stay with the State

Stronger regulation

- Clear separation of licensing and safety oversight
- Expanded powers for the Atomic Energy Regulatory Board
- Success depends on regulatory capacity and independence

Liability reform

- Operator-centric liability with a cap of **300 million SDR**
- Supplier liability mainly contractual
- Creation of a Nuclear Liability Fund

Terrorism clause

- Terrorism treated as a sovereign risk
- Central government bears liability in such cases

Victim protection

- Wider definition of nuclear damage
- Faster claims processing and compensation

Innovation and jobs

- Patents allowed for nuclear-related inventions
- Boosts domestic manufacturing, R&D, and skilled employment



| Clear your doubts now.



Strategic impact

- Revives civil nuclear cooperation with global partners
- Moves India from nuclear outlier to credible nuclear builder

[Beyond chips, data centres lies India's AI opportunity-The Indian Express The Ideas Page](#)

Science and technology

Easy Explanation

The global race in Artificial Intelligence (AI) is often framed as a competition over **chips, data centres, and computing power**. But this article argues that this is only the **first phase**. The real winners of AI will be those who can turn technology into **widespread, trusted, real-world impact**.

The AI journey can be seen in **three phases**. The first is the **Compute Era**, dominated by access to chips, hyperscale data centres, energy, land, and capital. This phase favours rich countries and big corporations. However, like past technology booms, this era may soon peak, with computing becoming a **utility**—widely available, regulated, and no longer a key differentiator.

Next comes the **Diffusion Era**, where value shifts from owning compute to **using AI at population scale**. Countries that can deploy AI across healthcare, education, governance, finance, and daily life will gain the most. India has a natural advantage here because of its experience with **large-scale digital platforms** and real-economy adoption. Trust, localisation, and relevance will matter more than raw model size. AI systems will need to reflect **local languages, cultures, and social contexts**, correcting the Western bias in today's large models.

Beyond this lies the **Governance Era**. As AI becomes deeply embedded in society, governments will assert control over data, infrastructure, and rules. Sovereign power, regulation, and political legitimacy will increasingly shape which AI systems succeed. This is a typical pattern seen after major technology booms.

For India to seize this opportunity, three hard questions must be answered. Can Indian companies take bold risks and invest in uncertain futures? Can India's financial system provide **patient capital** for long-term, utility-scale AI infrastructure? And can the government design **world-class regulation** that balances innovation with public good, protects digital sovereignty, and builds an India-specific AI architecture aligned with global systems?

If India gets these right, its AI advantage will not come from chips alone, but from **scale, trust, institutions, and governance**.

Key Takeaways

AI is more than chips

- The AI race will not be won by compute power alone
- Real advantage lies in turning innovation into large-scale social and economic impact

Three phases of the AI age



| Clear your doubts now.



- **Compute Era:** Chips, data centres, capital, energy dominate
- **Diffusion Era:** AI adoption at population scale creates value
- **Governance Era:** States regulate, control data, and shape AI outcomes

Compute is becoming a utility

- Overinvestment may lead to compute being regulated like power or telecom
- Value will shift to applications, not infrastructure

India's key advantage

- Experience in scaling digital platforms
- Strong real-economy integration
- Ability to deploy AI across society, not just firms

Importance of trust and localisation

- AI must reflect local languages and cultures
- Western data bias in large models must be corrected
- Community trust will determine adoption

Role of the State

- Governments will guard data sovereignty more aggressively
- Regulation will shape winners in the Diffusion Era

Three critical questions for India

- Can companies take long-term, high-risk bets?
- Can finance provide patient capital for AI infrastructure?
- Can government balance innovation, regulation, and public good (like DPI)?

Bottom line

- India's AI opportunity lies **beyond chips and data centres**
- Success depends on diffusion, institutions, trust, and smart governance

[How exports are concentrated in few States-The Hindu Text and Context](#)

Economy

Easy Explanation

India's export numbers look strong at the national level, even as the rupee has weakened. But when exports are examined **state-wise**, a very different picture emerges. India's export growth is increasingly concentrated in a **small group of States**, while large parts of the country are being left out.

Today, just **five States** — **Maharashtra, Gujarat, Tamil Nadu, Karnataka and Uttar Pradesh** — **account for nearly 70% of India's exports**. Earlier, this figure was closer to 65%. This shows a growing **core-periphery**



| Clear your doubts now.



pattern, where a few coastal and industrial States are deeply integrated into global trade, while much of northern and eastern India is drifting away from the export economy.

This divergence is not accidental. Globally, the era of **labour-intensive, low-skill export-led growth** is shrinking. World trade volumes are growing slowly, and a small group of advanced exporters dominate global markets. Capital now looks for **economic complexity** — strong infrastructure, skilled labour, logistics, and dense industrial networks — rather than just cheap labour. States that already have these advantages keep attracting investment, while lagging regions struggle to enter global value chains.

Crucially, exports are no longer creating mass jobs. Data from the **Annual Survey of Industries** shows that capital investment is rising faster than employment. Factories are becoming more automated and capital-heavy. As a result, India is exporting **high value**, but not **high employment**. The traditional path where exports pulled workers from agriculture into factories — as seen in East Asia — is breaking down.

Employment data confirms this shift. Manufacturing's share in total employment has remained stuck at around **12%**, even as exports hit record highs. The gains from productivity and exports are flowing more to **capital owners than workers**, leading to high growth without widespread prosperity.

This problem is worsened by financial and institutional gaps across States. Export-heavy States recycle local savings into local industry, while poorer States see their savings flow outward, limiting their own industrial growth. Weak human capital — skills, health, education — further blocks their entry into complex manufacturing.

The big takeaway is that **exports are no longer a pathway to development**; instead, they reflect **existing development**. States do not export their way into prosperity — they export because they are already prosperous enough to do so. Relying on export growth alone as a symbol of inclusive development risks confusing outcomes with causes.

Key Takeaways

Exports are highly concentrated

- Top 5 States contribute nearly **70% of India's exports**
- Regional inequality in trade participation is widening

Core-periphery pattern is hardening

- Coastal and southern States integrate into global supply chains
- Northern and eastern States are decoupling from export growth

Global conditions have changed

- Low-skill, labour-intensive export growth window is closing
- Capital now favours **economic complexity**, not cheap labour

Exports no longer generate mass jobs

- Capital investment growing faster than employment
- Manufacturing employment stuck at ~12% of total jobs



| Clear your doubts now.



Capital bias in production

- Automation and high-end manufacturing dominate exports
- Productivity gains benefit capital owners more than workers

Spatially sticky growth

- High-growth sectors (electronics, precision manufacturing) remain confined to a few districts

Financial imbalance across States

- High-export States recycle savings locally
- Poorer States suffer from capital outflows and low credit access

Human capital constraints

- Skill and education gaps block entry into complex global value chains

Policy implication

- Export growth is an **outcome**, not a driver, of development
- Using exports as a proxy for inclusive growth risks misreading economic progress

[Rhino dehorning nearly eliminated poaching in African reserves: study-The Hindu Science](#)

Environment

Easy Explanation

Rhinos are among the most heavily poached animals in the world because of the high value of their horns in illegal markets. Today, **fewer than 28,000 rhinos** survive globally across all five species. Despite heavy spending on patrols, technology, and surveillance, poaching has continued at alarming rates, especially in African reserves like the Greater Kruger region.

A new scientific study shows that **dehorning rhinos — safely removing most of their horns — can dramatically reduce poaching**. Researchers analysed seven years of data (2017–2023) from **11 reserves in South Africa's Greater Kruger region**. They found that reserves which dehorned rhinos saw a **75% reduction in poaching**, and where dehorning was done quickly and extensively, poaching fell by **78%**. Most strikingly, **dehorned rhinos were 95% less likely to be poached** than those with intact horns.

Dehorning works because it **removes the main incentive for poachers**. Rhino horns are made of keratin (like human nails and hair) and have no proven medicinal value, yet they are prized in illegal markets, particularly in parts of Asia. By cutting off about **90–93% of the horn** above the growth layer, veterinarians ensure the horn can regrow while keeping the animal unharmed.

The study also found that **traditional anti-poaching methods**, such as arresting poachers, were **less effective as deterrents**. Corruption, weak justice systems, and organised trafficking networks allow many offenders to escape punishment. In contrast, dehorning achieved major results while using only **1.2% of the total anti-poaching budget**. The findings were published in **Science**.



| Clear your doubts now.



However, dehorning is **not a universal solution**. In countries like India and Nepal, strong protection, smart patrolling, and community involvement have nearly eliminated rhino poaching in recent years. For example, **Kaziranga National Park** has succeeded without dehorning, showing that **local context matters**.

Researchers stress that lasting conservation success depends on **supporting frontline rangers**, engaging local communities, and combining strategies wisely. Dehorning may not be a silver bullet, but evidence shows it is a **powerful, cost-effective tool** when poaching pressure is extreme.

Key Takeaways

Global rhino crisis

- Fewer than **28,000 rhinos** remain worldwide.
- Poaching driven by illegal horn trade worth **hundreds of millions of dollars**.

What the study found

- Data analysed from **11 African reserves (2017–2023)**.
- **75% drop in poaching** after dehorning.
- **78% drop** where dehorning was done rapidly.
- **95% lower poaching risk** for dehorned rhinos.

Why dehorning works

- Removes the **primary incentive** for poachers.
- Horn regrows; procedure does **not permanently harm** rhinos.
- Achieved major impact using only **1.2% of anti-poaching budgets**.

Limits of enforcement alone

- Arrests and surveillance alone **do not strongly deter poaching**.
- Corruption and weak justice systems reduce effectiveness.

India–Africa contrast

- African reserves face intense poaching pressure.
- India and Nepal have nearly eliminated poaching through **community engagement and smart patrolling**, without dehorning.

Role of people on the ground

- Rangers are critical frontline defenders.
- Their welfare, training, and safety are essential for success.

Policy implication

- Dehorning is **not a silver bullet**, but a strong evidence-based option.
- Conservation strategies must be **context-specific, cost-effective, and people-centred**.



| Clear your doubts now.



[A good template-The Hindu Editorial](#)

International relations

Easy Explanation

India's decision to conclude a **free trade agreement (FTA) with New Zealand** signals a **more mature and cautious trade strategy**. Unlike earlier mega trade deals, this agreement is built on clear priorities, sectoral protection, and realistic expectations. Current India–New Zealand trade is small (just over \$2 billion in FY25), but the goal to double it in five years is backed by carefully chosen pathways rather than broad tariff cuts.

The standout feature of the deal is **labour mobility**. India secured a provision allowing **5,000 Indian professionals at any given time** to work in New Zealand for up to three years in sectors where India is strong — IT, healthcare, education, and traditional medicine. This goes far beyond earlier arrangements, including the **Australia-India Economic Cooperation and Trade Agreement**, which offers only limited short-term work visas.

The agreement is also **people-centric**. New Zealand has agreed to uncapped entry for Indian students in higher education, along with the right to work at least 20 hours a week. This deepens economic ties through education, skills, and services — not just goods trade.

Crucially, India has protected **sensitive sectors**, especially agriculture and dairy. About **30% of tariff lines are excluded**, including dairy and key animal and vegetable products. This safeguard reflects lessons from India's 2019 exit from **Regional Comprehensive Economic Partnership**, where the lack of such protections raised concerns about rural livelihoods.

The deal also includes a long-term investment commitment of **\$20 billion from New Zealand over 15 years**, broadening the partnership beyond trade flows. While the gains are modest amid global trade uncertainty, the real challenge will be **implementation** — removing non-tariff barriers, ensuring recognition of Indian qualifications, and making businesses aware of the opportunities. If done well, this FTA could become a **template for future Indian trade agreements**, rather than a one-off success.

Key Takeaways

Shift in India's trade strategy

- Marks a move away from headline-driven mega trade pacts
- Emphasises sectoral caution and strategic clarity

Scale of the deal

- India–New Zealand trade currently just over \$2 billion
- Target to double trade in five years

Major gain: labour mobility

- 5,000 Indian professionals eligible for 3-year work visas
- Covers IT, healthcare, education, and traditional medicine
- More ambitious than earlier agreements like AI-ECTA



| Clear your doubts now.



People-centric elements

- Uncapped entry for Indian students in New Zealand
- Minimum 20 hours/week part-time work for students

Protection of sensitive sectors

- ~30% of tariff lines excluded
- Dairy and key agricultural products protected
- Reflects lessons from India's exit from RCEP

Investment dimension

- New Zealand to invest ~\$20 billion in India over 15 years
- Moves beyond a narrow goods-trade focus

What lies ahead

- Success depends on removing non-tariff barriers
- Recognition of qualifications and standards is key
- Deal must be actively promoted to potential beneficiaries

Overall significance

- Modest but well-designed agreement
- Could serve as a **template for future Indian FTAs** if implemented well

[End the exploitation-The Hindu Editorial](#)

Polity

Easy Explanation

The Supreme Court of India has strongly highlighted that **child trafficking remains a grave and continuing reality in India**, despite the existence of protective laws. In a December 19 judgment, the Court dealt with a case from Bengaluru involving the **sexual exploitation of a minor by an organised trafficking gang** and upheld their conviction under the **Immoral Traffic (Prevention) Act**.

