

26th April to 2nd May 2026

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INTERNATIONAL

CULTURE OF VIOLENCE

A gunman breached security and fired shots at the annual dinner gala of the White House Correspondents' Association in Washington DC, which included U.S. President Donald Trump and other senior administration officials, all of whom escaped unharmed. The suspected shooter, said to be Cole Tomas Allen (31) of Torrance, California, was arrested. This is the third incident of violence apparently targeting Mr. Trump, after a previous occasion on which a would-be assassin's bullet grazed the president's ear at a campaign rally, and another in which a gunman was apprehended near a golf course frequented by Mr. Trump. The suspect in this case is said to have "clearly stated" that he wanted to target administration officials, according to the White House, and in a note by the suspect shared by law enforcement officials, he said that he could no longer allow a "traitor to coat my hands with his crimes". The incident comes in the wake of several high-profile attacks on political figures in recent years. These include the September 2025 killing of Charlie Kirk in Utah, the murder of Minnesota Democratic State Representative Melissa Hortman and her husband a few months earlier, and the 2022 attack on Paul Pelosi, the husband of former Democratic House Speaker Nancy Pelosi. It also comes after more than a year of Mr. Trump's second term in office, a period marked by increasing polarisation over key policies, including immigration, and his association with disgraced financier and convicted sex offender Jeffrey Epstein.

While bitter partisanship has long marked U.S. politics, it is the ubiquitous proliferation of guns that has truly supplied a deadly edge to disagreements in the public discourse. Ironically, the Trump administration has been at the forefront of efforts to protect the U.S. Constitution's Second Amendment, the right to bear arms, to the point where it is often in alignment with the position of the National Rifle Association (NRA) in terms of reversing reasonable restrictions on gun ownership. For example, Mr. Trump supported a ban on assault weapons in 2000, yet he reversed his position by the time he launched his 2016 presidential campaign, one that was backed by millions of dollars spent by the NRA. The U.S. has been periodically wracked by mass shootings, including three this year, and more than 500 over the past 60 years, according to databases tracking such incidents. Notwithstanding the deep pockets and lobbying power of the NRA and its ilk on Capitol Hill, it behoves the U.S. to take a step back from the brink of this unrelenting gun violence epidemic and bring common-sense gun reforms to the table, then to be enacted into law by Congress. Until such time as society and popular culture move towards a more moderate position on gun laws, it is reasonable to believe that violence of the kind routinely witnessed across the country will continue unabated.

WHITE HOUSE EVENT SHOOTING: WHO PROTECTS THE US PRESIDENT?

A man armed with multiple weapons stormed through a security checkpoint at the Washington Hilton hotel, which hosted the annual White House Correspondent Dinner with US President Donald Trump on Saturday (April 25). Muffled sounds of gunshots were heard in the ballroom that seated the guests, prompting security to evacuate Trump, First Lady Melania Trump and other senior leaders.

**Key Takeaways:**

- Cole Allen, the alleged shooter, fired rounds from a shotgun that struck a Secret Service agent before being tackled by police, Reuters reported. His motive is unknown so far. Trump later posted on Truth Social, “Quite an evening in D.C. Secret Service and Law Enforcement did a fantastic job. They acted quickly and bravely.”
- The episode has raised concerns about political violence in the US, coming after multiple security incidents involving Trump, in particular. Less than two years ago, he was shot at in a campaign rally, which led to the resignation of the then Director of the US Secret Service, Kimberly Cheatle.
- The Secret Service is the agency primarily tasked with protecting the US president. But this was not always the case; in fact, the agency was initially founded to combat counterfeiting of US currency. Today, it is best associated with sunglasses-wearing agents and the armoured limousine attached to the president, called The Beast, but its day-to-day role involves a large number of complex tasks.

Do You Know:

- The US Secret Service was founded in 1865 and is one of the world’s oldest federal investigative law enforcement agencies. Its mandate changed after President William McKinley’s killing, who was the third US president assassinated after Abraham Lincoln and James A Garfield in 1865 and 1881, respectively.
- The US Government Archives note, “This third assassination of a President in a little more than a generation — it was only 36 years since Lincoln had been killed — shook the nation and aroused it to a greater awareness of the uniqueness of the Presidency and the grim hazards that surrounded an incumbent of that Office.”
- The Secret Service assumed full-time responsibility for the safety of the US president in 1902. It works under the Department of Homeland Security and “employs approximately 3,200 special agents, 1,300 Uniformed Division officers, and more than 2,000 other technical, professional and administrative support personnel”, according to its website.
- In India, the Special Protection Group (SPG) was established in 1985 — a year after the assassination of Prime Minister Indira Gandhi — to provide security cover to the Prime Minister, former Prime Ministers and their immediate family members. They work in collaboration with the Intelligence Bureau and local police forces.

LUNAR GOVERNANCE SHOULD BE MULTILATERAL

The NASA Apollo 8 mission to the moon captured the iconic earthrise image the same year in which U.S. forces were responsible for the My Lai massacre in Vietnam. Similarly, on April 6, as the crew of the NASA Artemis II mission swung around the moon in their spacecraft, they photographed the earth rising above the lunar limb — an earthset — only months after the first casualty of coordinated strikes by the U.S. and Israel against Iran was a girls’ primary school. The Refugees International president called it “likely the largest number of child casualties in a single U.S. military attack” since My Lai.

In Washington, the administration was simultaneously dismantling legal protections for immigrants, imposing tariffs which fall afoul of trade law, and enabling an Israeli military



campaign in Gaza that the International Court of Justice has been scrutinising for genocide since January 2024. Thus, the country that asks the world to celebrate humankind's return to the moon has demonstrated a simultaneous contempt for human rights and international law.

Disregard for law, due process

The International Commission of Jurists and the Red Cross have found that U.S. and Israeli forces have struck multiple sites protected by international humanitarian law. Before the assault, the Pentagon had dismantled the Civilian Protection Center of Excellence and shelved a framework to avoid civilian harm, among other measures. In 2025, a UN commission confirmed that Israel was responsible for the ongoing genocide in Gaza, and the International Criminal Court issued arrest warrants for Israel's prime minister and former defence minister for war crimes. However, the U.S. continued to supply arms to Israel and responded to the warrants with sanctions against officials.

The Trump administration has also invoked the International Emergency Economic Powers Act in an unusual way to impose sweeping tariffs. While the World Trade Institute found the move violated the General Agreement on Trade and Tariffs, there could be no relief as the U.S. has been blocking new appointments to the World Trade Organisation (WTO) Appellate Body since 2019. Affected countries could file complaints and the U.S. could appeal, but the appeals would languish with a body that had been hollowed out.

Additionally, the U.S. administration has deported Venezuelan migrants, many with no gang affiliation, to notorious prisons — a process that the U.S. Supreme Court said violated due process rights. Independent estimates indicate that in Mr. Trump's second term as president, around six lakh people have so far been deported for alleged illegal immigration. Donald Trump has also asked whether due process protections should apply in such cases, as his administration continues to highlight the "success" of his deportation programme.

All these actions are of a nation whose principal policy is unmitigated self-interest, commitments be damned. And given the sustained manner in which the U.S. has applied this policy, it supervenes the universalism NASA invoked when it called its Artemis II mission "humanity's return to the moon".

Doesn't inspire confidence

In 2015, the U.S. passed a law that allows its citizens to possess, use, and sell resources extracted from the moon, and which the Artemis Accords use as a governing norm. Legal expert Christopher Newman has argued that the Accords are thus a mechanism for the U.S. to force other countries to accept its interpretation of resource rights. The lunar south pole contains water ice that can be used to make rocket fuel, enabling missions to Mars and beyond, but it is available only in finite quantities in a few locations. The Accords also introduce "safety zones" around lunar sites ostensibly to prevent harmful interference. They could in practice create exclusion zones around resource-rich areas, allowing early movers to consolidate control without formally violating the Outer Space Treaty. Thus, as the frameworks for managing these resources remain underdeveloped, the country moving fastest to fill the gap is one whose recent conduct inspires the least confidence.



The way forward

The U.S.'s space governance framework is more transparent than China's. The Accords also articulate principles of peaceful use and emergency assistance. However, Chinese leadership is not the sole alternative to U.S. leadership. The more important question is whether we should allow either power to set the rules unilaterally for a domain that belongs to all of humankind. Even the Accords sidestep the multilateral process of the UN Committee on the Peaceful Uses of Outer Space in favour of forging bilateral agreements, while still formally acknowledging the Committee's role. In fact, they risk allowing practices among a subset of states to become the industry's rules before other states can reach consensus through multilateral negotiations. If the U.S. expects to be a credible leader in space, it must desist from erecting a governance architecture for the moon that, by excluding China, effectively sets up a confrontation. Instead, it must pursue treaty-level rules on lunar resources that give all nations a stake. This requires the U.S. to engage with the 1979 Moon Agreement, which calls for an international regime to govern their exploitation. While the claim that the Agreement deters private investment has merit, that is no reason to foreclose a multilateral framework.

LEGAL LIMITS ON U.S. WAR INVOLVEMENT

The story so far:

The administration of U.S. President Donald Trump launched a military offensive against Iran on February 28, in tandem with Israeli strikes across the region. Tehran's retaliation, entailing missile and drone attacks on Israel and Gulf countries such as the UAE, Qatar, Saudi Arabia and others, as well as its blockade of the critical oil transportation route through the Strait of Hormuz, led Washington deeper into the military engagement against Iran. Despite a fragile ceasefire and the U.S.'s counter-blockade of the Iranian ports and naval manoeuvres giving it a measure of control of the strait, the overall war plans of the Trump administration might be in jeopardy due to a provision of the U.S. constitution – the War Powers Act (WPA). The Act requires the President to seek authorisation from Congress for the continued use of military force in hostilities abroad beyond 60 days of such involvement, yet going by past record, Mr. Trump may have several options to circumvent this requirement and persist with the ongoing military engagement in West Asia.

Provisions of the WPA

The Act, known formally as the War Powers Resolution of 1973, was introduced into U.S. law in the context of President Richard Nixon's support for clandestine hostilities in Cambodia during the Vietnam War, carried out sans Congressional consent. Mr. Nixon vetoed the bill, yet it was overridden by Congress and enacted into law as a means for Congress to limit presidential authority to wage war.

In its core provision, the WPA intends "...to fulfill the intent of the framers of the Constitution...and insure that the collective judgment of both the Congress and the President will apply to the introduction of United States Armed Forces into hostilities."

The U.S. Constitution originally sought to divide war powers between the President and Congress, with Congress alone retaining the authority to declare war and appropriate funding for the military, while recognising the President as the Commander-in-Chief of the armed forces. Yet, even as early as the 1950s and 1960s, through the years of the U.S.'s prolonged military campaigns



in the Korean and Vietnam Wars, the lines of responsibility for such engagement began to blur across the executive and legislative branches of the U.S. government.

The Act seeks to remove all room for doubt in this context as it stipulates, first, that even prior to the President committing troops into hostilities on foreign soil, Congress should be consulted “in every possible instance.” Second, the WPA requires the President to report to Congress within 48 hours of deploying U.S. forces, unless Congress itself has declared war or statutorily authorised the action. Third, every U.S. president who commits his military to engage in conflicts abroad must continue reporting to Congress at least every six months for the duration of such an engagement.

As per the Act, if 60 days pass after the President’s first reporting deadline to Congress, the use of the U.S. military and its assets is automatically terminated unless Congress had originally declared war or passed legislation authorising the wartime actions. A grace allowed to the president in this regard is that he is permitted to extend the 60-day period by an additional 30 days by certifying in writing to Congress the need for continued use of force.

Options for Trump administration

There are several points of ambiguity regarding Congressional authorisation for war, in this context. Firstly, the precise timeline of reporting requirements to get the wartime action of the Trump White House sanctioned by Congress is currently a subject of dispute. On one hand there is a lack of clarity on whether the 60-day deadline is April 29 – based on the day that hostilities began – or May 1 – based on the day that the White House informed Congress. Second, a number of Republican lawmakers have said that the ceasefire period should not count toward the 60-day deadline, with a few Democrats supporting this view too. Third, there might be Congressional reticence towards authorising the White House’s war efforts, given the lack of recent precedent – Congress has not formally authorised the use of military force since 2002, when the U.S. was involved in hostilities in Iraq.

Nevertheless, the three clear options available to Mr. Trump at this point are the following: to submit to the WPA’s authority and seek approval for continued military engagement, to begin winding down the war effort immediately, or to take advantage of the 30-day grace period, and use such an extension to pull back forces and assets from the region, rather than engage in further offensive manoeuvres of any kind.

Mr. Trump might seek to press his own precedent of 2019 when he ignored the deadline set by the WPA to continue military engagement in the conflict in Yemen that also included Saudi Arabia. He might also quote the fact that previous Presidents, from Nixon to Barack Obama – in the context of the war in Libya – did the same and found various excuses to keep fighting abroad without a nod from Congress. In any case, apart from a few scattered efforts by lawmakers such as Republican Lisa Murkowski, who is said to be working on a formal authorisation for the ongoing war so as to introduce guardrails into the operation, yet has not introduced such a proposal to the floor of the Senate, Republicans do not appear to be in a mood to dampen their President’s momentum on the war front.



BEFORE THE IRAN WAR, HOW COLONIAL EMPIRES FOUGHT FOR THE VITAL STRAIT OF HORMUZ

Key Takeaways:

- Iran responded to the US-Israeli attack on February 28 by effectively closing the maritime passageway that accounts for a fifth of the world's energy flows during peacetime. US President Donald Trump, meanwhile, set up his own naval blockade near the region to maintain pressure against Iran amid a fragile ceasefire.
- The narrow strait has a centuries-long history of being entangled at the centre of competing imperial interests owing to its strategic location. Among the most influential forces in this region were, unsurprisingly, the British who combined naval might with diplomacy to exert control over the region's trade in the 18th and 19th centuries.

Do You Know:

Here's a look at how various colonial powers have taken control of trade through the strait through the years.

- 16th century: Portuguese conquest-For centuries, the Strait of Hormuz was controlled by the Kingdom of Hormuz — one of the richest trading states in the world that was strategically located on the island of Hormuz. In 1515, however, the Portuguese empire conquered Hormuz island and turned it into a heavily fortified tollgate that extracted tax from the Asian spice and silk trades. The Portuguese held the reins to the Strait of Hormuz through most of the 16th century.

—By the early 17th century, however, the English East India Company (EIC) had grown keen to wrest the strait away from the Spanish ally. Around this time, the Safavids under Shah Abbas I forged a strategic partnership with the British East India Company to supplement their weak navy.

- 17th and 18th century: Anglo-Dutch Rivalry-The expulsion of the Portuguese did not result immediately in British hegemony. Instead, it ushered in an era of fierce competition between the English and Dutch East India Companies.

—The Dutch East India Company was essentially a quasi-sovereign actor and had been granted the legal right to wage war by the Dutch crown. Based out of its trading post in Bandar Abbas on the southern coast of what is now Iran, it remained the dominant force in the region for the better part of the 17th century.

—Following the Fourth Anglo-Dutch War (1780-1784), the bankrupt Dutch East India Company liquidated its holdings and withdrew from the Persian Gulf. Their exit created a power vacuum the British were only too happy to fill.

- British hegemony-With their European rivals gone, the British realised their need to secure their maritime flanks connecting to British India — their richest colony. Accusing the Al Qawasim confederation (today Ras Al-Khaimah, UAE) of rampant piracy, the British launched naval campaigns in 1809 and 1819 — destroying local fleets and bombarding coastal towns to ensure the route to Bombay remained secure.

- 20th century: Anglo-Persian Oil Company-The turn of the 20th century, however, witnessed British rationale evolve from simply protecting their trade with India to ensuring the extraction of Persian Gulf energy. In 1901, British financier William Knox D'Arcy secured an exclusive



concession to explore for oil in Persia. This gamble paid off. George Bernard Reynolds, a British engineer and geologist, struck oil on May 26, 1908 at Masjed Soleyman — the first major commercial oil strike in the Middle East.

—The following year, the Anglo-Persian Oil Company (APOC, the forerunner to oil supermajor BP) was formed.

—With First Lord of the Admiralty Winston Churchill transitioning the fleet from coal to diesel, the British government formally recognised the strategic value of oil and the Gulf. It purchased a 51% controlling stake in APOC by 1914. The strait was now crucial for transporting West Asian oil to London.

UKRAINE, WEST ASIA CONFLICTS PUT ATTACK DRONES AT THE HEART OF MODERN WARFARE

The footage has become grimly familiar: shaky camera feed from afar, showing a drone hovering above a target before the sudden moment of impact, all filmed and circulated within minutes. What once required a fighter jet, a cruise missile, or a team of special forces operatives is now being done for a fraction of the price from the back of a pickup truck.

From the war in Ukraine to the recent conflict in West Asia, drones are no longer considered just auxiliary tools of war.

In the skies above Iran, and across the region, a new era is taking shape. One that draws from Ukraine, Gaza, and Yemen to forge a fundamentally different type of warfare, expanding war beyond its traditional boundaries. Gone are the drones of the 2000s with expensive predators flown from underground bunkers. This is a form of warfare which is decentralised, inexpensive, and harder to constrain.

At the centre of this shift is the Shahed series from Iran, a range of robust and affordable unmanned combat aerial vehicles (UCAVs). These are small, one-way, single-use attack drones that are precise in attacking targets. They move at a relatively slower speed compared to missiles, often at a lower altitude, using small propeller-driven engines, and sound very similar to drones. This UCAV system, created despite sanctions since the early 2010s, includes the Shahed-136/Geran-2 model, which can hit targets up to 2,500 km away using a 40kg warhead and GPS guidance systems. The key aspect here is the cost. Launched from trucks by minimally trained launchers, they rain on the enemy's position, inflicting damage worth millions of dollars, while these weapons cost no more than a few thousand.

Moreover, the Shaheds do not require runways or air bases either. Their launches can take place from ramps mounted on trucks or from mobile launching platforms. Thus, the launching systems themselves can be kept mobile all the time and it becomes highly difficult to locate and destroy the arsenals before attacks. Hence, this is quite an economical mechanism which is found to apply considerable pressure on highly advanced air defence systems. This is the main reason many analysts consider this system a key strategic weapon of Iran.

Ukraine war

The conflict in Ukraine that began in 2022 post the Russian invasion turned into the world's first proving ground for large-scale use of drones. Both sides discovered an unpleasant truth:



expendable drones beat expensive precision-guided missiles, with no human lives risked and the cost minimised significantly.

This war sparked the drone revolution, serving as a testing ground for industrial adaptation, thereby changing the dynamics of traditional warfare.

What began with simple hobbyist quadcopter drones turned into a massive network of innovations on all sides, from civilians and entrepreneurs to military researchers. This gave rise to a form of force development that left even mighty powers with far more expensive missiles lagging behind in the race.

Tanks proved to be vulnerable against the simple FPV (First-person view) quadcopter drones with grenades which managed to knock out multi-million-dollar worth missiles. It could be controlled over distances, guided by a pilot through goggles. Most of the frontline destruction was achieved with the use of these technologies.

Russia adopted a brutal strategy, which was using Iranian Shaheds. However, Ukraine responded with “drone walls”, interceptor drones and fiber-optic networks that defeated the electronic warfare. Ukraine’s edge in this situation mainly stemmed from grassroot scaling.

In the recent conflict in West Asia, tactics were transmitted to Iran through Russia, yet counter-measures came too, in the form of Ukrainian advice on how Israel or the Gulf could monitor their activities. Key takeaways for Iran are: 1. Quantity wins, 2. Civilians become combatants, and 3. Air supremacy is dead.

Iran learned from Ukraine’s tactics, through Russia, and applied them in their conflict with Israel and the United States post the launch of “operation epic fury” by the United States in February this year. Having always used asymmetry, the Shaheds are being integrated as part of its system.

Now, Iran, along with its partners, utilises drones systematically. Houthis attack Red Sea shipments. Hezbollah conducts reconnaissance and strikes. Iran’s attack on Israel in April 2024 has since morphed into swarms in 2026.

Ukraine has established multi-tiered mechanisms for detecting and neutralising Shahed drones using acoustic detectors for early sound identification, three-dimensional radar for accurate tracking, and open-source intelligence.

This expertise has now been transferred regionally with Ukrainian troops having been sent to Gulf nations such as Qatar, United Arab Emirates, Saudi Arabia, and Jordan under defence deals with an emphasis on efficient “kill chains” that reduce response time.

Transcending borders

Israel deploys advanced integrated defence systems, with the F-35 jet carrying out sensor fusion, which report over 95% of effectiveness in targeting faster Shahed drones during 2025-2026 attacks on Hezbollah. The fiber-optic drone can defeat electronic warfare jamming while the Iron Beam laser is cost-effective in interception.

Furthermore, the United States has implemented cost-matched measures that include LUCAS drones, which are Shahed-style interceptor drones being deployed for combat in the Gulf region in the recent escalations.



Drones transcend borders. Villages in Ukraine have confronted hovering weapons that come from a distance. In the recent conflict, towns in Israel are on alert against drone attacks that originate from Yemen. Sites in Iran, previously protected by geography, attack without notice.

The battleground becomes ambient, an attribute, not a location. Civilians experience “ambient terror” while states rationalise their inability to defend themselves.

The drone revolution, exemplified in Ukraine’s labs and scaled by Iran’s Shahed drones, is a historic moment not only in the realm of tactics but one where the fundamental rules of warfare will have to be rewritten. The cost differential has been obliterated with drones taking out multi-million-dollar aircraft with truck-launched munitions available to any middle power or non-state group. This model will make it impossible for any power to enjoy unchallenged air supremacy in future wars.

However, there are major risks in this arms race. The ladder of escalation becomes far shorter as a \$20,000 Shahed rocket can force a countermeasure worth \$10 million, imposing heavy fiscal and political burdens. Circumstances where high cost, pilot danger, and identifiable action were all deterrents fade, when launch from proxy territory becomes normal. Ambient danger in what once was rear space is now a reality, with air raid alarms replacing weather reports in the daily lives of people from Tel Aviv to Tehran. Law on international humanitarian action struggles with drones operating independently and selecting their own targets.

This trend reflects prolonged conflict more than decisive success. Rules of international engagement concerning drones operating in civilian zones are still underdeveloped, posing difficulties within the context of current humanitarian law.



DreamIAS



NATIONAL

THE TRAGEDY OF RECURRING ROHINGYA REFUGEE DEATHS

Story so far:

A fishing trawler carrying around 250–280 people, including Rohingya refugees and Bangladeshi nationals, capsized in the Andaman Sea in mid-April 2026 while attempting to reach Malaysia. According to UNHCR - the UN Refugee Agency and the International Organization for Migration (IOM), around 250 people are feared dead or missing, based on preliminary estimates. The vessel departed from Teknaf in Cox's Bazar, Bangladesh, and was reportedly overcrowded and overwhelmed by rough seas.

Only around 9–10 survivors were rescued. Survivors reported that the boat travelled for about four days before capsizing, with some people floating for over 36 hours before being rescued by passing vessels.

Life-threatening sea journeys

Since the 2017 Rohingya crisis in Rakhine State, over 7,00,000 Rohingya have fled to Cox's Bazar, in Bangladesh. Myanmar's 1982 Citizenship Law rendered them effectively stateless, denying basic rights. In Bangladesh, more than one million refugees live in congested camps with limited or no access to education and formal work. According to the UNHCR, funding cuts since 2023 have sharply reduced food rations. Smuggling networks exploit this vulnerability, charging high fees for passage to Malaysia, where informal labour opportunities and diaspora links exist.

The 1,500-nautical-mile Bangladesh–Malaysia route relies on unseaworthy boats, often carrying over 200 people with minimal supplies, for a journey that could take 5–7 days. Reports by humanitarian agencies indicate that vessels are sometimes denied disembarkation or allegedly pushed back, leaving migrants stranded at sea.

According to a UNHCR report released on April 17 this year, 2025 was the deadliest year on record for Rohingya sea crossings, with nearly 900 dead or missing. The report observes that 6,500 attempted the journey, with about one in seven perishing. The trend has continued into 2026, with over 2,800 departures recorded between January and mid-April.

A comparison with the Mediterranean Sea highlights both parallels and contrasts. The IOM estimates nearly 28,000 deaths there since 2014, as migrants fled conflicts in Syria, Eritrea, and Afghanistan.

Europe's response, though contested, is relatively structured. Following the 2013 Lampedusa shipwreck, Italy launched Operation Mare Nostrum, rescuing around 1,50,000 people. It was followed by EU-led missions such as Operation Sophia, beginning in 2015, which targeted smuggling networks while also supporting rescue efforts. The Frontex coordinates joint operations, while the Common European Asylum System sets standards for asylum processing.

Legal accountability also plays a role. In *Hirsi Jamaa v. Italy* (2012), the European Court of Human Rights ruled that pushbacks violated international law. NGOs such as Médecins Sans Frontières and SOS Méditerranée have also rescued thousands. In contrast, Southeast Asia lacks binding frameworks. During the 2015 Andaman crisis, thousands were stranded at sea amid delayed responses. Without legal obligations or coordination, responses remain ad hoc.



The governance vacuum

The Rohingya maritime crisis exposes a governance vacuum in South and Southeast Asia. Conflict has strengthened the Arakan Army (a local Buddhist armed group), which by 2024 controlled large parts of Myanmar's Rakhine State, driving displacement in the region. Countries such as India, Bangladesh, Thailand, and Malaysia are not signatories to the 1951 Refugee Convention, limiting formal protections. The ASEAN's 2021 Five-Point Consensus has been constrained by the non-interference principle and internal divisions between Indonesia and Malaysia versus Thailand and Myanmar, reinforcing policy paralysis.

TURNING POINT

The U.S. has allowed its waiver of sanctions on Iran's Chabahar port to lapse on Sunday (April 26), indicating that India is now at a crossroads on how to proceed with the port as a key connectivity initiative. Barring a belated waiver renewal, New Delhi must choose between accepting sanctions and abandoning its \$620 million investment, or proceeding with the project and risk strict U.S. sanctions. India's "start-stop" engagement with Iran on developing a facility at the Shahid Beheshti terminal at Chabahar goes back decades, and Prime Minister A.B. Vajpayee signed an MoU for the project in 2003. However, U.S. pressure on India to postpone plans aimed at stopping Iran's nuclear programme led to construction delays. The Manmohan Singh government was unable to make much progress either, but continued work on the Zaranj-Delaram highway to connect the Iran-Afghanistan border crossing to Kabul. After the 2015 JCPOA, Prime Minister Narendra Modi's government signed a trilateral agreement with Iran and Afghanistan to advance trade and aid via Chabahar port and a highway into Afghanistan. Chabahar's importance grew as ties with Pakistan deteriorated and it restricted India's transit access to Afghanistan. However, fate intervened again as U.S. President Donald Trump walked out of the JCPOA, and began a "maximum pressure" campaign against Iran by re-implementing all sanctions. While India was forced by the U.S. to give up Iranian oil imports, and plans for the rail line, the U.S. built a "carve-out" for Chabahar, allowing India to send wheat and medical supplies to Afghanistan. That carve-out is now at an end, with the Trump administration giving Delhi until this month to "wind-down" its operations. Since November 2025, India has withdrawn personnel from Chabahar, prepaid its \$120 million investment commitment, and is considering transferring its stake in the Shahid Beheshti Terminal to an Iranian company, with the option of returning later.

The West Asia war has complicated the situation, and it is unclear when, if ever, India will be able to re-engage with Iran or rebuild Chabahar after the conflict. Temporarily dropping the project may seem pragmatic. However, Chabahar is just one of several India's independent decisions that the U.S. has thwarted; there have been diktats to stop buying oil from Iran, Venezuela, and Russia. Mr. Trump has threatened sanctions on all trade with Iran, and on BRICS grouping members; the U.S.'s seemingly insatiable demands may also extend to India's engagement with other countries. Giving in on Chabahar will not just end India's connectivity plans with Iran, Central Asia and Afghanistan. It will damage its claims of sovereign autonomy, and slice away its ability to pursue an independent foreign policy.

MHA UPDATES CITIZENSHIP RULES, TIGHTENS NORMS ON DUAL PASSPORTS FOR MINORS

The Union Home Ministry on Thursday notified the Citizenship (Amendment) Rules, 2026, introducing electronic Overseas Citizen of India (e-OCI) cards, fully online applications, and stricter norms on dual passports for minors.



Key Takeaways:

- “The rules introduce a fully digital OCI framework, mandating online applications, electronic records, and acknowledgements, while phasing out duplicative physical processes. A new provision allows issuance of electronic OCI (e-OCI) alongside physical cards, signalling a shift toward paperless identity for overseas Indians. Applicants must now consent to sharing biometric data for integration with fast-track immigration programmes, enabling possible automatic enrolment in the future,” an MHA official said.
- Earlier, OCI processes involved a mix of online and physical submissions, including paperwork and duplicate filing requirements. Now, they also formally codify certain provisions that were earlier followed in practice, but not explicitly written into the rules.
- A major update mandates that minors holding Indian passports cannot simultaneously possess passports of other countries, as inserted in a new proviso to rule 3 and this addresses concerns over dual citizenship misuse, though OCI status itself does not confer full citizenship rights.

Do You Know:

- Overseas Citizenship of India (OCI) is a form of permanent residency available to people of Indian origin which allows them to live and work in India indefinitely. It allows the cardholders a lifetime entry to the country along with benefits such as being able to own real estate and make other investments in the country.
- Overseas Citizen of India (OCI) and Person of Indian Origin (PIO) are both foreign nationals with Indian ancestry, but OCI is a superior, lifelong status that replaced the PIO card scheme in 2015. OCI cardholders enjoy permanent residency, multiple-entry lifelong visas, and economic parity with NRIs, excluding voting and certain public employment rights

INDIA'S GLOBAL RIGHT LINKAGES, COSTS AND CONSEQUENCES

Philosopher John Locke tellingly argued that “things of this world are in so constant a flux, that nothing remains long in the same state”. Seemingly localised events such as the French Revolution, the two world wars, the collapse of the Soviet Union, the September 11 attacks and Lehman Brothers' crash all kickstarted profound global disruptions. The 2008 financial crisis unleashed socio-economic pressures that heralded a tsunami of populist-autocrats leading right-wing parties (henceforth the Right). As evidenced by contemporary global upheavals (the conflict in West Asia being just the tip of the iceberg), this tsunami is the single biggest threat to the liberal world order.