The Court emphasised that child trafficking networks are **complex and organised**, operating through recruitment, transport, harbouring, and exploitation. Such crimes, the Court said, strike at the core of a child's **dignity, bodily integrity, and constitutional protection**.

Importantly, the Court clarified how judges must approach the testimony of child victims. A trafficked child, especially one subjected to sexual exploitation, **cannot be treated as an accomplice**. Her testimony should be treated like that of an injured witness and should not be rejected merely because of minor inconsistencies, as trauma affects memory and narration.

While the judgment strengthens the legal approach, the Court made it clear that **laws alone are not enough**. The responsibility lies with governments and civil society to strengthen anti-trafficking mechanisms, ensure



| Clear your doubts now.



prevention, and provide meaningful rehabilitation. Low conviction rates and weak enforcement continue to undermine justice.

The Court also stressed the importance of **prevention**, especially by keeping children in school as promised under the **Right to Education Act**. With trafficking increasingly using digital platforms, authorities must adapt to its evolving forms to truly end exploitation.

Key Takeaways

Supreme Court's warning

- The **Supreme Court of India** called child trafficking a “deeply disturbing reality”.
- Sexual exploitation of minors continues despite existing laws.

Nature of trafficking

- Operated by organised criminal networks.
- Involves recruitment, transportation, harbouring, and exploitation.

Victim-centred judicial approach

- Child victims are **not accomplices**.
- Their testimony deserves high credibility.
- Minor inconsistencies should not lead to disbelief.

Legal and enforcement gaps

- Conviction rate for human trafficking is very low (around 4.8%).
- Strong laws exist, but enforcement remains weak.

Need for stronger action

- Empower anti-trafficking units.
- Consider passing a comprehensive anti-trafficking law.
- Focus on rehabilitation, not just compensation.

Prevention is key

- Keeping children in school till 14 is critical.
- Education reduces vulnerability to trafficking.

Digital challenge

- Trafficking is increasingly using digital platforms.
- Government and civil society must adapt to its evolving forms.

Overall message



| Clear your doubts now.



- Ending child trafficking requires **law, empathy, prevention, enforcement, and rehabilitation** working together.

[Pakistan is back in West Asia's good graces-The Hindu Editorial](#)

International relations

Easy Explanation

Pakistan has unexpectedly regained diplomatic relevance in **West Asia**, largely due to shifting regional geopolitics rather than any long-term strategic redesign by Islamabad. This turnaround has coincided with the rise of **Asim Munir**, who has consolidated unprecedented power within Pakistan's political system.

Traditionally, Pakistan's influence in West Asia had weakened. Gulf countries had imposed visa restrictions, attached strict conditions to financial assistance, and expressed frustration with Islamabad's selective commitments — such as Pakistan's refusal in 2015 to send troops to Saudi Arabia's Yemen campaign. At the same time, India had made visible diplomatic inroads, including engagement with Gulf leadership and participation in forums like the OIC.

The regional security environment has since changed dramatically. The prolonged Gaza war, Israel's widening military operations, U.S. strikes on Iranian targets, and attacks affecting Qatar have pushed Arab states to reassess their dependence on the U.S. security umbrella. As uncertainty over American intervention grows, **Arab states are exploring collective and alternative security arrangements.**

In this context, Pakistan's military has re-emerged as a **useful security partner**. The **Strategic Mutual Defence Agreement (SMDA)** signed with **Saudi Arabia** in September 2025 reflects this shift. For Gulf states, Pakistan offers a battle-hardened army, manpower for peacekeeping or stabilisation missions, and political alignment on sensitive issues like Gaza.

Field Marshal Munir's prominence has been reinforced by symbolic gestures — warm references from the U.S. leadership, Pakistan's overt support for Gulf positions, and Islamabad's nomination of **Donald Trump** for the Nobel Peace Prize. Meanwhile, Pakistan's civilian leadership has receded further into the background, underlining the dominance of the military in foreign and security policy.

However, this renewed relevance is **opportunistic rather than structural**. Pakistan's deep economic distress, political instability, and dependence on external bailouts remain unresolved. While the military currently serves a functional role in West Asia's evolving security calculus, such narrative-driven gains may not translate into durable influence. The long-standing issues surrounding Pakistan's governance and extremism continue to cast a shadow over its international standing.

Key Takeaways

Pakistan's renewed relevance

- Pakistan has regained attention in **West Asia** after years of relative marginalisation
- Driven more by regional instability than deliberate long-term strategy

Role of the military



| Clear your doubts now.



- **Asim Munir** has consolidated near-total power
- Civilian leadership has taken a back seat in foreign policy

Changing West Asian security outlook

- Gaza war, Israel's regional strikes, and Iran–U.S. tensions reshaped threat perceptions
- Arab states increasingly doubt long-term U.S. military backing

Strategic Mutual Defence Agreement

- Pakistan signed SMDA with **Saudi Arabia** in September 2025
- Seen as a signal of Pakistan's renewed military utility

Why Gulf states value Pakistan

- Large, experienced army
- Potential supplier of troops for peacekeeping or stabilisation roles
- Alignment with Gulf political positions

Contrast with the past

- Earlier tensions over Yemen, visa bans, and IMF-linked aid
- India had gained diplomatic space in the Gulf during this period

Limits of Pakistan's gains

- No fundamental solution to Pakistan's economic or political crises
- Opportunistic diplomacy has a short shelf life

Bottom line

- Pakistan is tactically useful in today's West Asian security churn
- Long-term credibility remains constrained by internal instability and structural problems

25th December 2025

[The great wall in the North: Why the Aravallis matter-The Indian Express Explained Page](#)

Environment

Easy Explanation:

The **Aravalli Range** is one of the **oldest mountain ranges in the world**, over a billion years old. It runs for about **700 km** across **Gujarat, Rajasthan, Haryana and Delhi** and plays a silent but critical role in protecting northern and north-western India.

Recently, the Centre proposed a **new definition** of what counts as "Aravalli land" for mining purposes. This definition considers only landforms that rise **100 metres or more above local relief** as Aravallis. According



| Clear your doubts now.



to an internal assessment by the **Forest Survey of India**, this **removes protection from nearly 90% of the Aravalli landscape**, exposing it to mining and development.

The **Supreme Court of India** accepted this definition but ordered states **not to grant new mining leases** until a sustainable mining management plan is prepared (with an exception for critical minerals).

Why is this worrying?

- **Natural shield against desertification:**

The Aravallis act as a **sand barrier**, stopping Thar Desert sands from moving eastward. If this barrier weakens, **Delhi-NCR and northern plains** could face worse dust storms and air pollution.

- **Rainfall and climate regulation:**

Though not very tall, the hills help **induce rainfall**, supporting agriculture and drinking water needs in nearby regions.

- **Water recharge system:**

The Aravalli rocks are **fractured and porous**, allowing rainwater to seep underground and **recharge aquifers**. This invisible groundwater reserve sustains cities like **Gurugram, Faridabad and Sohna**, and seasonal rivers in Rajasthan and Gujarat.

- **Watershed role:**

The range separates river systems flowing into the **Bay of Bengal** (like Chambal–Yamuna) from those flowing into the **Arabian Sea** (Mahi, Sabarmati, Luni).

- **Biodiversity hotspot in a dry region:**

Despite being semi-arid, the Aravallis support **dry deciduous and scrub forests**, wetlands and lakes (Sambhar, Pushkar, Sultanpur, Jaisamand).

They host **22 wildlife sanctuaries**, including tiger reserves such as **Ranthambore, Sariska and Mukundra**.

- **Already under stress:**

Urbanisation, illegal and legal mining, industrial clusters and deforestation have created **12 major gaps** in the range, weakening wildlife corridors and water systems.

- **New pressure from critical minerals:**

The Aravallis contain minerals like **copper, zinc, gold, lithium and rare earth elements**, crucial for energy transition and high-tech manufacturing. This makes the region strategically important—but also **more vulnerable to extraction-led damage**.

In short, even if the new definition is “only for mining”, loosening protection risks **long-term ecological damage** that cannot be easily reversed.

Key Takeaways

1. Aravalli Range: Basics

- One of the **oldest mountain ranges** in the world (over 1 billion years old).
- Stretches **~700 km** across **Gujarat, Rajasthan, Haryana and Delhi**.
- Despite heavy erosion, remains ecologically vital.

2. New Definition & Court Orders

- Centre defines Aravallis as landforms **≥100 m above local relief**.



| Clear your doubts now.



- **Forest Survey of India** estimates ~90% of the range loses protection.
- **Supreme Court of India** accepted the definition.
- No new mining leases until a sustainable mining plan is ready.
- **Critical minerals exempted**, raising concerns.

3. Ecological Functions

- **Sand barrier:** Blocks Thar Desert sand, protecting **Delhi-NCR** air quality.
- **Climate & rainfall:** Supports rainfall and local agriculture.
- **Water recharge:** Porous rocks recharge aquifers and sustain seasonal rivers.
- **Watershed:** Separates Bay of Bengal and Arabian Sea river systems.

4. Biodiversity Importance

- Supports **dry deciduous and semi-arid ecosystems**.
- Hosts **22 wildlife sanctuaries**, including tiger reserves (Ranthambore, Sariska, Mukundra).
- Smaller hillocks form **critical wildlife corridors**.

5. Growing Threats

- Degradation due to **urbanisation, mining, deforestation**.
- **12 major gaps** already fragment the range.
- Rich deposits of **critical minerals** increase future mining pressure.

6. Core Issue

- Diluted definition risks **irreversible ecological damage**.
- Strong safeguards are essential to balance **strategic mining needs and environmental security**.

[Better range,sleeker profile:Latest version of Akash missile-The Indian Express Explained Page](#)

Science and technology

Easy Explanation

The **Akash-New Generation (Akash-NG)** is India's latest **surface-to-air missile system**, developed by the **Defence Research and Development Organisation**. Recently, it successfully completed **User Evaluation Trials (UET)**, clearing the way for its induction into the **Indian Air Force**.

The original Akash missile was developed in the late 1980s under the Integrated Guided Missile Development Programme led by Dr APJ Abdul Kalam. It was designed to protect **critical installations and vulnerable areas** from enemy aircraft and missiles, and was inducted into the IAF in 2014 and the Army in 2015.

Akash-NG is a **major upgrade** over the older version. It has **more than double the range**, a **lighter and sleeker design**, and is better at detecting and destroying **high-speed, low-radar-signature aerial threats** such as modern aircraft, drones, and cruise missiles.



| Clear your doubts now.



A key improvement is its **canisterised launcher**, which keeps the missile sealed until launch. This improves **mobility, storage life, and quick reaction capability**, making it more suitable for modern, fast-paced air defence operations.

Key Takeaways

1. Development Background

- Developed by **DRDO** under India's indigenous missile programme.
- Original Akash inducted into IAF (2014) and Army (2015).
- Around **96% indigenous content**.

2. What is Akash-NG?

- New-generation **short-to-medium range surface-to-air missile**.
- Designed mainly for the **Indian Air Force**.
- Meant to counter **high-speed, manoeuvring, low-RCS aerial threats**.

3. Range & Performance Upgrade

- Older Akash range: **27–30 km**, altitude ~18 km.
- Akash-NG range: **up to 70 km**.
- Better accuracy against targets with **low radar visibility**.

4. Key Technological Features

- **Indigenous RF seeker**, multi-function radar and C3 system.
- **Electronic Counter-Countermeasures (ECCM)** to resist jamming.
- Can engage **multiple targets simultaneously**.

5. Canisterised Launcher Advantage

- Missile stored and fired from **sealed canisters**.
- Easier transport, longer shelf life, faster deployment.
- **Smaller ground system footprint** than earlier versions.

6. Trials & Induction Status

- Maiden test: **January 2021** (Odisha coast).
- Successful test against high-speed aerial target: **January 2024**.
- User Evaluation Trials completed; **ready for IAF induction**.

7. Related Variants

- **Akash Prime**: Same range as older Akash but with an **active RF seeker** for higher accuracy.

Bottom Line: Akash-NG significantly strengthens India's air defence by combining **longer range, better mobility, and higher kill probability**, aligning with modern aerial threat environments.



| Clear your doubts now.



[Behind stuck refunds, I-T messages: Ineligible claims, suspect donations - The Indian Express](#) [Explained Page](#)

Economy

Easy Explanation

Many taxpayers have recently received **SMS and email alerts** from the **Income Tax Department**, even as their **refunds remain pending for months**. These messages are part of the Department's **NUDGE campaign** (Non-Intrusive Usage of Data to Guide and Enable).

The core reason is **mismatch and risk detection**. Using data analytics, the Department has flagged cases where:

- Deductions or exemptions claimed appear **ineligible or unusually high**, or
- Income reported in returns does **not match data** received from employers, banks, or other reporting entities.

Refunds are being **temporarily withheld** in such cases until taxpayers either **explain or correct** their returns by filing a **revised return** (deadline: **December 31**).

A major trigger has been **suspicious donation claims**, especially under political donation provisions, and **non-disclosure of foreign income/assets**. The sudden messages—often without details—have caused panic, particularly with little time left before the deadline.

Key Takeaways

1. Why Refunds Are Delayed

- Taxpayers flagged under the **risk management framework**.
- Suspected **understatement of income** due to ineligible deductions/exemptions.
- Refunds held back pending verification or correction.

2. Common Mismatches Identified

- **Bogus or suspicious donations**, especially to unrecognised political parties (RUPPs).
- **TDS mismatch** with AIS showing higher income.
- **Large or ineligible deductions** under the old tax regime.
- **Non-disclosure of foreign income or assets**.

3. Scale of the Issue

- Over **2 lakh taxpayers** flagged.
- Suspicious deductions of around **₹5,500 crore** detected under donation-related provisions.

4. Foreign Income Warning

- Emails sent asking taxpayers to correctly disclose foreign assets/income.



| Clear your doubts now.



- Non-disclosure can attract penalties under the **Black Money (Undisclosed Foreign Income and Assets) Act, 2015**.

5. Panic Among Taxpayers

- Some received messages **without clarity** on discrepancies.
- Others had refunds stuck **without any message**.
- Anxiety increased due to **December 31 revised return deadline**.

6. Old Tax Regime Under Focus

- Most deductions are claimed under the **old tax regime**.
- Authorities are reconsidering its long-term continuation to simplify compliance.

7. What the IT Department Says

- NUDGE is a **“trust-first” initiative**, not enforcement-driven.
- Genuine taxpayers with correct claims **need not take action**.
- Refunds have started being released and should reflect in **10 days**.

8. Options After December 31

- **Revised return**: allowed till December 31.
- **Updated return (ITR-U)**: can be filed up to **48 months** after assessment year (with additional tax).

9. Current Status

- Over **15 lakh revised returns** already filed for **AY 2025–26**.
- Taxpayers are demanding an **extension of the December 31 deadline**.

[Amid AI content boom, how courts are enforcing personality rights-The Indian Express Explained](#)

[Page](#)

Polity

Easy Explanation

With the explosion of **AI-generated content**, celebrities are increasingly finding their **images, voices and likeness** misused for fake ads, obscene material and scams. In response, Indian courts—especially the **Delhi High Court**—are taking a **more proactive and preventive approach**.

Recently, the court restrained the unauthorised commercial use of actor **R. Madhavan**'s image and ordered the takedown of obscene and AI-generated content. Similar relief has earlier been sought by celebrities like **Aishwarya Rai Bachchan, Abhishek Bachchan, and NTR Jr.**

Instead of waiting for harm to fully occur, courts are now:

- Blocking links immediately



| Clear your doubts now.



- Allowing **future URLs** to be disabled
- Ordering platforms to comply **within hours**

This shift reflects a **judicial response to a regulatory vacuum**, where technology—especially AI—has advanced faster than legislation.

Key Takeaways

1. What are Personality Rights?

- Protect a person's **name, image, likeness, voice, signature**, etc.
- Guard against **unauthorised commercial exploitation**.
- Closely linked to dignity and privacy.

2. Legal Basis in India

- No standalone law on personality rights.
- Courts derive them from:
 - **Copyright Act, 1957**
 - **Trade Marks Act, 1999**
 - **Article 21** of the Constitution (Right to Life).
- Rights are **not automatic or absolute**; proof of reputation and misuse is required.
- Must be balanced against **freedom of speech**.

3. Role of the Delhi High Court

- Has emerged as the **main forum** for personality rights cases.
- Jurisdiction covers national and global digital platforms.
- Strong IP division has led to **institutional expertise**, not legislative clarity.

4. Courts' New Enforcement Approach

- Issuing **urgent and preventive orders**, not just post-damage remedies.
- Authorising takedown of existing content and **blocking future misuse**.
- Using courts as tools of **real-time content control**.

5. Platform Obligations (IT Rules, 2021)

- Court/government-ordered takedown: **within 36 hours**.
- Privacy/impersonation-related harm: **within 24 hours**.
- Other cases go through grievance redressal with longer timelines.
- No clear system yet to check **over-removal of content**.

6. Spread Beyond Delhi

- Other courts, including the **Bombay High Court**, are granting similar relief.



| Clear your doubts now.



- Indicates a **nationwide judicial trend**.

7. Core Concern

- These are **stopgap judicial solutions**.
- Long-term sustainability is uncertain without a **clear statutory framework** for personality rights in the AI age.

[The twilight of deliberation:When Parliament becomes a rubber stamp-The Indian Express The Ideas Page](#)

Polity

Easy Explanation

The article argues that India's Parliament is **losing its core democratic function**—serious debate and scrutiny of laws. During the recent Winter Session, several **high-impact Bills** were passed rapidly, often amid protests and Opposition walkouts, with **little discussion and almost no committee scrutiny**.

The government describes this as a “productive session”. Critics counter that **speed is replacing scrutiny**, turning **Parliament of India** into a forum that merely **approves executive decisions** rather than examining them.

Bills such as the **Sabka Bima Sabki Raksha (Insurance Laws Amendment) Bill**, the **SHANTI (Nuclear Energy) Bill**, and the **Viksit Bharat–GRAMG Bill** (seen as replacing **MGNREGA**) were passed without detailed examination by **standing committees**—traditionally the space where experts, stakeholders and MPs refine legislation.

Data shows a sharp decline in such scrutiny: while **71% of Bills** were referred to committees during the 15th Lok Sabha, only **about 16%** were sent during the **17th Lok Sabha**. Many laws were debated for **less than an hour**, despite affecting millions.

The author warns that bypassing deliberation risks **policy failure and public backlash**, citing the repealed farm laws as a precedent. Without debate, dissent and deliberation—the “**three Ds**”—Parliament risks becoming a **rubber stamp**, hollowing out democracy from within.

Key Takeaways

1. Central Concern

- Parliament is increasingly being used to **fast-track legislation**, not to deliberate.
- Legislative majority is overriding **consultation and scrutiny**.

2. Bills Passed with Minimal Debate

- Insurance Laws Amendment Bill (100% FDI allowed).
- SHANTI (Nuclear Energy) Bill (private participation, liability concerns).
- GRAMG Bill (seen as replacing **MGNREGA**).



| Clear your doubts now.



- Many passed amid protests and Opposition walkouts.

3. Collapse of Committee System

- Standing committees are the **core deliberative space** of Parliament.
- Referral rate fell from **71% (15th Lok Sabha)** to **~16% (17th Lok Sabha)**.
- Opposition demands for committee scrutiny routinely rejected.

4. Shrinking Debate Time

- Around **35% of Bills** passed with **less than 60 minutes of discussion**.
- Complex laws affecting 1.4 billion people debated superficially.

5. Use of “Guillotine”

- Financial legislation and Budget demands passed **without discussion**.
- Weakens Parliament’s **control over the executive purse**.

6. Stakeholders Silenced

- No structured hearing of:
 - Insurance employees’ unions
 - Nuclear safety experts
 - MGNREGA workers
- Citizens’ voices excluded from lawmaking.

7. Lessons Ignored

- Farm laws were rushed, bypassed committees, and later repealed after protests.
- Fast lawmaking without deliberation risks **policy instability**.

8. Democratic Implications

- Undermines **Debate, Dissent and Deliberation**.
- A Parliament that avoids scrutiny signals **executive dominance**, not strength.

9. Warning Ahead

- Public protests over laws like GRAMG may follow.
- Responsibility lies with those who **refused parliamentary scrutiny**.

Bottom line:

Democracy is not weakened by debate—it is weakened when debate is treated as a nuisance. Parliament’s legitimacy depends not on how fast it passes laws, but on **how well it listens, questions and refines them**.

[Why manufacturing has lagged in India-The Hindu Text and Context](#)

Economy



| Clear your doubts now.



Easy Explanation

India, China and South Korea began the 20th century at **roughly similar development levels**, but their paths diverged sharply. While **China** and **South Korea** built strong manufacturing bases, India's manufacturing share in GDP has **stagnated** and, in recent years, even **lost ground to services**.

Economist **Arvind Subramanian** explains this using the idea of **Dutch disease**. His argument is that **high public sector salaries** in India pulled workers away from manufacturing. This pushed up economy-wide wages and prices, making Indian manufacturing **less competitive** at home and abroad.

The Dutch disease concept usually applies to **resource booms** (like oil or gas discoveries), but here it is applied to **policy choices**. When government salaries rise:

- Manufacturing firms struggle to match wages at existing productivity levels.
- Higher incomes raise demand for goods, increasing domestic prices.
- Under free trade, consumers shift to **cheaper imports**, hurting local manufacturers.
Even without a currency appreciation, the **real exchange rate** rises due to higher prices, squeezing manufacturing.

However, the article raises a deeper question:

If wages were high, **why didn't Indian manufacturing innovate technologically** to raise productivity and sustain those wages?

Economic theory suggests that **high wages should encourage innovation**. Scholars like **John Habakkuk** and **Robert C. Allen** argued that high wages in Britain forced firms to adopt labour-saving technologies, triggering the Industrial Revolution. More recently, **Daron Acemoglu** showed how ageing, labour-scarce economies like Germany, Japan and South Korea used automation to boost productivity and wages.

India, in contrast, has **abundant cheap labour**. Both manufacturing and even new-age service firms have relied on this surplus instead of investing deeply in **technological upgrading**. As a result, growth has been uneven—producing billionaires and unicorns, but **not broad-based wage growth**, and leading to rising inequality.

Key Takeaways

1. Comparative Performance

- China and South Korea rapidly expanded manufacturing.
- India's manufacturing share in GDP has **remained flat** and fallen behind services.

2. Dutch Disease Argument

- High public sector wages raised economy-wide wages and prices.
- Manufacturing lost competitiveness to imports.
- Real exchange rate appreciated through higher domestic prices, not currency changes.

3. Policy vs Resource Boom



| Clear your doubts now.



- Unlike oil discoveries, public sector wages are a **political decision**.
- Effects may be similar, but causes are fundamentally different.

4. Missing Technological Response

- Economic theory predicts **high wages should induce innovation**.
- This did not happen sufficiently in Indian manufacturing.

5. Lessons from Other Economies

- Britain: high wages → Industrial Revolution (Habakkuk, Allen).
- Germany, Japan, South Korea: automation raised productivity and wages (Acemoglu).

6. India's Labour Abundance Trap

- Cheap labour reduced incentives for automation and skill upgrading.
- Manufacturing relied on labour reserves instead of productivity growth.

7. Services Sector Paradox

- Software and platform firms grew rapidly.
- Entry-level wages stagnated despite profits and private wealth creation.
- Many “tech” firms rely more on labour than deep technological innovation.

8. Inequality Outcome

- Growth has been **lop-sided**.
- Rising inequality without commensurate wage growth for workers.

9. Core Question

- Did government policy crowd out innovation?
- Or did Indian manufacturing choose cheap labour over technology—leading to long-term stagnation?

Bottom line:

India's manufacturing problem is not just about wages or the State—it is about a **failure to translate growth into technological upgrading and productivity**, which is essential for sustainable industrialisation.

[What is the Bureau of Port Security and its role?-The Hindu Text and Context](#)

Governance

Easy Explanation

India has created the **Bureau of Port Security (BoPS)** as a **statutory authority** under the **Merchant Shipping Act, 2025** to strengthen **port and maritime security**.



| Clear your doubts now.



Till now, coastal and port security was handled by **multiple agencies**—the Coast Guard, Navy, CISF, State maritime police—often leading to **overlaps, coordination gaps and blurred accountability**. BoPS is meant to act as a **single regulatory and coordination body** for security of **ships, ports and port facilities**.

It is modelled on the **Bureau of Civil Aviation Security** and functions under the **Ministry of Ports, Shipping and Waterways**. Importantly, BoPS will **not replace security forces**, but **set standards, monitor compliance, coordinate agencies and ensure uniform security practices** across all Indian ports.

Key Takeaways

1. What is BoPS?

- A **statutory port security regulator** created under the Merchant Shipping Act, 2025.
- Works under the **Ministry of Ports, Shipping and Waterways**.
- Responsible for **regulatory oversight of ship and port security**.

2. Why was BoPS Needed?

- Coastal security earlier divided among **multiple agencies**, causing coordination issues.
- Absence of a **single authority** for port security oversight.
- Rising maritime threats alongside rapid port expansion.

3. Security Challenges India Faces

- **Maritime terrorism and piracy**.
- **Smuggling** of arms and drugs.
- **Human trafficking and illegal migration** via sea routes.
- **Cyber threats** to port IT systems and logistics networks.
- Environmental crimes like **poaching and illegal coastal activities**.