Most analyses focus on the ‘what’ of this phenomenon, namely that the Right is fashioning a neo-conservative world order — where nations have spheres-of-influence and might is right; are culturally pure (code for xenophobia and racism); and where the liberal world order’s norms are vilified as impediments to a mythical golden period. Other analyses outline the similarities in the Right’s domestic politics or how it embeds undemocratic and atavistic norms in the new world order they are forging. What is understudied is how the Right breathes life into its shared goals and why it acts like it does.

In deciphering the how, the Right has colluded to establish an “international ideological axis” over decades. Networks such as the International Democracy Union, the Movement, the National Conservatism Conference, the Conservative Political Action Conference, the Heritage Foundation



(whose Project 2025 United States President Donald Trump is scrupulously unleashing globally) either train parties on manufacturing consent, create networking opportunities for right-wing politicians, frame coordinated responses on global issues, and weaponise their respective diasporas to support populist-autocrats. Through these, the Right has unleashed undemocratic upsurges against progressive values and parties, as well as the liberal world order. It is no coincidence that 91 countries representing 72% of the world's population are classified as autocratic by the Varieties of Democracy Institute.

A global right alignment

The Bharatiya Janata Party (BJP)'s role in this counter-hegemonic project is illustrative. Having effected a *gleichschaltung* on the Indian state, the BJP has redeployed the nation's foreign policy systems to help redraw the global map ideologically. As outlined in a recent book, *India's Tryst with the World*, Indian missions are bypassed as the BJP's ideological outposts (the Hindu Swayamsevak Sangh or HSS, the Overseas Friends of BJP and other Sangh Parivar affiliates) map and harass liberal academics working on India, obfuscate the targeting of foreign citizens (highlighted in a 2024 Canadian Security Intelligence Service report) and support the Right as part of an ideological internationalism.

Evidence of boots-on-the-ground collaboration can be found in the Operation Dharmic-Vote campaign in the 2019 British general election, which saw the Overseas Friends of BJP campaigning for Conservative Party candidates in 48 constituencies. Similarly, the 'Howdy Modi' and 'Namaste Trump' rallies stumped for Mr. Trump, as did Prime Minister Narendra Modi's pre-Operation Roaring Lion visit, which politically endorsed Prime Minister Benjamin Netanyahu ahead of Israel's national elections.

Likewise, exorbitant funds are channelised for extremist causes (a 2022 report by Jasa Macher found that just seven Sangh Parivar affiliates in the United States spent over \$158.9 million on right-wing causes). Some of this has yielded results, as democratic regressions in France, Germany, the Netherlands, the United Kingdom, and the U.S. testify.

Although this evokes a perverse epicaricacy among some in India, the BJP's Janus-visage lies bare abroad. Belying efforts to project Mr. Modi as a Gandhian *vikas-purush*, the BJP's role in this international axis has sparked deep unease.

First, transparency groups have alleged that the Prime Minister's personalised diplomacy transcends collusion with populist-autocrats, and furthers the interests of crony-capitalists (who support the BJP's politico-ideological objectives).

Second, progressive parties increasingly perceive the BJP's ideological internationalism as arming the Right in their respective nations. For example, as a Daily Mail report alleged, the BJP's involvement in fomenting tensions in Leicester vitiated politics and tried to strengthen the Right. Likewise, BJP delegations actively courting far-right parties across Europe has sparked deep unease among global progressives.

Third, the BJP's ideological adventurism has triggered diplomatic reprisals (including the expulsion of Indian intelligence officials from various nations — a historic first).

Fourth, hate speech and racist attacks on Indian students abroad has mushroomed, while restrictions to visas for skilled Indian immigrants have escalated. Both suggest that the BJP-enamoured-diaspora's efforts to ingratiate themselves with the Right yield no returns.



Finally, the BJP's adventurism has also compromised India's national interests. For example, by condoning kidnappings and assassinations of heads of state, wilfully ignoring the conversion of India's strategic backyard into a conflict-theatre, circumscribing India's historical support for a two-state solution and peace (because of an iron-alliance with Mr. Netanyahu's Likud party) and tacitly sanctioning coercive unilateralism in West Asia and South America, the BJP has undermined India's case on Pakistan Occupied Kashmir while imposing massive geo-economic and geo-political costs on India (as the adverse impacts of the war in West Asia prove).

The response to India's reticence

The world reads India's reticence under the BJP government as an abdication of India's moral leadership of the Global South, and not responsible statecraft. Contrary to Jawaharlal Nehru's principled internationalism (which successive Indian governments continued), in doing nothing to mitigate conflicts between NATO/Ukraine-Russia, or America/Israel-Iran, or on the Palestine issue, the BJP government is tacitly conceding that nations can violently forge hemispheric hegemonies, which is why few nations condemned China's aggression in Ladakh and Arunachal Pradesh, or Pakistan after Operation Sindoor (2025).

This brings us to why the Right is dismantling the liberal world order. Focusing on the domestic to illustrate the point, even though the BJP blithely continues India's long-standing efforts to forge a multipolar world, it is primarily striving to inscribe itself into a global conservative cartography (partly because of its ideological proclivities, and partly because it mistakenly buys into its self-propagated synonymity with the nation-state). The reason why the BJP's covert support for the dismantling of the rules-based world order (evocatively wrapped in decolonisation rhetoric) has traction is because of the injustices of the neoliberal world order — dealt with in the article in this daily, "Navigating the global economic transformation", October 16, 2025. After all, the Global North's economic colonialism (including structural adjustments, capital accumulation, cheap labour, environmental colonisation and trickle-down economics), and ruthless pursuit of national interests (including through sanctions and tariffs) predate the Right.

Similarly, the Global North's liberal incrementalism on overhauling international institutions (a sine qua non for India and the Global South) and inertia (despite conflicts afflicting five continents, there has not been a substantive United Nations Peacekeeping operation since 2014) has made the attack on transnational institutions seem kosher. Likewise, the Global North's promotion of cloud-capitalism has not only exacerbated socio-cultural fault-lines, but inevitably rewarded populist-autocrats.

Ironically then, it is the "progressive" establishment's standpattism that has paved the way for the Right. If progressives are to reclaim the centre, they must cut the self-created Gordian knot and shed familiar comforts. This means restoring confidence in shared futures, accommodating rising powers, honouring historical grievances, rewriting the geo-economic norms underpinning the world order, and reimagining multilateral institutions.

What the fightback must entail

Given the polycrisis engulfing us, progressives must shed their Macbeth-like fog of nostalgia, bureaucratic hesitation and technocratic chimeras. Eschewing liberal echo-chambers, progressives should mould new value-aligned partnerships with each other (especially between the Global-North and Global-South parties) and non-political stakeholders. This necessitates new institutional arrangements (like what Spain's Global Progressive Mobilisation and India's Bharat Summit promise) that allow structured dialogues between evangelical accelerators from all



nations (which the Non-Alignment Movement once was). This means exerting unprecedented political will, and recalibrating operational methodologies (such as the recent Hungary, Poland and New York campaigns) to sway the silent majority more effectively than the Right. Only then can we weave multiple national visions into a global symphony, and put democracy back on track.

LESSON FROM ARVIND KEJRIWAL DEMANDS FOR A JUDGE'S RECUSAL: DON'T BLUR RED LINES IN THE COURTROOM

Delhi High Court judge Justice Swarana Kanta Sharma's rejection of former chief minister Arvind Kejriwal's recusal plea in the liquor policy case brings to an end a troubling exchange. Underlining that "justice is not achieved by bowing to pressure," Justice Sharma held that a litigant cannot be allowed to judge a judge without material evidence, and judges cannot recuse themselves merely to satisfy unfounded apprehensions of bias. There can be little disagreement with this but two issues frame this episode: The imperative to protect judicial independence, which is threatened when motives are imputed through hearsay and speculation; and the disquieting pattern of opposition leaders in the dock after being targeted by central agencies.

In a polarised polity, the temptation to blur the line between courtroom and political battleground is ever-present. Litigants have been known to withdraw cases rather than argue before a judge they distrust. This erodes public faith in an institution already strained by delays and deficits. Kejriwal went further, personally arguing the plea, questioning the judge's "ideology" based on her attendance at certain public events. That sets a perilous precedent and turns the courtroom into an arena of accusation. As Justice Sharma cautioned, such pleas risk converting every bench into a veto point for the aggrieved. His argument that the judge had earlier denied him bail relief, and similarly denied Manish Sisodia and K Kavitha, is undercut by the manner in which a trial court subsequently discharged Kejriwal and the other accused. This affirms the primacy of due process over the disposition of any individual judge.

Yet judges, with due respect, need to look within. Their system of checks and balances — opaque by design, justified as a shield for independence — places the greater burden of self-regulation on the judiciary itself. When political discourse outside the courtroom is so fractured, judges must be careful about which stages they share and which they decline. Just as judicial assets are subject to disclosure, appointments of judges' family members to government panels — where governments are themselves frequent litigants — should be brought within the ambit of transparent public disclosure. More structurally, the MP/MLA (Criminal) roster, conceived to streamline cases against elected representatives, has often come to concentrate a disproportionate share of high-profile Opposition cases before a single judge. A polyvocal court — where benches are rotated and no single judge becomes the face of political prosecutions — is among the judiciary's strongest institutional safeguards. The court must diversify its pool and rotate its benches, not as a concession to political pressure, but as a guarantee of its own integrity. As for the litigant, VIP or otherwise, let this episode also be a cautionary lesson: Targeting the judge isn't sharp legal strategy, it distracts from, and can even weaken, the argument.

MALEGAON TERROR CASES: SYSTEM THAT KEEPS FAILING

The discharge of the last four accused in the 2006 Malegaon blasts case by the Bombay High Court is a scathing indictment of a broken process. Nearly two decades after four blasts killed 31 people and injured over 300, it is clear that investigative agencies, state and central, — the Maharashtra Anti-Terrorism Squad (ATS), CBI and NIA — have failed to deliver justice or to provide even a



modicum of closure to the families of the victims. Manohar Narwaria, Rajendra Chaudhary, Dhan Singh and Lokesh Sharma are not the only accused to be let off in a case in which members of Hindu extremist groups were under the investigative scanner. Last year, former BJP MP Pragma Singh Thakur and Lt Col (now Brigadier) Prasad Purohit were among the seven acquitted by an NIA court in the 2008 Malegaon blast case. That was the result of an absence of credible, admissible evidence. In the background of the investigative and prosecutory failures is something more disturbing: That the political will to back the prosecution of a terrorism case appears to depend on who is in power, and the identity of the victims and alleged perpetrators.

The Malegaon blasts cases were a test for whether the system can deliver when political pressure mounts. The ATS had initially accused nine Muslim men, two of whom were also linked to the Mumbai train bombings of 2006 — the accused in the latter were also acquitted. The investigative lapses ranged from lack of evidence and coerced confessions to torture. The case was later transferred to the CBI, which maintained that it did not have the wrong men. In 2013, the NIA chargesheeted a different set of people, including the four accused discharged this week. In the 2008 Malegaon case, the initial probe was led by ATS Chief Hemant Karkare, who was killed during the Mumbai terror attacks. The ATS chargesheet was filed after an investigation that included wire taps, witness statements and videos of the conspiracy. Yet, this was ruled inadmissible because the agency did not fulfil the legal requirement to have electronic evidence verified.

In case after case involving terrorist acts — two in Malegaon, the Mumbai train blasts, the 2002 Akshardham attack — the prosecution has failed to prove its burden. This is despite the advantage of stringent anti-terror laws, and the resources of the government. The conversation around the Malegaon cases was tainted by politics, religion and the politics of religion from the very beginning. There is no excuse for the lapses from what are meant to be apolitical instruments of the law. The agencies involved in investigating and prosecuting terror, whose failures have been decades in the making, must introspect — and be held accountable. A strong appeal against the discharge is the first step.

WHY SC IS LOOKING AT THE WAY BRAIN DEATH IS CERTIFIED

The Supreme Court on Tuesday said that it will seek expert opinion from AIIMS doctors on whether there is a need to conduct tests such as electroencephalogram (EEG) and angiogram to declare someone brain dead.

Key Takeaways:

- The two-judge bench, hearing a case on alleged malpractices in brain death certification by Kerala-based medic and activist S Ganapathy, said that it will ask the head of AIIMS's neurology department to constitute a committee to provide its views on the safety and viability of these tests.
- Ganapathy alleged that patients who may not be brain dead are declared so to facilitate organ donation. He added that the current apnea test done to certify brain death can be subjective and the legal mandate requiring that the test be videographed is not followed often.
- Brain death, also referred to as brain stem death, is an irreversible condition where all activities of the brain, including automatic functions such as breathing controlled by the brain stem, cease. The patient continues to survive — and breathe — with the help of life support systems such as ventilators. These patients, most of whom have suffered severe injuries in road accidents and falls that cut off oxygen supply to the brain, are for all intents dead and cannot be revived.



Do You Know:

- Declaration and certification of brain death is essential for deceased organ donation, where organs and tissues such as kidney, liver, heart, and eyes are donated to undisclosed, unrelated recipients. While India is a global leader when it comes to the absolute number of transplant surgeries, most of these are conducted using organs donated by living relatives.
- The current guidelines by the apex regulator National Organ and Tissue Transplant Organisation (NOTTO) requires a four-member board — including the hospital in-charge, a neurologist or neurosurgeon, and the treating physician — to declare that a patient’s brain function has irreversibly ceased at least twice with an interval of 12 hours.
- An EEG test essentially looks for the electrical signals in the brain using several small electrodes attached to the head. For a brain dead patient, this test would show that there is no electrical activity in the brain. An angiogram, on the other hand, uses contrast dyes and X-rays to check the blood flow in the brain. For a brain dead patient, this test would show that the blood flow to the brain has stopped.

SC REJECTS AIIMS REVIEW PLEA AGAINST ITS ORDER TO TERMINATE 7-MONTH PREGNANCY

The Supreme Court on Wednesday dismissed the review petition filed by AIIMS against its direction to medically terminate a 15-year-old girl’s seven-month-old pregnancy.

Key Takeaways:

- Taking exception to the review petition, a bench of Justices B V Nagarathna and Ujjal Bhuyan said: “It is strange that the review petitioner-All India Institute of Medical Sciences is not inclined to obey the order of the Supreme Court and instead, is assailing the order of this Court dated 24.04.2026 in order to defeat the constitutional rights of the minor daughter of the appellant herein.”
- The court had on April 24, allowed the Medical Termination of Pregnancy (MTP), underscoring the reproductive autonomy of a woman.
- The bench had said that “the right to make decisions concerning one’s body particularly in matters of reproduction is an integral facet of personal liberty and privacy under Article 21 of the Constitution. The right cannot be rendered ineffective by imposing unreasonable restrictions especially in cases involving minors and unwanted pregnancies such as in the instant case.”
- The mother of the minor girl had approached the court seeking permission for MTP as it had crossed the statutory limit set by the Medical Termination of Pregnancy Act. Though she moved the Delhi High Court earlier, the request for MTP was rejected on April 21.
- Seeking review of the April 24 order, AIIMS said the medical board had carried out a fresh assessment of the minor on April 25.
- Highlighting “grave legal and ethical implications” in the matter, the review petition said, “the Medical Board has unambiguously opined that at the current stage of gestation, the termination of the pregnancy of Minor ‘N’ will not be a conventional abortion but will result in a preterm delivery of a viable foetus — one that has a fair chance of survival. The Court’s order proceeds on



the premise of termination of pregnancy; however, the medical reality, as disclosed by the post-order assessment, is that a living, viable child will be prematurely delivered into the world.”

Do You Know:

- Section 312 of the Indian Penal Code, 1860, criminalises voluntarily “causing miscarriage” even when the miscarriage is with the pregnant woman’s consent, except when the miscarriage is caused to save the woman’s life. This means that the woman herself, or anyone else including a medical practitioner, could be prosecuted for an abortion.
- In 1971, The Medical Termination of Pregnancy Act (MTP Act) was introduced to “liberalise” access to abortion since the restrictive criminal provision was leading to women using unsafe and dangerous methods for termination of pregnancy.
- The MTP Act allowed termination of pregnancy by a medical practitioner in two stages.

For termination of pregnancy up to 12 weeks from conception, the opinion of one doctor was required.

- For pregnancies between 12 and 20 weeks old, the opinion of two doctors was required — they would have to determine “if the continuance of the pregnancy would involve a risk to the life of the pregnant woman or of grave injury to her physical or mental health” or there is a “substantial risk” that if the child were born, it would suffer from such physical or mental abnormalities as to be seriously “handicapped” before agreeing to terminate the woman’s pregnancy.
- In 2021, Parliament amended the law and allowed for a termination under the opinion of one doctor for pregnancies up to 20 weeks. For pregnancies between 20 and 24 weeks, the amended law requires the opinion of two doctors.

WHY HAS THE CREAMY LAYER DEBATE RETURNED TO COURT?

Fresh petitions before the Supreme Court are seeking to extend the creamy layer principle to SC/ST reservations, based on a misreading of the 2024 Davinder Singh judgment. The move revives a decades-old debate about whether income can serve as a proxy for caste-based disadvantage, and whether social justice can be trapped inside an economic test.

The renewed push

On March 10, the Supreme Court issued notice to the Centre and all States on a public interest litigation filed by advocate Ashwini Kumar Upadhyay seeking the exclusion of a “creamy layer” from SC/ST reservations. A separate plea, filed in February, sought an income-based prioritisation mechanism within these quotas. Both petitions claim constitutional sanction from the same source: the seven-judge bench decision in *State of Punjab v. Davinder Singh* (2024).

That judgment permitted States to sub-classify Scheduled Caste communities to direct reservation benefits toward the most marginalised within them. Four of seven judges made passing observations that creamy layer logic might apply to SC/ST groups.



A doctrine born in ambiguity

The creamy layer principle entered Indian constitutional law through the judgment in *Indra Sawhney v. Union of India* (1992), where the Supreme Court upheld OBC reservations but held that the more advanced sections, the “creamy layer,” should be excluded from benefits.

The 1993 Office Memorandum that followed identified creamy layer exclusion primarily through status, not income. Holding a Class I or Class II post in government was the proxy, a recognition that institutional power compounds across generations.

This architecture was progressively diluted. A 2004 clarificatory letter from the Department of Personnel and Training began treating PSU salaries as a standalone disqualifying criterion. On March 11, the Supreme Court in *Union of India v. Rohith Nathan* struck down that letter, holding that parental salary alone cannot determine creamy layer status. The 1993 OM’s status-based logic was restored, but the deeper premise of the doctrine, that economic attainment adequately measures the erasure of social disadvantage, remained intact and unexamined.

The Ambedkar objection

In his 1932 note to the Lothian Committee, B.R. Ambedkar warned that excluding wealthy or educated individuals from the category of untouchables was “a totally erroneous view.”

At the Mahar Conference of 1936, Ambedkar put it concretely: the educated, propertied Mahar still cannot open a shop without customers leaving when his caste is known; he still cannot apply for a job without his identity becoming a disqualification. Economic progress and social emancipation travel on different tracks, and the creamy layer doctrine collapses the two.

Data presented in *Jaishri Patil v. Union of India* (2021) showed that even Group D government employees were rendered ineligible for post-matric scholarships due to income-testing. The court noted that a family earning ₹6 lakh a year cannot be equated with one earning ₹24 lakh simply because both exceed a common ceiling. Statistical research published by Nishith Prakash showed that elite capture of quota benefits was a myth. Contrary to the popular notion, the positive impact of quota policy is concentrated among ‘the less-educated SC members in rural areas.’ The doctrine’s bluntness produces what may be called a creamy layer trap: the bar is set low enough to exclude the barely stable, yet the social burdens that reservation addresses persist regardless of salary bracket.

The SC/ST distinction

The case for creamy layer exclusion was always weaker for SC/ST communities than for OBCs. Sub-classification, what Davinder Singh actually authorised, is a different instrument entirely. It asks which sub-communities within the SC list are least represented and directs preference toward them.

Extending creamy layer logic to SC/ST would mean removing individuals from reservation eligibility based on parental income, precisely what Ambedkar argued was constitutionally and sociologically indefensible. Justice B.R. Gavai, who endorsed the broader principle in *Davinder Singh*, himself acknowledged that the criteria for SC/ST cannot be identical to those for OBCs.



Parliament's moment

The Rohith Nathan judgment creates a narrow but real opportunity for legislative recalibration, one that measures social backwardness by the subordination they continue to face. Parliament has both the constitutional authority and the democratic obligation to clarify that sub-classification and creamy layer exclusion are distinct instruments, and that the latter has no application to communities whose inclusion in the Presidential list was never conditioned never conditioned on economic criteria alone.

The Presidential notifications listing Scheduled Castes and Scheduled Tribes were grounded in the recognition of historical untouchability, ritual exclusion, and structural violence — realities that do not automatically dissolve with a government salary slip or a professional degree. Ambedkar's insight remains as relevant today as in 1932: caste operates as a social stigma that travels with the individual irrespective of class position. A Dalit IAS officer may still encounter discrimination in housing societies or matrimonial alliances; an Adivasi professional may still confront stereotypes that question their competence. To apply an income test here is to conflate two distinct axes of disadvantage.

Judicial restraint and legislative clarity

The Supreme Court's evolving jurisprudence has shown both nuance and tension. While Davinder Singh (2024) rightly empowered States to sub-classify SCs to ensure that the most backward among them receive priority — an intra-group equity measure — it did not mandate or even clearly endorse a creamy layer exclusion for SC/ST reservations. Reading such a mandate into stray observations risks judicial legislation. The Constitution places the power to notify and modify SC/ST lists with Parliament and the President (Articles 341 and 342). It is therefore for Parliament to draw a bright line.

A legislative clarification could explicitly state that:

- Sub-classification within SC/ST lists is permissible to address varying degrees of backwardness.
- The creamy layer principle, evolved primarily for OBCs (a class identified on social and educational backwardness), does not ipso facto extend to SCs and STs whose identification rests on the more egregious history of untouchability and isolation.
- Any exclusionary criteria, if introduced at all, must be narrowly tailored, evidence-based, and respectful of the sociological reality that social stigma lingers.
- Such a law would also withstand judicial scrutiny better by grounding itself in the original constitutional bargain rather than transient economic proxies.

The deeper stakes

The recurring “creamy layer” debate reflects a fatigue with caste-based affirmative action in some quarters and a genuine concern about equitable distribution of benefits. These concerns deserve address through better data, periodic review of lists, and robust sub-classification. Yet converting reservations into a purely economic welfare scheme would dilute their transformative character. Reservations were never merely poverty-alleviation tools; they were — and remain — instruments of status correction and power-sharing in a deeply stratified society.



Excluding the “creamy layer” from SC/ST quotas on the basis of income alone risks creating a new form of gatekeeping: allowing just enough mobility to disqualify families from benefits while the social field remains tilted against them. It would penalise the very success stories that demonstrate the policy’s potential without dismantling the underlying prejudice.

Parliament must seize this moment not to expand judicially suggested exclusions mechanically, but to reaffirm the constitutional vision of substantive equality. Social justice cannot be reduced to an income tax return. The arc of the reservation jurisprudence should bend toward inclusion and internal equity, not toward an economic test that Ambedkar himself rejected nearly a century ago. The Constitution’s promise to the most historically oppressed communities must not be made conditional on their remaining economically marginal.

NHRC IGNORING ATTACKS ON MUSLIMS, DABBLING IN MATTERS THAT DON’T CONCERN IT: HC JUDGE

Justice Atul Sreedharan of the Allahabad High Court has criticised the National Human Rights Commission (NHRC) for allegedly overlooking serious instances of violence against Muslims while engaging in matters “that prima facie do not concern” its mandate.

The case stems from a petition filed by the Teachers Association Madaris Arabia challenging a February 2025 NHRC direction to the Economic Offences Wing to investigate allegations concerning 558-aided madrasas in Uttar Pradesh. The complaint before the NHRC alleged financial irregularities, including misuse of government grants and the appointment of unqualified teachers by the madrasas through corrupt practices.

The petitioners argued that the NHRC lacks the authority to initiate inquiries into alleged human rights violations beyond a one-year limitation period. The High Court had earlier stayed the commission’s order in September 2025.

Justice Vivek Saran, who was also part of the Bench, however, disagreed with Justice Sreedharan’s remark made in the court on Monday.

“Instead of taking suo motu cognisance in which members of the Muslim community are attacked and at times lynched in some cases, and where cases are not registered against perpetrators, or not investigated properly, the Human Rights Commissions are seen dabbling in matters that prima facie do not concern them. This court is not aware of the NHRC taking suo motu cognisance in situations where vigilantes take the law in their own hands and harass the ordinary citizens, or harass individuals on account of the nature of relationship between persons of different communities, or where even having a cup of coffee at a public place with the person of different religion becomes a fearful act,” Justice Sreedharan said.

Justice Vivek Saran, however, underscored that the NHRC was not represented during the hearing and that the petitioner had sought an adjournment. In such circumstances, he said, it would have been appropriate to refrain from making adverse remarks without hearing all parties concerned.

The Bench has issued notice to the NHRC and extended the interim stay on its order. The matter is scheduled for further hearing on May 11.



ON TCS HARASSMENT AND CONVERSION CASE

The story so far:

Last month, Nashik Police claimed that they had busted a racket of alleged forced conversions and sexual exploitation at a multi-national company's office in the city. Nine FIRs were registered and eight persons were arrested. Police said they were looking for one more accused, who they claimed is on the run. A Nashik court has heard her anticipatory bail plea and will give an order on May 2. TCS has ordered an internal probe, suspending all the persons named in the FIRs, adding that no formal complaint has been registered with it yet.

Overview of the sexual harassment and forcible conversions case

The TCS case involves nine FIRs. They are related to complaints of alleged sexual exploitation, rape and forcible conversion at Tata Consultancy Services in Nashik, Maharashtra, between 2022 and 2026.

Timeline of the complaints

On March 26, 2026, the first FIR was registered at Deolali Camp Police station. It was filed by a 23-year-old woman employee of TCS, claiming that since 2022, an accused had tried to convince her into a relationship with him. She said that the accused had asked her to apply to TCS, where he was already working. She claimed that after she got selected, she was allegedly forced into physical relations by the accused, on the pretext of marriage. She further alleged that another co-accused, on learning of their relations, also sought physical favours from her.

She has claimed that three accused — Danish Sheikh, Tausif Akhtar and Nida Khan, used to allegedly speak ill about Hinduism, trying to dissuade her from following Hinduism. She claimed that she learnt in February 2026, that the main accused was already married with two children. She further alleged that the three accused hurt her religious sentiments, that Danish Sheikh kept physical relations with her on the promise of marriage, and that Tausif Akhtar sexually harassed her multiple times.

Police have claimed that the three accused taught her Islamic practices, and convinced her to follow them. The original FIR accessed by The Hindu does not mention it, and supplementary statements, if any, could not be accessed.

After the first FIR was registered, till April 3, 2026, eight more FIRs were registered in quick succession, at Mumbai Naka Police station. While seven FIRs were registered by women, one was filed by a man who alleged that he was forced to convert, Nashik Police said. The complainant claimed that he was allegedly forced to eat beef, offer namaz and recite kalma. He has told the police that the efforts allegedly started in 2023-24. When the victim's father suffered from paralysis, the accused allegedly said he would only recover if the victim accepted Islam, he told the police.

The other cases pertain to rape, obscene comments, insult of modesty, and hurting religious sentiments by making fun of Hindu gods and goddesses to impress on the victims that they should accept Islam. Police say that the cases pertain to incidents in the last four years, starting 2022. The police have claimed that the accused held senior or influential positions, and allegedly misused their position to take advantage of vulnerable men and women, influencing them or attempting to forcibly convert them.



Steps taken by the police

Nashik Police have formed a 12-member Special Investigation Team led by an Assistant Police Commissioner to investigate the matter. Several stringent sections of the Bharatiya Nyaya Sanhita (BNS) and the Scheduled Castes and Scheduled Tribes (Prevention of Atrocities) Act, 1989, have been invoked for sexual intercourse through deceitful means, sexual harassment, stalking, insulting the modesty of a woman, abetment, criminal defamation, intentional or malicious acts to outrage religion, intentionally wounding religious sentiments, common intent, etc. The sections include Sections 69, 75, 78, 79, 49, 356, 302, 299, 3(5) of BNS. In the first FIR, Sections 3(1)(w)(i), 3(1)(w)(ii), 3(2)(v) and 3(1)(s) of the SC, ST Prevention of Atrocities Act, 1989, have been invoked.

According to the police, they were alerted by a local social-political activist after the parents of the first complainant allegedly expressed apprehensions about her changed behaviour pattern. The police thereafter conducted a covert operation in the concerned TCS office, where police teams went disguised as housekeeping staff to gather intelligence. The FIRs were registered after the police spoke with several complainants and asked them to register formal complaints. A woman officer played a key role in gathering information from women survivors of alleged sexual harassment, police said.

Concerns raised in the issue

Civil rights activists have raised concerns about the process, narrative, and impartiality of the probe. They have claimed that cases of sexual harassment are allegedly being portrayed as 'corporate jihaad' or 'love jihaad'. They have sought an impartial probe into the alleged sexual harassment faced by the women, and about the structural lapses in addressing them. They have also raised concerns about an alleged 'media trial', where a woman accused was allegedly termed an HR professional. TCS later clarified that she was neither an HR manager nor responsible for recruitment, but that she was employed as a process associate without any leadership responsibilities. Civil rights groups have raised concerns about the lack of evidence for any externally funded religious conversion network or organised conspiracy.