4. How BoPS Will Address These Challenges

- Acts as a **nodal body for coordination and intelligence sharing**.
- Enforces global security norms like the **International Ship and Port Facility Security (ISPS) Code**.
- Introduces **graded security measures** across ports.
- Dedicated focus on **port cybersecurity** and protection of digital infrastructure.
- Coordinates with national cybersecurity and security agencies.

5. Role of CISF under BoPS

- **Central Industrial Security Force (CISF)** designated as a **Recognised Security Organisation**.
- Prepares standard security plans, conducts audits, and trains port security personnel.
- Applies uniform security protocols at **major and non-major ports**.

6. Context: India's Maritime Growth

- Cargo handled grew from **974 MMT (2014)** to **1,594 MMT (2025)**.



| Clear your doubts now.



- Port capacity expanded by **57%**.
- Ship turnaround time halved to **48 hours**.
- Inland waterway cargo increased **eightfold**.
- 9 Indian ports ranked in the **World Bank's Container Port Performance Index**.
- BoPS aligns with **Maritime India Vision 2030**.

7. Legal Modernisation of Ports

- Replacement of the **Indian Ports Act, 1908** with the **Indian Ports Act, 2025**.
- New laws include **Coastal Shipping Act 2025** and modernised shipping legislation.
- Aim: safer ports, ease of doing business, greener and cost-efficient maritime trade.

8. Criticisms and Concerns

- States argue the new laws **centralise power over non-major ports**, affecting federalism.
- Concerns over **wide inspection powers** given to port officials.
- Criticism is mainly against **port laws**, not the BoPS itself.

9. Bottom Line

- BoPS fills a **critical institutional gap** in India's coastal and port security.
- Essential for securing ports amid **rapid maritime expansion and emerging cyber threats**.
- Effectiveness will depend on **coordination with States and safeguards against overreach**.

[Did an ancient flood contribute to Keezhadi's abandonment?-The Hindu Science](#)

History

Easy Explanation

Keezhadi is an important archaeological site on the floodplain of the **Vaigai River**, where excavations have revealed brick buildings, drainage channels, clay floors, roof tiles, and pottery—evidence of a well-planned, urban-like settlement.

A recent scientific study suggests that **parts of this settlement were buried by a major flood around 1,100–1,200 years ago**, which may have forced people to abandon or relocate the area. Instead of dating the buildings themselves, scientists dated the **sediments that covered the structures**, helping identify *when nature buried the settlement*.

The researchers used **Optically Stimulated Luminescence (OSL) dating**, a technique that tells how long mineral grains (like quartz) have been buried away from sunlight. The results show that **high-energy floods of the Vaigai River deposited thick layers of sand, silt and clay over Keezhadi**, gradually covering its structures.

This does not mean modern climate change caused the damage. Rather, it shows that **river floods and shifting channels have shaped human settlements for centuries**, including in ancient Tamil Nadu.

Key Takeaways



| Clear your doubts now.



1. What was studied?

- The **burial of Keezhadi's structures**, not their construction age.
- Flood-deposited **sand, silt and clay layers** over brick buildings.

2. Scientific Method Used

- **Optically Stimulated Luminescence (OSL) dating** on quartz grains.
- Estimates the time since sediments were last exposed to sunlight.
- Ideal for dating **flood and river deposits**.

3. Main Findings

- Sediments date to the **last ~1,200 years**.
- Urban-like structures likely buried **~1,155 years before present**.
- Deeper layers are older, showing **repeated flood events**.

4. Evidence of Flooding

- **Coarse sand layers** below and **fine silts/clays** above structures.
- Indicates **high-energy floods followed by calmer deposition**.
- Brick drains and canals show **planned urban infrastructure** later overwhelmed.

5. Role of the Vaigai River

- Keezhadi lies on an **ancient floodplain**.
- The river has likely **shifted its course** over time.
- Large floods could have **damaged, buried or isolated** the settlement.

6. Climate Context

- Late Holocene South India saw **alternating wet and dry phases**.
- Floods and river shifts were common natural processes.
- Findings do **not directly link to modern climate change**.

7. Archaeological Importance

- Separates **human occupation time** from **environmental burial time**.
- Helps refine Keezhadi's historical timeline.
- Guides future excavations to areas with **better-preserved layers**.

8. Bigger Picture

- Shows how **natural forces influence civilisation patterns**.
- Confirms that floods have long shaped where people live.





9. Publication

- Study published in **Current Science** (October 25).

Bottom line:

Keezhadi was likely not abandoned abruptly by people alone—**powerful floods of the Vaigai River about a millennium ago buried parts of the settlement**, reminding us that environmental forces have always played a major role in human history.

[Study catches 'high-flying' mosquitoes spreading pathogens-The Hindu Science](#)

Science

Easy Explanation

Mosquito-borne diseases like **malaria** and **dengue** are usually thought to spread when **infected humans or animals travel**. But scientists have long suspected another route: **mosquitoes themselves flying high in the air**, getting carried by winds over **tens to hundreds of kilometres in a single night**.

A new study tested this idea directly in **West Africa**. Instead of catching mosquitoes near homes or stagnant water, researchers collected them **high above the ground (120–290 m)** using nets attached to **helium balloons** in Mali and Ghana. They then checked whether these airborne mosquitoes were carrying disease-causing pathogens.

The results show that many of these **high-flying mosquitoes were infected**, and some were likely **capable of transmitting diseases** after landing. This means winds can help mosquitoes move pathogens far beyond their original locations, complicating disease control efforts.

Key Takeaways

1. What the Study Did

- Collected mosquitoes **at high altitude** using balloon-mounted nets.
- Sampling done over **191 nights (2018–2020)** in West Africa.
- Focused on mosquitoes moving **with wind currents**, not near the ground.

2. How Pathogens Were Detected

- Mosquito species identified using **DNA sequencing**.
- Pathogens detected using **PCR techniques**.
- Bodies split into **abdomen vs head/thorax** to check if infections were transmissible.

3. Major Findings

- **1,017 female mosquitoes** from **61 species** were analysed.
- Many were **gravid (egg-carrying)**, meaning they could reproduce after landing.
- Infection rates found:
 - **~8%** with *Plasmodium* (malaria parasites)



| Clear your doubts now.



- ~**3.5%** with flaviviruses (e.g. dengue-related viruses)
- ~**1.6%** with filarial worms

4. Evidence of Transmission Potential

- Pathogens detected in **head and thorax tissues** (key for transmission):
 - 4.6% for *Plasmodium*
 - 1.1% for flaviviruses
 - 0.6% for filarial worms
- Confirms some mosquitoes were **capable of infecting new hosts**.

5. Types of Pathogens Found

- **Dengue virus, West Nile virus, M'Poko virus.**
- Multiple bird-infecting *Plasmodium* species.
- Filarial nematodes (including *Pelecitus*).
- Many pathogens were **sylvatic** (circulating in wild animals).

6. Why This Matters for Public Health

- Disease spread is not only human-driven; **windborne mosquitoes matter**.
- Ground-level surveillance may **miss long-distance pathogen movement**.
- Especially important for tracking **sylvatic and emerging infections**.

7. Policy & Surveillance Implications

- Monitor **wind corridors** during disease seasons.
- Increase surveillance in **downwind regions**.
- Prepare **rapid response systems** for sudden outbreaks in new areas.

8. Study Details

- Published in **Proceedings of the National Academy of Sciences** (November).
- Conducted by researchers from **China, Ghana, Mali, and the USA**.

Bottom line:

Mosquitoes don't just fly low and local—some **ride winds high in the sky**, carrying dangerous pathogens across vast distances. Public health strategies must now look **upward and downwind**, not just around homes.

26th December 2025

[In HC suspension of Sengar sentence, the key role of 'public servant' definition - The Indian Express Explained Page](#)

Polity



| Clear your doubts now.



Easy Explanation

The **Delhi High Court** suspended the **life sentence** of former BJP MLA **Kuldeep Sengar** in the Unnao rape case. This does **not mean his release from jail**, because he is still serving a sentence in another related case concerning the death of the survivor's father in custody.

The suspension hinges on a technical but crucial legal issue: whether an MLA qualifies as a “public servant” under the POCSO Act.

The trial court had convicted Sengar under **Section 5(c) of the POCSO Act**, which deals with aggravated penetrative sexual assault when committed by a public servant. It relied on the **Prevention of Corruption Act (PCA)** definition, under which MLAs are treated as public servants.

The High Court took a different view. It noted that the POCSO Act does not independently define “public servant” but allows reference to definitions under the **Indian Penal Code**, CrPC, Juvenile Justice Act and the IT Act. Under **Section 21 of the IPC**, legislators such as MLAs do not fall within the definition of “public servant”. Therefore, the PCA definition cannot be imported into POCSO. This legal discrepancy justified the suspension of the life sentence, though it does not erase the conviction.

On the issue of the survivor's safety, the family has consistently flagged serious threat perception, supported by past incidents, including the 2019 road crash. However, the High Court held that keeping an accused in custody solely due to threat perception is not a legally tenable ground to deny suspension of sentence. Security concerns, it said, must be addressed through protection measures, not prolonged incarceration.

Sengar is not free at present. His 10-year sentence in the custodial death case is still pending consideration, and unless that sentence is also suspended, he will remain in jail.

Key Takeaways

1. Core Legal Issue

- The case hinges on **statutory interpretation**, not on reassessment of guilt.
- The question was whether an MLA qualifies as a “**public servant**” under the **POCSO Act**.

2. IPC vs PCA Definition

- The POCSO Act does not define “public servant” independently.
- It permits reliance on definitions under the **Indian Penal Code** and allied laws.
- Definitions under the **Prevention of Corruption Act (PCA)** cannot be automatically imported into POCSO.

3. Status of Legislators

- Under **Section 21 of the IPC**, legislators such as MLAs are **not public servants**.
- This position has been consistently upheld by the **Supreme Court**.

4. Suspension of Sentence

- Suspension of sentence **does not amount to acquittal**.
- The conviction continues to stand unless overturned on merits.



| Clear your doubts now.



5. Survivor Safety and Threat Perception

- Threat perception alone is **not a legally tenable ground** to deny suspension of sentence.
- Victim safety must be ensured through **protective and security measures**, not continued custody.

6. Procedural Law Impact

- The case demonstrates how **definitions and procedural nuances** can significantly affect outcomes in criminal trials.
- Highlights the importance of **precision in drafting and interpretation of criminal statutes**.

[The good news is, lower-income states are catching up-The Indian Express The Ideas Page](#)

Economy

Easy Explanation

India's economic growth depends heavily on how its states perform, since national GDP is the sum of state GSDPs. States with lower per-capita income have greater scope to grow faster and "catch up" with richer states if conditions are supportive.

Data over the last 12 years shows a clear shift. Before the pandemic (FY13–FY19), poorer states grew more slowly, leading to divergence. After the pandemic (FY19–FY25), the trend reversed, with states like Uttar Pradesh, Rajasthan and Bihar growing faster than richer states. This indicates early convergence.

The key driver of this shift has been higher **public capital expenditure (capex)** by states. Increased spending on infrastructure improved economic capacity, signalled reform-oriented governance, and attracted private investment, pushing growth higher.

However, sustaining this momentum is uncertain. State capex depends on strong revenues, but Centre's tax collections are weakening, affecting transfers to states under **Finance Commission** rules. States have so far protected capex by widening fiscal deficits, but rising deficits and growing welfare spending could pressure future investment.

To sustain convergence, continued support through capex loans, disciplined fiscal management, and deeper state-level reforms—especially in labour laws and manufacturing—will be crucial.

Key Takeaways

1. State-led Growth Matters

- National GDP is the aggregate of state GSDPs.
- Faster growth in poorer states can significantly lift India's overall growth.

2. Shift from Divergence to Convergence

- FY13–FY19: Poorer states grew slower than richer ones (divergence).
- FY19–FY25: Poorer states grew faster (early signs of convergence).

3. Role of Public Capital Expenditure



| Clear your doubts now.



- Increased state capex is the strongest factor behind convergence.
- Infrastructure spending boosts productivity and attracts private investment.

4. Fiscal Support after the Pandemic

- Higher central transfers and capex loans supported state investment.
- These helped states sustain growth despite pandemic disruptions.

5. Emerging Fiscal Risks

- Centre's tax revenues are weakening.
- State revenues declined in FY25.
- Fiscal deficits have widened to protect capex.

6. Election-linked Spending Pressures

- Expansion of cash transfer schemes raises current expenditure.
- Persistent welfare spending may crowd out capex over time.

7. Importance of Capex Loan Programme

- Ring-fenced for infrastructure, cannot be diverted.
- Crowds in state investment and complements central capex.
- Expansion and medium-term certainty can stabilise convergence.

8. Structural Reforms at the State Level

- Labour law easing and deregulation improve industrial competitiveness.
- States can become magnets for large, globally competitive firms.

9. Global Manufacturing Opportunity

- Supply chain reconfiguration creates space for new manufacturing hubs.
- Emerging states have a wage advantage.
- Infrastructure + reforms + labour flexibility can attract FDI.

10. Overall Conclusion

- Emerging states show real catch-up potential.
- Sustained public capex and reform implementation are key.
- If momentum holds, states can become a major driver of India's rising global economic position.

[U.S. naval moves against Venezuela-The Hindu Text and Context](#)

International relations

Easy Explanation



| Clear your doubts now.



The United States has stepped up pressure on Venezuela by targeting oil tankers linked to sanctioned trade. Former U.S. President **Donald Trump** announced a “total and complete blockade” of sanctioned oil tankers moving in and out of **Venezuela**, aiming to choke off oil revenues that support President **Nicolás Maduro**.

In December, the U.S. seized or intercepted three tankers: *Skipper*, *Centuries*, and *Bella 1*. These vessels were accused of carrying Venezuelan crude, supplying oil to allies like Cuba, or trading with other sanctioned entities such as Iran-linked companies. While some actions involved physical interception at sea, the broader U.S. strategy relies far more on financial pressure than naval force.

The U.S. enforces sanctions mainly through its dominance of the global financial system. Because oil trade is conducted in U.S. dollars and many international transactions pass through American banks or intermediaries, the U.S. can block payments and penalise banks and companies worldwide. Even non-U.S. firms comply to avoid being cut off from the U.S. market or dollar system.

Shipping sanctions are reinforced through insurance and certification. Most global shipping insurance is provided by Western firms, especially in the UK, and insurers depend on safety certification from major classification societies. Once the U.S. sanctions a ship, insurers withdraw coverage and classification societies revoke certification, making it nearly impossible for the vessel to dock at ports or operate legally. Ships that lose registration or falsely fly flags can be boarded under international maritime law.

The key enforcement agency behind these measures is the **Office of Foreign Assets Control (OFAC)**, which maintains sanctions lists and penalises violators. While countries like Iran and Russia have found partial ways around sanctions using “shadow fleets”, the U.S. move toward a physical blockade near Venezuela suggests limits to purely financial pressure.

Key Takeaways

1. U.S. Naval Actions

- Targeted three tankers: *Skipper*, *Centuries*, and *Bella 1*.
- Actions included seizure, boarding, and attempted interception.
- Allegations involved sanctioned oil trade and false flagging.

2. Nature of U.S. Sanctions

- U.N. sanctions are multilateral and legally binding.
- U.S. sanctions are largely unilateral economic tools.
- Aim to achieve foreign policy goals without costly military blockades.

3. Financial System as a Weapon

- U.S. dominance of the dollar and global banking gives it leverage.
- Banks and firms worldwide comply to retain access to U.S. markets.
- Heavy penalties (e.g., BNP Paribas fine) deter violations.

4. Role of Insurance and Classification Societies

- Ships need insurance and safety certification to operate.
- U.S. sanctions trigger withdrawal of insurance and certification.



| Clear your doubts now.



- Without these, ports refuse entry and voyages become risky.

5. Flag States and International Law

- Ships without valid registration or flying false flags can be boarded.
- Boarding is permitted under international maritime law (UNCLOS).

6. Role of OFAC

- OFAC investigates, sanctions, and lists individuals, ships, and firms.
- Acts as the core enforcement arm of U.S. economic sanctions.

7. Effectiveness and Limits

- Sanctions have constrained Venezuelan oil exports.
- Iran and Russia show that sanctions can be partially bypassed.
- U.S. resort to physical blockade signals limits of financial tools alone.

8. Strategic Implication

- Highlights the intersection of finance, shipping, and geopolitics.
- Shows how economic power can substitute for direct military force.
- Relevant for understanding modern economic warfare and sanctions regimes.

[Rabies: the cruel and expensive disease of India's most impoverished-The Hindu Science](#)

Science

Easy Explanation

Rabies remains one of India's most neglected yet deadly public health problems. Of the roughly 59,000 rabies-related human deaths globally each year, about **20,000 occur in India**, the highest for any country. Once symptoms appear, rabies is **almost always fatal**, making prevention after an animal bite the only life-saving option.

The disease mainly affects the **poorest and most vulnerable**—daily wage workers, rural populations, waste collectors, and children—who live in close contact with free-roaming dogs. Although rabies is preventable through **post-exposure prophylaxis (PEP)**, many victims fail to receive timely and complete treatment due to **lack of awareness, poor access to healthcare, shortages of vaccines and rabies immunoglobulin (RIG), and high costs**.

India has around **80 million free-roaming dogs** and nearly **20 million dog bites annually**, making rabies a systemic public health challenge. While recent court directions and policy measures aim to control stray dog populations and improve safety, weak healthcare infrastructure, high out-of-pocket expenses, and inadequate dog population management continue to drive avoidable deaths. Tackling rabies requires not only medical preparedness but also sustained investment in dog vaccination, sterilisation, awareness, and affordable treatment.

Key Takeaways



| Clear your doubts now.



1. Scale of the Problem

- India accounts for about **one-third of global rabies deaths**.
- Rabies is **100% fatal once symptoms appear**, but **100% preventable before that**.
- Children under 15 form a large share of victims.

2. Who Is Most at Risk

- Poor and marginalised communities living near free-roaming dogs.
- Rural, remote areas with weak health infrastructure.
- Daily wage workers and informal sector populations.

3. Medical Facts

- Rabies virus travels via **nerves to the brain**, not through blood.
- Symptoms include paralysis, hydrophobia, hallucinations, aggression, and death.
- Immediate wound washing + ARV + RIG are critical.

4. Gaps in Post-Exposure Prophylaxis (PEP)

- Many bite victims **do not receive vaccines or complete the full course**.
- **Severe shortage and high cost of RIG** (₹5,000–₹20,000).
- ARV supply is inadequate; India exports vaccines despite domestic need.

5. Economic Barriers

- High out-of-pocket healthcare costs push families into poverty.
- Financial constraints delay dog vaccination and human treatment.
- Victims often turn to unqualified practitioners due to cost and access issues.

6. Dog Population and Policy Issues

- India relies mainly on **Catch–Neuter–Vaccinate–Release (CNVR)**.
- Evidence of CNVR's large-scale success remains limited.
- Around **80 million free-roaming dogs** pose sustained risk.

7. Legal and Governance Dimension

- The **Supreme Court** has directed removal of stray dogs from sensitive public spaces.
- Implementation challenges and ethical debates persist.

8. Emerging Solutions

- Indigenous **rabies monoclonal antibodies (RmAbs)** are cheaper alternatives to RIG.
- Still under monitoring and not yet fully integrated into national guidelines.

9. What Needs to Be Done

- Ensure universal availability of ARV and RIG in public hospitals.
- Strengthen dog vaccination, sterilisation, and shelter infrastructure.



| Clear your doubts now.



- Increase public awareness on wound washing and early treatment.
- Provide compensation or financial protection for bite victims.

10. Larger Significance

- Rabies highlights the intersection of **poverty, public health, urban governance, and animal management**.
- Eliminating rabies is achievable, but only with coordinated medical, social, and administrative action.

[A year of dissipating promises for Indian foreign policy-The Hindu Editorial](#)

International relations

Easy Explanation

The year **2025 began with high expectations** for Indian foreign policy. After the election-heavy 2024, Prime Minister **Narendra Modi** was expected to revive diplomacy, finalise major trade deals, reset ties with the U.S. under **Donald Trump**, stabilise relations with China and Russia, and repair neighbourhood ties.

By the end of the year, however, many of these promises had **dissipated**. India faced serious challenges across **economic security, energy security, global strategic stability, and regional security**. Relations with the U.S. deteriorated due to tariffs, sanctions on Russian oil, and immigration restrictions. Engagements with **China** and **Russia** produced optics but few substantive outcomes. Meanwhile, instability in the neighbourhood, terrorism concerns, and a weakening global rules-based order further complicated India's position.

The year underscored a gap between **symbolic diplomacy and material outcomes**, forcing India to reassess its assumptions, partnerships, and principles as it looks ahead to 2026.

Key Takeaways

1. High Expectations, Low Delivery

- 2025 was expected to revive Indian diplomacy after elections.
- Many anticipated trade deals and strategic resets failed to materialise.

2. Economic Security Setbacks

- U.S. imposed steep tariffs on Indian exports.
- Sanctions-linked surcharge on Russian oil hurt India disproportionately.
- Major FTAs with the U.S. and EU remain unsigned.

3. Energy Security Dilemmas

- India's discounted Russian oil imports came under renewed U.S. pressure.
- Uncertainty over future access raised economic and reputational risks.

4. China and Russia: Optics over Outcomes

- High-profile summits produced symbolism, not security guarantees.



| Clear your doubts now.



- LAC tensions with China remain unresolved.
- India–Russia summit ended without major strategic agreements.

5. Shifting Global Order

- U.S. strategic ambiguity and talk of a possible “G-2” with China worried India.
- Acceptance of Gaza and Ukraine peace proposals signalled erosion of the rules-based order.
- China is actively proposing alternative global governance models.

6. Regional Security Challenges

- Terror attack in Pahalgam exposed persistent security threats.
- India’s military response was effective, but diplomatic backing was limited.
- Questions over air losses and escalation risks hurt credibility.

7. Troubled Neighbourhood

- Political instability in Bangladesh, Nepal, and Myanmar reduced predictability.
- Relations with Bangladesh hit a new low.
- New regional alignments (e.g., Saudi–Pakistan defence pact) weakened India’s influence.

8. Limits of Performative Diplomacy

- Symbolic gestures and publicised summits did not yield tangible gains.
- Diplomatic pressure works only when supported by broad international backing.

9. Credibility and Consistency Issues

- India’s concerns on democracy and minority rights abroad clash with domestic practices.
- Engagement with actors like the Taliban raises questions of principle.

10. Lessons for 2026

- India must align rhetoric with capacity and consistency.
- Principles matter only if applied uniformly.
- In a transactional world, strategic realism, not symbolism, will define success.

[The urban future with cities as dynamic ecosystems-The Hindu Editorial](#)

Sociology

Easy Explanation

Modern cities are often celebrated as engines of growth, innovation, and progress. Yet, in designing “smart” and efficient urban spaces, planners frequently overlook the **people** who actually live in them—especially migrants and new residents. This creates a gap between the cities we plan, the cities we aspire to live in, and the cities people actually experience every day.

A major source of exclusion is **language**. Migrants are often expected to assimilate linguistically, and failure to do so imposes an invisible “linguistic tax”. This makes it harder to find jobs, secure housing, or access



| Clear your doubts now.



healthcare and government services. As a result, many migrants are pushed into informal work, facing exploitation and limited mobility, even though cities depend heavily on their labour and contributions.

Urban planning worsens this problem by assuming a **static, homogenous population**. Infrastructure and governance systems are designed for established residents, making new and diverse populations effectively invisible. Without culturally diverse representation in planning bodies, cities fail to respond to shifting demographics.

The article argues that cities should be seen as **dynamic ecosystems**, not fixed blueprints. Inclusive urban futures require recognising diversity, anticipating cultural friction, and investing in empathy, cultural sensitivity, and flexible governance. Ultimately, a successful city is one where all residents feel a genuine sense of belonging.

Key Takeaways

1. Cities as People-Centred Spaces

- Cities are shaped not just by infrastructure, but by the people who inhabit them.
- Ignoring lived experiences creates a disconnect between planning and reality.

2. The “Invisible Linguistic Tax”

- Language becomes a gatekeeper for belonging and access.
- Migrants face economic and social exclusion due to monolingual systems.

3. Economic Consequences of Exclusion

- Language barriers limit access to formal jobs, housing, and welfare.
- Many migrants are forced into the informal economy, increasing vulnerability.

4. Flaws in Urban Planning

- Cities are planned for a static, homogenous population.
- New residents and changing demographics are often rendered invisible.

5. Governance and Representation Gaps

- Lack of cultural diversity in planning bodies leads to blind spots.
- Policies fail to reflect the cosmopolitan reality of cities.

6. Cities as Dynamic Ecosystems

- Cities are fluid, evolving, and capable of inclusion and regeneration.
- Planning must adapt to constant demographic and cultural change.

7. Importance of Cultural Sensitisation

- Training public-facing staff can reduce friction and improve service delivery.
- Inclusion enhances efficiency, not just social harmony.



| Clear your doubts now.



8. Inclusion Requires Adjustment

- Temporary discomfort and transition are part of meaningful urban change.
- Long-term gains outweigh short-term disruptions.

9. Designing Cities 'for All'

- Urban design must include long-term residents, migrants, and future arrivals.
- Infrastructure alone cannot deliver inclusive development.

10. Empathy as the Missing Link

- True urban success is measured by comfort, security, and belonging.
- Empathy is central to sustainable and inclusive city-making.

[Doping menace-The Hindu Editorial](#)

Governance

Easy Explanation

One of the biggest obstacles to India becoming a global sporting power is its **persistently high number of doping cases**. For the third consecutive year, India topped the global list for dope-positive cases, according to data from the **World Anti-Doping Agency (WADA)**. This poor record comes at a time when India is preparing to host major international events and hopes to bid for the **2036 Olympic Games**, making the issue especially damaging to its sporting credibility.