Arguments by the defence

The lawyers of the accused have primarily argued on two issues: There is no law against conversions in Maharashtra. They have questioned the legal basis for booking the accused for alleged forcible conversions. They also contend that acts of voluntary choice are being incriminated.

THE RTE ACT AND THE IDEA OF SOCIAL INCLUSION

In its January 2026 judgment, the Supreme Court of India reaffirmed the purpose of Section 12(1)(c) of the Right to Education (RTE) Act, 2009, the landmark provision that reserves 25% of seats in private schools for students from economically weaker sections and socially disadvantaged groups. In words that are deeply symbolic, the Court observed that this provision makes it possible for "the child of a multi-millionaire or even of a Judge of the Supreme Court of India to sit in the same classroom and at the same bench as the child of an autorickshaw driver or a street vendor". The judgment reasserted that this provision is a deliberate constitutional strategy to operationalise equality of status by creating shared learning spaces for all children.



A constitutional strategy

Despite its intent, Section 12(1)(c) is frequently mischaracterised as a tool to promote private schooling or to allow the state to outsource its constitutional duty to public education, citing falling government school enrolment alongside rising private school admissions.

This reading is misplaced. First, Section 12(1)(c) does not dilute the state's duty to invest in public schools, but recognises that the right to free and compulsory elementary education, and the creation of shared learning spaces, must be realised within a schooling ecosystem where private schools are not incidental actors but natural participants in fulfilling a constitutional mandate. The RTE Act does not create a zero-sum contest between public and private institutions; it seeks to foster integrated educational spaces.

Second, the shift towards private schooling predates the RTE Act. The Annual Status of Education (ASER) Report of 2006 documents significant movement into private schools "at the expense of government school enrolment". Declining admissions in government schools are rooted in deeper concerns around infrastructure, teacher presence, and perceived quality — not in Section 12(1)(c) itself.

Evidence from the ground

Since its rollout, over five million children have walked through the doors of educational spaces previously out of reach, with retention rates averaging over 90%. In cities such as Delhi and Ahmedabad, blended classrooms are no longer exceptions; they are the norm. Research (such as that by Rao, Gautam, 2019) indicates that mixed classrooms lead to increased generosity, reduced discrimination, and stronger pro-social behaviour, without any adverse impact on academic outcomes or classroom discipline. At scale, implementation has also stabilised: reimbursements under Section 12(1)(c) are centrally streamlined, and State-level online Management Information Systems (MIS) ensure transparent, low-discretion processing.

For children from disadvantaged backgrounds, these classrooms offer more than just academics. They provide access to social capital, previously unexplored aspirations, peer networks, and institutional cultures. These experiences translate into higher self-belief, enhanced ambition, and a broader worldview.

Acknowledging challenges

There is no denying the challenges that persist in the implementation of Section 12(1)(c). Some private schools continue to resist full inclusion, while families often bear hidden costs for uniforms, books and materials. Implementation remains uneven across States, with persistent gaps in transparency, grievance redress, and last-mile outreach and disbursements.

These challenges do not change the fact that Section 12(1)(c) was not meant to rely solely on moral persuasion — it requires clear, enforceable rules to succeed. Encouragingly, recent experience demonstrates that these gaps are neither inevitable nor insurmountable. State-driven digital admission systems and improved monitoring mechanisms — particularly in Rajasthan, Gujarat, and Delhi — have significantly strengthened access and accountability.

The Court's reaffirmation of Section 12(1)(c) makes clear that it is neither a retreat from public education nor an endorsement of private schooling. The challenge now is administrative. States must ensure timely reimbursements, remove hidden costs by private schools, strengthen grievance redress, and enforce inclusion norms so that equality is experienced. The real test is



whether we can operationalise the constitutional promise of social integration with the seriousness needed to match the ambition we hold for our children.

A FALSE HIGH

There is a tendency in India to reduce democracy to the mere conduct of elections, and to confine political life to “political society” — that subset of the population actively engaged in setting policy and in mediating welfare delivery. This points to a democracy that falls short of a deliberative or deeply participative model, even in socio-economically better-off States such as Tamil Nadu (T.N.) and Kerala. Yet, elections are not a one-off event, and turnout remains a useful dipstick for the vibrancy of the democratic exercise, particularly in India where the poorer sections vote in large numbers. By that measure, the headline figures from T.N. and the first phase of the poll in West Bengal appear daunting and unprecedented. According to provisional Election Commission of India (ECI) data, 93.2% of voters turned out in the first phase in West Bengal and 85.1% in T.N. These record numbers must be read against the backdrop of the ECI’s Special Intensive Revision (SIR), which led to massive net voter deletions. In T.N., the rolls shrank by 10.5% from the pre-SIR figure, while in West Bengal nearly 13% of the electorate was deleted, with the eligibility of lakhs of voters still being heard by tribunals. If this is factored in, the percentage turnout begins to look inflated by a reduced denominator (total electorate) rather than by genuinely expanded participation (the numerator). The absolute increase in turnout in T.N. — about 27 lakh votes on provisional figures — was in fact among the lowest in recent electoral cycles, suggesting that wrongful deletions may have suppressed real participation even if the SIR did clear the electoral rolls of those who had died or moved out. The effect was sharpest in cities such as Chennai, where several constituencies recorded turnout above 80%, a jump of over 20 percentage points, even though the absolute number of voters — around 24 lakh — remained virtually unchanged from the 2021 elections.

It is also difficult to read too much into turnout in either State. High turnout has long been a feature of politically charged West Bengal, and T.N. has also been no slouch in recent electoral cycles compared to the rest of India. Also, political scientists have found little correlation between turnout levels and pro- or anti-incumbency outcomes. Once published, turnout percentages tend to acquire a life of their own and are cited as proof of democratic enthusiasm or the strength of a mandate, or, in T.N.’s case, the impact of a new political player such as actor Vijay’s Tamilaga Vettri Kazhagam. But a percentage is only as meaningful as the denominator it rests on, and in these two States, the denominator itself has been substantially altered. Turnout figures must therefore be read alongside how the electorate was determined before any conclusions about the mandate are drawn from the actual results.

SIR PAUSE ON WAY TO A BILLION ELECTORATE

Tamil Nadu finished its single-day poll on April 23 with a record turnout of over 85%, surpassing the earlier best of 78.29% in 2011 and a huge 12% higher than the 73.63% turnout in the last Assembly election. The base for the turnout was a trimmed-down electorate of 5.67 crore. While factoring in the high-octane political contest and mobilisation, the turnout rate would arguably be lower if the State electoral roll had retained “ghost electors” — the dead, shifted, absent, and duplicate names — that existed as of October 2025, when the special intensive revision (SIR) kicked in. Similar trend is seen in West Bengal, with a turnout of 92.88% in the first phase. Assam, Puducherry, and Kerala also delivered record turnouts earlier this month, all following the pattern of shrunken electorates. Therein lies a story.



Before the turn

In the run-up to its 75th Foundation Day on January 25 last year, also called the National Voters' Day, the Election Commission (EC) announced a grand celebration 'in light of the fact that India's total electorate is approaching the 100-crore mark.' That was a well-made observation by available arithmetic. The electoral database then stood at 99.1 crore, including 21.7 crore young voters aged 18-29. The steadily rising electoral gender ratio had further jumped from 948 in 2024 to 954. With an estimated population of 1.4 billion, India went into the last Lok Sabha elections with 96.88 crore registered voters. International observers have long watched in awe the elephantine Indian electorate, with the United States a distant second and countries such as Brazil and Indonesia trailing far behind. As the SIR completed its second phase earlier this month, India's grand list of electors appears poised to be significantly reversing its advance, though it may still be celebrated for other reasons.

India's electorate has been growing constantly, keeping pace with population growth. The logic is simple: all citizens above the age of 18, unless otherwise disqualified, are to be included in the electoral roll of their respective constituencies, where they are ordinarily resident. Broadly estimated at 75% of the population, a billion voters would look natural in the case of a wholesome registration. Interestingly, the electorate has often grown faster; during the 1951-2021 period, the population grew fourfold, from 36 crore to 138 crore, while the electorate grew more than fivefold, from 17 crore to 91 crore.

Starting with 17.32 crore electors in 1951, India's electoral roll has swelled steadily year after year, except for minor aberrations after accounting for births and deaths by lakhs of ground-level staff. Each January, the country releases updated and revised electoral rolls based on a summary revision with reference to 1st January.

The SIR twist

But then came SIR 2025. The revision, which has already covered 13 States and Union Territories, including Bihar in the first phase, has disrupted the usual elector count based on the logic of growing population. In the 12 States and Union Territories where SIR was ordered on October 27 last year — spanning 321 districts and 1,843 Assembly constituencies — the number of electors has dropped to less than 46 crore from a base of 51 crore. All major States, such as Uttar Pradesh, Tamil Nadu, West Bengal, Gujarat, and Chhattisgarh, have each reported a reduction of more than 10%.

Much of the downsizing is due to the removal of ASDD names (absent, shifted, dead, or doubly enrolled), purification being a basic purpose of any electoral revision. States such as Uttar Pradesh and Bihar have a history of job-related migration, warranting the removal of names. The ASDD burden has also accumulated because the last SIR was conducted between 2002 and 2004.

In substantial consideration, SIR entails drafting a new roll, compared to annual revisions, which are corrections on the existing list. But notably, there are a sizable number of deletions on account of non-return of enumeration forms, non-traceability of persons, objections received through the designated Form 7, and, importantly, for failing the eligibility criteria stipulated for electors under the Constitution, determined through verification of documents.

With the burden of proof shifting to the citizen, for a sizeable section of the population, the SIR has been like re-earning the franchise.



Additions factored

During the SIR process, the trimming is most visible at the draft roll stage and is largely driven by ASDD factors. There is, however, some recovery on the way to the final roll, thanks to fresh enrolments. In Uttar Pradesh, the initial roll of 15.44 crore slumped to a draft of 12.55 crore, before rising to a final tally of 13.39 crore following substantial additions. Tamil Nadu started with a list of 6.41 crore, which fell to 5.44 crore in the draft roll, but the net final roll was of 5.67 crore electors.

In June last year, Bihar started the intensive revision with a base of 7.89 crore electors and ended up with a final roll of 7.42 crore, improving upon the published draft of 7.24 crore. West Bengal, however, has been a different case, with issues of logical discrepancies affecting the final roll and spilling over into politics and the streets.

Reverse journey

Close to 60 crore of India's electors have already gone through the SIR exercise. The aggregate number has declined by nearly six crores even after additions. The remaining 40 crore electors, spread across 23 States and U.T.s, are now preparing for the scrutiny. With standard extrapolation, by the time SIR is completed across the country, the size of India's electorate could fall to around 90 crore.

The stated goal of SIR is to ensure that all eligible citizens, including newly eligible youth and temporary migrants, are included in the electoral roll. The details of the post-SIR final rolls, especially the addition of new electors, bear testimony to this effort. But the activity missed the profile, drowned in the overwhelming narrative of deletion.

In recent years, inclusivity has been a key focus in electoral roll management, addressing gender disparities, improving youth cohorts, and ensuring that persons with disabilities, the third gender community, and Particularly Vulnerable Tribal Groups (PVTG) are fully enrolled in a campaign mode.

Crux of democracy

India has prided itself on both the scale and quality of its elections over the last 75 years. The starting manifestation of both these is in the country's electoral roll. The litmus test for a credible election begins with the accuracy and completeness of the electoral roll and culminates in the general acceptance of the electoral outcome. Despite the scepticism from Western powers at the dawn of India's independence, the country has stood firm in sustaining an electoral democracy through credible and respectful exercise of the franchise. This is an outstanding fact, irrespective of the recent disputes over the electoral process and management. All interventions, including SIR, have to strengthen the cause.

Renew focus on inclusion

The SIR is not the answer to the alleged adulteration of demography by non-citizens or infiltrators, nor is the EC in charge of policing this part. However, the SIR has cured the electoral roll of its obesity, giving it a new look. The quantitative expansion of India's electoral roll has received a discernible pause.

It is now for election managers to ensure and provide all stakeholders with the confidence that the new slim roll is accurate and free of disenfranchisement. Concerns that the SIR process, in its



uncompromising pursuit, should not strip people and groups of their democratic rights on technical grounds must not be seen as hostile.

After the high-profile focus on removing ineligible names, the EC should now invest its energy in reaffirming its celebrated resolve that no eligible voter is left behind.

ELECTORAL ROLL PURGES RAISE CONSTITUTIONAL QUESTIONS

The Election Commission of India (ECI) has invented the term “logical discrepancy” to delete voters from the voters’ list in the recent elections (the States of Assam, Kerala, Tamil Nadu and West Bengal, and the Union Territory of Puducherry). It is alleged that lakhs of voters have been removed from the voter list in States where elections have been held recently. Even the Supreme Court of India’s innovative idea of tribunals could not get these voters back onto the list, mainly because of the near-total mess created by the ECI’s Special Intensive Revision (SIR) of electoral rolls exercise.

It has been pointed out by many commentators — including this writer in this daily — that the SIR, as designed by the ECI, is deeply flawed and, if continued, will result in the elimination of a very large number of Indian citizens from the electoral roll. Media reports indicate an alarming situation, particularly in West Bengal, where lakhs of genuine citizens have had their names removed from the electoral roll and placed under the category of “logical discrepancies”. The fact is that many of them were unable to vote in the election/first phase of the election.

Citizenship as basic requirement

The issue of the elimination of people from the voter list revolves around the question of citizenship. Article 326 enjoins that every person who is a citizen of India and who is not less than 18 years of age and who is not disqualified under the Constitution or law shall be entitled to be registered “as a voter at any election”. Thus, citizenship is the basic requirement for anyone to be registered as a voter.

The citizenship law is administered by the Union Home Ministry. Therefore, it is the duty of the Ministry to announce the list of documents required to prove the citizenship of Indians. However, as far as is known, the Ministry has not issued any such list.

Instead, the ECI announced a list of documents at the time of initiating the SIR in Bihar. Since many documents that citizens normally use for various purposes, such as Aadhaar card, ration card, and even the photo voter identity card issued by the ECI itself, were not accepted by the ECI as proof of citizenship, people began running helter-skelter in search of the documents listed by the ECI. Many of such documents were hard to find, especially for rural people who are not in the habit of preserving such documents. Thus, as many as 91 lakh voters were removed from the voter list in West Bengal because they could not produce the documents that the ECI required to prove their citizenship

Duty of the Home Ministry

A question of great constitutional significance arises here. Does the ECI have the power under Article 324 to determine what documents the citizens should produce to prove their citizenship? The simple answer is that such power is vested in the Union Home Ministry, and it is the constitutional duty of the Home Ministry to announce publicly the documents required for this purpose. The ECI can only verify those documents while enrolling citizens in the voters’ list. Here,



the ECI is acting beyond its jurisdiction. Article 324 does not empower the ECI to usurp the power of the Home Ministry. But it is surprising that the Supreme Court did not address this question when the issue of documents came before it. It was expected that the Court would direct the Union government to announce the list of documents and submit an affidavit in this regard. Instead, the Court merely requested the ECI to consider whether the Aadhaar card could also be counted as a relevant document.

The SIR has been conducted in the election-bound States, deviating from the law. Section 21 in The Representation Of The People Act, 1950 says that the electoral roll shall be revised before each general election and before a bye-election and also in any year as directed by the ECI. Apart from these the ECI can also undertake a special revision of the roll of a constituency or part of it for reasons to be recorded. Rule 25 of the Registration of Electors Rules, 1960 explains that the revision can be done summarily or intensively, which makes it clear that pre-election revision is summary in nature and the revision done in any year (when there is no election coming up) is intensive.

A combined reading of Section 21(2) of The Representation Of The People Act, 1950, and Rule 25 of the Registration of Electors Rules makes it clear that only a summary revision of the rules can be done before the general election or any bye-election.

The intensive revision can be done at any other time when elections are not due, the reason being that such a revision is very comprehensive and the voters' list needs to be prepared afresh. It is a very time-consuming exercise and cannot be done in such a hasty manner. The SIR conducted by the ECI a couple of months before the Bihar election, and, thereafter, in Kerala, Tamil Nadu and West Bengal is thus a clear deviation from the law and past practice.

In West Bengal, where the SIR exercise was absolutely chaotic, over 91 lakh voters have been removed from the voter list, many of whom have been placed in the category of "logical discrepancy". This categorisation of citizens is unknown to the election law. The Registration of Electors Rules, 1960 lays out a detailed scheme for the preparation of the electoral roll. Besides, the ECI has issued detailed instructions, one of which is that the booth-level officers (BLOs) should distribute enumeration forms to all existing electors through house-to-house visits.

Rule 8 clearly states that the occupants of the dwelling houses shall furnish the information called for to the best of their ability. This should mean that the ECI will have to accept the information that the occupants of the house have collected to the best of their ability. It makes no sense for the ECI to insist on obtaining information that, in the normal course, is not possible to procure, particularly for unlettered rural people in remote parts of the country. The fact that 64 lakh voters in Bihar and 91 lakh in West Bengal were removed from the voters' list amply demonstrates the deliberate non-adherence to this and other rules by the ECI.

An instance of violations

The object of this hastily conducted SIR seems to be to remove millions of voters from the voters' list. Media reports suggest that much of these deletions have been done without giving those affected a hearing, which is a blatant denial of natural justice as well as a violation of statutory provisions. Free and fair elections cannot be ensured by deviating from or violating the statute. The justice system in the country cannot permanently turn a blind eye to it.



JOURNEY OF EVMS BETWEEN POLLING AND COUNTING

A day after polling concluded in the West Bengal Assembly election on Wednesday (April 30), Chief Minister and All-India Trinamool Congress (TMC) chairperson Mamata Banerjee on Thursday night hit out at the Election Commission of India (ECI) and the BJP. She alleged that there had been an attempt to tamper with the electronic voting machines (EVMs) stored at a strongroom till counting of votes on May 4.

Key Takeaways:

— The ECI's procedure for handling EVMs before, during and after polling is laid out in its Manual on Electronic Voting Machines, 2023.

— Before the election, EVMs are stored in a warehouse under the control of the District Election Officer (DEO), who is the District Magistrate. Once elections are underway, the EVMs are randomised in the presence of representatives of national and state-recognised parties and sent to the respective strongrooms in each Assembly constituency.

— The entire process is to be conducted under 24/7 CCTV coverage, the manual says. The strongrooms also have armed security. It is from these strongrooms that the EVMs are dispatched to the polling booths.

— After polls close on voting day, the EVMs are to be sealed and escorted back to the strongrooms by the poll officials and security personnel. Candidates and their polling agents usually follow the vehicles carrying the polled EVMs from the booths to the strongrooms.

— The manual says all polled EVMs should be stored in one strongroom and unused EVMs in a separate strongroom marked "reserve EVM".

— The manual lays out all specifications of the strongroom, starting with the dimensions of the shelves on which the EVMs are to be placed (6 feet by 2 feet). The strongrooms must have a single entry/exit point, with all other doors and windows to be sealed with brick masonry or concrete. This door needs a double lock system.

— The keys of the first lock are to be kept with the Returning Officer (RO), and the keys of the second lock with the Assistant RO. At least one platoon of armed police has to be deployed 24/7.

— The protocol for the polled EVMs, as per the manual, includes informing all candidates 24 hours in advance so that they can depute representatives to keep a watch on the security arrangements. The RO is to visit the storage campus, till the inner-most perimeter, twice a day to check the log book and video feeds, and to send a daily report to the DEO.

— It is from these strong rooms that the EVMs are taken to counting centres, usually one per district, for the counting of votes. Again, the process is to be conducted under videography and with the knowledge of the candidates' representatives.

— Similarly, for postal ballots, which are used by service voters, and categories like those above 85 years and persons with disabilities, the protocols have been defined by the ECI. The RO is supposed to keep all postal ballots received by the post office in separate envelopes for each day. These are to be kept in a strongroom for postal ballots at the RO headquarters.

**Do You Know:**

— A Returning Officer is responsible for overseeing the election in a constituency, or sometimes in two constituencies, as directed by the Election Commission (EC). The EC appoints the Returning Officer and Assistant Returning Officer for a constituency in consultation with the governments of the State or Union Territory as the case may be.

— EVM or Electronic Voting Machines are used to cast vote without revealing your identity. It is used in Indian General and State Elections. It has replaced paper ballots in local, state and general (parliamentary) elections in India.

— EVM has two parts, it consists of a 'control unit' and a 'balloting unit', connected by a 5-metre cable. The control unit is with the Election Commission-appointed polling officer; the balloting unit is in the voting compartment into which the voter enters to cast the vote in secret by pressing the button against the name and symbol of the candidate of her choice.

— The control unit is the EVM's 'brain' — the balloting unit is turned on only after the polling officer presses the 'Ballot' button on it. The EVM runs on a 6 volt single alkaline battery fitted in the control unit, and can even be used in areas that have no electricity.

WILL AAP MPS FACE DISQUALIFICATION AFTER JOINING BJP?**The story so far:**

In a setback to the Aam Aadmi Party (AAP), seven of its 10 Rajya Sabha members, amounting to two-thirds of its strength in the Upper House, joined the Bharatiya Janata Party (BJP) on April 24. AAP MP Raghav Chadha, who was removed as the party's deputy leader in the Rajya Sabha three weeks ago, announced that he and six other party members had decided to "merge with the BJP".

Is there a law against defection?

The anti-defection law, enshrined in the Tenth Schedule to the Constitution by the 52nd Constitutional Amendment Act, 1985, seeks to curb rampant floor-crossing by elected representatives in Parliament and State legislatures. It provides for the disqualification of a legislator if they voluntarily relinquish membership of the political party on whose ticket they were elected, or if they vote, or abstain from voting, in defiance of directions issued by their party or by an authorised functionary.

What are the 'split' and 'merger' exceptions?

The Tenth Schedule originally recognised two exceptions under which members would not incur disqualification. The first, the "split" exception under paragraph 3, insulated legislators from disqualification if at least one-third of the members of a legislature party defected together. Owing to its misuse to engineer defections, this exception was subsequently removed by the 91st Constitutional Amendment in 2003.

The second, the "merger" exception under paragraph 4, stipulates that a legislator will not be disqualified for joining another political party if the move is part of a merger involving their original party. Under sub-paragraph (1), a member will not be disqualified if their original party merges with another political party, and they act in accordance with such merger. Sub-paragraph (2) deems such a merger valid only if at least two-thirds of the legislature party agree to it. This



exception remains in force and was intended, as reflected in parliamentary debates, to protect principled defections grounded in ideological differences.

However, paragraph 4 has been criticised for its convoluted drafting. The ambiguity lies in whether its two sub-paragraphs are to be read conjunctively or disjunctively. On a conjunctive reading, a valid merger requires both an actual merger of the original political party (under paragraph 4(1)) and the consent of at least two-thirds of the legislature party (under paragraph 4(2)). On a disjunctive reading, however, a merger may be “deemed” once two-thirds of the legislature party agrees to join another party, even without a corresponding merger at the national level.

What did the Supreme Court rule on the ‘split’ exception?

The Supreme Court has endorsed a conjunctive reading while interpreting the now-deleted “split” exception. In *Rajendra Singh Rana v. Swamy Prasad Maurya* (2007), where 37 MLAs of the Bahujan Samaj Party sought recognition of a formal split, the Court held that for the exception to apply, a split in the “legislature party” must stem from a corresponding split in the “original political party”. The “legislature party” refers to all elected members of a House belonging to a political party, while the “original political party” denotes the party itself.

How has the ‘merger’ exception been interpreted?

In 2019, 10 MLAs from the Indian National Congress in Goa joined the BJP, then in power in the State, claiming they constituted two-thirds of the 15-member Congress legislature party. Disqualification petitions were rejected by the Speaker of the Goa Legislative Assembly, who held that the move amounted to a valid “merger” under paragraph 4 of the Tenth Schedule. On February 24, 2022, the Bombay High Court upheld this decision, ruling that since the defecting legislators met the two-thirds threshold, their move constituted a “deemed merger” with the BJP.

Notably, **the High Court adopted a disjunctive reading** of paragraph 4 and ruled that a “deemed” merger is triggered once two-thirds of a legislature party agrees to join another party, even without approval from the original political party at the national level.

What do experts say?

According to former Lok Sabha Secretary-General P.D.T. Achary, a valid merger under Paragraph 4 of the Tenth Schedule requires the original political party to first merge with another party, and then the decision to be backed by at least two-thirds of the legislature party. “An interpretation faithful to the anti-defection law’s intent would mean that Rajya Sabha MPs cannot, on their own, decide to merge with another party. In this case, it would require Arvind Kejriwal to agree to a merger with the BJP,” he said. Any member, he noted, may now move a disqualification petition before the Rajya Sabha Chairman, whose decision would be open to judicial review.

However, Swapnil Tripathi, who heads Charkha, the Constitutional Law Centre at the Vidhi Centre for Legal Policy, said that the support of two-thirds of the AAP’s Rajya Sabha members could allow the move to be treated as a “deemed” merger under paragraph 4(2).

He, however, pointed to a larger anomaly that is likely to be challenged. “Rajya Sabha MPs are elected by MLAs of State legislatures. Here, the MLAs who elected these members continue to belong to the AAP in Punjab, while the MPs have switched to the BJP. This creates a disconnect between the electoral base and the MPs’ party affiliation, undermining the underlying objective of Rajya Sabha representation,” he said.



HINDI-MEDIUM ASPIRANTS FACE A WIDENING GAP IN DELHI'S UPSC HUB

In the cramped lanes and crowded bookstores of Delhi's Mukherjee Nagar, a well-known hub for civil services coaching, Hindi seems to be getting the short shrift.

While the shelves brim with up-to-date study material for English-medium aspirants, keeping pace with the changing demands of the Union Public Service Commission (UPSC), for those who think, write, and dream in Hindi, however, the choices are sparse, often reduced to dated translations and fragmented notes.

According to several aspirants, it is a far cry from the late 1980s when Ashok Singh and his institute, Meridian, transformed this small pocket of north Delhi into a sanctuary for students from Bihar and Uttar Pradesh. Soon, A.K. Mishra of Chanakya IAS Academy and Shashank Atom of ALS Coaching joined the movement, creating a wave of success that established Mukherjee Nagar as the coaching hub for Hindi-medium aspirants.

However, the equilibrium began to shift with the introduction of the Civil Services Aptitude Test (CSAT). Conceived as a measure of analytical ability, it has, in practice, become a hurdle that many Hindi-medium students find difficult to clear.

Sonu Kumar, a UPSC aspirant, said, "We are not adequately trained for CSAT. We prepare for the Mains, but get stuck at the preliminary stage. Our attempts are wasted, leaving us with nothing but hopelessness."

Hindi-medium material, he added, is often a translated version of English-medium content. "Hence, it does not help much and only makes things more complicated. Hindi-medium notes are often overly descriptive while English study materials are more direct and exam-oriented, with greater use of technical terms. Another major problem is the absence of a reliable Hindi newspaper, whereas English-medium students have an advantage in this regard," Mr. Kumar said, adding that mentors continue to rely on traditional, time-consuming methods rather than the more targeted "smart work" that the examination now requires.

Vishal Tiwari, a 28-year-old from Kanpur, said English-medium students often come from more stable and privileged backgrounds, making the competition seem uneven. "English-medium students often have better professional degrees and exposure. Their approach is efficient, while ours tends to be lengthy," he said.

'Status symbol'

Mentors, too, recognise the shift. Devraj, a long-time guide in the area, said English has increasingly become a status symbol. "Fewer students are now preparing for the IAS in Hindi medium. In the next five years, their proportion may fall to around 20%," he says.

Shivangi from Ayodhya, who has lived here since 2019, echoed the sentiment. "The mentorship is inadequate, and survival itself is difficult. Generally, Hindi-medium students come from agrarian backgrounds across Hindi-speaking regions such as Bihar, Uttar Pradesh, and Jharkhand. Many end up focusing more on personality development than their core preparation," she said, adding that the cost of study material, though not very high, poses a burden on some students.

R.S. Shukla, who was once an aspirant himself and is now a professor, said there is a dire need to change the perception of Hindi.



“We, along with the government, should focus on building a strong foundational knowledge of both Hindi and English among students. Students should be determined, encouraged, and guided towards smart work so that this journey does not become a five-year plan, but a one-year effort,” he said.

MARATHI MANDATE FOR AUTO, TAXI DRIVERS IS BAD POLITICS, BAD ECONOMICS

Days after announcing its ill-conceived decision to make basic Marathi-language proficiency mandatory for all auto and taxi drivers from May 1, the Maharashtra government extended the deadline to August 15. The move is a minor concession, coming after auto and taxi unions objected to the arbitrariness of the announcement. It does little to undo the irrationality and constitutionally tenuous grounds of the original decision, which, if implemented, would see the licences of a large number of non-compliant drivers cancelled. At a time when public transport is plagued by more pressing issues such as affordability and accessibility, the easy resort to narrow linguistic politics is troubling.

In conditioning livelihoods on Marathi-language proficiency, the Maharashtra government's decision erects an informal barrier against internal migrants — the very people who sustain urban economies like Mumbai's. Such measures weaken the idea of the nation as a shared civic space and undermine the constitutional promise of freedom of mobility, which gives citizens the right to reside and settle in any part of India and practise any profession or occupation there. It is also bad economics, subverting the spirit of a unified market, where labour mobility is essential for efficiency and growth. Urban transport systems, moreover, depend on flexibility, scale, and the willingness of workers to migrate where opportunities exist. A driver from Uttar Pradesh or Bihar should not find their dignity or employability contingent on linguistic assimilation.

Maharashtra has a long history of language being weaponised for narrow political ends. Over the last year, for example, following the Devendra Fadnavis administration's oscillation on the three-language policy — first making Hindi mandatory at the primary-school level, then making it optional — the Shiv Sena and the Maharashtra Navnirman Sena raised the pitch on the “imposition” of Hindi and cast themselves as the protectors of Marathi pride. The tactics used by the Raj Thackeray-led MNS — slapping bank officials for not offering services in Marathi, for instance — have underlined how easily parochialism can slip into violence. The language mandate to auto and taxi drivers may come with the state's imprimatur, but the same insular impulse drives both. Those most vulnerable to the violence of the hooligan and the capriciousness of the state are inevitably the ones with the least social and economic protections, such as migrant workers. The choice before policymakers is stark: Pursue inclusive growth anchored in constitutional freedoms, or indulge parochial impulses that subvert that purpose. Maharashtra's language mandate, in both principle and effect, leans dangerously toward the latter.

TRIPURA LEADS, BIG STATES LAG: 2.5 LAKH PANCHAYATS RANKED IN PAI 2.0 REPORT

Gram Panchayats in Tripura, Kerala, and Odisha have performed better, while those in Punjab, Uttar Pradesh, Bihar, and Rajasthan lagged on the Centre's Panchayat Advancement Index (PAI) 2.0, which assessed 2,59,867 rural local bodies based on their performance and progress on nine themes covering sustainable development goals (SDGs).

**Key Takeaways:**

- Of the 2,59,867 Gram Panchayats, 3,635 have been ranked as 'Front Runner', 1,18,824 as 'Performer', 1,23,719 as 'Aspirant', and 13,689 as 'Beginner'. No panchayat could make it to the 'Achiever' category.
- Among the 'Front Runner' panchayats, 943 were in Tripura, which constituted 80 per cent of the state's total 1,176 rural local bodies. The state was followed by Kerala, where 10 per cent of its 941 Gram Panchayats have been assessed as 'Front Runner'. With 8 per cent of its total 6,794 Gram panchayats assessed as 'Front Runner', Odisha stood next.
- Panchayats in these states have performed relatively better vis-à-vis several big states. For instance, only 51 of 57,678 Gram Panchayats in Uttar Pradesh were assessed as 'Front Runner'. In Rajasthan, the number stood at eight out of 11,037; in Bihar, 2 out of 8,053; and in Punjab, just one out of 13,233.
- "PAI is a report card on the performance of each of the more than 2.5 lakh panchayats in the country. Each panchayat is assessed on more than 150 parameters across sectors such as health, water, infrastructure, and sustainability. The release of PAI 2.0 (FY 2023-24) reinforces the government's commitment to strengthening Panchayati Raj Institutions and advancing the vision of 'Viksit Gram Panchayats' through participatory, transparent, and data-driven local governance," said a source at the Union Ministry of Panchayati Raj.

Do You Know:

- The Ministry of Panchayati Raj launched the Panchayat Advancement Index (PAI) — a transformative tool to measure the progress of over 2.5 lakh Gram Panchayats (GPs) across India. The PAI captures Panchayats' performance across nine themes of Localized SDGs (LSDGs) i.e. Poverty-Free and Enhanced Livelihoods in Panchayat, Healthy Panchayat, Child-Friendly Panchayat, Water-Sufficient Panchayat, Clean and Green Panchayat, Panchayat with Self-Sufficient Infrastructure, Socially Just and Socially Secured Panchayat, Panchayat with Good Governance and Women-Friendly Panchayat. These themes align global goals with rural realities, helping local governments tailor their strategies for holistic development.
- The PAI 2.0 is prepared by the Union Ministry of Panchayati Raj after assessing panchayats based on their performance across 150 indicators covering nine SDGs –from poverty-free and enhanced livelihoods to women-friendly panchayats—during the 2023-24 financial year.

According to the ministry officials, the Gram Panchayats have been ranked under five categories based on their score on a scale of 0-100: 'Achiever' (90-100), 'Front Runner' (75-90), 'Performer' (60-75), 'Aspirant' (40-60) and 'Beginner' (below 40).

LIKELY BELOW-NORMAL MONSOON IS A WARNING: INDIA MUST HEED WATER STRESS

Civilisations have flourished and perished because of water. India has been witness to that itself. Therefore, we will be doing ourselves a big favour if we do not treat water conservation and management as an avoidable luxury but as an existential necessity.

Key Takeaways:

- On April 13, the India Meteorological Department issued its first update for the coming monsoon season. The monsoon season is expected to be mostly below normal. The probability of it being

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even above normal to excess is almost ruled out. More importantly, many of the rainfall districts will face below-normal rain. Very few areas of the country will receive normal to above-normal rainfall.

- This is mainly due to the El Niño Southern Oscillation (ENSO) effect. El Niño and La Niña are two weather patterns that occur in the Pacific Ocean. They are part of a larger climate phenomenon called the El Niño-Southern Oscillation (ENSO). Both have significant effects on global weather, influencing rainfall and temperatures. El Niño typically leads to reduced monsoon rainfall, while La Niña tends to strengthen the monsoon.
- ENSO is expected to set in, in June. But the effect will begin to be felt in July. So, the current expectation is that ENSO will have its effect in the second half of the monsoon season rather than the full monsoon. However, as we write this, ENSO is developing rapidly in the Pacific. It may occur even earlier.
- A couple of other minor consolations are the negative correlation between the Northern Hemisphere or Eurasian snow cover and the rainfall in the subsequent monsoon season. Between January and March 2026, Eurasian snow cover was below normal. That augurs better for the precipitation during the monsoon season. Of course, that has been factored into the seasonal forecast. Second, the IOD — Indian Ocean Dipole — counterpart to ENSO, but in the Indian Ocean, will also be counteracting the effect of ENSO on India's Southwest Monsoon. But IOD is expected to have its effect only in the second half of the monsoon season. This has already been factored into the rainfall assessment.
- Another minor relief is that the Super ENSO phenomenon, which has an even greater impact on the monsoon rainfall, is setting in much after India's monsoon season officially ends. So, India's rainfall will not be much impacted by the Super ENSO. It is expected that this year's ENSO phenomenon will have a bigger impact on Southeast Asia, Indonesia and Australia. The ENSO effect usually lasts nine to 12 months.
- Barely a month before the IMD released its monsoon update, three experts published their book on water. They were not shy of sounding dire. Parameswaran Iyer, Arunabha Ghosh and Richard Damania, in their book *Water, Nature and Progress: Solutions for a New India*, call for a circular water-economy mission that treats used water as a resource rather than a liability, with realistic targets and financing models.
- India reuses only 3 per cent of its treated used water, while cities like Singapore meet 40 per cent of their water demand through reuse. The mission proposes staggered targets — 50 per cent treatment capacity by 2028, 100 per cent by 2035, 50 per cent reuse by 2035 — along with a framework for public-private partnerships that draws on successful models from Surat, Thane, Taiwan and Jordan.

Do You Know:

- El Niño Southern Oscillation (ENSO)—The El Niño-Southern Oscillation (ENSO) is a periodic, natural fluctuation in tropical Pacific sea surface temperatures (SST) and atmospheric pressure occurring every 2–7 years. It alternates between three phases—El Niño (warm), La Niña (cold), and Neutral—significantly influencing global weather, agriculture, and ecosystems.
- El Niño and La Nina—El Niño is characterized by warming of the ocean surface in the central and eastern tropical Pacific Ocean. It's one of three states scientists observe; La Niña, conversely,



happens when sea surface temperatures are below average, and neutral conditions are defined when neither El Niño or La Niña are present and surface temperatures are about average.

- Negative correlation between the Eurasian snow cover and the rainfall— A negative correlation exists where high Eurasian snow cover in winter/spring leads to reduced subsequent Indian monsoon rainfall, as increased snow keeps the continent cold, weakening the required thermal contrast for a strong monsoon. Conversely, low snow cover, as observed in early 2026, predicts better rainfall, although this teleconnection has weakened since 1990.
- Super ENSO phenomenon— A “super” El Niño just means one that is stronger. These are rare events typically defined by sea surface temperatures spiking up by at least 2C. This has only occurred a few times since 1950 and only once have temperatures surged past 2.5C.
- Circular water-economy mission— A circular water-economy mission aims to transition from linear “take-make-dispose” water usage to a closed-loop system, treating wastewater as a resource for reuse, recycling, and nutrient recovery. It seeks to maximize efficiency, reduce freshwater stress, and build climate resilience by treating, purifying, and reusing water for industrial, agricultural, and urban purposes.
- Water-stressed country—Water-stressed countries are nations where the demand for water exceeds the available renewable supply, or where poor quality restricts its use. It occurs when a country withdraws 25% or more of its renewable freshwater resources, with over 80% indicating extreme stress. This causes significant water shortages, affecting economic, agricultural, and human needs.

HEATWAVES

April this year is once again turning unusually hot in Punjab and Haryana, with the India Meteorological Department (IMD) issuing repeated heatwave alerts for several districts over the past few days. Traditionally, heatwave conditions in the region were associated with May and June, but over the past decade, April sometimes itself has begun to witness such spells — particularly towards the latter half of the month.

Core Concept:

— According to the Indian Meteorological Department (IMD), a heatwave is a period of abnormally high temperatures, more than the normal maximum temperature that occurs during the summer season in the North-Western parts of India. Heatwaves typically occur between March and June, and in some rare cases even extend till July.

— The extreme temperatures and resultant atmospheric conditions adversely affect people living in these regions as they cause physiological stress, sometimes resulting in death.

— A heatwave is declared when the maximum temperature of a station reaches at least 40°C or more for plains, 37°C or more for coastal stations, and at least 30°C or more for hilly regions. Based on departure from normal temperatures, the following criteria are used to declare a heatwave:

(i) Heatwave: Departure from normal is 4.5°C to 6.4°C.

(ii) Severe Heatwave: Departure from normal is 6.4°C.

— Based on the actual maximum temperature in plains, the following criteria is considered:



(i) Heatwave: When the actual maximum temperature $\geq 45^{\circ}\text{C}$

(ii) Severe Heatwave: When actual maximum temperature $\geq 47^{\circ}\text{C}$

— If the above criteria met at least in 2 stations in a Meteorological sub-division for at least two consecutive days and it was declared on the second day.

— Heatwaves are especially fatal when high temperatures coincide with high humidity, a condition known as a wet bulb.

A heat dome occurs when an area of high-pressure stays over a region for days and weeks. It traps warm air, just like a lid on a pot, for an extended period. The longer that air remains trapped, the more the sun works to heat the air, producing warmer conditions with every passing day.

— Heat domes, if they last for a long period, may cause deadly heatwaves.

VIKRAM VT 21: CAN IT REPLACE AGEING COMBAT VEHICLE FLEET?

The Defence Research and Development Organisation (DRDO) recently launched its Vikram VT 21 project with two Advanced Armoured Platforms — wheeled and tracked. What are the features of this platform and why DRDO is pitching it as potential solution for the Indian Army's requirement for a Futuristic Infantry Combat Vehicle (FICV) to replace its ageing BMP-2 fleet of Infantry Combat Vehicles (ICVs).

Key Takeaways:

- The Indian Army's requirement for a Futuristic Infantry Combat Vehicle (FICV) stems from the need to replace the ageing BMP-2 fleet — which has been in service since the 1980s — and keep pace with modern, network-centric warfare.
- Network-centric warfare refers to the effective use of information technology and computer networking to connect different military units, sensors, and command systems on the battlefield into a single, integrated network. This allows real-time sharing of information, faster decision-making, and better coordination, giving forces greater situational awareness and operational effectiveness
- With enhanced mobility, protection, and firepower, FICV is crucial for infantry operating in high-threat environments, including along borders with China and Pakistan.
- The FICV is required to integrate advanced sensors, surveillance systems, and digital communication for real-time battlefield awareness and support rapid deployment and combined arms operations, crucial for future conflicts.
- In 2002, the Defence Acquisition Council Chaired by the Defence Minister approved Acceptance of Necessity (AON) for 24 capital acquisition proposals. One of them was FICV. DRDO has said Vikram VT 21 is a potential solution for the Indian Army's requirement of a FICV.
- For DRDO, the challenging task that lies ahead is going through the development trials, the user trials, the acceptance from the users — Indian Army, before it is inducted and finally scaling up the production. At the time of the unveiling on April 25, DRDO Chairman Samir V Kamat expressed confidence that DRDO will be able to achieve these goals within the next three years.



Do You Know:

- An Advanced Armoured Platform (AAP), Vikram VT 21 is a modern military combat vehicle built with enhanced armour protection to withstand certain projectiles, blasts, and shrapnel plus which has improved mobility across varied terrains and integrated weapons and surveillance systems.
- The Vikram VT 21 project includes two variants. First is wheeled, which run on tyres and are faster, easier to maintain, and better suited for roads and urban and semi urban environments. Second is tracked, which moves on continuous tracks like tanks, offering superior grip, stability, and performance on rough, uneven, or off-road terrain.
- These platforms have been co-developed by the Vehicles Research and Development Establishment (VRDE), a premier facility of the DRDO along with two industry partners Bharat Forge Limited and Tata Advanced Systems Limited, with support from several MSMEs and other DRDO facilities.

INDIA'S FIRST GREEN METHANOL PLANT TO TURN KUTCH'S MOST INVASIVE WEED INTO MARINE FUEL

A plant that has been ranked as one of the “top 100 invasive species in the world” and has for decades threatened biodiversity in Kutch’s Banni grasslands, may soon be harnessed for the production of green methanol and fuel for ocean-going ships.

The Mexican-origin shrub called *Prosopis juliflora*, known as Gando Baval in the region, Vilayati Keekar in North India and Seemai Karuvelam in Tamil, has crowded out native grasses over thousands of kilometres in Kutch. The plant was first introduced by the British in the 1920s to ‘green’ Delhi and by the Gujarat Forest Department in 1961 to halt the encroaching salt desert in the Rann. This weed is to become the feedstock for India’s first green methanol production plant.

Methanol is used as a fuel in shipping often as a replacement to what is called ‘bunker oil’. Conventional methanol is produced from fossil fuels such as gas or coal gasification. Green methanol uses biomass from agricultural residue as source material as in the case with the *juliflora*.

The project, sited at the Deendayal Port Authority (DPA) in Kandla, will produce five tonnes of methanol a day and is being built by Pune-based Thermax Energy with gasification technology from Vadodara’s Ankur Scientific, and will be owned by the port authority. Both companies are betting that the Government of India’s policy to convert ports along the western coast into “green ports” will create demand for a fuel that the global shipping industry is being obliged to adopt under International Maritime Organization (IMO) rules.

Greenhouse gas cuts

Methanol made from renewable feedstocks can cut a vessel’s CO₂ emissions by up to 95% and NO_x (nitrogen oxides) by up to 80%, according to the Methanol Institute, while eliminating sulphur oxides and particulate matter.

Ankur Jain, who heads Ankur Scientific, said his company’s role lies in the first stage of a two-step process. “The starting point for most fuels and chemicals is going to be syngas because syngas typically has hydrogen, CO and CO₂,” he told The Hindu. Gasification, he explained, sits between combustion and pyrolysis. “You are heating it in the absence of oxygen, taking it out, improving



its quality, burning them a bit and then breaking them down into hydrogen and CO (carbon monoxide) or syngas,” he said. Thermax will handle the second step, converting that syngas into methanol.

“It [juliflora] is one of the best feedstocks because it is hardwood, dense, has a good energy profile, and low in acids,” Mr Jain said, adding Gujarat already wants the species cleared. The plant will be certified to run on other agricultural residues such as bagasse and cotton stalk, which Mr. Jain estimates could, at their maximum potential, displace up to a third of India’s oil imports.

TOUGH CALL

A combination of snakes being ectothermic, a hotter summer than usual, difficult decision-making, and gaps in clinical infrastructure has led to a situation in Kerala where the availability of anti-snake venom (ASV) has not been able to prevent all deaths from snakebites. Snakes are driven by the heat to seek refuge in cool, damp spaces, which means homes and storerooms with firewood and coconut husks. The State is also densely vegetated with substantial human-wildlife range overlap. April-May is also the pre-monsoon breeding season for many venomous snakes, which means that they move around more and tend to be defensive. However, about 70% of snakebite presentations involve non-venomous species, and roughly half of the rest are dry bites with no venom injected. A substantial number of patients thus do not warrant ASV. Caution against administering ASV willy-nilly is merited because these compounds can also induce anaphylactic reactions, which can be fatal. At the same time, there is no commercially available diagnostic kit in India to detect venom in a patient’s blood, and the diagnosis is entirely symptomatic. The ICMR has called this syndromic approach a systemic flaw, since by the time symptoms appear, the venom may already have damaged tissue irreversibly. Together with scarce ICU beds, a lack of ventilator backups, inadequate training in managing anaphylaxis, and limited lab support for monitoring, this approach has offset the benefits of the availability of ASV.

India accounts for nearly half of all snakebites in the world, with agricultural workers and children being the worst affected. Kerala is home to over 100 snake species, including the Big Four venomous snakes: the common krait, Russell’s viper, saw-scaled viper, and spectacled cobra. The State government has made snakebite a notifiable disease. It launched the ‘SARPA’ programme to professionalise snake rescue. The SARPA Padam and the upcoming SARPA Suraksha programmes also focus on assessing risk and conducting ward-level and school awareness campaigns. Progressive as the notification and ‘SARPA’ are relative to similar measures in the rest of India, the deaths are a sign that Kerala may be prevention-heavy and that it needs to reinforce the ‘cure’ as well. ASV is already widely available; the uncertainty that prevails over doctors’ decision-making at the first point of contact needs to be mitigated. Many experts have also called for the development and use of rapid venom detection diagnostics to eliminate the risks of the syndromic approach. This must be followed by increasing hospital capacity and the availability of skilled medical workers to manage the consequences of that decision.

WORK IN PROGRESS

The 80th, and latest, round of the household social consumption (health) survey conducted by the National Statistical Office is the first comprehensive survey of its kind in both the post-pandemic era and the period in which the Ayushman Bharat Pradhan Mantri Jan Arogya Yojana (PMJAY) scheme attained maturity. The previous two surveys of the same kind revealed that most Indians did not have any form of health insurance. Since PMJAY’s launch in 2018, the 80th round shows



that insurance coverage has expanded around threefold, accounting for an increasing share of health-care financing in hospitals. However, the hospitalisation rate has not recovered to the 2014 level, meaning that having an insurance card still does not guarantee access to a bed, and hidden costs continue to limit access. The reimbursement rates under PMJAY and State-funded insurance schemes are often below market rates, so private hospitals compensate by billing patients separately for diagnostics and ancillary services. In other words, while state-funded health insurance is subsidising private health-care providers' access to low-income markets without also enforcing regulated prices, the combined system provides a safety net where insurance covers hospitalisation and the public network has improved financial protection for households seeking primary care. Second, the Proportion of Population Reported Ailing has doubled, while infectious diseases have declined and non-communicable diseases have increased. Economists have interpreted this as a sign of more people seeking care, thus becoming 'visible' to the health-care sector.

Previous surveys singled out out-of-pocket expenses (OOPE) on health care as a leading cause of poverty. In the 80th round, while the mean OOPE has roughly doubled, the median OOPE has dropped, to ₹11,285 per hospitalisation and at nearly nothing for public outpatient care. Health-care expenses in India are a mix of many low-cost consultations and a few significant and expensive interactions, such as surgeries and chronic care. The two trends thus mean that while health care is becoming more affordable, thanks to the public sector absorbing the cost of primary and secondary care, health care's ability to inflict financial deprivation in a few cases remains high. Part of the problem is the AAM network, which provides free medicines and diagnostics, of Ayushman Bharat still being significantly underfunded relative to the needs of managing chronic diseases, and where the private sector dominates. Thus, overall, the poor have nominal coverage but are often excluded from the benefits of coverage in practice while the more insured middle class faces rising catastrophic costs. The next phase of health-care reform, after shielding care-seekers from poverty and achieving near-universal institutional delivery, will need to strengthen public sector hospital capacity to compete with the private sector for tertiary care.

HOW DECENTRALISING THERAPY CAN SUPPORT MENTAL HEALTH TREATMENT

India continues to face a large mental health treatment gap, with nearly 85% of individuals with common mental disorders receiving no formal care. However, over the past decade, access to antidepressant medication, especially drugs called selective serotonin reuptake inhibitors (SSRIs), has improved, marking an important shift toward making treatment more available.

This expansion is important because, for moderate to severe depression, antidepressants are not optional but often essential. For many patients, they remain one of the most effective and life-changing interventions available.

The concern, therefore, is not about medications themselves. It is about how, when, and for whom they are being used in routine practice. Emerging evidence suggests that a significant proportion of prescriptions either occur without a clear diagnosis of major depression, particularly in primary care settings, or have poor follow-up.

The Indian Psychiatric Society recommends a stepped-care model, where people with milder issues are first managed with psychosocial interventions before initiating pharmacotherapy. Yet in practice, this step is often bypassed and medication becomes the first-line response even in situations where other approaches may be more appropriate.



Consequences of routine prescribing

The distinction between distress and disorder is important. In busy clinics, this may blur. Patients present with sleep problems, work stress, interpersonal conflicts, or grief. These experiences are real and often impairing, and deserve attention. Even when they do not meet the threshold for clinical depression, they may still require psychological support. They are not always best addressed through medication alone, especially when they are closely tied to identifiable life circumstances.

Routine prescribing in such scenarios is understandable. It offers a quick, tangible intervention in systems where time is limited and follow-up uncertain, whether the presentation is mild depression or distress that does not meet diagnostic thresholds. However, when medication becomes the default response, we risk shifting focus away from understanding context and towards suppressing the symptoms.

Antidepressants are not addictive in the conventional sense. They do not cause cravings, people do not feel the need to keep increasing the dose, and they do not lead to compulsive use. These details are important and must be clear, especially for patients who benefit from them. However, discontinuation symptoms are well-known, with some individuals experiencing dizziness, sleep disturbances, or sensory symptoms when attempting to stop.

This concern has been reflected in recent policy discussions, including a U.K. House of Lords debate, which highlighted issues of long-term antidepressant use, withdrawal difficulties, and the need for better prescribing guidance and tapering support.

On the other hand, sleeping pills that are usually prescribed alongside antidepressant medications complicate the problem. They are frequently co-prescribed for sleep or anxiety and can be effective in the short term. Unlike antidepressants, however, they can lead to true dependence, where the body gets used to them, higher doses may be needed over time, and stopping them can be difficult. With longer use, they carry risks of dependence, cognitive slowing, and difficult withdrawal. Patients are also often unaware of the risks of these medications.

Over time, patterns emerge. What begins as short-term symptomatic treatment can extend into prolonged use, particularly in the absence of structured follow-up. In such instances, patients may continue medication not because it is still clearly indicated, but because stopping it has become difficult.

There is also a less visible cost. When treatment is centred primarily around medication, opportunities to develop coping strategies, address maladaptive thinking, and engage with underlying stressors may be reduced. Many individuals with mild to moderate symptoms benefit significantly with addition of brief psychological interventions such as behavioural activation or problem-solving therapy, including structured models like the 'Healthy Activity Program', which has been effective in Indian primary-care settings. These approaches reduce symptoms and build skills that persist beyond the treatment period.

Little choice

It is tempting to frame this as just overprescription by doctors. In reality, it reflects a deeper structural issue.

India has a limited mental health workforce, and psychotherapy remains concentrated in urban and specialist settings. In many parts of the country, particularly in rural and semi-urban areas,

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pharmacological treatment is the only consistently available form of care. When alternatives are scarce, prescribing becomes less a choice and more a necessity.

Public health programmes illustrate this imbalance. Access to screening and medication have improved but the availability of structured psychotherapy remains uneven. Continuity of care is difficult to maintain across districts; even where frameworks exist, implementation varies widely. This shortage is further reflected in the limited number of formal psychotherapy training positions, such as M.Phil seats, which remain insufficient relative to the population's needs.

Antidepressants are also increasingly being prescribed by general physicians and non-psychiatric practitioners, often in busy settings with limited time. If a clinician has ten minutes, limited follow-up, and no access to psychosocial services, medication becomes the most feasible intervention, and over time reinforces both clinical habits and patient expectations.

Where options are available, prescribing patterns tend to shift even in non-psychiatric practitioners, with reduced reliance on antidepressants. This suggests that clinicians do incorporate these options when they are accessible. Thus, if psychotherapy were more easily available, many patients could be referred for it, sometimes even before medication.

Therapy beyond the clinic

Expanding access to psychotherapy can't rely solely on increasing specialists' numbers, which is a slow and resource-intensive process. Decentralising psychotherapy offers a more immediate pathway, based on identifying core, evidence-based components of psychological support that can be delivered by trained non-specialists within community settings.

There is growing evidence to support this approach. In low- and middle-income countries, brief interventions delivered by non-trained counsellors, such as behavioural activation, problem-solving, and psychoeducation, have demonstrated meaningful reductions in depression and anxiety. In 2006, after losing a patient who could not afford to travel for care, a senior psychiatrist, Dixon Chibanda in Zimbabwe, recognised the need to take mental health services into communities rather than wait for patients to reach hospitals. The Friendship Bench in Zimbabwe trained old women to deliver structured therapy to people with mild levels of mental distress on park benches, showing reductions of almost 43% on depression scales within six months. In India, the 'Atmiyata' programme uses community volunteers to provide basic emotional support and identify individuals who may need referral, linking local care with formal services.

These interventions are intentionally simple. Skills like active listening, validation, sleep hygiene, and structured activity scheduling can be manual and scaled up, and delivered in schools, workplaces, primary care centres, and community groups, bringing support closer to where people actually live and struggle. When these approaches are adapted to local culture, they become easier to understand and accept. Using familiar language, social roles, and everyday examples helps people engage with care more naturally.

Nearly 85% of people don't access formal care and turn elsewhere for help. A significant fraction seek help from faith-based healers, traditional practitioners or community elders, who often serve as the first point of contact for distress. Rather than viewing this in opposition to medical care, there is value in engaging with these systems, especially for distress, while building pathways to identify and refer more severe afflictions to formal mental health services.



At the same time, limits must be clear. Complex conditions, trauma-focused therapies, and individuals at high risk require specialist expertise. Primary diagnosis and treatment of conditions such as schizophrenia, bipolar disorder, and obsessive compulsive disorder should remain within specialist care settings — but a substantial component of ongoing supportive care can be safely and effectively task-shared within the community.

A stepped-care model can ensure decentralised care complements, rather than replaces, professional psychotherapy. Even in instances of seemingly simple distress, if the signs that an individual presents with fall outside the provider's level of training or if they fail to improve, they must be referred in timely fashion to more expert care. Expanding non-specialist roles must overall be a cautious venture. New cadres risk overstepping competence and delaying referrals, however, underscoring the need for clear safeguards, supervision, and referral pathways.

Not less treatment

For moderate to severe depression, medications remain central and often indispensable. In many cases, the best outcomes arise from combining pharmacological treatment with psychotherapy. This integrated approach should remain the standard rather than the exception.

For milder presentations, the sequence can differ. Psychosocial interventions can be tried first, with medication introduced when needed. Even when antidepressants are started, regular review allows for dose adjustment or tapering in appropriate instances.

Training frontline providers in brief psychosocial interventions, embedding counselling within primary care, strengthening community support systems, and introducing basic prescription monitoring can collectively shift practice without major structural disruption. Digital platforms can extend this further, supporting both delivery and follow-up in areas with limited specialist access.

India has already made progress in improving access to treatment. The next step is ensuring that this access is balanced, thoughtful, and responsive to different levels of need. Medication should remain available when it is needed. But it should not be the default option, especially when it is possible to have alternatives available.

A system that offers both, clearly, appropriately, and at scale, is far more likely to serve patients well.

COULD IT HAVE TOO MANY TIGERS? WHY MP FACES THIS QUESTION & WHAT ARE THE ANSWERS

Partly thanks to its tiger recovery rate outpacing the national average over the last decade, Madhya Pradesh now faces a unique problem: Could it have too many tigers? With the numbers pushing the 1,000-mark, the state has approached the Dehradun-based Wildlife Institute of India (WII) to assess how many tigers its forests can hold.

Key Takeaways:

- Following a slew of reforms triggered by the Sariska Wipeout in 2004, tiger numbers have been rising nationally. According to quadrennial estimation reports, India's tiger numbers increased by 65% between 2014 and 2022, from 2,226 to 3,682. In the same period, Madhya Pradesh saw a 155% jump, from 308 to 785. The trend, say state officials, has held good since.



- But more tigers also means more conflict. Across India, the number of people killed by tigers increased from 224 during 2014-2019 to 418 in the next six-year cycle of 2020-2025 – a rise of 87%.
- Madhya Pradesh has fared better than conflict hotspots of Maharashtra (Tadoba) or Uttar Pradesh (Pilibhit). But retaliatory killings of tigers by electrocution to avenge loss of livestock, along with attacks on humans, are on the rise, prompting the uncomfortable question: how many tigers are too many for Madhya Pradesh.
- With other factors, such as availability of water, absence of poaching etc, remaining unchanged, the size of a forest's tiger population depends on the availability of prey animals, says Dr Rajesh Gopal, former chief of Project Tiger and the National Tiger Conservation Authority (NTCA).
- In the simplest of calculations, it's the total annually replenishable biomass of prey species divided by a tiger's annual feed requirement. Prey animals differ in weight but a ballpark estimate shows that a prey base of around 350 ungulates (hoofed animals) is required to sustain a single tiger.
- "Since X number of prey can sustain only Y number of tigers, surplus tigers will either die fighting one another; or, more likely, be pushed out to the buffer areas or disperse – ideally to other forest areas – especially in the case of males," says wildlife biologist Milind Pariwakam. "When such tigers succeed, they re-colonise new areas. Or they die trying."
- Rapid development of road, rail and irrigation infrastructure, coupled with large-scale mining and deforestation, have broken much of central India's forest connectivity. The result: the 'surplus' tigers cannot move safely between forests, leaving them exposed to people and situations of conflict.

Do You Know:

- The 2004 disappearance of all tigers from Rajasthan's Sariska Tiger Reserve, widely reported at the time, marked the first local extinction of a tiger population in India due to poaching, which was largely attributed to organised gangs. The crisis prompted a national review of tiger conservation and eventually led to successful reintroduction efforts starting in 2008.