In 2024, India recorded **260 adverse analytical findings (AAFs)** out of 7,113 tests (3.6% positivity rate). While the **National Anti-Doping Agency (NADA)** argues that higher positivity reflects increased testing, repeated incidents suggest deeper structural problems. These include pressure to secure government jobs through sports quotas, large cash rewards for medals, lack of awareness about medicines, and even involvement of coaches and support staff in doping practices.

Although NADA reports an improvement in 2025 with lower positivity rates and highlights awareness initiatives, doping continues to evolve with advances in science. Under scrutiny from the **International Olympic Committee (IOC)**, India has passed the National Anti-Doping (Amendment) Bill, 2025. However, lasting reform will require making NADA more independent, better funded, and more empowered to tackle doping driven by need, greed, or ignorance.

Key Takeaways

1. Scale of the Doping Problem

- India topped global doping-positive cases for the **third consecutive year**.
- Recorded **260 AAFs out of 7,113 tests** in 2024 (3.6% positivity).

2. Global Comparison

- India had more positive cases than France and Italy.
- Despite high positives, India ranked only **7th in total testing**, far behind China.



| Clear your doubts now.



3. Impact on Global Sporting Ambitions

- Doping record undermines India's credibility as a host of mega events.
- Weakens prospects of bidding for the **2036 Olympics**.

4. NADA's Position

- Claims higher positivity is due to increased testing.
- Reports improvement in 2025 with **lower positivity rates (1.5%)**.
- Conducts awareness campaigns and promotes the *Know Your Medicine* app.

5. Structural Causes of Doping

- Pressure to secure **government jobs through sports quota**.
- Lucrative **cash rewards for international medals**.
- Lack of awareness and misuse of medicines.
- Involvement of coaches and support staff in abetting doping.

6. Governance and Enforcement Issues

- Instances of athletes evading testing highlight weak deterrence.
- Cat-and-mouse enforcement points to systemic flaws.

7. Legislative Response

- Passage of the **National Anti-Doping (Amendment) Bill, 2025**.
- Aims to strengthen India's anti-doping framework.

8. International Pressure

- IOC scrutiny increases stakes for reform.
- Persistent doping damages India's global sporting reputation.

9. Need for Institutional Reform

- NADA must be made **truly independent**.
- Requires greater funding, autonomy, and scientific capacity.

10. Core Message

- Whether driven by **need, greed, or ignorance**, doping is a serious threat.
- Strong, independent institutions and ethical sports culture are essential for India's sporting future.





27th December 2025

[India weathers tariff storm for now, but consumption headwinds await-The Indian Express](#) [Explained Page](#)

Economy

Easy Explanation

India's economy in **2025** turned out to be more resilient than expected, even though many early assumptions proved wrong. Policymakers initially believed India would escape major damage from **Donald Trump's tariff push** and secure a quick trade deal with the US. Neither happened. Instead, India ended up facing **very high effective tariffs**, even higher than China's, along with penalties linked to Russian oil imports and tighter US visa rules affecting services exports.

Despite this, India's exports to the US recovered toward the end of the year. This was mainly because **pharmaceuticals and electronics were exempt from tariffs**, and exporters successfully found **new markets** outside the US. Domestically, the economy remained steady: inflation stayed low, interest rates softened, and overall macroeconomic indicators looked reasonably strong.

A familiar pattern repeated itself—**India used crisis pressure to push reforms**. In the second half of the year, the government moved ahead on long-pending issues such as GST rate changes, labour law reforms, opening up the nuclear sector, and liberalising financial services, including allowing full foreign ownership in insurance.

Large **foreign investment commitments**—especially from global tech companies in cloud and AI—helped calm fears of capital outflows. A weaker rupee also provided some cushion against export shocks.

Looking ahead to **2026**, India is still expected to be the **fastest-growing major economy**, with growth around 7% or more. However, the main challenge is not exports but **domestic demand**, especially weak urban consumption and hesitant private investment. External risks—US recession fears, Chinese export dumping, global capital volatility, and AI-driven disruptions—continue to cloud the outlook.

In short, India has weathered the tariff storm so far, but sustaining high growth will depend on **boosting consumption, reviving private investment, and managing global uncertainties**.

Key Takeaways

- **Tariff shock absorbed:** Despite high US tariffs and visa restrictions, India's exports rebounded due to tariff-exempt goods and market diversification.
- **Macroeconomic stability:** 2025 closed with low inflation, softer interest rates, stable growth, and manageable current account deficit.
- **Crisis-driven reforms:** Government pushed GST rationalisation, labour reforms, nuclear sector opening, and major financial-sector liberalisation.
- **FDI support:** Big tech investments (cloud, AI) helped offset concerns over capital outflows.
- **Growth outlook:** GDP growth for FY26 projected at **7%+**, keeping India the fastest-growing major economy.



| Clear your doubts now.



- **Demand imbalance:** Rural demand is strong; urban consumption remains weak.
- **Private investment still cautious:** Capacity utilisation stuck around 75–77%; firms need sustained demand visibility before expanding.
- **External headwinds persist:** US slowdown risks, AI-related uncertainty, Chinese export diversion, and volatile global capital flows.
- **Consumption is key:** Long-term growth hinges on boosting domestic consumption to revive private investment.
- **Structural challenge:** Labour must be enabled to compete with capital and AI—new labour codes are only a starting point.

[My rights in my language-The Indian Express The Ideas Page](#)

Polity

Easy Explanation

When **Droupadi Murmu** released the **Constitution of India** in **Santhali**, written in the **Ol Chiki** script, it was not just a ceremonial act. It marked a real step towards inclusion—allowing a large Adivasi community to access their constitutional rights in their **own language**.

Language is not just a tool of communication; it shapes how people think, understand rights, and participate in democracy. Scholars like **Lev Vygotsky** argued that language plays a crucial role in cognitive development, while **Jean Piaget** saw thought as developing more independently. Long before these academic debates reached India, leaders in the Constituent Assembly understood a practical truth: **language determines who feels included in the nation**.

During the drafting of the Constitution, **Jaipal Singh Munda**, one of the few Adivasi members of the Constituent Assembly, spoke in Mundari and demanded recognition for tribal languages and identities. His demand was largely ignored at the time.

Santhali speakers—over 7 million people and India’s third-largest tribal group—had to wait until **2003** for their language to be included in the Eighth Schedule. Importantly, Murmu herself had earlier pushed for this recognition when she was a minister in Odisha, urging **Atal Bihari Vajpayee** to grant Santhali official status.

The release of the Constitution in Santhali coincided with the **centenary of the Ol Chiki script**, created in 1925 by **Raghunath Murmu**. It signals an India where citizens can **read, interpret, and defend their constitutional rights in their mother tongues**—whether Santhali, Mundari, Ho, Kurukh, or others.

Key Takeaways

- **Language and rights:** Access to the Constitution in one’s own language deepens democratic participation and legal awareness.
- **Historical neglect:** Tribal language demands were raised during the Constituent Assembly but marginalised for decades.
- **Delayed recognition:** Santhali entered the Eighth Schedule only in 2003 despite a large speaker base.
- **Role of leadership:** Droupadi Murmu played a key role in securing official recognition for Santhali.



| Clear your doubts now.



- **Symbolism with substance:** Releasing the Constitution in Santhali goes beyond symbolism—it operationalises constitutional inclusion.
- **Cultural democracy:** Linguistic equality strengthens social justice, dignity, and identity.
- **Future vision:** An inclusive India where education, law, and scholarship function in multiple indigenous languages.
- **Constitutional morality:** True equality requires not just rights on paper, but **rights readable and usable by all citizens.**

[Health care does not need the PPP route-The Hindu Editorial](#)

Sociology

Easy Explanation

The article argues that **health care and medical education should not be pushed into the PPP (Public–Private Partnership) model**, especially in **Andhra Pradesh**.

The State has already expanded government medical colleges using public funds. The proposal to now hand over upcoming colleges and district hospitals to private players under PPP gives **long-term control of public assets** to private investors, while the government bears most of the risk. Private partners receive land, subsidies, assured patient inflow, and fee flexibility, but public oversight remains weak.

This creates serious problems. **Medical education may become more expensive**, hurting poor and middle-class students. District hospitals may prioritise profits over patients, leading to denial of care or informal charges. If the private partner fails, the government's only option is slow court action.

The article also questions whether India really needs more hospitals everywhere. **Strong primary health care can prevent many hospital admissions**, and new technology is reducing the need for long hospital stays. Fragmenting district hospitals under PPP weakens the public health system and disrupts referral chains.

The real issues are **underfunding, staff shortages, and weak regulation**, not lack of private participation. Commercialising medical education can worsen rural doctor shortages, as high-fee graduates prefer urban or foreign jobs. Given India's limited capacity to regulate private players, **privatising critical health infrastructure risks harming the poor.**

Key Takeaways

Policy Design & Intent

- PPP in health care is not neutral; its structure reflects a tilt towards **private profit and fiscal optics**, not public health goals.
- Transferring public medical colleges and district hospitals to private control marks a **retreat from welfare-based provisioning.**

Risks of the PPP Model

- **Unequal risk-sharing:** the government carries most financial and operational risks.



| Clear your doubts now.



- Weak regulatory capacity makes it difficult to **enforce quality, pricing, and access norms**.
- If private partners fail, the State is left with **slow and uncertain legal remedies**.

Impact on Equity & Access

- Higher fees and dilution of quotas can **exclude poor and middle-class students**.
- Patients may be pushed into **out-of-pocket spending** even in public facilities.
- Commercialised education discourages doctors from **rural and public-sector service**.

Effect on the Public Health System

- Long-term private control of district hospitals **reduces public accountability**.
- PPPs fragment service delivery and **weaken referral systems**.
- Integrated public systems are vital for managing **chronic diseases and continuity of care**.

Questioning the Infrastructure Logic

- Strong primary care can **prevent a significant share of hospitalisations**.
- Medical technology is reducing the need for **large uniform bed capacity**.
- Unplanned expansion risks **inefficiency and poor utilisation**.

Core Problem & Way Forward

- The real challenge is **underfunding, staff shortages, and vacant specialist posts**, not absence of PPPs.
- Direct public investment and affordable education are key to **building a committed public health workforce**.
- In a weak regulatory environment, **privatising essential health services can harm the poor most**.

[Social scourge-The Hindu Editorial](#)

Sociology

Easy Explanation

India has promised to **end child marriage by 2030** under the **United Nations Sustainable Development Goals**. The government has taken steps such as the **Bal Vivah Mukat Bharat Abhiyan**, and data shows progress: child marriage among women has fallen sharply over the last two decades.

However, the problem is far from solved. In a country as large and diverse as India, **progress is uneven**. Some States continue to report high levels of child marriage, especially among poorer and less-educated communities.

Data from the **National Family Health Survey** shows a strong link between **child marriage, poverty, and lack of education**. Girls from poor households and those with little or no schooling are far more likely to be married early. This early marriage leads to **serious health risks**, school dropouts, and long-term poverty.



| Clear your doubts now.



Although India has laws like the **Prevention of Child Marriage Act**, enforcement is weak and conviction rates are low. At the same time, strict criminal laws such as the **Protection of Children from Sexual Offences Act** sometimes create fear among adolescents, pushing them toward unsafe and informal medical care.

The article argues that laws and campaigns alone are not enough. Unless **root causes**—poverty, poor schooling, weak health systems, and gender inequality—are tackled together, India will struggle to meet its 2030 goal. Ending child marriage is essential not just for girls' rights, but also for achieving broader development goals.

Key Takeaways

Extent of the Problem

- Child marriage has declined nationally but remains **high in several States**.
- Progress is **uneven across regions and social groups**.

Link with Poverty & Education

- Girls from the poorest households are **far more likely** to marry early.
- Education is a strong protective factor against child marriage.

Health & Social Consequences

- Early marriage leads to **poor maternal and child health outcomes**.
- It increases school dropouts and **perpetuates intergenerational poverty**.

Legal & Policy Gaps

- Existing laws suffer from **weak enforcement and low conviction rates**.
- Overly harsh criminal provisions can **push adolescents into unsafe choices**.

Limits of Welfare Schemes

- Cash incentives alone have not eliminated child marriage in some States.
- Infrastructure gaps (toilets, transport, safety) still keep girls out of school.

Developmental Impact

- Ending child marriage is crucial for achieving **multiple SDGs**, not just one.
- Without addressing gender inequality and social deprivation, targets will remain unmet.

Way Forward

- Combine laws with **education, health access, poverty reduction, and social awareness**.
- Focus on **vulnerable communities** to bridge the gap between policy intent and reality.



| Clear your doubts now.