'NEW DELHI DECLARATION' IN THE WORKS FOR UPCOMING INTERNATIONAL SUMMIT ON CONSERVATION OF BIG CATS

Ahead of the global big cat summit in June, the International Big Cat Alliance (IBCA), headquartered in New Delhi, is deliberating on a New Delhi Declaration, which, if adopted, will be the first international declaration on big cat conservation, The Indian Express has learned.

Key Takeaways:

- The IBCA secretariat, working alongside the Ministry of External Affairs, has shared a draft of the declaration text with IBCA member countries as well as range countries, two people aware of the matter said.
- Prime Minister Narendra Modi is expected to participate in the summit meeting with heads of states and governments from some of the member countries, people aware of the matter said. It is at this summit meeting, likely to be held on June 1, that the political declaration is expected to be placed for adoption.



- The global big cat summit will be held close on the heels of the Fourth India-Africa Forum Summit on May 31. IBCA currently has 24 member countries, of which 10 are African nations. Kazakhstan, Namibia and Thailand have been granted observer status.
- The declaration, it is learned, will include promotion of landscape-level and transboundary habitat connectivity, strengthening cooperation on wildlife crime prevention, mobilisation of finance, and advancing of One Health approach, linking wildlife, livestock and human health, among other things.
- The Union Cabinet had approved IBCA's establishment with headquarters in India on February 29, 2024, with a one-time budgetary support of Rs 150 crore for a period of five years from 2023-24 to 2027-28. Union Minister for Environment, Forest and Climate Change Bhupender Yadav had announced India's plans to host the global summit last November, during the annual United Nations climate change conference in Belem, Brazil.
- Apart from heads of states and heads of governments from member countries, the IBCA secretariat has invited participation of two official delegates from the 95 range countries.
- While the International Tiger Forum, held in St Petersburg, Russia, in November 2010, brought together heads of governments of countries where tigers occur in the wild, the big cat summit will be the first-of-its-kind on conservation of seven big cats. It will see participation of ministers, government officials, conservation organisations, academics, multilateral development banks, corporate leaders and communities.

Do You Know:

- The IBCA was launched on April 9, 2023, by PM Modi during the commemoration of 50 years of Project Tiger to create an international platform for the conservation of seven big cats – Tiger, Lion, Leopard, Cheetah, Snow Leopard, Puma and Jaguar. The summit will also serve as a platform to get more countries to commit to becoming members of the global alliance, it has been learned.

—There are 95 range countries (falling within the natural distribution of a species) for the big cats, including Canada, China, Congo, Ghana, Brazil, Iran, Nepal, Pakistan, Russia and the United States. Twenty-five countries have consented to be members of the IBCA, as of September 2024, including Bangladesh, Nigeria, Egypt, Suriname, Ecuador, Peru, Kenya and Rwanda.

- Prime Minister Narendra Modi announced the IBCA in 2023 in Mysuru, commemorating the 50th anniversary of Project Tiger. That initiative came at a time when India's tiger population was rapidly dwindling. While there were an estimated 40,000 tigers in the country at the time of Independence, their numbers fell to around 1,800 by 1970 due to widespread hunting and poaching.

- The killing of the apex predators also has ripple effects on the rest of the ecosystem. As the IBCA has noted in a report, they regulate prey populations, which helps maintain the health of landscapes and prevents overgrazing that can lead to ecological calamities like wildfires and disease. These apex predators are crucial to the respective habitats they occur in across continents, and in maintaining an ecological balance. These seven big cats occur in 95 countries – known as range countries to signify species occurring there in the wild – across Asia, Africa, and the Americas, and face challenges such as deforestation, illegal wildlife trade and poaching, ecosystem changes, and emerging wildlife diseases.



- Project Tiger was instrumental in the creation of tiger reserves, beginning with nine zones in Assam, Bihar, Karnataka, Madhya Pradesh, Maharashtra, Odisha, Rajasthan, Uttar Pradesh and West Bengal. These included the famous Kanha reserve in MP, the Jim Corbett reserve in Uttarakhand and Bandipur in Karnataka.
- India is already collaborating with African nations as part of the Cheetah reintroduction project, having imported the wild felines from Namibia, South Africa and Botswana. Meanwhile, India and Cambodia are collaborating on intercontinental translocation of tigers from India to the South East Asian country.

T.N. LAUNCHES THIRD SYNCHRONISED NILGIRI TAHR SURVEY

The Tamil Nadu Forest Department has commenced the third synchronised survey of the Nilgiri Tahr from April 24 to 27, covering the species' entire range across the State. Conducted under the flagship Project Nilgiri Tahr, the annual exercise plays a crucial role in long-term conservation planning for Tamil Nadu's State animal.

The survey is being carried out in coordination with the Kerala Forest Department to ensure simultaneous counting across the Western Ghats' shared landscape.

Launched on October 12, 2023, Project Nilgiri Tahr focuses on comprehensive conservation strategies, including habitat management, population monitoring, and the use of advanced scientific methods.

An official release said the survey is timed after the winter calving season, when young tahr are visible alongside adult herds, improving the reliability of population assessments.

The first survey in 2024 established a baseline, estimating 1,031 individuals across 140 survey blocks in 13 forest divisions. The second survey in 2025 expanded coverage to 177 blocks and recorded a population of 1,303 individuals, alongside evidence of habitat recolonisation in areas such as Pasumalai.

As per the release, this year's survey marks a significant scale-up. Covering over 3,100 km, it spans 14 forest divisions, 43 ranges, 124 beats, and 177 survey blocks — from Ashambu Mottai in Kanniyakumari to Tavalamalai in Gudalur. Nearly 800 trained frontline staff are participating in the exercise.

Mobile application

For the first time, the department has introduced a dedicated mobile application, Varudai, enabling real-time data collection, GPS tracking, and standardised reporting.

SHAH TO ATTEND FIRST-EVER EXPOSITION OF BUDDHA'S RELICS ON LADAKH VISIT

Union Home Minister Amit Shah, who arrived in Leh on Thursday, will attend the first international exposition of holy relics of Lord Buddha in India on the occasion of Buddha Purnima.

Mr. Shah was welcomed by top officials, elected representatives and the local people, with many dressed in traditional attire. "He [Mr. Shah] will be paying respects to the holy relics of Lord Buddha tomorrow [May 1] on the occasion of the 2,569th Buddha Purnima. The Home Minister's visit and his vision for the development of Ladakh shall motivate us to work for fulfilling the



aspirations of the people of Ladakh,” the Union Territory’s Lieutenant-Governor, Vinai Kumar Saxena said.

The holy relics of Tathagata Buddha, which arrived in Leh a few days ago, will be on public display from May 1 to 15 across Leh and Zaskar, offering devotees a rare opportunity for prayers, officials said.

The Buddhist trail can be a civilisational highway

— Harsh Vardhan Shringla writes: For a civilisation that holds Bodh Gaya, Sarnath and Kushinagar within its sacred geography, India still treats much of its Buddhist inheritance as a set of isolated stops rather than a single national mission.

— The Buddha was born in Lumbini, in present-day Nepal, but the defining arc of Buddhism, enlightenment at Bodh Gaya, the first sermon at Sarnath, mahaparinirvana at Kushinagar and the flowering of monastic learning at Nalanda, belongs decisively to the Indian landscape. If India wants to speak seriously of civilisational leadership, our Buddhist heritage must move from rhetoric to areas of concrete action.

— The source markets are not hypothetical. In 2024, India received 7.3 lakh tourists from just four Buddhist-linked Asian countries: Sri Lanka, Japan, Thailand, and South Korea. These are not random tourists. For Japanese pilgrims, Bodh Gaya is associated with Zen and Pure Land traditions that shaped their civilisation.

— For Sri Lankans, the connection runs through the Mahavamsa, the 5th-century Pali chronicle, and the sacred gift of the Bodhi tree sapling, brought by Ashoka’s daughter, Sanghamitta, to Anuradhapura, where it still grows today as the world’s oldest historically recorded tree.

— For Thai and Korean pilgrims, India is the source of Theravada traditions that define their spiritual identities.

— Even if a small share of that community chose to make an India pilgrimage over time, the numbers would be transformational. India does not suffer from a lack of demand. It requires planning equal to the demand already waiting at its gates.

— To be fair, the state has not been idle. The Centre has sanctioned Buddhist projects for years under Swadesh Darshan and allied schemes, and recent approvals include a Rs 165.44 crore Buddhist Meditation and Experience Centre in Bodh Gaya and Rs 80.24 crore for integrated Buddhist tourism development in Shrawasti.

— The Union Budget 2026-27 has gone further, announcing a Buddhist circuit scheme for the Northeast and world-class training for 10,000 tour guides. Yet the Buddhist heartland still needs a sharper institutional instrument.

— The government has already used Buddhist relic diplomacy and heritage exhibitions to deepen ties with Asian partners; when holy relics travelled to Thailand, more than four million people paid their respects. That emotional reservoir is real.

— Buddhism’s genius was always its capacity for translation, not just linguistic, but cultural. As it moved from the Gangetic plain to Sri Lanka, it became Theravada. As it crossed the Himalayas into Tibet, it became Vajrayana. As it reached China, it absorbed Taoist sensibilities and became Chan, then Zen in Japan.



— In every case, it carried with it Indian concepts, Pali or Sanskrit vocabulary, the logic of Abhidharma, and the imagery of the Jataka tales, while adapting to new soils. India's Buddhist circuit, at its best, can be the place where all these traditions come home simultaneously. That is not a tourism pitch. It is a civilisational reunion.

Do You Know:

— Buddhism was founded by the Buddha, who was born as Siddhartha. He was the son of king Suddhodana, a leader of the Sakya clan of Kapilavastu (located in modern day Nepal). According to various narrations, Maya gave birth to Siddhartha in a grove at Lumbini while en route to her natal home.

— According to the Pali texts, at the age of twenty-nine, he encountered life-changing sights – an old person, a sick person, a corpse, and an ascetic. Siddhartha was deeply moved by these sights, which exposed him to the unavoidable realities of life. Hence, he renounced his royal life and became a wandering ascetic for six years, performing severe austerities.

— Eventually, he attained enlightenment under the Bodhi Tree in Gaya (in Bihar) and came to be known as the Buddha or the Enlightened One. He is also referred to as Tathagata – the one who has liberated himself from the cycle of birth and death.

— The Buddha delivered his first sermon at a deer park near Banaras (Varanasi) to five of his disciples. This is referred to as dhammachakka-pavattana (the turning of the wheel of dhamma). In his sermon, the Buddha put forward a transformative path – a way of life that helps individuals to escape the cycle of birth, death and rebirth.

WHAT HAPPENED TO KOMAGATA MARU PASSENGERS IN 1914?

The story so far:

In the spring of 1914, a Japanese steamship called the Komagata Maru sailed from Hong Kong toward Vancouver, British Columbia, carrying 376 passengers: 340 Sikhs, 24 Muslims, and 12 Hindus from Punjab in British India. They were British subjects hoping to build new lives in Canada. What awaited them was a two-month standoff in the harbour, a brutal denouement on the docks of Calcutta, and a place in the history of both India's anti-colonial movement and Canada's long reckoning with its own past. The episode was recently mentioned by singer Diljit Dosanjh on The Tonight Show Starring Jimmy Fallon.

Why was Punjab central to events leading up to the voyage?

By 1914, Punjab had become the primary recruiting ground for the British Indian Army. The British had cultivated Punjab as a loyal province populated by a "martial race," but the relationship was both lopsided and extractive. Rapid agricultural growth combined with easy credit had created a crisis of rural indebtedness, and epidemics of malaria and plague in the early 1900s pushed families toward emigration as the only way out.

Among those who left were the founders of the Ghadar movement, established in 1913 among expatriate Punjabis on the U.S. West Coast, dedicated to the armed overthrow of British rule in India.



The Komagata Maru voyage was freighted with this politics from the start. Ghadar activists boarded the ship in Yokohama, delivering lectures and distributing anti-colonial literature, and British intelligence was watching closely.

What led to the standoff?

The voyage was organised by Gurdit Singh, a Punjabi entrepreneur based in Singapore, who chartered the ship specifically to challenge Canada's exclusionary laws. Canada had enacted a "continuous journey regulation" in 1908, barring entry to anyone who had not travelled by a single unbroken journey from their country of birth, while also pressuring shipping companies not to sell direct tickets from India.

When the ship arrived at Vancouver's Burrard Inlet on May 23, 1914, immigration officials refused to let it dock. Prime Minister Robert Borden kept the ship anchored offshore, cutting off communication and stalling proceedings. The local South Asian community raised over \$20,000 to take over the ship's charter and hired a lawyer to bring a test case, but the British Columbia Court of Appeal unanimously upheld the discriminatory laws. Officials then withheld food and water. On July 19, an armed police force of 150 men attempted to board the ship; the passengers fought them off. Borden dispatched a naval cruiser. Only 22 passengers, mostly those who could prove prior Canadian residence, were ultimately permitted to disembark. The ship departed under escort on July 23. British colonial authorities, suspicious of the passengers' politics, refused to let the ship dock in Hong Kong or Singapore. When it finally anchored near Calcutta in late September, police tried to force the exhausted passengers onto trains bound for Punjab. They refused, marched toward the city, and were fired upon. Twenty passengers were killed; many more were imprisoned. Gurdit Singh evaded capture for years before surrendering in 1920 and serving five years in prison.

What happened when the ship returned to India?

In the aftermath, the Ghadar movement surged in recruitment. Some members returned to Punjab in 1915 to attempt an armed uprising, which failed due to informers and mass arrests. Dozens were sent to the gallows. But the movement's martyrs became folklore.

Canada was slow to acknowledge what it had done. An apology delivered at a community festival by Prime Minister Stephen Harper in 2008 was rejected by many as insufficient. It took until 2016 for Prime Minister Justin Trudeau to deliver a formal apology on the floor of the House of Commons. The Komagata Maru remains a sharp demonstration of what colonial subjects had long understood: that the British Empire's promises of equal subjecthood were never meant for everyone.

U.S. RETURNS 657 TRAFFICKED ARTEFACTS TO INDIA IN \$14 MILLION RESTITUTION

U.S. authorities have announced the return of 657 antiquities, collectively valued at nearly \$14 million, to India. The pieces were recovered pursuant to several ongoing investigations into criminal trafficking networks, including those of alleged antiquities trafficker Subash Kapoor and convicted trafficker Nancy Wiener.

The artefacts were returned at a ceremony attended by the Consul-General of India, Rajlakshmi Kadam, in New York.



“The scale of the trafficking networks that targeted cultural heritage in India is massive, as demonstrated by the return of more than 600 pieces today,” Manhattan District Attorney Alvin Bragg said in a statement.

Sources said the 657 antiquities were delivered in three phases: 612 were returned in November 2024, 26 in July 2025, and in the third phase, 19 were returned to India on Tuesday. Of the 19, 17 are linked to Subash Kapoor.

Among the pieces being returned is a red sandstone figure of Buddha standing with his right hand raised in abhaya mudra, a gesture of protection. The Buddha’s feet are broken below the knees, and only fragments of the halo behind his head remain — damage that likely occurred when the statue was looted from northern India. The statue worth \$7.5 million was smuggled into New York by Subash Kapoor and later seized by the Antiquities Trafficking Unit from one of his storage units.

Ancient figures

Another returned artefact is a bronze figure of Avalokiteshvara, seated on an inscribed double-lotus base over a lion-flanked throne. The inscription identifies the craftsman as Dronaditya of Sirpur, located near modern-day Raipur in Chhattisgarh. The Avalokiteshvara sculpture was part of a large hoard of bronzes discovered near the Lakshmana Temple in 1939 and had entered the collection of the Mahant Ghasidas Memorial Museum, Raipur, by 1952. It was later stolen from the museum and smuggled into the U.S. by 1982, eventually ending up in a private collection in New York by 2014.

The \$2 million bronze figure was located and seized from that collection in 2025.

Another artefact includes a sandstone figure of a dancing Ganesha, which was looted by one of Kapoor’s indicted co-conspirators, Ranjeet “Shantoo” Kanwar, from a temple in Madhya Pradesh in 2000. Convicted trafficker Vaman Ghiya later sold and shipped the Ganesha to New York-based gallery owner Doris Wiener. In 2012, following her mother’s death, Nancy Wiener — later convicted for antiquities trafficking — knowingly created false provenance for the sculpture and sold it through Christie’s New York. The Ganesha was purchased by a private collector at the 2012 auction, who surrendered it to the District Attorney earlier this year.

Commenting on the development, S. Vijay Kumar, cultural enthusiast and co-founder of India Pride, said, “We are seeing the results of our work over more than a decade bear fruit. India must thank Homeland Security Investigations (HSI) for its sustained efforts in tracking these looted artefacts and ensuring their restitution. This is the result of over a decade-and-a-half of deciphering and dismantling the Indian art smuggling market, which stole our Gods and supplied them to the West via dealers like Subash Kapoor and the Wieners.”

He added: “There are more than 1,000 artefacts yet to be returned, and we hope India and HSI will continue to work on these cases and further decipher the Kapoor and Wiener dossiers, which span nearly 50 years of looting.”

FOR RAGHU RAI, NO STORY WAS TOO SMALL

Raghu Rai believed that every subject has a story that demands attention and every frame has the potential to reveal itself as an act of discovery. Driven by relentless curiosity and keen observation, he gave India some of its most enduring photographs that chronicle not just its festivities and high points but also its critical moments and contradictions. With his death, India has lost not just one



of its finest photographers but also a maverick who could find meaning in almost anything and anywhere: From the corridors of political power to the bustling streets of Old Delhi; from the mundaneness of every life to the disasters that upended life and livelihoods. A photographer for life, he did not simply document India but was very much part of every photograph that carries his imprint.

A photojournalist for over three decades, what distinguished him was not the access that he had but his firm resolve to be an active participant on the ground during moments that defined India's history. The 1971 war, for instance, saw him travel to the India-Bangladesh border, where he photographed the plight of the refugees. The same instinct took him to Bhopal after the gas tragedy in 1984 and to Amritsar at the time of Operation Bluestar. Acquainted with then Prime Minister Indira Gandhi, who he photographed on several occasions, he not just vehemently opposed the Emergency but also found ways to record it as a photojournalist. In each of these instances, his focus was not merely on the event but its larger repercussions and how it impacted the human condition.

His portraits, too, reflect his sustained engagement with his subjects, from Mother Teresa to the Dalai Lama, from Satyajit Ray to Bhimsen Joshi, from Himmat Shah to Arundhati Roy. The attentiveness with which he photographed the well-recognised also extended to the more anonymous inhabitants of the nation. "Eventually, it's the ordinary daily life that sums up the essence of the everyday. It is where the magic lies. My faith lies in the eyes of the people I photograph," he said in an interview to this paper. His several exhibitions and publications took his images to a global audience and inspired generations of photographers, his gaze continued to remain deeply rooted in India and was driven by his conviction that the image reveals itself only to those who are willing to look long enough.

SHORT NEWS

INDIA'S 1ST BARRIER-LESS TOLL BOOTH OPENS: HOW WILL IT SPEED UP RIDE

In a significant move, the National Highway Authority of India (NHAI) on Friday (May 1) operationalised India's first Multi-Lane Free Flow (MLFF) barrier-less tolling system at the Choryasi toll plaza on the Surat-Bharuch section of NH-48 in Gujarat. Choryasi ranks among the top 10 toll plazas in the country in user fee collection.

TECHNOLOGY FOR POTHOLE REPAIRING

— The Municipal Corporation of Delhi (MCD) is looking for a more effective, scientifically driven fix to the problem of potholes in the city.

— On the MCD's table are three technologies for pothole repair, resurfacing, and road maintenance that have been patented by the Council of Scientific and Industrial Research-Central Road Research Institute (CSIR-CRRI).

— The technologies being examined are:

(1) Ecofix, a ready-to-use steel-slag-based pothole-repair mix

(2) Rejupave Rejuvenator, a material for dense carpet work and resurfacing of roads



(3) Modified Mix Seal Surfacing or MSS+, a cold-mix surfacing technology that reduces the need to heat road material.

FIRST PAPERLESS STATE JUDICIARY

During the two-day National Conclave on Technology and Judicial Education, Chief Justice of India Surya Kant declared Sikkim to be the first paperless state judiciary in the nation. He said integrating technology into judicial processes dismantles geographical barriers to help litigants overcome problems of terrain, finance and distance.

HYBRID ANNUITY MODE (HAM) PROJECTS

- The Ministry of Road Transport and Highways (MoRTH) has introduced stricter disqualification norms for Hybrid Annuity Mode (HAM) projects to prevent “catastrophic failures” caused by construction defects.
- The Ministry circular extends provisions earlier applied to Engineering, Procurement, and Construction (EPC) projects to HAM contracts as part of the ministry’s broader push to strengthen quality in national highway development.
- HAM is a variant of the Public-Private Partnership model, where the government pay 40% of the project cost during construction and the balance 60% as annuity payments over the operations period.

CELL-BROADCASTING TECHNOLOGY AND SACHET

- On May 2, India launched its Cell Broadcast messaging system using indigenous technology that would act as an instant disaster alert service for citizens.
- National Disaster Management Authority (NDMA) has successfully operationalized the Integrated Alert System (SACHET), developed by the Centre for Development of Telematics (C-DOT).
- SACHET (which means ‘alert’), is an Integrated Alert System that aims to deliver disaster and emergency related alerts via SMS to mobile users within the geo-targeted areas.
- This is different from earlier sms alerts, here cell broadcast technology is used which mirrors the technologies used in countries such as Japan- J-alert system (which issued tsunami alerts).
- Cell Broadcast is a method of simultaneously sending short messages to multiple mobile phones within a defined geographic area.
- As part of day-to-day network functionality, cell towers communicate with phones within their reach, providing information such as the network it is connected to. This information is usually invisible to the user. Its only purpose is to help the network function as it should.
- The communication of information from cell towers to handsets, and the technology that enables it, are known broadly as cell broadcast.
- So, government authorities can harness this system of one-way communication between cell towers and phones to issue emergency alerts.



- The system essentially works by sending a single message from a mobile network tower to all phones connected to that tower at the same time, instead of sending individual SMS messages.
- Unlike SMS, which is a one-to-one channel, cell broadcast is a one-to-many technology. This means that one message can be sent to millions of devices within a few seconds.
- It needs no app or subscription as well. The only requirement is that the phone is switched on and configured to accept such messages (Settings → Safety and emergency → Wireless emergency alerts → Test alerts).

INDIA'S FIRST PORTABLE BEDSIDE MRI SYSTEM

- In a first, AIIMS New Delhi has introduced India's first portable bedside MRI system, marking a significant step in critical care and neurodiagnostics.
- The ultra-low-field device can be wheeled directly to a patient's bedside, enabling rapid brain imaging for critically ill patients in ICUs, emergency settings, and neurosurgical care.
- Unlike conventional MRI machines that require dedicated suites and patient transport, this system eliminates the risks associated with moving unstable patients and allows imaging to be performed within the safety of the ICU environment.

NOBITEX CRYPTO EXCHANGE

As per the recent reports by Reuters, Nobitex, a crypto exchange, is used by the Iranian state and Islamic Revolutionary Guard Corps (IRGC) to route money to allies outside the conventional banking system.

Brothers Ali and Mohammad Kharrazi – using the family surname Aghamir – built Nobitex into the country's dominant cryptocurrency provider. It handles an estimated 70% of Iran's crypto transactions.

AUTISM

- A recent study by the All-India Institute of Medical Sciences (AIIMS) Delhi has found that children exposed to higher screen time before the age of one were more likely to show signs of autism by the age of three.
- Children with autism spectrum disorder (ASD) not only showed earlier and more problematic digital media use than peers but also had higher rates of sleep problems and reduced physical activity.
- ASD is a neurodevelopmental condition affecting brain development, characterised by persistent challenges in social communication, interaction, and restricted or repetitive behaviors.
- It is considered a "spectrum" because symptoms, severity, and abilities vary widely, ranging from individuals needing significant support to those who are highly independent.



PEACOCK TARANTULA

- The Andhra Pradesh Forest Department, in collaboration with the Eastern Ghats Wildlife Society, has initiated a conservation status survey of the Peacock Tarantula (*Poecilotheria metallica*) in the vast landscape of the Nagarjunasagar Srisailam Tiger Reserve (NSTR).
- The genus *Poecilotheria* belongs to the family Theraphosidae and is made up of arboreal species of spiders, which are known to occur in India and Sri Lanka. The genus is represented by eight species in India and seven in Sri Lanka
- Peacock Tarantula is also called Gooty tarantula, or metallic tarantula because of its attractive iridescent colouration. The Gooty in the name comes from a town in Andhra Pradesh in India, where it was first discovered in 1899.
- Peacock Tarantula is found predominantly in the deciduous forests of central and southern India. It has a distinct blue hue, one that darkens with age and maturity.
- The tarantula preys upon a variety of insects, including crickets, grasshoppers, and other small bugs. This natural predation helps regulate insect numbers, preventing potential outbreaks and ensuring that no single insect species overwhelms the ecosystem
- By keeping insect populations in check, the Peacock Tarantula contributes to the overall health and stability of its environment, promoting biodiversity and supporting the intricate web of interactions that characterize its ecosystem.
- It is classified as 'critically endangered' by the International Union for Conservation of Nature (IUCN).

THOMAS AND UBER CUP 2026

- The 34th edition of the Thomas Cup – the men's team world championships in badminton, and the 31st Uber Cup – the women's variant, was held in Horsens, Denmark. The finals were played on 3rd May.
- It is a biennial international championship. In 2022, India made history by winning the maiden Thomas cup and the women's team won the bronze medal in the 2014 and 2016 editions.
- In the Thomas Cup 2026, the Indian team was defeated by the French team in the semi-final.
- The Thomas Cup 2026 edition was won by China after defeating France, marking their second win in a row (2024).
- The Republic of Korea earned its second Uber Cup title after beating the People's Republic of China in the Finals.



BUSINESS AND ECONOMY

IN BEIJING'S REVOCATION OF META'S \$2-BN AI FIRM DEAL, SIGNALS FOR US-CHINA TECH RACE

China on Monday (April 27) blocked US tech giant Meta's \$2-billion deal to acquire the Chinese-origin AI agent Manus.

Key Takeaways:

- When it launched in early 2025, Manus was hailed as a major technological accomplishment, especially in the context of the race between the US and China to develop artificial intelligence. Soon after, Manus shifted its base to Singapore, and by December, Meta — the parent company of Instagram, Facebook and WhatsApp — moved to acquire it.
- What is unusual is that Beijing has cracked down on the deal despite the company's distance from China. It even summoned the two co-founders earlier this year and prevented them from leaving the country under the regulatory review, the Financial Times reported.
- Meta is now preparing to unwind the acquisition following the order, The Wall Street Journal reported on Tuesday.
- In a one-paragraph statement, the Chinese government said the office of the foreign investment security review working mechanism has decided to prohibit foreign investment in Manus and ordered the parties to revoke the deal.
- China sees a national security imperative in Manus, which is a general AI agent. These agents are built by training on vast amounts of data, but unlike chatbots such as ChatGPT or Google Gemini, they are equipped with "tool calling". This ability allows them to retrieve updated information in real-time from the web, equipping them to handle complex prompts, code, and interact with other apps, such as calendars and emails.
- Manus was billed as the world's first general AI agent and received praise from Twitter co-founder Jack Dorsey and AI platform Hugging Face's Victor Mustar. In a statement on the deal, Meta said it would "integrate it into our products." Although some have questioned whether the technology in question is genuinely unique or proprietary.

Do You Know:

- Control of data and technology, especially the kind seen as novel or unique, is becoming crucial in the geopolitical calculations of major countries. India, for instance, was among the earliest countries to restrict TikTok following the Line of Actual Control (LAC) standoff with China in 2020, citing data security and sovereignty.
- With China and the US the frontrunners in tech development, their geopolitical rivalry inevitably sets the tone for how they engage with each other. FT reported in January that the Chinese leadership was concerned about "selling young crops," or giving away emerging companies in these domains.
- Before Manus, China had targeted the American semiconductor company Nvidia by investigating its 2019 acquisition of the Israeli-American network and data transmission company Mellanox



Technologies. China cited market competition and anti-monopoly laws as the basis for the investigation, but its timing was notable. It came after a longer sequence of events in which the US government, under the Biden administration, restricted Nvidia from selling high-quality chips to the country.

- Nvidia eventually sold an inferior category of chips in China, which were also later banned under the Trump administration. In turn, China reportedly limited its companies from purchasing the chips.

RARE EARTH MINING POLLUTES MEKONG TRIBUTARIES, THREATENS ‘THE WORLD’S KITCHEN’

Perched on the bow of his long-tail fishing boat, 75-year-old Sukjai Yana untangled a handful of small fish from his net, disappointed by his catch and fretting over whether he can sell them.

Key Takeaways:

- Some days Yana earns nothing: Demand for fish is falling due to worries over contamination of the Mekong River and its tributaries by toxic runoff from rare earth mines upstream that is threatening millions who rely on those waters for farms and fisheries.
- Yana is one of 70 million people in mainland Southeast Asia who depend on the nearly 3,100-mile Mekong River. Rising demand for rare earth materials is driving an unregulated mining boom centered in war-torn Myanmar, to the west, that is spreading to Laos, in the east.
- The Mekong has long faced mounting pressures, from plastic pollution to hydropower dams hemming it upstream and sand mining devouring its banks. But experts warn that the toxic runoff from the mines could pose an existential threat.
- Exposure to heavy metals such as arsenic, mercury, lead and cadmium raises risks of cancer, organ failure and developmental harm, especially for children and pregnant women.
- Thailand is bearing the brunt of the mining boom as such toxins imperil its global food exports — from bags of rice in U.S. supermarkets to edamame snacks served in Japan and garlic used in Malaysian kitchens. Responses remain local and limited, while smuggling and Myanmar’s civil war complicate regional fixes, raising concerns for downstream Cambodia and Vietnam.
- Agriculture is the backbone of Southeast Asia’s economies, said Suebsakun Kidnukorn of Mae Fah Luang University in northern Thailand’s Chiang Rai, warning that rare earth mines are destroying “the world’s kitchen.”

Do You Know:

- Rare earths are vital to modern technology, from smartphones and electric vehicles to missiles and jets. Despite the name, they are common. It is the costly mining and complex refining process, concentrated in China, that makes them scarce.
- The U.S.-based Stimson Center has used satellite photo analysis to identify nearly 800 suspected unregulated rare earth and other mining sites along Mekong tributaries in Laos, Myanmar and Cambodia.



- Many in Myanmar are in areas of active fighting. The war has driven a “diversification of mines” geographically, according to Regan Kwan of the Stimson Center, who has tracked expansion of mining to 26 sites along rivers in Laos.
- Rare earths are mined by digging up rock or washing chemicals through soil to extract the minerals, creating toxic waste. The physical footprint of this process is recognizable in satellite data, Kwan said.
- Myanmar is China’s leading supplier of heavy rare earths, exporting more than \$4.2 billion worth of such materials to China between 2017 and 2024, mostly after a military takeover in 2021.

GULF WITHIN

The UAE has withdrawn from the Organization of the Petroleum Exporting Countries (OPEC), a cartel that it joined in 1967, and OPEC+. It was OPEC’s fourth-largest producer (3.12 million barrels per day) and its third-largest exporter (2.88 mbd) in 2025, behind Saudi Arabia and Iraq. The Emiratis clearly sought to free themselves of production constraints set largely by the cartel’s dominant producer, Saudi Arabia. With significant spare capacity, the Emiratis believe that they are better off with the autonomy to ramp up exports, a capability now constrained by the de facto closure of the Strait of Hormuz, the largest disruption to oil supply in history, following U.S.-Israel attacks on Iran. Brent crude prices barely budged on the announcement, revealing how heavily the Strait crisis weighs on the market. But once the UAE weathers this crisis, whether through the Strait’s reopening, or by routing more crude through a pipeline bypassing Hormuz, analysts estimate that it could lift production by roughly a million barrels a day. While Saudi Arabia, OPEC’s bellwether, has remained chary of over-supply and sought to keep prices high, the UAE has long pushed for higher production for revenues that it intends to funnel into AI infrastructure and other diversification projects.

Unsaid in the UAE’s move is also its frustration with what it sees as a lack of cartel-wide coordination in responding to Iran’s missile and drone attacks on Gulf oil and military facilities; Iran is also an OPEC member. The Emiratis have also differed sharply with the Saudis on external interventions: in Yemen and Sudan. The UAE also seeks closer ties with Israel than most Gulf states, which remain uncomfortable with any thaw given Israel’s genocidal actions in Gaza and its attacks on Iran and Lebanon. The U.S., a non-OPEC member, and the world’s largest oil producer at 13.6 mbd, has long viewed the cartel’s price-setting unfavourably, and President Donald Trump has repeatedly pressed it to pump more. The UAE perhaps calculates that aligning with Washington will yield benefits for its production and pipeline ambitions, though Mr. Trump’s transactional and mercurial foreign policy offers little guarantee. The UAE’s exit also reflects a structural issue: OPEC’s share of global crude dropped to 36.7% in 2025, and with Hormuz shut, pricing power has shifted to American producers in the short term. OPEC will continue, but with a reduced ability to set prices. For net oil-importing countries such as India, however, the immediate threat is not the cartel’s unravelling but the “double blockade” in the Strait of Hormuz and the fragile Iran-U.S. ceasefire. Unless a new geopolitical détente emerges between Iran and the Gulf states, volatility will persist, threatening energy security regardless of what unfolds within OPEC.

TASK FOR NEW FED CHAIR: PROTECTING AUTONOMY

The US Federal Reserve’s decision to keep interest rates unchanged in its April meeting was along expected lines. The conflict in West Asia, the consequent dislocations in the energy market and



supply chain disruptions, have led to considerable macroeconomic uncertainty. While committee members have opted to wait in order to gauge the impact of these developments on inflation and growth, what was noticeable was the growing disagreements over the direction of policy. The dissent — one member preferred to lower interest rates, while three others opposed the “easing bias in the statement” — has been the greatest in recent years. This comes at a particularly challenging time for the Fed. The central bank is going through a leadership transition — Jerome Powell’s term as Fed chair ends on May 15, and Kevin Warsh, Trump’s choice, has been confirmed by a Senate banking committee.

Under Powell, the Fed confronted multiple shocks, ranging from the Covid pandemic to the energy market disruptions following the Russia-Ukraine conflict and the war in West Asia. During his term, the central bank was criticised for being “behind the curve” and not raising rates fast enough to combat inflation following the pandemic. More recently, Powell and the Fed have also faced a barrage of criticism from US President Donald Trump. In his second term, Trump has been quite vocal in his criticism of the direction of monetary policy. His attempts to pressurise the Fed into lowering interest rates have raised apprehensions over the independence and autonomy of the central bank. It was only a few days ago that the US Justice Department dropped its investigation over the Fed’s building renovations — an investigation Powell had framed in the context of “the administration’s threats and ongoing pressure”.

The leadership change at the Fed — the full Senate vote will be held in May — will be closely watched. Inflation in the US has edged upwards — consumer prices rose 3.3 per cent in March amid the war in Iran. Gas prices are now at \$4.3, up from \$3.18 a year ago. But the demands to ease policy may well continue. The political context is unlikely to change. The challenge before the next Fed chair will, therefore, be to resist political pressure, safeguard the autonomy and independence of the central bank.

COMPOUNDING GAINS

The India-New Zealand Free Trade agreement (FTA) signed on Monday might look underwhelming when viewed in isolation, but is nevertheless significant when looking at what has been happening over the last five to six years. This impression is because New Zealand’s economy is one-sixteenth the size of India’s, and makes up less than 1% of India’s total trade. Yet, this view ignores the fact that the FTA comes soon after the signing of, or closure of negotiations on, seven other trade agreements in the past three and a half years or so. It also ignores the larger policy goals that India is trying to achieve through such deals. The COVID-19 pandemic and the U.S. tariff frictions have shown India that it needs to diversify supply chains on the import and export sides. Weaning off imports from China is a tough task. Yet, any chipping away of the 16% of India’s imports that China accounts for would be welcome. Importantly, the strategic need to diversify export destinations, especially while the mercurial Donald Trump is in charge of India’s largest export market, is clear and urgent. The trade deals with Mauritius, the UAE, Australia, the EFTA nations, the U.K., the EU, Oman, and now New Zealand all provide Indian exporters opportunities that they should take advantage of. Finally, dismissing this FTA on the basis of its size would be unfair to India’s negotiators who have done well to use India’s comparative advantage to push through key victories.

The first key strength of the FTA for India, and unprecedented, is that New Zealand will remove all goods tariffs immediately on execution of the agreement. The second strength is that India managed to avoid providing any concessions on any of its sensitive sectors. Key among these exclusions is dairy, something New Zealand had been especially keen to include. The third positive



is New Zealand's commitment to facilitate investments in India worth \$20 billion over 15 years. This is similar to the provisions in the EFTA trade pact, wherein the four EFTA countries committed to facilitate \$100 billion of investments in India over 15 years. To be sure, these are commitments to facilitate and not commitments to invest, but getting them included in the text of the deal is nevertheless significant. To help this along, India will create a dedicated desk to address any issues New Zealander investors might face. Such a targeted approach to foreign investment is necessary if India wants to achieve the multiple goals of weaning off China, increasing and diversifying exports, creating jobs, bolstering the capital account, and generally increasing incomes. The other long-standing need of helping domestic manufacturers scale up remains a sticky problem.

INDONESIA'S NEW BIOFUEL PUSH COULD MAKE COOKING OIL EXPENSIVE IN INDIA

Amid the surge in oil prices because of the Iran war, Indonesia has announced the roll-out of the biofuel B50, a blend of 50% palm oil-based biodiesel and 50% conventional diesel. The fuel is being tested and should be in use by July.

Key Takeaways:

- For India, which relies heavily on Indonesian palm oil imports, this could mean tighter supply and pricier cooking oil back home.
- Indonesia's net imports of crude oil stood at around USD 7.8 billion as of 2025. The proposed B50 biodiesel programme aims to partially substitute these imports with palm oil-based fuel. This policy push comes amid heightened geopolitical uncertainties and a recent surge in global oil prices, which have crossed \$100 per barrel in recent days.
- The policy also aligns with Indonesia's broader sustainable aviation fuel (SAF) roadmap. From 2027 onwards, the government has indicated that flights operating from Soekarno-Hatta International Airport and I Gusti Ngurah Rai International Airport are expected to begin using aviation fuel blended with around 1% SAF, potentially derived from palm oil. While the initial blending ratio is modest, it signals Indonesia's intent to extend its biofuel strategy beyond road transport into aviation.
- In parallel, the expansion of biofuel use is aimed at supporting domestic palm oil producers by absorbing surplus supply within the domestic market, especially in light of tightening regulations in key export destinations such as the European Union (e.g., deforestation-related rules targeting palm oil).
- Overall, the policy serves multiple objectives: reducing import dependence on crude oil, stabilising domestic palm oil demand, advancing alternative fuel adoption, and contributing to emissions reduction goals, positioning Indonesia as an emerging green energy leader in the region.

Do You Know:

- As Indonesia accounts for half of global palm oil exports (as of 2024), the shift toward a B50 programme, which reorients supply from export markets to domestic consumption, is expected to significantly influence global palm oil markets. Export availability will tighten, pushing international prices up.



- For India, the implications are particularly pronounced. India imports around USD 8.5 billion of palm oil, and more than 50 per cent of it comes from Indonesia (as of 2024). Palm oil is extensively used across household cooking, the food processing industry, and industrial sectors such as soaps and oleochemicals. A supply-demand imbalance in global markets is therefore likely to translate into higher import prices, with broad-based spillovers. These include rising household expenditure, elevated food inflation, and increased input costs for industry, potentially feeding into higher output prices.
- While India can partially adjust by increasing imports of alternative vegetable oils, the scope for substitution is limited. Imports of sunflower oil (primarily from Russia and Ukraine) and soybean oil (from Argentina and Brazil) are relatively smaller in volume. Moreover, these oils are more expensive and sourced from geographically distant markets, increasing both cost and supply-chain risks.
- At the same time, there is a potential upside for the domestic edible oil sector. Higher international prices can incentivise greater domestic production of oilseeds, benefiting farmers through improved price realisation and potentially strengthening the domestic value chain over time.
- India's demand for vegetable oils has far exceeded its domestic supply, driven by a growing population and rising consumption. A key structural reason for this gap is low farm productivity in oilseeds, which results in lower yields per hectare compared with global benchmarks.

CAN INDIA MOVE TO 100% ETHANOL BLENDING?

The story so far:

On April 21, Union Road Transport and Highways Minister Nitin Gadkari urged India to aim for 100% ethanol blending in the near future. He was speaking in the context of boosting energy self-reliance. A government notification also extended the use of ethanol to make Sustainable Aviation Fuel.

What is 100% blending?

It refers to pure ethanol. One litre of petrol will supply 45-55% more energy than one litre of ethanol as the latter is less energy-dense.

Typical petrol engines are only certified up to E20 (20% blending). If the engine is older, the rating is also usually lower. To work with E85 or E100 blends, engines have to be flex-fuel, meaning they can run on any level of blending.

Such vehicles are not widely available in India at present. Toyota has introduced a version of its Hycross Innova as a flex-fuel vehicle; it costs ₹3-4 lakh more than the petrol version. Maruti Suzuki and Hyundai are known to have prototypes. These vehicles need to have corrosion-resistant fuel systems, different sensors, and better tuned engine control units, among others.

How does India produce ethanol for blending?

Ethanol is mostly produced from sugarcane, a water-intensive crop. Diverting sugarcane to make ethanol could disrupt food prices and availability. This is why India has been pushing 'second-generation' ethanol made from crop residues, such as rice straw. The government also hopes this will reduce the amount of agricultural residue burnt.



Ethanol's production costs are, however, still not lower than those of petrol, requiring policy support and government-administered pricing. There are also indirect costs. While ethanol emits less carbon monoxide and particulate matter than petrol when combusted, sugarcane-based ethanol has to account for land use, inputs like fertilizers, and water demand.

Is CAFE III related to E100?

The government mooted the Corporate Average Fuel Efficiency (CAFE) standards in 2017. They limit the total carbon dioxide a manufacturer's fleet of vehicles may release. In response, manufacturers with a larger share of high-emission vehicles like SUVs were forced to design more efficient models.

India enforced CAFE I and II in 2017 and 2022, respectively. CAFE III lowers the fleetwide average target by around 30% from CAFE II and will kick in from April 1, 2027. Using CAFE III to push towards E85 or E100 could help overcome public resistance to ethanol blending. E20 fuel is 6-7% less efficient than pure petrol and leads to lower mileage for the same volume of fuel, increasing expenses.

E20 fuel became available from petrol pumps from 2023 and replaced other blends on the market from 2025. The National Biofuel Policy had originally said India would achieve E20 nationwide by 2030. Aggressive blending targets have also stoked industry bodies' and auto manufacturers' concerns about storage and transport infrastructure readiness.

How can India become energy-secure?

India has tried to diversify its energy base by pursuing alternative sources of oil, although these have been frustrated by U.S. sanctions; securing new sources of uranium; and offering incentives for deploying renewables. But domestic manufacturing is underdeveloped and initiatives to expand indigenous oil and gas production have delivered limited results.

Mr. Gadkari said India eventually has to produce hydrogen at \$1 a kg to become an energy exporter, against the current global norm of \$3-6/kg. The National Green Hydrogen Mission aims for this, but the hydrogen economy currently lacks commercial transport and storage options.

Can ethanol power aircraft too?

Aviation has been hard to decarbonise because aircraft can't use batteries or hydrogen at commercial scale yet, and SAF remains the primary way to comply with international emissions frameworks.

To be usable in jet engines, ethanol is subject to a process called alcohol-to-jet (ATJ). It is dehydrated, has its hydrocarbon chains lengthened, and is hydrogenated. Since ATJ prevents raw ethanol from running through jet engines, it does not reduce thrust or clog fuel lines by absorbing moisture, as critics allege.

ATJ ethanol is chemically similar to kerosene and existing aircraft fuel infrastructure can handle it. ASTM International sets global aviation fuel standards and has approved the ATJ pathway. It allows up to 50% blending in SAF.

However, using ethanol to make SAF as well as to blend in fuel for road transport will increase pressure on the feedstock.



IS THE RUPEE BACK TO THE 'FRAGILE FIVE' DAYS OF 2013?

The Indian rupee hit an all-time low of 95.33 to a dollar earlier on Thursday (April 30). It means that when trading international currencies, buying a single US dollar requires 95.33 rupees.

Key Takeaways:

— At the start of 2026, a dollar could be exchanged for 90 rupees, and a year ago for less than 85. In other words, there has been a sharp slide in the value of the rupee relative to the US dollar — a fall of 12% in just the past 12 months.

— For perspective, while it is true that the rupee loses value to the dollar every year, the slide is only about 3% to 4% over 12 months. Such a sharp decline is reminiscent of September 2013, when the rupee lost 12% of its value against the dollar just between January and September.

— quantitative easing (or QE) policy essentially means money can be borrowed cheaply because a central bank prints lots of it. When investors can borrow in US dollars at almost zero interest rates, it makes sense for them to borrow in dollars and invest in economies across the world that promise high growth and returns.

— But when the policy stopped, it signalled that interest rates in the US were set to rise because the tap of printing fresh money had been turned off.

— Most investors pulled back money from emerging markets to invest in US bonds. A US government bond is essentially loaning money to the US government and thus works as the most risk-free investment.

— But India, Indonesia, Brazil, South Africa and Turkey were the worst affected for another key reason: these economies already ran a current account deficit (meaning that as they traded goods and services with the rest of the world, more money went out than came in).

— They could run such a current account deficit only because they had a capital account surplus (meaning in terms of investments — foreign direct investment and investments in their stock markets — more money came in than what went out).

— But with QE rollback, the investment flows reversed, and that created a situation where the relative demand of these currencies against the US dollar crashed. Since exchange rates are essentially driven by the relative demand of any two currencies, these five currencies (INR, Indonesian rupiah, Brazilian real, South African rand, Turkish lira) lost value against the dollar.

— India is the second-worst (a fall of 12.1%) this time around. In fact, two economies — Brazil and South Africa — have seen their currencies appreciate against the dollar (by 12% and 10% respectively), or roughly the same degree by which the Indian rupee has depreciated. The Indonesian rupiah has lost just 4% of its value against the dollar.

Do You Know:

— The value of the Indian rupee is more than just a price; it is a vital indicator of a country's economic legitimacy, macroeconomic stability, and worldwide position. Its movement reflects both domestic fundamentals and global opinions of India's economic power.



— The rupee reflects macroeconomic stability. A stable currency indicates good economic management, which includes smart fiscal policies, controlled inflation, and a sustainable balance of payments. Persistent depreciation, on the other hand, may signal structural weaknesses such as external imbalances, rising import dependence, or declining competitiveness.

— The rupee has an important role in determining investor confidence. Currency stability is viewed by global investors as an indicator of policy legitimacy, institutional strength, and economic resilience. A falling rupee can reduce investor confidence, raise uncertainty, and discourage capital inflows.

— The Balance of Payments records every financial transaction between India and the rest of the world. Money coming in is marked positive. Money going out is marked negative. It captures the relative demand of the rupee vs foreign currencies — a critical indicator of economic health.

JET FUEL PRICE RAISED FOR INTERNATIONAL FLIGHTS, DOMESTIC UNTOUCHED

Public sector oil marketing companies (OMCs) Friday kept the price of aviation turbine fuel (ATF), or jet fuel, unchanged for scheduled domestic flights by airlines, while hiking the price for international flights and other non-scheduled operations.

Key Takeaways:

— According to the country's largest OMC Indian Oil Corporation (IOC), the move is part of the fuel retailers' effort to insulate domestic consumers from the surge in international oil and fuel prices due to the West Asia war.

— OMCs usually revise prices of ATF and some other fuels on the first of every month in line with international prices.

— According to sources, the price of ATF for international flights has now been hiked by \$76.55 per kl to \$1,511.86 per kl from May 1, translating to a little over Rs 7 per litre.

— Major Indian airlines had urged the government for changes in the ATF pricing formula by reintroducing "crack spread bands" to limit how much OMCs can charge as margin on jet fuel, and to bring parity between prices for domestic and international flight operations.

— While the OMCs' decision to not change ATF prices for domestic flights comes as a relief for Indian carriers, the significant price differential between prices for domestic and international flights persists.

— Usually, ATF accounts for about 40% of Indian airlines' operational costs; the price surge has led to a further increase to 55-60%, according to an Indian airline association.

— IOC said that apart from ATF prices for domestic flights, it has also not touched prices of regular petrol and diesel for the general public, domestic LPG cylinders for use by households, and kerosene sold through the public distribution system.

— According to sources, commercial LPG price has been hiked by a steep Rs 993 per 19-kg cylinder; it now costs Rs 3,071.50 in Delhi.

— Commercial LPG accounts for less than 1% of the country's total LPG consumption, and most of the remaining consumption serves demand from households.



— In a letter to the Ministry of Civil Aviation (MoCA) earlier this week, the Federation of Indian Airlines (FIA), which includes IndiGo, Air India and SpiceJet, wrote that the current “ad hoc” pricing mechanism for ATF is “creating severe imbalance in domestic and international operations and rendering airline networks unviable and unsustainable”.

— With international oil and fuel prices persisting at supernormal levels in the international market due to the West Asia crisis and polling in state elections over, a hike in prices of fuels like petrol, diesel and domestic LPG could be in the offing in the coming days or weeks, according to highly placed sources in the government.

— Public sector oil marketing companies (OMCs) are incurring heavy losses on the sale of these fuels and have been pushing for price hikes. Petrol and diesel prices have been frozen for over four years now in India.

Do You Know:

— Before 2010, India followed the Administered Pricing Mechanism, under which the government fixed fuel prices. These prices had little connection with global crude oil markets. State-owned firms such as Indian Oil, Bharat Petroleum, and Hindustan Petroleum sold fuel at controlled prices, often below cost.

— The government later compensated them through subsidies, upstream support, and oil bonds. While this system protected consumers, it distorted price signals and burdened public finances

— Reforms began on June 25, 2010, following the Kirit Parikh Committee’s recommendations. Petrol prices were deregulated. Diesel followed in 2014, and daily price revisions were introduced in 2017. On paper, India shifted to market-based pricing.

— But in reality, India never fully let go of the controls. Today’s system is best described as managed deregulation. Prices are linked to global prices and exchange rates, but government policy — especially taxes — determines the outcome.

— When crude prices fall, taxes rise, and oil companies retain higher margins, while consumers continue to pay the same high price. When crude prices rise, oil companies absorb losses as they delay price increases under government pressure.

STATES WITH REVENUE DEFICITS MAY FACE FISCAL STRESS: CENTRE

The Union Finance Ministry has warned that States with revenue deficits and high debt burdens will find it harder to deal with fiscal shocks, including from the West Asia crisis, forcing them to either reprioritise expenditure away from productive areas, or approach the Centre for more funds at a time when it is trying to consolidate its own finances.

In its Monthly Economic Review for April, the Department of Economic Affairs in the Ministry said nine of the 18 large States analysed were in revenue deficit as per their own projections for 2026-27. Seven are projected to be revenue surplus, while one is in revenue balance.

A revenue deficit is when expenditure on recurring items such as salaries, pensions, subsidies, and interest payments exceed the revenue earned from sources such as taxes and fees.

The States with projected revenue deficits as a percentage of their gross state domestic products (GSDP) are Himachal Pradesh (-2.4%), Punjab (-2.2%), Kerala (-2.1%), Andhra Pradesh (-1.1%),



Rajasthan (-1.1%), Haryana (-0.9%), Karnataka (-0.7%), Maharashtra (-0.7%), and Chhattisgarh (-0.3%).

Tamil Nadu and West Bengal were excluded from the analysis as they have so far presented only interim budgets for 2026-27. "Revenue-deficit States are constrained by the debt servicing obligations and carry, on average, significantly higher outstanding liabilities than revenue-surplus States, and many of them spend more than 15% of their revenue receipts on interest payments," the report noted.

Of all the States analysed, Punjab has the highest projected ratio of interest payments to revenue receipts of 22.8%.

"States simultaneously running a revenue deficit and high outstanding liabilities have fewer degrees of freedom to respond to fiscal shocks," the report said. "Specifically, they may have to resort to expenditure restructuring or may demand higher central transfers to meet the present unforeseen shocks."

On the other hand, the report highlighted the States that were doing fiscally well. The eight States with projected revenue surpluses as a percentage of their GDPs are Odisha (3%), Jharkhand (2.5%), Uttar Pradesh (1.6%), Goa (1.3%), Gujarat (0.8%), Uttarakhand (0.6%), Telangana (0.3%), and Bihar (0.1%). "Notably, eight States which have budgeted revenue surpluses for 2026-27, save for Telangana, have their capital outlay as a percentage of State GDP higher than their projected fiscal deficit," the report said.

It highlighted the example of Odisha: while the State's 3.5% fiscal deficit is higher than the 3% norm, the fact that it is in revenue surplus and its capital outlay is 6.5% of GDP "mark it as a case of deliberate investment rather than fiscal stress".

"States that are unable to maintain the golden rule of fiscal financing, that is, zero revenue deficit, will face increased stress as a result of the present crisis," the report said. "Stressed states with compressed fiscal space make demands on the Centre at precisely the moment that the Centre is attempting consolidation."

GOVT KEEN FIRMS IN CRITICAL SECTORS USE 'MADE IN INDIA' CLOUD SYSTEMS

AMID RISING geopolitical and cybersecurity concerns, the government may require companies in critical sectors such as energy, telecom, and banking to use Made-in India sovereign cloud systems, The Indian Express has learnt.

Key Takeaways:

- According to government officials, the move under discussion is aimed at reducing dependence on foreign cloud providers and strengthening data security. The government may be comfortable with tighter control over sensitive data and digital infrastructure, they said.
- The consideration was prompted last year, when when Microsoft suddenly blocked oil refiner Nayara Energy from its IT services. This prompted questions in New Delhi's policy circles around the dependence Indian companies have on crucial digital infrastructure services offered by foreign companies, and the need for them to build resilience against potential disruptions in the future.



- “The Nayara block was a wakeup call. A big concern was that a foreign company could just cut off access to one of our companies’ core digital infrastructure, and bring their operations to a grinding halt. We do not like that level of dependency on a foreign company,” a senior government official said, requesting anonymity.
- But this concern cannot overlook the fact that Indian-made products are not at the same level as their foreign counterparts yet. “The problem we are running into, and this has come up in discussions with the industry, is that we currently do not have good enough domestic cloud systems that can rival those from the US, so it is natural that companies are going for the more superior option. There has to be a push to produce such systems in India,” the official said.
- In July 2025, the European Union announced that it was sanctioning Nayara Energy, in which Russian oil giant Rosneft holds 49.13%, as part of its actions to force the Kremlin’s hand to end the war in Ukraine. The sanctions mean that Nayara Energy would not be able to export petroleum fuels and products to Europe, and potentially hit any of its dealings with European companies.
- Just days after, Microsoft suspended its tech support to the company in response to the sanctions, affecting Nayara’s employees’ Outlook and Teams accounts. This meant that Microsoft blocked Nayara Energy’s access to its own data, proprietary tools, and products—despite these being acquired under fully paid-up licenses. Soon after, Nayara Energy sued Microsoft in the Delhi High Court, following which it restored services to the oil refiner.
- The IT Ministry had then sought Microsoft’s response on why it had suspended services to Nayara Energy, which resulted in its employees not being able to access their own data and communication channels. In August 2025, The Indian Express exclusively reported that the software giant, in its response, told the government that the block happened due to an automated “legacy” compliance system, and the company has changed its enforcement mechanism since, including adding a review process by its senior leadership before suspending services to an entity.

Do You Know:

- Cloud systems are on-demand, internet-based services that deliver computing resources—such as servers, data storage, databases, and software—hosted in remote data centres rather than on local hardware. Instead of purchasing and maintaining expensive in-house IT infrastructure, businesses rent these resources.
- Big businesses need cloud systems primarily for scalability and cost efficiency, allowing them to instantly scale IT infrastructure up or down to meet fluctuating demand without heavy capital investment.
- A BLOCK by a cloud system provider can log out a client company from accessing its own data, communication channels and other tools and products. This can critically endanger operations in sectors such as telecom, energy and financial services. This is the reason why the government seeks greater control over such digital infrastructure.
- According to PIB, the Enhancement of National Informatics Centre (NIC) National Cloud Services project, launched in 2022, seeks to upgrade the national cloud infrastructure, enabling faster and more efficient delivery of e-Governance services.

—The GI Cloud (MeghRaj) initiative aims to provide ICT services via Cloud to all Government Departments at the Centre and States/UTs, promoting the Cloud ecosystem nationwide. It ensures



optimal use of IT infrastructure and accelerates the development and deployment of e-Gov applications such as digital payments, identity verification, and consent-based data sharing.

LAUNCH OF GOOGLE AI DATA HUB TODAY

Andhra Pradesh is set for a technological leap as Chief Minister N. Chandrababu Naidu will lay the foundation stone for Google's massive \$15 billion (₹1.35 lakh crore) AI data centre hub at Tarluvada, near Visakhapatnam, on April 28.

The event will be attended by Google's senior executives, including Google Cloud CEO Thomas Kurian. The groundbreaking ceremony marks the commencement of one of India's largest single foreign direct investment projects.

The project, managed by Google's subsidiary Raiden Infotech in partnership with Adani Infra, will span 601.4 acres across three strategic locations—Rambilli in Anakapalli district, and Adavivaram and Tarluvada in Visakhapatnam district. With a massive planned capacity of 1 gigawatt, the hub is designed to anchor Google's first major AI-driven data centre campus in India. The infrastructure will feature high-capacity submarine cable landing stations and dedicated fiber networks, providing low-latency connectivity to global markets.

Job generation

Beyond the core facility, which is slated for completion by July 2028, the project is expected to generate thousands of high-value jobs in data science, cybersecurity, and AI operations. It is anticipated to trigger a ripple effect in allied sectors, including renewable energy systems and advanced manufacturing, reinforcing the State's vision of building a 6.5 GW digital ecosystem. As the city prepares for Tuesday's launch, the mood remains optimistic, with local leadership hailing the project as a defining moment that will secure Visakhapatnam's place on the global technology map.

A CENTURY AFTER LEGAL RECOGNITION, WORKERS STILL LACK REAL PROTECTION

In 1918, Bahman Pestonji Wadia founded the Madras Labour Union, India's first trade union with regular membership and a relief fund, established to address what he called the "mal-treatment of workers" by European officers. The union he helped build was, in the eyes of British common law, a conspiracy to restrain trade.

In 1921, a Madras court put a price on the act of organising workers against unfair working conditions. £2,000 was awarded against Wadia and fellow unionists for leading a strike against the Buckingham and Carnatic Mills. The management agreed to waive the payment on the condition that Wadia sever all associations with the union he had built. There was no law to protect him. The unionists complied.

But even in compliance, the unionists showed defiance. One of the union leaders, Vengal Chakkarai Chettiar, told the judge in open court: "I am an evangelical worker for the Wesley Mission. I am getting ₹10 per week, with which I am living. I have only my clothes, which I am wearing, and a few spare clothes at home. If necessary, I will remove my clothes and give them to the court. But the amount of compensation ordered by you cannot be recovered from me. At the same time, I cannot be stopped from working for the trade union of workers. Even if my clothes are removed in execution of a decree, I will continue to work for the trade union by wearing my loincloth. If necessary, we will go for work stoppages to win our demands."