28th December 2025

[What are India's diplomatic headwinds ahead?: TH FAQ](#)

International Relations

Easy Explanation

The year 2025 turned out to be unusually turbulent for India's foreign policy. Instead of predictable diplomacy, the Modi government faced repeated shocks from major global powers, neighbours, and ongoing conflicts. Many of these challenges came suddenly and forced India to react rather than plan calmly.

The biggest disruption came from the United States after Donald Trump returned as President for a second term. His aggressive "America First" policies, including high tariffs and sanctions, shook the global economic system. India was hit hard when Trump imposed steep tariffs and penalties on India for buying Russian oil. His actions on immigration — tighter H-1B visas, student visa restrictions, and deportations — also caused domestic anger in India. Trump's claims that he had mediated India's military standoff with Pakistan further weakened India's diplomatic position and undercut its long-standing stance on cross-border terrorism.

Globally, 2025 also saw the rise of far-right politics in Europe and other regions, weakening multilateral cooperation. Oil prices fell due to excess supply, raising concerns that clean energy transitions might slow down. The Russia-Ukraine war dragged into its fourth year, but this time India faced direct economic costs because of Western sanctions on Russian oil companies linked to India.

In West Asia, Israel's continued war in Gaza killed tens of thousands and stalled India's India-Middle East Economic Corridor plans. India's cautious silence on Israel's strikes against Iran created awkward moments in groupings like BRICS and the SCO. Closer to home, instability worsened: tensions with Pakistan escalated, protests in Nepal toppled its government, and violence in Bangladesh turned sharply anti-India, raising doubts about India's "Neighbourhood First" policy.

Despite these challenges, Indian diplomacy had some successes. Relations with Canada improved after a long freeze, with both sides agreeing to move past the Khalistan controversy. India also made a bold and controversial move by engaging directly with the Taliban in Afghanistan, improving ties at a time when Pakistan's relations with Kabul worsened — indirectly helping India's strategic position. India cautiously continued rebuilding ties with China, reopening travel, visas, and pilgrimages despite unresolved border tensions.

India also strengthened relations with smaller neighbours like Bhutan, Sri Lanka, and the Maldives, with timely disaster aid earning goodwill. Economically, India concluded several bilateral trade agreements, though many large deals remain unfinished.

Looking ahead to 2026, India hopes for fewer surprises. Big trade agreements with the EU, U.S., and others are expected to move forward. Major diplomatic events — including Republic Day guests from Europe, the AI Summit, Quad meetings, and BRICS — will test India's ability to balance competing global powers. After a year of upheaval, Indian diplomats are expected to take a more cautious, realistic approach.

Key Takeaways



| Clear your doubts now.



Overall theme of 2025

- Indian foreign policy marked by shocks and unpredictability
- Reactive diplomacy replaced steady long-term planning

Trump's impact on India

- High U.S. tariffs and sanctions over Russian oil purchases
- Immigration crackdowns hurt Indian workers and students
- Claims of mediating India-Pakistan conflict weakened India's stance

Global trends affecting India

- Rise of far-right politics in Europe and elsewhere
- Falling oil prices raised concerns for climate goals
- Continued Russia-Ukraine war increased economic pressure

West Asia challenges

- Gaza war stalled India-Middle East Economic Corridor
- India's silence on Israel-Iran conflict caused diplomatic discomfort
- Sanctions affected India's energy security

Neighbourhood instability

- Conflict with Pakistan
- Political unrest in Nepal
- Anti-India violence in Bangladesh
- "Neighbourhood First" policy under strain

Diplomatic successes

- Reset of relations with Canada
- Strategic engagement with Taliban-ruled Afghanistan
- Gradual rapprochement with China
- Strengthened ties with Sri Lanka, Bhutan, Maldives

Economic diplomacy

- Trade deals signed with U.K., Oman, New Zealand
- Bigger agreements with U.S., EU, ASEAN still pending

Outlook for 2026

- Expected progress on major trade agreements
- Key summits: EU-India, Quad, BRICS, G-20
- Hope for fewer shocks and more calibrated diplomacy

[What are the signals from the Indian economy?: TH FAQ](#)

Economy

Easy Explanation

The Indian economy in 2025 went through a mixed phase. On one hand, the government introduced several reforms that were meant to boost consumption, improve labour conditions, and expand trade. On the other



| Clear your doubts now.



hand, global shocks — especially from the U.S. — and unresolved domestic challenges prevented these positives from fully translating into strong, stable growth.

The year started on a hopeful note. In February, Prime Minister Narendra Modi and U.S. President Donald Trump announced plans to work towards a Bilateral Trade Agreement. Around the same time, Budget 2025 reduced income tax rates and simplified slabs, leaving more money in the hands of taxpayers. The idea was simple: if people have more disposable income, they will spend more, helping the economy grow.

Later in the year, the government tried to stimulate demand further by simplifying GST. The GST Council scrapped the 12% and 28% slabs and shifted most goods to lower tax rates. This move was expected to make everyday products cheaper and encourage consumption. In November, the Centre also notified the four Labour Codes, which aim to expand social security coverage and formal benefits for workers, especially in the unorganised sector.

On the trade front, India made notable progress. A trade deal with the U.K. was signed, giving Indian exporters duty-free access to most of the British market and easing mobility for Indian workers. Another major boost came from the trade agreement with the European Free Trade Association (EFTA), which not only reduced tariffs but also brought a long-term investment promise of \$100 billion. India also concluded trade agreements with Oman and New Zealand, expanding its export opportunities and foreign investment prospects. Talks with the European Union were reported to be in their final stages.

However, the biggest setback of 2025 came from the U.S. After initial warmth, President Trump imposed steep tariffs on Indian goods under his “Liberation Day” policy. These tariffs eventually went up to 50%, partly as a penalty for India’s continued imports of Russian oil. Trade talks stalled, and key labour-intensive sectors such as textiles and manufacturing began to suffer. Although the government announced an Export Promotion Mission to help exporters with credit and market access, the details are still unclear.

Looking ahead, the outlook remains uncertain. The Reserve Bank of India expects economic growth of 7.3% in 2025–26, but this also means a slowdown compared to the strong growth seen earlier. Tariff tensions may persist for some time. On the positive side, India plans to update key economic indicators like GDP, inflation, and industrial production data, which should give a clearer and more accurate picture of the economy’s real health.

Key Takeaways

Tax and demand-side reforms

- Income tax cuts increased disposable income
- GST slabs simplified, making many goods cheaper
- Aim was to boost consumption and demand

Labour reforms

- Four Labour Codes implemented
- Expanded social security and worker benefits
- Encouraged formalisation of employment

Trade agreements achieved

- India–U.K. trade deal signed
- EFTA agreement brought \$100 billion investment promise



| Clear your doubts now.



- Trade deals concluded with Oman and New Zealand
- EU trade talks nearing completion

Major economic setback

- U.S. imposed up to 50% tariffs on Indian goods
- Trade talks with the U.S. stalled
- Labour-intensive export sectors hit hard

Government response

- Export Promotion Mission announced
- Focus on cheaper credit and reducing non-tariff barriers
- Implementation details still awaited

Outlook for 2026

- RBI projects 7.3% growth with possible slowdown
- Tariff tensions may continue
- Key economic data indicators to be updated for better accuracy

[Is the 'health for all' campaign on track?: TH FAQ](#)

Sociology

Easy Explanation

India's health system is under growing pressure as its population touches about 146 crore. The country is dealing with many problems at the same time: lifestyle diseases like diabetes and heart ailments, the return of infectious diseases, pollution and climate-related health risks, weak regulation in parts of the pharmaceutical industry, and chronic underfunding of healthcare. All this comes at a time when India must be better prepared for future health emergencies.

A major shock in early 2025 came from the U.S. decision, under President Donald Trump, to withdraw from the World Health Organization. This also meant a sudden reduction in funding for global health programmes. India was affected because projects supported by PEPFAR and USAID lost funding. Important programmes related to HIV/AIDS, maternal health, and population services faced cuts, forcing Union and State governments in India to fill the gap using their own limited resources.

Even without this shock, India's health budget has been low for years. Government spending on health remains below 2% of GDP, despite the National Health Policy setting a target of 2.5%. For 2025–26, the allocation rose to nearly ₹1 lakh crore, but experts say this is still not enough. While infrastructure like hospital beds and diagnostic labs has improved after COVID-19, the gap between healthcare demand and available funding remains large.

There are also serious disease-related concerns. India is seeing a resurgence of infectious diseases and worsening air pollution, which affects millions. Tuberculosis elimination is another missed goal. India had ambitiously set 2025 as the year to eliminate TB, ahead of global targets. Although diagnostic tools like TrueNat have improved detection and helped identify drug resistance quickly, multidrug-resistant and extensively drug-resistant TB cases continue to rise.



| Clear your doubts now.



Antimicrobial resistance (AMR) is an even bigger long-term threat. A recent GLASS report showed that one in three Indians with bacterial infections carries drug-resistant bacteria, far worse than the global average. Misuse of antibiotics, easy over-the-counter access, incomplete treatments, and weak regulation worsen the problem. Kerala stands out as the only State that has managed to reduce AMR through strong antibiotic stewardship, while most others lag behind.

Finally, quality control in the pharmaceutical industry has become a grave concern. In 2025, 25 children died after consuming contaminated cough syrup containing diethylene glycol, a toxic industrial chemical. This tragedy raised uncomfortable questions about regulatory failure. Similar incidents in the past, including deaths of children abroad due to Indian-made syrups, have damaged India's reputation as the "pharmacy of the world". Without strict quality enforcement, India's Make-in-India ambitions in pharmaceuticals will remain at risk.

Key Takeaways

Funding crisis in healthcare

- U.S. withdrawal from WHO reduced global health funding
- India lost support from PEPFAR and USAID projects
- Centre and States had to absorb the funding shortfall

Low public health spending

- Health budget remains below 2% of GDP
- National Health Policy target is 2.5% of GDP
- Infrastructure improved post-COVID, but funding gap persists

Infectious diseases and pollution

- Risk of resurgence of infectious diseases
- Severe air pollution worsening health outcomes
- System may struggle without higher investment

Tuberculosis challenge

- India missed its 2025 TB elimination target
- Better diagnostics like TrueNat have helped
- Rising multidrug-resistant TB remains a major worry

Antimicrobial resistance (AMR)

- One in three bacterial infections in India are drug-resistant
- Causes include misuse of antibiotics and weak regulation
- Kerala shows AMR can be reduced with strong stewardship

Pharmaceutical quality concerns

- Child deaths due to contaminated cough syrup exposed failures
- Repeated quality lapses hurt India's global pharma image
- Stronger regulation essential for "pharmacy of the world" goal

Overall message

- India must urgently realign health priorities



| Clear your doubts now.



- More funding, stronger regulation, and better preparedness are essential
- Addressing these gaps is key to reducing deaths and illness in the coming years

[‘Even low alcohol intake raises oral cancer risk in Indian men’: TH Science](#)

Science

Easy Explanation

A large study has found that drinking alcohol increases the risk of buccal mucosa cancer, a common and dangerous type of oral cancer in India, even if alcohol is consumed in very small amounts. Buccal mucosa cancer affects the inner lining of the cheek and is known to spread quickly and have low survival rates.

Researchers studied data from over 1,800 men with buccal mucosa cancer and nearly 1,900 men without cancer, collected from six cancer centres across India over more than a decade. The study focused only on men because very few women reported alcohol use, making comparisons unreliable.

After accounting for tobacco use and other factors, the researchers found that men who had ever consumed alcohol had a much higher risk of developing this cancer than those who never drank. Surprisingly, even drinking less than one standard drink a day significantly increased cancer risk. This means there is no clearly “safe” level of alcohol consumption when it comes to this cancer.

The risk was especially high for people who drank locally brewed alcohol. Country liquor, particularly drinks like tharra and desi daru, was linked to almost double the risk compared to non-drinkers. Commonly consumed drinks such as beer and whisky were also associated with higher risk, even at low levels of intake.

The danger became much worse when alcohol use was combined with tobacco, especially chewing tobacco. Men who both drank alcohol and used smokeless tobacco had far higher cancer risk than those exposed to only one of these habits. The researchers estimate that more than half of buccal mucosa cancer cases could be explained by this combined exposure.

The study also shows that many patients develop this cancer at a young age, often before 45, suggesting early exposure to alcohol and tobacco leads to serious long-term health damage. Overall, the findings challenge the idea that moderate or low alcohol consumption is harmless and call for stronger prevention policies, especially targeting both alcohol and tobacco use together.

Key Takeaways

Alcohol and cancer risk

- Alcohol consumption significantly increases the risk of buccal mucosa cancer
- Even less than one drink per day raises cancer risk
- No safe level of alcohol intake identified

High-risk alcohol types

- Locally brewed alcohol shows the highest risk
- Tharra and desi daru are especially dangerous
- Beer and whisky also increase risk, even at low intake

Alcohol–tobacco interaction

- Combined use of alcohol and chewing tobacco greatly increases cancer risk



| Clear your doubts now.