4TH FLOOR SHATABDI TOWER, SAKCHI, JAMSHEDPUR



The judgment brought into the open something that had been gnawing at the labouring classes for decades. By 1921, India had hundreds of trade unions, yet not one had legal recognition. N.M. Joshi, co-founder and General Secretary of the All-India Trade Union Congress (AITUC), understood the specific nature of the problem. In March 1921, the same month as the Buckingham and Carnatic Mills judgment, he moved a resolution in the Central Legislative Assembly recommending that the government introduce legislation to register and protect trade unions. Five years of legal and political pressure followed before the Act was finally passed in 1926. The Royal Commission on Labour in India, reporting in 1931, described what the struggle had been for: to give trade unions the necessary protection from civil suits and criminal laws relating to conspiracy to enable them to carry on their legitimate activities.

Letter and spirit

The Trade Union Act of 1926 emerged from five years of sustained pressure from the labour movement, from nationalist leaders who understood that organised workers were essential to the freedom struggle, sharpened by the colonial state's calculation that legal frameworks for managing workers' grievances were safer than the revolutionary alternative.

Section 18 of the Act answered the Buckingham and Carnatic Mills judgment directly: "No suit or other legal proceeding shall be maintainable in any Civil Court against any registered Trade Union or any office-bearer or member thereof in respect of any act done in contemplation or furtherance of a trade dispute" including inducing breach of employment contract, or interfering with the employer's trade or business. The weapon used to silence Wadia was removed from the employer's hands. Section 17 addressed the criminal threat: no office-bearer or member of a registered union shall be liable under the IPC's criminal conspiracy provision, Section 120B, for agreements made to further legitimate union objects, "unless the agreement is an agreement to commit an offence."

An Indian worker now had legal recognition and legally recognised rights. A union was no longer a conspiracy.

By 1928, the Girni Kamgar Union in Bombay had over 70,000 members. That year saw 203 strikes involving over five lakh workers. The left wing of the labour movement, strengthened by the Act's protections, was growing fast and fusing with nationalist politics, as it had in 1908, when Bombay's workers struck for six days over Lokmanya Tilak's imprisonment. Two responses came simultaneously from the colonial state.

The Meerut conspiracy case arrested 33 labour organisers, men working openly, in unions the 1926 Act had made legal, and charged them not under Section 120B, where the Act's immunity held, but under sedition provisions the Act had never touched. Then came two bills together. The Trade Disputes Bill banned sympathetic strikes, built in notice periods long enough to make sustained action practically impossible, and made illegal any strike that extended beyond a purely industrial dispute. What had electrified Indian politics since 1908, the joining of workers' grievances to nationalist ones, was now a criminal act. Motilal Nehru named it plainly: "the Slavery of India Bill." The Public Safety Bill went further, giving the executive power to act not on what people did but on what they were deemed to intend, with the Governor General as judge of intention.

On October 30, 1928, months before the bills came to a vote, Lala Lajpat Rai, who had presided over the AITUC's founding session in 1920, led a peaceful protest in Lahore against the all-British Simon Commission. Police Superintendent James Scott ordered a lathi charge. Rai was beaten



across his chest. That same evening, still standing, he addressed the crowd at Mochi Gate: "I declare that the blows struck at me today will be the last nails in the coffin of British rule in India." He died eighteen days later.

At the Bombay Presidency Youth Conference in December 1928, Jawaharlal Nehru told the students: "Ally yourself to the masses of the country, the peasantry and the industrial worker... And if you do so, you will automatically avoid the pitfalls of reformism and petty compromise." By July 1929, with both bills passed and the Meerut accused in custody, his analysis of the Public Safety Bill was unsparing: "This is dangerous enough at any time and in any country to make the Executive Government the judge of what is in the mind of those opposed to it. It is far more dangerous in India, where there is a foreign government." When the government's spokesman claimed that foreign agitators had caused the country's labour unrest, Nehru was contemptuous. The actual cause was economic distress. "A strike is always unfortunate and deplorable, just as a fever is unfortunate and deplorable, but it is no good cursing the fever. The wise man treats it and tries to remove the causes of it."

Three months before that analysis, on April 8, 1929, Bhagat Singh and Batukeshwar Dutt threw smoke bombs and leaflets from the visitors' gallery of the Central Legislative Assembly. The pamphlet named three provocations: the Meerut arrests, the bills, and the death of Lajpat Rai. "The indiscriminate arrests of labour leaders working in the open field clearly indicate whether the wind blows," it read. Then came the sentence that named the whole situation: "It takes a loud voice to make the deaf hear."

Singh was hanged in 1931, aged 23. Dutt was transported to the Cellular Jail in the Andamans to serve a life sentence. The Meerut accused spent years in prison. The Girni Kamgar Union was broken. The 1926 Act's protections remained on the statute book. The letter never came to match the spirit.

Past as prologue

The Trade Union Act survived independence and was absorbed into the constitutional settlement. Article 19(1)(c) gave every Indian citizen the right to form associations or unions. Registered trade unions increased by 625% between 1951 and 1979. The ideological fire of the early movement cooled, over time, into wage bargaining. Then in 1991, the New Economic Policy arrived with its logic that labour flexibility was the price of growth.

In 2020, during a Monsoon Session of Parliament conducted under pandemic restrictions, with the Opposition protesting procedural irregularities, the government passed four labour codes consolidating 29 existing laws. One of them, the Industrial Relations Code 2020, absorbed the Trade Union Act 1926. It came into force on November 21, 2025.

The new Code preserves Sections 16 and 17, successors to the 1926 Act's immunity provisions, in language almost identical to the original. A century's worth of protective words, freshly reprinted. But the dissonance between the letter and the spirit continues.

To be recognised as such, a negotiating union must now demonstrate 51% support among workers on the muster roll. In industries characterised by high turnover, casual labour, fixed-term contracts, achieving and maintaining this numerical ceiling is nigh impossible for most unions, and this is precisely in sectors where workers need protection the most. Section 62 requires 60 days' notice before a strike can begin, four times the 15 days the 1929 Trade Disputes Act demanded, the bill Motilal Nehru had already called the "Slavery of India Bill." Workers cannot



strike during conciliation proceedings, or for seven days after, or during Tribunal proceedings, or for 60 days after those conclude. Between notice periods and cooling-off clauses, an employer can keep a workforce in procedural suspension without end.

Then there is the silence that reveals more than any provision. The words 'gig' and 'platform' do not appear once in the Industrial Relations Code 2020. NITI Aayog estimated 7.7 million platform workers in 2020. Yet a law that came into force five months ago contains not a single word about the workers who run errands across every city in the country. They are legally classified as independent contractors.

The struggle continues

Despite the hurdles thrown their way, workers continue to organise. The Telangana Gig and Platform Workers Union, the Indian Federation of App-Based Transport Workers, and the All-India Gig Workers Union continue to exist, organise meetings on WhatsApp, and occasionally win. In March 2024, platform worker unions forced Zomato to reverse a policy that segregated delivery fleets by food type. This decision was understood to endanger religious minority and lower-caste riders by making their identities visible in a society marked by discrimination.

The Fairwork India Report 2024 assessed 11 major platforms operating in India and found that none recognised a collective body of workers or a trade union. Four States have now passed social security laws for platform workers, welfare benefits designed, with some care, to make the struggle for collective bargaining seem unnecessary.

The deaf have not learned to hear. The loud voices are still necessary.

HOW AMBEDKAR LAID THE FOUNDATIONS OF INDIA'S MODERN LABOUR LEGISLATION

As the Labour Member in the Viceroy's Executive Council (1942-46), B R Ambedkar introduced a slew of pathbreaking legislation for labour welfare. This experience was eventually reflected in the making of the Constitution.

Key Takeaways:

- Bhimrao "Babasaheb" Ambedkar, known as the architect of India's Constitution and the first Union Law Minister of independent India, began his political journey by organising the Independent Labour Party to address the issues of the labouring classes in colonial India. But he was not concerned only with the material conditions of labour. He wanted to go beyond survival. For him, labour must be able to live a life of self-development of their human, cultural and spiritual personalities.
- In 1942, as the call for Independence was steadily gaining momentum and the vision of a "New India" was being widely discussed, Ambedkar had already begun laying the foundations of modern India. Nearly a month before the launch of the Quit India movement, Ambedkar was appointed as the Labour Member in the Viceroy's Executive Council, where he introduced a slew of pathbreaking legislation for the welfare of labour or the working classes.
- This included reduction of working hours from 12 hours to 8 hours, maternity benefit for women workers, provident fund for finers, paid leave and dearness allowance, compulsory recognition of trade unions, housing and medical facilities for workers, creation of employment exchanges, employee state insurance, and many more.



Do You Know:

- Ambedkar's experience as the Labour Member (1942-46) is reflected even in the making of the Constitution, particularly on the provisions related to Labour. For instance, through Article 39, the Constitution directs the State to design policies to ensure "adequate means to livelihood for all its citizens, and equal pay for equal work for both men and women".
- Through Article 43, it directs the State "to secure, by suitable legislation or economic organisation or in any other way, to all workers, agricultural, industrial or otherwise, work, a living wage, conditions of work ensuring a decent standard of life and full enjoyment of leisure and social and cultural opportunities".
- In the colonial era, particularly after the two World Wars, industrialisation began to expand its footprint in the Global South, including nations under imperial rule. Although still in its early stages, it was already pushing vast masses out of agrarian, feudal set-ups into a labour-driven capitalist economy.
- This was also a time when little to no attention was given to the interests of labour, on the assumption that early industrialisation could not afford to accommodate labour rights. Against this backdrop, Ambedkar's contributions to labour legislation marked a watershed moment for the Indian labour movement. During his tenure as Labour Member, India set important benchmarks in labour rights and moved towards meeting global standards for protections that workers are entitled to.

EPFO TO LAUNCH NEW PORTAL FOR INOPERATIVE PRE-UAN ACCOUNTS

In an attempt to resolve the long-pending issue of unclaimed deposits, the Employees' Provident Fund Organisation (EPFO) is set to launch a portal for members to access their inoperative accounts through Aadhaar-based authentication.

Key Takeaways:

- The portal, to be named E-PRAAPTI — EPF Aadhaar-Based Access Portal for Tracking Inoperative Accounts — will be helpful for those EPF members who do not have a Universal Account Number (UAN) and had EPF accounts in the physical mode.
- Union Labour and Employment Minister Mansukh Mandaviya said the dedicated digital platform would facilitate identification, tracking, UAN linking and activation of old EPF accounts. "The portal will provide a streamlined Aadhaar-based authentication mechanism that will enable members to securely access their old EPF account which may not have an UAN linked with it and initiate the process for updating their member profile, followed by seamless UAN linking and activation," he said.

Do You Know:

- The EPFO has a total of 31.83 lakh inoperative accounts, of which around 41% have been inoperative for over 5-10 years while about 22% are lying idle for over 20 years. In its meeting in March, the EPFO's Central Board of Trustees had decided to address this issue by giving a nod for auto-settlement of such inoperative accounts, initially for those with unclaimed balance of Rs 1,000 or less, to their registered bank accounts.



- Inoperative accounts are those EPF accounts in which no interest is credited after a specified period. Mainly belonging to EPFO members who have retired after the age of 55 years, an EPF account is treated as inoperative if no contribution is received for a continuous period of three years after the member attains 55 years of age or from the date of retirement, whichever is later. If the member is below the age of 55 and there has been no contribution, such EPF accounts continue to earn interest till the age of 58.

CART BEFORE HORSE

India is, in many respects, a country in transition and thus suffers varieties of a common chicken-and-egg problem: it adopts solutions that are only feasible at scale but struggles to operationalise that scale. The Ministry of Road Transport and Highways is set to introduce vehicle-to-vehicle (V2V) communication technology that will allow vehicles on the road to send and receive data about their location and movement vectors, in a bid to improve road safety. This seems credible at a time when road accidents are increasing in India. A spate of accidents in April in Karnataka, Maharashtra, and Uttar Pradesh killed more than 50 people. The Supreme Court of India took suo motu cognisance of two similar incidents in 2025 and, on April 26, asserted that the state must proactively enforce the constitutional right to life and remove any obstructions in highways' right of way. However, V2V is unlikely to help as its hardware demand is non-trivial relative to what exists, yet is crucial. V2V is part of the wider V2X, or vehicle-to-everything, technological scheme in which vehicles communicate with other infrastructure (V2I), such as traffic lights and tolling, and pedestrians (V2P), aside from V2V. However, India currently lacks the interoperability and backend systems to operationalise it. In fact, the Ministry has yet to specify the key, akin to the 'language' vehicles broadcast in, Indian V2V will use — DSRC or C-V2X — and has unsurprisingly spurred public concern.

Vehicle owners already face steep compliance costs, including having to pay for vehicle location tracking devices and high-security registration plates, sans subsidies or a competitive vendor market to defray the higher cost of approved devices. In the V2V network, each vehicle is a node where data are processed and interpreted for the driver. However, many commercial drivers are not used to driving environments with interfaces and are under-trained to interpret vehicle alerts. This raises the prospects of bad actors intercepting communications to send false warnings or trigger unnecessary braking, in the absence of strong security protocols, and of network channel congestion (5.9 GHz is the international standard) and packet loss. More fundamentally, the country lacks proper road design, routing, and speed control while road use is dominated by two-wheelers, pedestrians, and non-motorised traffic. If a city is not 'smart', a 'Smart City' solution such as V2V will be marginal at best. It will also be more useful when more users adopt it, but at present, early adopters will bear the full cost while enjoying underwhelming benefits. If the technology is to help mitigate the deadliness of India's roads, the Ministry must slowly roll out both infrastructure and training, with phased mandates and subsidies, first.



LIFE AND SCIENCES

LIGHT POLLUTION THREATENS THE WORLD'S CLEAREST SKIES

It takes a moment for the eyes to adjust. A faint spark appears in the darkness; then another, brighter one. Soon, stars, planets and entire constellations emerge. Before long, a whole galaxy stretches across the sky, visible to the naked eye.

In Chile's Atacama Desert, the night sky feels infinite. Considered the driest place on the earth, its darkness is also one of the clearest windows to the universe.

A rare combination of dry climate, high altitude, and isolation from urban light pollution makes the Atacama an unrivalled hub for world-class astronomy and home to the world's largest ground-based astronomical projects.

"The conditions in the Atacama Desert are unique in the world," said Chiara Mazzucchelli, president of the Chilean Astronomical Society. "There are more than 300 clear nights per year, meaning no clouds and no rain."

But these skies may be at risk.

Last year, the desert became a battleground between scientists and an energy firm proposing a green power complex just kilometres from the Paranal Observatory. Managed by the European Southern Observatory (ESO), the site also is the future home to what is to be the most powerful optical telescope.

Although the energy project was cancelled in January following an appeal from astronomers and physicists, it exposed concerns that existing sky preservation laws are outdated and unclear. Since then, several environmental regulations have come under review.

The so-called Photon Valley in Chile is a high-altitude corridor where several observatories operate side by side using some of the most sophisticated instruments ever engineered.

"ESO's telescopes in particular are the most powerful astronomical facilities on the planet," said Itziar de Gregorio-Monsalvo, the ESO representative in Chile.

Every year, the Atacama Desert draws thousands of astronomers and scientists from around the world. "We are lucky to be here," said Julia Bodensteiner, an assistant professor at University of Amsterdam.

Walking across the Atacama's rocky, uneven terrain is no easy task. At altitudes exceeding 3,000 m, oxygen becomes a luxury, while scorching days give way to relentlessly cold nights. But for space observation, the more than 105,000 sq. km of desert are the perfect setting.

The exceptional conditions of the Atacama have enabled some of the most ambitious astronomical projects ever conceived, like the Extremely Large Telescope, ELT — a \$1.5 billion endeavor by ESO scheduled for completion in 2030.

With 798 mirrors and a light-gathering area of nearly 1,000 square metres, the ELT will be 20 times more powerful than today's leading telescopes and 15-times sharper than Hubble Space Telescope.



Twenty years ago, the Atacama Desert was “an ocean of darkness,” recalled Eduardo Unda-Sanzana, director of the Astronomy Center at the University of Antofagasta.

Over the years, however, the landscape has changed drastically. Driven by urban sprawl, industrial development, and the arrival of mining and wind farms, the desert has become coveted territory where balance is not always easy to reach.

OPENAI CHIEF APOLOGISES FOR FAILING TO FLAG CANADIAN MASS SHOOTING SUSPECT

The head of OpenAI has written a letter apologising that his company did not alert law enforcement about the online behaviour of a person who shot and killed eight people in British Columbia, Canada. In the letter posted on Friday, Sam Altman expressed his deepest condolences to the Canadian community of Tumbler Ridge.

“I am deeply sorry that we did not alert law enforcement to the account that was banned in June,” Mr. Altman said. “While I know words can never be enough, I believe an apology is necessary to recognise the harm and irreversible loss your community has suffered.”

On February 10, police say an 18-year-old alleged shooter, identified as Jesse Van Rootselaar, killed her mother and 11-year-old stepbrother in their home before heading to the Tumbler Ridge Secondary School and opening fire, killing five children and an educator before killing herself.

After the shootings, OpenAI said that last June the company identified Van Rootselaar’s account using abuse detection efforts for “furtherance of violent activities.” The San Francisco tech company said it considered whether to refer the account to the Royal Canadian Mounted Police but determined at the time that the account activity did not meet a threshold for referral to law enforcement.

At the time, British Columbia Premier David Eby said it “looks like” OpenAI had the opportunity to prevent the mass shooting

HAS ANTHROPIC’S MYTHOS MADE THE CURE WORSE THAN THE DISEASE?

A few weeks back, Anthropic made two major announcements. The AI company said it was forming an alliance with who’s who of the tech industry and it said, with those alliance members, it will share its latest AI model that is skilled at identifying hidden weaknesses in software.

That created a sort of cartel-style alliance sans price fixing in an industry that is increasingly facing cyber threats as the mushrooming of AI-powered applications is making the already difficult threat terrain harder to navigate for defenders.

In the world of cybersecurity, defenders are, to put it crudely, your anti-virus sellers, helping you fix security vulnerabilities and keep data safe. But that simple business model is being disrupted by speed and scale.

AI models like Anthropic’s Mythos are capable of finding flaws in the software architecture that have gone unnoticed for years, despite running the most capable security checks.

And the company has claimed that it has identified many such issues in the currently used software in several critical systems.



A new problem

The frontier AI company has said that only those in its alliance network have access to Mythos Preview. That means only they can find legacy flaws and fix them.

But the company is now fighting a problem it helped create — and one it may have already lost a round of.

A small group of unauthorised users, those not part of Project Glasswing, have gained access to the model. Based on reports, they haven't entered it through a back door. They seem to have made an educated guess about where the model lived online, based on the URL formats Anthropic uses for its other models, and leveraged credentials belonging to a contractor.

The group has been using Mythos regularly for some time, though not for cybersecurity purposes, according to a report by Bloomberg.

Anthropic confirmed it is investigating the incident and said there is currently no evidence that the activity extended beyond the third-party vendor environment.

The safeguard question

The incident raises serious questions about whether Anthropic, valued at approximately \$380 billion, can effectively safeguard its most powerful technologies from falling into the hands of malicious actors.

This is also not the company's first stumble. The Mythos breach comes shortly after Fortune reported earlier that Anthropic had accidentally made nearly 3,000 internal files publicly accessible, including a draft blog post describing Mythos itself.

A company asking the world to trust its guardrails has now tripped over two of them in quick succession.

Mythos is not a database of known vulnerabilities. It is not a smarter version of the scanners security teams already run. It operates through interaction rather than inspection.

Mythos's capability

Instead of scanning code for known patterns, the system engages with it. It executes functions, tests different inputs, and observes how the software responds. Each result feeds into the next step, allowing the model to refine its approach and move deeper into the system.

If an attempt fails, it does not stop the process. But that failure acts as an input for the next process. Unlike conventional cybersecurity products, it acts like a senior security engineer who can reason about the software. And its biggest differentiation is that it won't get tired. It can persevere indefinitely.

The model has already found thousands of high-severity vulnerabilities, including some in every major operating system and web browser. It is capable of chaining multiple vulnerabilities together into working exploits. In controlled evaluations, it could execute multi-stage attacks on vulnerable networks, tasks that would take human professionals days of work.



Limited patches

Fewer than 1% of the potential vulnerabilities Mythos has discovered so far have been fully patched by their maintainers. The rest sit in a growing pipeline of known-but-undisclosed flaws. That pipeline is not a database in the traditional sense. But for anyone who gains access to Mythos, it functions as a live, continuously expanding map of weaknesses in software that runs banking systems, hospitals, power grids and supply chains.

Which returns us to the Discord group in the vendor environment — the small group of unauthorised users who access Mythos Preview. While their reported reason behind accessing is reassuring for now, it ignores the structural problem entirely. Access is access.

If another group, one with malicious intent, had gained access to this AI tool, it is very likely they would have sabotaged some critical software. With a ready-to-attack set of vulnerabilities, the power asymmetry is significant between the user and the attacker.

Also, the window between discovering a vulnerability and exploiting it by an adversary has now collapsed. What once took months now can happen in minutes with AI, as Microsoft noted in its Project Glasswing statement.

Alarming asymmetry

The unauthorised users don't need to understand everything Mythos can do. They need only to understand enough to start asking the right questions of it.

This is the asymmetry that should alarm security leaders more than any specific vulnerability. Defenders are constrained by set processes like patch validation, deployment windows, coordination across teams, and the operational cost of downtime.

Mythos leaves the defensive cost of answering those questions inside a real enterprise largely unchanged. The right lesson now is preparation. Attackers, meanwhile, have no such constraints. They only need one door left open. If thousands of vulnerabilities can be identified quickly, organisations may not have the capacity to address them all.

Prioritisation becomes critical, and errors become more costly. In this environment, more visibility does not automatically mean more secure.

Mythos-class capabilities will become more broadly available. Within the next year or two, enterprises will have direct access to AI-powered discovery tools that can scan their own proprietary codebases with similar depth.

Beyond Anthropic's Mythos

It is easy to stay stuck on a single model but it is quite possible that Anthropic may be overstating Mythos's capabilities as some experts have pointed out that smaller open models have demonstrated meaningful portions of what Mythos does, at a fraction of the cost.

While this means that the gap between a frontier model and a sufficiently motivated attacker with access to cheaper alternatives is narrowing, it also shows that hackers can get access to cheap, Mythos-level models.

That means organisations should be well prepared for a constantly evolving threat landscape where attackers are moving faster than patch cycles. There is also a need for a hard rethink of risk



tolerance for operational downtime: if adversary timelines are now measured in minutes, the old calculus about acceptable patch delays no longer holds.

The deeper question is whether any single company can be trusted as the gatekeeper of technology this consequential. Project Glasswing was designed to put defenders ahead of attackers. But if the guardrails can be bypassed by a Discord group with a contractor's login and a good guess about a URL, the cure may be running on the same fragile infrastructure as the disease.

WHY TURNING TO AI FOR PERSONAL ADVICE IS A BAD IDEA

The current crop of artificial intelligence tools landed on our smartphones and web browsers as chatbots — they were designed to answer queries. You can ask it something, and receive a statistically probable response based on its training data.

Apart from the training data, these chatbots are also built with a certain personality — to be agreeable. This trait may not be good for users who turn to a chatbot for personal advice, as they could create a type of echo chamber effect on the individual and make them less empathetic to the other.

A recent research, titled 'Sycophantic AI decreases prosocial intentions and promotes dependence,' published in the journal *Science*, is among the most rigorous attempts yet to measure not just whether AI flatters us, but what that flattery actually does to us.

The team first benchmarked sycophancy across 11 of today's leading large language models using a dataset of nearly 12,000 social prompts. The finding was unambiguous: across all 11 models, AI affirmed users' actions 49% more often than humans, even when queries involved deception, illegality, or other harms.

In one test, the researchers fed the models posts from Reddit's r/AmITheAsshole community — where the users had already collectively ruled the poster was in the wrong. The LLMs still said the poster was right 51% of the time.

You might assume that a reasonable person would notice when an AI is being overly agreeable. But the study suggests otherwise. When researchers asked participants to rate the objectivity of both sycophantic and non-sycophantic responses, they rated them about the same.

Users could not distinguish when an AI was acting overly agreeable. The reason, the researchers note, is that the AI rarely said that the user was "right"; instead, it replied in seemingly neutral language. Its flattery was disguised neatly in objectivity that the reader absorbs it without resistance.

This can get worse the more personalised the experience becomes. Frequent conversations with the chatbot can increase people's trust in artificial systems.

In the second part of the study, more than 2,400 participants interacted with both sycophantic and non-sycophantic AI models about real personal conflicts or pre-written interpersonal dilemmas. Participants deemed sycophantic responses more trustworthy and indicated they were more likely to return to the AI for similar questions.

When discussing their conflicts with such systems, they also grew more convinced they were in the right and reported they were less likely to apologise or make amends with the other party. This type of behaviour is problematic as it may make people self-centred.



So, how can the user stay safe? The researchers explored technical interventions to reduce sycophantic tendencies in AI chatbots. Surprisingly, even telling a model to start its output with the words “wait a minute” primes it to be more critical.

The U.K.’s AI Security Institute has suggested turning statements into questions, since more emphatic statements encourage more sycophancy. Asking a model to argue against your position first, or to tell you what the other person in your conflict might say you are doing wrong, are other ways to work around the grain of the machine.

But these are workarounds, not solutions.

AI, in its current chatbot form factor, tends to amplify whatever system it is paired with — good or broken. When the system being amplified is your own bias, your own grievance, or your own desire to be right, then the machine will not correct you. It will confirm your biases, in the most academic-sounding language it can find, until you return for more.

A tool that tells you what you want to hear is not a thinking tool. It is a mirror. And a mirror, no matter how sophisticated, is the last thing you need when you are trying to understand someone else.

A FACE OF POMPEII

Archaeologists in Italy’s Pompeii have for the first time used artificial intelligence (AI) to reconstruct the appearance of one of the victims of the volcanic eruption that destroyed the ancient Roman city nearly 2,000 years ago.

The AI-generated image, released by the Pompeii Archaeological Park on Monday, shows a man ducking for cover while holding a large bowl over his head, with a flaming Mt Vesuvius in the background. It is based on the recent discovery of the remains of a male adult, just outside one of the southern gates of the city, which were lying next to a terracotta mortar that he presumably used as protection.

Archaeologists believe the man was killed by a shower of volcanic rocks, in the early hours of the second day of the eruption, while trying to escape towards the sea. He was also carrying a lamp and 10 bronze coins, the park said.

“If used well, AI can contribute to a renewal of classical studies, illustrating the classical world in a more immersive way,” the head of the archaeological park, Gabriel Zuchtriegel, said in a statement.

The once-thriving city of Pompeii, about 25 km southeast of Naples, was buried in the eruption of Mt Vesuvius in AD 79, preserving buildings, objects and graffiti under metres of ash. Rediscovered in the 18th century, it is now one of the world’s most significant archaeological sites, and one of the most popular tourist sites in Italy, with 4.3 million visitors in 2024, according to the latest statistics.



THE LONG HOP

Q: Why did kangaroos evolve hopping?

Even if an animal is less intelligent than humans at particular tasks, it can still make complex decisions. An interesting one concerns how it searches for food.

Over the last 20 million years or so, as the Australian landmass drifted north, it slowly became drier and its interiors more arid, changing from dense forests to open grasslands and scrubland. These tough grasses are low in nutrients, which forced animals to evolve special teeth and digestive systems that were more complex, capable of fermentation.

In this environment, food was sparse and the distance between food sources was large. In search theory, animals foraging in this condition would have to use a pattern called a Levy flight. Kangaroos evolved the ability to hop larger distances on two legs, as that was more efficient than running on four legs.

As rainfall became unpredictable, female kangaroos also became able to pause embryonic development so they could time births to happen in better conditions.

NEANDERTHAL MYSTERY

Q: How did the Neanderthals go extinct?

A: Pursuing the mystery of how the Neanderthals went extinct, researchers from the Universities of Cambridge and of Montreal have now asserted that climate change was not the primary reason. Instead, they have reported that Homo sapiens succeeded because of their better social connectivity whereas the Neanderthals' populations suffered the effects of poor social connections.

The findings, published on April 1 Quaternary Science Reviews, were based on habitat suitability modelling: using algorithms to estimate where ancient humans might have preferred to live based on simulations of the climate over 60,000 years.

Based on these simulations, the team said that both species maintained "core" regions in Spain and Italy, among other areas, that should have provided shelter and protection as the populations negotiated Marine Isotope Stage 3 — a time when the earth was cold even as its climate oscillated rapidly.

The researchers also said that these two groups rarely crossed paths: based on their estimated maps, the researchers said the species' ranges overlapped by less than 5% — a figure they said weakened the theory of "competitive exclusion", which claims that Neanderthals went extinct because H. sapiens outcompeted them for resources.

If the new findings are to be believed, Neanderthal groups in Eastern Europe were too isolated to survive demographic pressures, while H. sapiens benefited from superior networks along coastal migration routes. Ultimately, the paper concluded, the process in which H. sapiens replaced Neanderthals was "regionally differentiated", meaning it happened for different reasons in different locations.



WHY SCIENCE AND SCIENTISTS MUST LEARN TO CELEBRATE FAILURES

Failure is part and parcel of research but many scientists consider discussing it in a scientific forum to be taboo.

Laboratories are littered with unfinished experiments and inconclusive facts and theories that failed to stand the test of study. However, when science is being communicated — whether to funding bodies, professional journals, or audiences — it comes across as a smooth story of success. Just narratives are counter-effective.

To ensure science is dynamic, innovative, and honest, we have to foster a culture of appreciating and learning from failure rather than hiding it.

In its essence, science progresses by trial and error. A scientist postulates hypotheses while anticipating that many of them will be discarded. Every unsuccessful experiment sharpens the edges of knowledge and guides further investigation.