- Over 60% of cases linked to combined exposure
- Smokeless tobacco plays a major role

Public health impact

- Alcohol alone accounts for over 11% of cases nationally
- Large variation in risk across Indian States
- Many patients are younger than 45 years

Disease severity

- Buccal mucosa cancer is the most common oral cancer in India
- Five-year survival rate is only about 43%

Policy implications

- Moderate drinking is not risk-free
- Alcohol and tobacco prevention must be addressed together
- Stronger regulation needed for locally brewed liquors

[Twenty first century solutions to snake bites: TH Science](#)

Science

Easy Explanation

Even though India has moved on from old stereotypes like “snake charmers” and now has trained snake rescuers, snakebites remain a major public health problem, especially in rural areas. Every year, around 58,000 people die from snakebites in India, mostly farmers and agricultural workers who work in fields where snakes are common.

Snake venom harms the body in three main ways. It can disturb blood clotting, paralyse muscles by affecting nerves, or destroy body tissue. Different types of snakes cause different effects. For example, viper bites mainly cause blood-related problems, while cobras and other elapid snakes affect the nervous system and can lead to paralysis.

India currently uses a standard antivenom made using the venom of the “Big Four” snakes: spectacled cobra, common krait, Russell’s viper, and saw-scaled viper. Venom for this antivenom is mostly collected by tribal snake catchers from Tamil Nadu. The venom from these four snakes is mixed and injected in very small, safe doses into horses. Over time, the horses’ immune systems produce antibodies against the venom. Blood is then taken from the horses, and the antibodies are purified, processed, and packed into antivenom vials.

This method has been used since the 1950s, but it has serious limitations. India has more than 60 venomous snake species, and even the same species can have different venom composition in different regions. Because of this variation, the “Big Four” antivenom often does not work well in many cases.

To solve this problem, scientists are now trying to develop better and broader treatments. A recent international study focused on snakebites in sub-Saharan Africa, where thousands of people lose limbs every year due to venom damage. Researchers collected venom from 18 dangerous snake species and injected it into an alpaca and a llama. These animals belong to the camel family, which produces special antibodies that are smaller, more stable, and very effective. These antibody fragments, called nanobodies, can be produced cheaply in laboratories using bacteria instead of relying on horses.



| Clear your doubts now.



Tests on mice showed that these nanobodies could neutralise venom from almost all the snake species studied. Similar research in India has shown that camel-based antivenom can neutralise venom from certain Indian snakes as well. Expanding this approach could greatly improve snakebite treatment and help tackle a disease that the World Health Organization considers neglected.

Key Takeaways

Scale of the problem

- Snakebites cause about 58,000 deaths annually in India
- Mostly affect rural workers and farmers
- Classified by WHO as a neglected tropical disease

How snake venom harms

- Causes blood clotting disorders
- Leads to nerve damage and paralysis
- Can destroy body tissue

Current antivenom system

- Based on venom from India's "Big Four" snakes
- Produced by injecting venom into horses
- Antibodies extracted from horse blood
- In use since the 1950s

Limitations of existing antivenom

- India has over 60 venomous snake species
- Venom varies by region and species
- Big Four antivenom often ineffective

New scientific approach

- Uses camel-family animals like alpacas and llamas
- Produces small, stable antibodies called nanobodies
- Nanobodies can be mass-produced cheaply in bacteria

Research findings

- Effective against venom from 17 of 18 tested snake species
- Indian studies show camel-based antivenom works for local snakes

Future significance

- Possibility of region-specific or universal antivenom
- Safer, cheaper, and more effective treatment
- Major step towards reducing snakebite deaths



| Clear your doubts now.



31st December 2025

[A third of Delhi's PM 2.5 load has a secondary source: ammonium sulfate-The Indian Express](#) [Explained Page](#)

Environment

Easy Explanation

Delhi's PM_{2.5} pollution does not come only from sources we can directly see, such as vehicle exhaust, dust, or factory smoke. A significant share of it is actually formed later in the atmosphere through chemical reactions. This is known as secondary pollution.

Around one-third of Delhi's PM_{2.5} is made up of secondary particles, with ammonium sulfate being the most important among them. Ammonium sulfate forms when sulphur dioxide, released mainly from coal-based power plants and heavy industries, reacts with ammonia. Ammonia largely comes from agricultural activities such as fertiliser use, livestock waste, as well as sewage systems and biomass burning.

These chemical reactions become much faster during winter because of low temperatures, high humidity and fog. As a result, gases in the air are quickly converted into fine particles, even if there is no visible rise in local emissions. The particles produced are extremely small, can penetrate deep into the lungs, remain suspended in the air for days and travel long distances.

This explains why Delhi's air quality often worsens sharply during winter smog episodes: the problem is not only local pollution sources, but also regional emissions and atmospheric chemistry combining over the city.

Key Takeaways

- Nearly **one-third of Delhi's PM_{2.5} pollution is secondary in nature**, meaning it forms in the atmosphere rather than being emitted directly.
- **Ammonium sulfate is the single largest contributor** to this secondary PM_{2.5} load in Delhi.
- It is formed from the reaction of **sulphur dioxide (SO₂)** and **ammonia (NH₃)** in the atmosphere.
- **Coal-based thermal power plants are the dominant source of SO₂** in India, making coal a key driver of secondary pollution.
- Ammonia emissions mainly arise from **agriculture (fertilisers, livestock), sewage systems and biomass burning**.
- **Cold, humid winter conditions** accelerate chemical reactions, leading to sharp PM_{2.5} spikes even without higher local emissions.
- Secondary PM_{2.5} particles can **travel long distances**, showing that Delhi's pollution is strongly influenced by **regional sources**.
- Effective air quality control requires focusing on **precursor gases (SO₂ and NH₃)**, not only on visible pollutants like dust or PM₁₀.

[A multipolar world with bipolar characteristics-The Indian Express The Ideas Page](#)

International relations



| Clear your doubts now.



Easy Explanation

The world is no longer dominated by a single superpower, but it has also not settled into a stable multipolar order. The United States remains the strongest power, yet it now faces two significant challengers: China and Russia. As China rises economically and militarily, the U.S. is shifting its focus from Europe to consolidating influence in its own neighbourhood and preparing for long-term competition with Beijing.

China represents a classic “rising power” challenging the “reigning power” of the U.S., while Russia, though economically weaker, retains influence through military strength, nuclear weapons and regional assertiveness. Together, these three powers are pulling the global system in different directions.

As a result, today’s world is **multipolar in structure but bipolar in behaviour**, with U.S.–China rivalry at its core and Russia acting as a swing power. Middle powers like India and Brazil continue to hedge rather than align firmly with any one camp.

Key Takeaways

- The **unipolar world order has ended**, but the U.S. remains the most powerful state.
- The global system now has **three major powers: the U.S., China and Russia**.
- **U.S.–China rivalry** is the central axis of global politics, reflecting a reigning vs rising power dynamic.
- China’s growing economic strength is being **converted into military capability**, intensifying competition.
- **Russia, though economically weaker, retains great-power status** due to nuclear weapons, resources and military assertiveness.
- The U.S. is **shifting focus from Europe to its immediate neighbourhood** and long-term competition with China.
- The emerging order is **multipolar but fluid**, without clear blocs or stable rules.
- **Middle powers** such as India and Brazil continue to **hedge their strategic choices**.
- Russia functions as a **swing power**, giving the multipolar world a **bipolar character**.

[Law on ‘suspension of sentence’ -The Hindu Text and Context](#)

Polity

Easy Explanation

After a trial ends and a person is convicted, the law presumes guilt and the sentence must be served. However, since every conviction can be appealed, courts have the power to temporarily pause the punishment while the appeal is pending. This is called “**suspension of sentence**”. It does not erase the conviction; it only stops the execution of the punishment for the time being, usually with bail.

In serious crimes such as rape or offences punishable with life imprisonment, suspension of sentence is **not the norm but an exception**. Courts are expected to apply strict scrutiny and examine whether the conviction is prima facie flawed or whether there is a real chance of acquittal. In the Unnao rape case, the Delhi High Court suspended Kuldeep Singh Sengar’s life sentence mainly because it held that an MLA does not qualify as a “public servant” under the POCSO Act, and because he had already spent many years in jail.



| Clear your doubts now.



The Supreme Court stepped in and stayed the High Court's order, signalling concern over the legal reasoning and the broader implications for child protection and victim safety. The case highlights the tension between strict statutory interpretation and the need for purposive interpretation in laws meant to protect vulnerable victims.

Key Takeaways

- **Suspension of sentence** pauses the punishment, not the conviction, during the pendency of an appeal.
- It is **routine for short-term sentences**, but **exceptional in life imprisonment cases**.
- In serious offences, courts must assess the **gravity of the crime, chances of acquittal, and public interest**.
- The POCSO Act does **not define "public servant"**, leading courts to rely on IPC definitions.
- Under IPC Section 21, **elected MLAs are not treated as public servants**, creating a legal gap.
- The Delhi High Court relied on this gap to suspend Sengar's sentence, a move now under Supreme Court scrutiny.
- The Supreme Court has repeatedly stressed **purposive interpretation of POCSO** to strengthen child protection.
- **Long incarceration alone is insufficient** to justify suspension of sentence in life imprisonment cases.
- The case exposes **structural weaknesses in criminal justice**, especially when powerful accused are involved.
- It raises urgent questions about **victim protection, equality before law, and legislative reform**.

[The India-New Zealand FTA — unlocking growth-The Hindu Editorial](#)

International relations

Easy Explanation

The India–New Zealand Free Trade Agreement (FTA), announced in December 2025, reflects India's growing credibility as a stable and reliable global trade partner at a time of global economic uncertainty. Concluded quickly, the deal signals political intent to deepen mutually beneficial partnerships while supporting a rules-based trading system.

Unlike many earlier FTAs, this agreement focuses strongly on **services, labour mobility and skills**, areas where India has a clear advantage. New Zealand has offered India its widest-ever services access, while India has selectively opened its market without compromising sensitive sectors like dairy. The agreement also encourages investment, lower input costs for manufacturing, and cooperation in health, education and agriculture.

Beyond trade numbers, the FTA is important because it enhances trust, opens pathways for Indian professionals and students, and strengthens India's position in global value chains. Its real success, however, will depend on how effectively businesses and policymakers use the opportunities created.

Key Takeaways

- The India–New Zealand FTA was announced on **December 22, 2025**, and negotiations concluded in just **nine months**.



| Clear your doubts now.



- It places strong emphasis on **services trade and labour mobility**, areas traditionally underutilised by India.
- New Zealand will provide **duty-free access on 100% of tariff lines** for Indian exports; India has opened **about 70%** of its tariff lines.
- India gains in **labour-intensive sectors** such as textiles, apparel, leather, engineering goods, pharmaceuticals and farm products.
- **Skilled mobility and post-study work rights** for Indian professionals and students improve global employment opportunities.
- Sensitive agricultural sectors like **dairy, sugar, spices and edible oils** are protected.
- Bilateral trade, currently about **\$2.4 billion**, is expected to **double by 2030**.
- Past FTAs show low utilisation by India; success depends on **awareness, compliance and tackling non-tariff barriers**.
- The agreement strengthens India's push up **global value chains** and supports its **\$7-trillion economy goal**.
- Strategically, the FTA reflects **growing trust by developed economies** in India's trade policy and negotiating capacity.

[Track record-The Hindu Editorial](#)

Economy

Easy Explanation

The fire accident in the Tatanagar–Ernakulam Express shows both the progress and the gaps in railway safety. Although two air-conditioned coaches were gutted by fire, the loss of life was limited to one passenger because of quick thinking by passengers, timely action by railway staff, and existing safety measures. The use of the emergency chain, diversion of the train to a platform line, and coordinated evacuation helped prevent a larger tragedy.

At the same time, the incident highlights a serious concern: fires in AC coaches. These coaches have enclosed spaces, electrical fittings and flammable materials, making fire risks more dangerous. While Indian Railways has improved its overall safety record over the years, fire accidents continue to occur, often due to technical faults or passenger negligence. The episode underlines the need to further strengthen fire prevention and automatic fire-fighting systems, especially in AC coaches, where risks and consequences are higher.

Key Takeaways

- The Tatanagar–Ernakulam Express fire caused **limited casualties due to quick action** by passengers and railway staff.
- **Emergency chain pulling and diversion to a platform line** enabled safe evacuation.
- Indian Railways' **overall accident numbers have dropped by over 70%** in the last decade.
- **Major accidents still show year-to-year fluctuations**, indicating persistent risks.
- **Fire accidents form 10–20%** of railway accidents annually.
- Fires arise from **technical faults, operational errors, and passenger negligence**.
- **AC coaches pose higher fire risks** due to electrical systems and enclosed design.
- About **20,000 AC coaches have fire and smoke detection systems**, with full coverage planned.
- **Fire extinguishers are available in all coaches**, AC and non-AC.



| Clear your doubts now.



- There is a need for **automatic fixed fire-suppression systems** in AC coaches, as safety must not be constrained by cost.
-



| Clear your doubts now.