However, systems of science such as funding, publication, and career progression are skewed towards successes alone. Grants are generally awarded on the basis of promising results and a large volume of papers, and in favour of those with positive results. Unsuccessful or negative outcomes are often overlooked, leading to a biased ecosystem in which only success is allowed to be seen.

Not to be stigmatised

In the early 1980s, Australian scientists Barry Marshall and Robin Warren claimed that a bacterium called *Helicobacter pylori* caused peptic ulcers. Papers on the idea were however rejected by journals and dismissed by the gastroenterological establishment; the latter had long held that the stomach was too acidic for microbes. (Of course, there was also reasoned scepticism in pockets of the research community, which did not think that the duo had provided sufficient evidence for their hypothesis.)

They were unable to get their findings published and were also not taken seriously, but they had reasons to believe they were right. Then, in 1984, Mr. Marshall famously drank a broth containing *H. pylori* bacteria, expecting he would develop ulcers in around a year and thus prove to the research community that their idea had merit. Rather than a year, he developed symptoms of gastritis within a few days.

The duo won a Nobel Prize in 2005 for their work on identifying *H. pylori* as a cause of gastritis and peptic ulcers. It was a testament to how publication bias allowed a treatable condition to go untreated for years because the system had no process or culture to deal with what it perceived to be a failure.

To really embrace failure, science may need to draw inspiration from domains beyond academia. The technology sector, particularly in entrepreneurial ecosystems, has long embraced a “fail fast, fail often” philosophy. Here, failure is not to be stigmatised but treated as a stepping stone, an essential part of iterative learning.



GPS INTERFERENCE

In the US-Iran war, in addition to physical warfare, both sides have seen their navigation systems go haywire, erroneously indicating that ships were located at airports, on land or at nuclear power plants. This has been made possible through electronic interference, such as GPS spoofing or jamming. In this context, it is important to understand what GPS interference is.

— Both ships and aircraft depend on global navigation satellite systems (GNSS) for position, navigation, and timing (PNT) information. Of these, the American Global Positioning System (GPS) is the most popular GNSS, with the terms often used interchangeably. But there are other GNSSs as well, like Europe's Galileo, Russia's GLONASS, China's BeiDou and India's NavIC.

— GPS interference refers to spoofing or jamming, two types of deliberate cyber-attacks on Global Positioning System (GPS) signals, which disrupt or deceive vehicles' navigation systems. While both are often used synonymously with each other, spoofing and jamming refer to slightly different kinds of interference.

— GPS jamming involves a device (jammer) emitting strong radio signals on GPS frequencies in order to overpower weaker signals. This disrupts the functioning of GPS systems by rendering receivers unable to determine location or time.

— GPS spoofing involves a device transmitting signals on the same frequencies used by GPS satellites, overwhelming or blocking the GPS receivers from acquiring or maintaining the right satellite signals. Unlike jamming, which disrupts signals entirely, spoofing deceives the receiver into trusting false data.

— Of the two, spoofing is the more serious offence, disrupting signals and forcing pilots, for instance, to incorrectly account for factors such as altitude or terrain. Spoofing may tell an aircraft it is in a location it isn't supposed to be in, and create confusion in the cockpit.

— Trojan horse is a destructive program that looks like a genuine application. Unlike viruses, Trojan horses do not replicate themselves but they can be just as destructive. Trojans open a backdoor entry to your computer which gives malicious users/programs access to your system, allowing confidential and personal information to be theft.

— Phishing: It is a common type of cyber-attack that targets individuals through email, text messages, phone calls, and other forms of communication. A phishing attack aims to trick the recipient into falling for the attacker's desired action, such as revealing financial information, system login credentials, or other sensitive information. Fundamentally, these threats exploit human psychology rather than technical vulnerabilities.

HOW IS THE NEXT UN CHIEF BEING CHOSEN?

The story so far:

The election of the next UN Secretary-General is underway. On April 21-22, four candidates — two women and two men — pitched their records of public service and leadership to the UN General Assembly in "informal, interactive dialogues".



Why is the role of Secretary-General important?

The UN Charter defines the Secretary-General as the UN's Chief Administrative Officer, who oversees the work of the UN Secretariat and fulfils "any other functions and duties entrusted" to them by the organisation's principal organs, including the General Assembly, the Security Council, and the Economic and Social Council. The Secretary-General also has the mandate to bring to the Security Council's attention any issue that threatens global peace and security.

Where needed, the Secretary-General has the authority to appoint "Personal Envoys" (as Antonio Guterres has now done for the current West Asia conflict).

Often described as the world's "chief diplomat," the Secretary-General is the face and voice of the UN, speaking as the world's conscience on issues ranging from the arms race in space and climate change to persistent inequality that hampers economic growth.

How is the Secretary-General elected?

The UN Charter states that the Secretary-General is appointed by the General Assembly on the recommendation of the Security Council. This means that the Permanent Members of the Security Council — China, France, Russia, the U.K., and the U.S. — have a significant say in who gets elected.

What considerations play a role?

While the term of a Secretary-General is technically "discretionary," incumbents have, since 1981, voluntarily limited themselves to two terms. By custom, the post rotates among five regions of the world: Africa, Asia, Eastern Europe, Western Europe, and Latin America and the Caribbean. This is the turn of the latter. Within the region, there are dynamics at play, with Spanish-speaking Latin American countries and English-speaking Caribbean nations supporting different candidates.

Who are the candidates?

The four candidates now officially in the race are: Michelle Bachelet, former President of Chile and former UN High Commissioner for Human Rights; Macky Sall, former President of Senegal; Rafael Grossi, Head of the International Atomic Energy Agency; and Rebecca Grynspan, Head of the UN Conference on Trade and Development.

Why is this election crucial?

Eighty years after its founding, the UN is facing a deep financial and political crisis. The Secretariat relies on mandatory "assessed contributions" collected from member states. Still, non-payment, partial payment, and delay in payment of dues by leading contributors have triggered an unprecedented financial situation.

The Security Council is paralysed by acrimony and persistent vetoes by the permanent members. The UN is also struggling to mobilise funds and troops for missions in places such as Haiti, and with host country relations in cases such as in Mali, where the UN mission was forced to withdraw.

Over the past decade, the UN played a key role in responding to the COVID-19 pandemic, advancing climate action through the Paris Agreement, and promoting sustainable development via the 2030 Agenda. However, recent conflicts in Gaza, Lebanon, Sudan, Ukraine, and Iran have raised questions about its ability to prevent war — a central idea of the UN Charter. There are increasing calls for the UN to "return to basics" by focusing more on conflict resolution. The



Sustainable Development Goals are now universal markers of developmental progress but there is rising concern that only 18% of the targets are on track to be met by 2030. Meanwhile, the humanitarian system is under severe strain due to multiple conflicts, intensifying disasters, and pressures on international humanitarian law. The next Secretary-General will have the unenviable task of not just administering, but rejuvenating the organisation.

What are the candidates' campaign priorities?

During their interactions with the General Assembly, Ms. Bachelet, Ms. Grynspan, and Mr. Sall all emphasised preventive diplomacy — the UN term for preventing conflicts through adroit behind-the-scenes parley with the stakeholders to the conflict. However, their approaches differ. Ms. Bachelet prioritised field presence, while Ms. Grynspan focused on merging the UN's work in the prevention of conflict with its work on human rights. Ms. Grynspan was arguably the most vocal on UN reform, proposing restructuring the Secretary-General's office within the first 100 days if elected. Among areas for priority action, Ms. Bachelet highlighted climate, Mr. Sall highlighted migration, and Mr. Grossi highlighted UN-World Bank relations. Ms. Grynspan stressed the need to protect least-developed nations from funding cuts.

All candidates committed to gender parity, while Ms. Bachelet emphasised improving geographic diversity within the UN workforce, a longstanding demand of developing countries. On the stasis in the Security Council, Ms. Grynspan and Mr. Sall said they would publicly call out permanent members of the council who violate international law, while Mr. Grossi promised to uphold the UN Charter. Ms. Bachelet said she will use the Secretary-General's office to build political viability for Security Council reform.

What happens next?

In the next phase, the Security Council will hold closed-door deliberations and straw polls before recommending a candidate to the General Assembly around October. Once the latter confirms the choice through a simple majority vote, the new Secretary-General will take office on January 1, 2027.

WHAT RULES GOVERN INTERNATIONAL WATERS?

The story so far:

In an escalation of the conflict on the Strait of Hormuz, Iran has attacked three ships, detaining two on its territorial waters. This is allegedly in response to U.S. forces seizing two ships, including a very large crude carrier linked to Iran, between Sri Lanka and Indonesia on the high seas.

What was the situation at Strait of Hormuz when war broke out?

Within a day of the war breaking out on February 28, transits across the Strait of Hormuz dwindled from some 100 vessels on a typical day to a handful. Iran put in place a system of allowing transits based on geopolitical considerations and a toll fee that media reports suggested ran to more than a million dollars per ship. India was among the biggest beneficiaries of the system, with Iran allowing some 10 Indian flagged ships and many foreign flagged ships carrying India's oil and gas supplies to pass.



The Indian government has said it has not paid any toll and was only exercising free navigation rights given to merchant ships as per international law and practice. Hundreds of Iranian vessels and vessels linked to Iran have crossed the strait meanwhile.

What did the U.S. do?

In talks with the U.S., Iran brought the Strait of Hormuz on the negotiating table, demanding the right to regulate and control the passage of ships and to charge a toll fee, partly to rebuild its economy.

Following the collapse of the peace talks on April 12, U.S. President Donald Trump announced a blockade of Iranian ships. This was less a physical blockade using naval ships and more a declaration of control exercised through measures such as radio warnings. The aim was partly to dismantle the regime Iran had put in place to control ship transits, and to deter Iranian ships that had until then navigated freely through the strait. Dozens of Iranian ships are reported to have been turned back.

On April 19-20, the U.S. intercepted, disabled and boarded the ship container *Touska*, an Iranian-owned and managed container ship with a cargo-carrying capacity of more than 60,000 tonnes. The U.S. said it suspects the ship was carrying cargo that could be used for military purposes.

At around the same time, U.S. forces intercepted *Tifani*, a very large crude carrier that can carry 2 million barrels of oil, between Sri Lanka and Indonesia in international waters. The U.S. says the ship was involved in the Iranian oil trade. Both vessels are in the custody of U.S. armed forces. These actions are part of efforts to cut off Iran's income sources.

How has Iran reacted?

On April 16, Mr. Trump said the strait was fully open. However, with the U.S. blockade of Iranian ships in full swing, nearly a dozen India-flagged and foreign ships bound for India lined up to transit the strait on April 17-18.

The Islamic Revolutionary Guard Corps Navy fired on two Indian-flagged ships — *Sanmar Herald* and *Jag Arnav* — and ordered them to go back. Along with these two, all ships barring one returned to the Persian Gulf. India lodged a protest with the Iranian Ambassador over this.

On April 23, Iran captured *Francesca* and *Epaminondas*, two container ships seeking to exit the strait, and fired at a third one, as retaliation against the U.S. blockade of Iranian ports and the capture of Iranian ships. Iran had said the two vessels had “endangered maritime security by operating without the necessary permits and tampering with navigation systems.” The two vessels are in Iran's custody.

A third ship, *Euphoria*, with Indian crew, which was shot at, is reportedly not in Iranian custody. Iran has said unless the U.S. blockade is lifted, the strait cannot be reopened for traffic.

What is the legal position on such interceptions?

Straits have long been a focus of conflict or provided leverage to belligerent parties during wars. Various treaties and agreements were signed, especially in the 20th century, establishing rights and duties for many naturally forming straits, such as across Turkey and Egypt and the Tiran Island near the Gulf of Aqaba.



To create a comprehensive legal framework for the world's waters, the United Nations Convention on the Law of the Sea (UNCLOS) was negotiated over nearly two decades and came into force in 1994. Its core principle is that the seas are a shared global commons that must be collectively managed. Freedom of navigation, especially for merchant ships, is to be upheld, with minimal exceptions. The high seas fall outside the jurisdiction of any single nation.

The U.S. imposes sanctions on government agencies and companies linked to countries it is in conflict with, as a form of economic warfare. These sanctions restrict access to funds and make business transactions difficult. However, they are based on U.S. law, not international law, and are not authorised by the United Nations. The U.S. has also intercepted ships trading in Venezuelan oil and carrying oil to Cuba.

International law upholds unfettered freedom of navigation of merchant ships on the high seas. Exceptions include hot pursuit of vessels that have committed crimes in territorial waters, explicit authorisation by the UN Security Council, vessels without nationality, or cases where the flag state consents to interception. At times, the U.S. has cited the latter grounds.

Outside the high seas, such as in territorial waters, "innocent" passage rights apply to merchant ships and even warships. 'Innocent' means the ship does not pose a threat to the nation.

Does Iran have any rights over the Strait of Hormuz?

The strait is an international passage. But at its narrowest point, the territorial waters of the two border states — Iran and Oman — intersect, which means there is no high seas or exclusive economic zone there. As per UNCLOS, instead of the freedom of navigation accorded in the high seas, the concept of "transit" is applied.

As per UNCLOS, transit recognises free, unhindered passage to foreign ships. Iran cannot regulate ship traffic nor deny permission to merchant ships seeking to transit. But a few restrictions are allowed: ships must move continuously and without delay; designated traffic routes, recently revised by Iran, must be followed; ships should enter solely for the purpose of transiting the strait; and vessels must not load or unload goods in violation of the laws of Iran or Oman.

What can happen next?

The UN agency that could potentially resolve the issue is the International Maritime Organization (IMO). The IMO has indicated it is working with Iran to resolve the issue. It has proposed a plan to facilitate the evacuation of ships while upholding freedom of navigation. The IMO has decried tolls and permits. The IMO Council had passed a resolution severely condemning Iran for attacks on commercial vessels and seeking to choke the Strait of Hormuz, but it has not been critical of the U.S.'s actions and blockade.

THE NEWEST MATCHMAKER ON THE SCENE, THE JAPANESE GOVERNMENT

Romance, once the realm of poetry and poor decision-making, has now become a line item in public budgets. In Japan's Kochi prefecture, the state has tiptoed into matters of the heart with a subsidy in hand, as part of a larger effort to address the country's twin crises of dwindling birth rates and rising loneliness. Single individuals in the age group of 20-39 years will be eligible for financial assistance of up to 20,000 yen annually for using approved matchmaking assistance and dating applications.



It is admittedly an odd arrangement. But as one of the world's fastest-ageing societies, Japan faces a deepening crisis of loneliness and social withdrawal that goes well beyond falling birth rates. In 2016, over 5,00,000 Japanese, aged 15 to 39 were identified as hikikomori — social recluses who had withdrawn from public life. By 2022, this figure had risen to about 1.46 million people. In 2021, Japan appointed a Minister for Social Isolation and Loneliness. In the years since the pandemic, local governments have been tasked with taking actions for mitigation.

If loneliness is one half of the problem, beneath the subsidies lies a tangle of other modern anxieties — precarious work-life balance, constricting job opportunities, and rising cost of childcare. By offering financial support, the state tacitly admits that the obstacles to romance today extend well beyond individual choice. Still, if a modest subsidy can nudge someone to a first date, perhaps it is money not entirely misspent. After all, even the most practical of love stories have room for a little irrationality, and, with luck, a story worth telling.

Note:

Japan has one of the longest-lived populations on Earth, and this ritual is credited for promoting physical and social well-being. The average life expectancy here is about 85, and only Hong Kong is reported to be slightly higher. By comparison, the United States life expectancy is about 79.

SANTA MARTA CLIMATE MEETING'S ROADMAPS MUST BE TRANSLATED INTO ACTUAL POLICY

In the last week of April, representatives from more than 50 countries gathered at Santa Marta in Colombia for a climate conference born of frustration with the UN-administered negotiations. The deliberations ended on Wednesday with a call for participating countries to develop national roadmaps to end the use of fossil fuels — in fact, France pledged to phase out oil and gas use between 2030 and 2050. The UNFCCC's CoPs have almost always come unstuck on the issue of fossil fuels. By operating outside the consensus-bound framework, the Colombia conference gave itself the leeway to advance faster than CoPs. However, the very feature that imparted dynamism to Colombia also limited its potency. Three of the highest GHG emitters — the US, China and India — were not represented at Santa Marta.

It would, however, be wrong to dismiss the meet as inconsequential. The participating countries represented nearly 50 per cent of the global GDP. They agreed to align their trade and finance policies with green transition plans, potentially creating momentum towards faster decarbonisation. But beyond the combined economic weight of its participants, the conference was significant in bringing countries representing different economic segments onto the same page. While UN climate meets have often been riven by discord between developed countries, emerging economies, developing countries and small island states, it was heartening that representatives of France, Germany and Spain worked together with delegates from Brazil, Nigeria, Nepal and several other countries with varying economic clout at Santa Marta. UN meetings have not avoided reconciling different climate realities. However, that has only meant postponement of difficult decisions. The Colombia meet could be the first step towards challenging the ambiguity that has allowed countries to pledge climate action while continuing fossil fuel expansion.

That said, the Santa Mara meet should not be seen as a parallel to the UN processes. Climate change is too complicated to be left to one global agency. It requires building alliances at several levels — between like-minded countries, among civil-society groups and business organisations. Climate



delegates showed rare maturity in the past week. The participating countries will now need to translate roadmaps into actual policy and develop financial mechanisms to support transitions in poorer nations — that’s where most UNFCCC meetings have faltered.

ALIGN FOOD SYSTEM TO HYDROLOGICAL, ENERGY REALITIES

As India aspires to sustain high economic growth while ensuring food security for 1.4 billion people, a silent crisis is unfolding beneath its fields and rivers. The World Bank’s latest flagship report, “Nourish and Flourish: Water Solutions to Feed 10 Billion People on a Livable Planet,” delivers a stark warning: the global food system is fundamentally misaligned with hydrological realities. For India, this is not a distant global concern—it is an immediate national challenge. What makes this moment more urgent is a parallel warning from the International Energy Agency (IEA), whose 2026 “Sheltering from Oil Shocks” plan highlights how energy disruptions can rapidly cascade into food and water crises.

The World Bank estimates that current the agricultural water systems can sustainably support food production for only about one-third of the projected global population by 2050 if inefficiencies persist. At the heart of this crisis lies not absolute scarcity, but mismanagement of water within food systems. India exemplifies this paradox. It is effectively a water-stressed food exporter, producing water-intensive crops such as rice and sugar in regions already experiencing groundwater depletion. In doing so, India exports vast volumes of “virtual water,” deepening domestic stress.

Nowhere is this imbalance more evident than in Punjab and Haryana, where groundwater levels are declining at alarming rates—often exceeding one metre annually. The underlying driver is well known: free or highly subsidised electricity for irrigation pumps. When the marginal cost of energy approaches zero, groundwater extraction becomes effectively unbounded. This is a classic nexus failure — where energy policy distorts water use, and agricultural incentives reinforce unsustainable production.

Energy shocks

It is here that the IEA’s recent framework offers a critical complementary insight. The “Sheltering from Oil Shocks” plan underscores that modern economies remain deeply vulnerable to energy disruptions, particularly in oil-importing countries like India, which imports nearly 85–90% of its crude oil. The IEA’s proposed measures—ranging from promoting remote work and reducing non-essential travel to improving transport efficiency—are designed to rapidly curb oil demand during crises. While seemingly distant from agriculture, these measures reveal a deeper truth: energy systems underpin food and water security far more than policy frameworks typically acknowledge.

Consider irrigation. Groundwater extraction in India is not just a water issue—it is an energy-intensive process, driven by electricity and diesel. In a scenario of global oil shocks, rising diesel prices would directly increase the cost of irrigation, transportation, and food distribution. Simultaneously, power shortages—linked to fuel constraints—could disrupt agricultural operations. The IEA’s emphasis on demand-side management thus reinforces the World Bank’s central message: resource systems cannot be managed in isolation.



Optimise water use

India's current policy framework, however, remains fragmented. While the World Bank calls for optimising water use in agriculture, the IEA emphasises reducing energy demand in transport and industry. The intersection of these insights is where India must act. The challenge is not merely to conserve water or reduce oil dependence, but to design integrated systems that are resilient to both hydrological and energy shocks.

The fiscal dimension further complicates the picture. India spends upwards of ₹1.5 lakh crore annually on electricity subsidies for agriculture, alongside several lakh crores in broader agricultural support. Yet, a significant share of this expenditure perpetuates inefficiency. Globally, out of approximately ₹55 lakh crore spent on agriculture in 2023, only about ₹2.2 lakh crore was directed toward irrigation infrastructure. Meanwhile, rising oil prices during global shocks place additional pressure on India's import bill, fiscal deficit, and inflation. The linkage is clear: inefficient water use amplifies energy vulnerability and energy shocks exacerbate food insecurity.

Climate change is intensifying these interconnected risks. Erratic monsoons, prolonged droughts, and extreme rainfall events are already disrupting agricultural cycles. In such a context, an oil shock—triggering higher fuel costs and supply disruptions—can compound existing vulnerabilities.

The IEA's recommendation to reduce non-essential transport and improve efficiency during crises may appear urban-centric, but its broader implication is systemic: demand-side management is a critical tool for resilience. For India, the path forward must integrate these dual frameworks.

Crop diversification

First, crop diversification must become central to policy. Shifting away from water-intensive crops in stressed regions is not just a water strategy—it reduces energy demand for irrigation and enhances resilience to fuel price shocks.

Second, energy–water pricing reforms are unavoidable. Moving from free electricity to targeted direct benefit transfers (DBT), combined with smart metering, can restore economic signals while protecting farmer incomes. Such reforms align with both World Bank and IEA principles: efficient resource use and reduced systemic vulnerability.

Third, India must invest aggressively in precision irrigation and solar-powered systems, such as those promoted under PM-KUSUM. However, as both frameworks implicitly warn, zero marginal cost energy—whether from subsidies or solar—can lead to overuse if not governed properly. Integrating smart controls, water accounting and grid-linked sops is essential.

Urban demand

Fourth, urban energy demand management, as highlighted by the IEA, must be seen as part of the broader nexus. Promoting public transport, remote work, and efficient logistics reduces oil demand, stabilises energy systems, and indirectly supports agricultural resilience by lowering inflationary pressures.

Fifth, governance reforms are critical. Water, energy, and agriculture must no longer be managed in silos. A nexus-based institutional framework—integrating ministries, data systems, and planning processes—is essential for long-term sustainability.



The economic opportunities of such integration are substantial. Even a modest 10% increase in agricultural productivity can reduce poverty by up to 3%. Efficient irrigation, combined with energy resilience, can generate employment, stabilise rural incomes, and reduce exposure to climate and market shocks.

The deeper message emerging from both the World Bank and the IEA is unmistakable: the future of development lies in managing interdependencies. Food security will depend not just on water availability, but on energy stability.

Likewise, energy security will increasingly depend on how efficiently natural resources are utilised. India stands at a critical juncture. It can continue along a path of fragmented policymaking, risking compounded crises across water, energy and food systems. Or it can embrace a systems approach—aligning incentives, leveraging technology and reforming institutions — to build a resilient and sustainable future.

RESEARCHERS DECODE WHY STANDARD DRUG TREATMENT FOR MOST PREVALENT FORM OF BREAST CANCER STOPS WORKING IN SOME PATIENTS

An Indian team of researchers has identified a key genetic reason why patients with the most common type of breast cancer in India become resistant to standard hormone therapies used for treatment.

Key Takeaways:

- Researchers from University of Delhi, South Campus, and Tata Memorial Hospital, Mumbai, have found that loss or damage to a gene called CDKN1B could be one of the reasons why standard drugs used to treat what is known as hormone receptor-positive (HR+) breast cancer do not work effectively in some patients.
- The HR+ type breast cancer accounts for nearly 70 per cent of all cases in India, and is treated with routine hormonal therapy using drugs like tamoxifen that block or reduce the effect of hormones like oestrogen which drive the growth of breast cancer cells.
- However, in about 40 per cent of the cases, the drugs lose their effectiveness within months to a few years, resulting in a relapse, and regrowth of cancerous cells. Why this happens was not very well understood.
- The Indian group of researchers, led by Amit Dutt at the Integrated Cancer Genomics Laboratory, University of Delhi South Campus, and Sudeep Gupta at the Tata Memorial Hospital, have now zeroed in on the CDKN1B gene as the possible reason. This gene is responsible for the production of a protein called p27 which slows down the growth of breast cancer cells. The p27 protein is important for a drug like tamoxifen to work effectively. When the CDKN1B gene is missing, or damaged, or not performing optimally for some reason, the production of p27 protein is affected.
- The researchers studied 186 breast cancer patients, of which 98 had developed resistance to the hormonal therapy. They found that the CDKN1B gene was missing or heavily mutated in the patients who had developed resistance. To establish causation, the team was also able to show that if the CDKN1B gene was restored, the drug began to show its intended effect once again.
- They also found that another class of drugs called CDK4/6 inhibitors (CDK4/6 are enzymes that drive cell division), like palbociclib, which is used in advanced cases of breast cancer, work



effectively even in the absence of the p27 protein. Working on mice models, the researchers showed that a combination of both kinds of drugs, tamoxifen as well as palbociclib, was more effective at killing the cancerous cells.

- The discovery by the researchers presents a practical biomarker to identify patients at high risk of developing resistance to hormonal therapy. By measuring p27 levels in laboratory testing, patients can be assessed for their vulnerability to drug resistance even before the start of the hormonal treatment. Patients with low p27 levels may benefit from addition of drugs like palbociclib at the early stage of the cancer itself.

Do You Know:

- India reports about 200,000 cases of breast cancer every year. Hormonal therapy, in cases where it is applicable, is the most common and cost-effective treatment, involving just oral medication. The discovery by the researchers is likely to make this line of treatment work better by addressing the present weaknesses.
- What India's cancer map shows article says that Breast and cervical cancers, which together account for 40% of cases in women, are easier to detect early and have better outcomes. In contrast, Dr Abhishek Shankar, oncologist at the All India Institute of Medical Sciences (AIIMS), said that "commonly occurring cancers in men such as lung and gastric cancers are more difficult to treat."
- Lancet study says that Despite recent advancements in breast cancer treatments, new breast cancer cases are predicted to rise by a third globally from 2.3 million in 2023 to more than 3.5 million by 2050. Similarly, annual deaths are projected to increase by 44% from around 764,000 to 1.4 million, according to the latest analysis from the Global Burden of Disease Study Breast Cancer Collaborators.

Deaths from breast cancer have been increasing since 1990. Laos had the world's largest increase in deaths (214%). Other notable increases were in Bangladesh (91%), Vietnam (80%), Indonesia (78%), India (74%), Japan (52%), and the Philippines (41%). China's death rate decreased by almost 37%.

Published in the 'Lancet Oncology,' the analysis uses data from population-based cancer registries, vital registration systems and interviews with family members or caregivers of women who have died from breast cancer to provide an updated global and regional analysis. The report estimates the burden and risk factors of breast cancer from 1990 to 2023 in 204 countries with forecasts up to 2050.

CAR-T CELL THERAPY SENSES 'FAINT' TARGETS TO CLEAR SOLID TUMOURS

Chimeric antigen receptor (CAR) T-cell therapy, an approach that modifies a patient's own immune cells to hunt down cancer, has transformed treatment for blood cancers such as leukaemia and lymphoma. But the same strategy has struggled when applied to solid tumours such as kidney or ovarian cancer.

One of the biggest obstacles is antigen heterogeneity. Tumours are not made of identical cells. Instead, they resemble a patchwork: some cells display the protein that CAR-T cells detect while others appear to lack it. CAR-T cells only destroy 'visible' targets, so the invisible cells survive and allow the cancer to grow back.



Now, a study published in Science on February 26 has suggested these supposedly invisible cells may not be invisible after all. Many tumour cells thought to lack the target protein actually carry small amounts — too little for current CAR-T cells to detect.

The hidden protein

The study conducted by researchers in Columbia University and the Sloan Kettering Cancer Centre in New York focused on a protein called CD70. It is expressed by the tumours in about 70-80% of kidney and ovarian cancers and roughly a quarter of pancreatic cancers, making it an attractive target for immune therapy.

But in real world scenarios, some cells carry large quantities of CD70 while others appear negative in standard laboratory tests.

The researchers suspected that these negative cells might still produce small amounts of the protein.

To check this, they examined individual tumour cells and studied how the gene for CD70 was being regulated. They discovered that it was being suppressed by an enzyme called EZH2, which chemically modifies proteins around DNA.

These modifications tighten the DNA structure, making it difficult for the cell to read the gene and reducing CD70 production to very low levels. This effectively dimmed the signal, making the cells undetectable to current immune therapies.

Detailed imaging in two kidney cancer models found more than 80-90% of tumour cells that appeared CD70-negative by conventional tests still carried detectable amounts of the protein.

Scott Lowe, a cancer biologist at the Sloan Kettering Institute, said tumours may keep these tiny amounts of the protein because they still need it to survive. “If the cancer cells need some of the protein to stay viable, there may be evolutionary pressure to keep it at very low levels rather than lose it completely,” he said.

The researchers called this phenomenon ‘pseudo-heterogeneity’ — the target protein is present in nearly all tumour cells but sometimes at levels too low for detection.

If cancer cells hide the target rather than eliminate it, the solution may be to build immune cells that detect faint signals.

Making T-cells more sensitive

To do this, the researchers developed a new receptor design called an HLA-independent T-cell (HIT) receptor.

Traditional CAR-T cells use receptors with molecular components that tell the immune cell when to attack. These triggers usually require a strong signal, meaning many copies of the target protein must be present on a cancer cell to elicit a response from T-cells.

The HIT receptor takes a different approach. Instead of changing the strength of the signal, it connects the cancer-detecting sensor directly to the T-cell’s natural activation pathway — the internal system T-cells normally use to recognise infected cells — while bypassing the HLA system, the genetic ID tag that T-cells usually require to identify a target.



By co-opting this natural machinery, the receptor becomes able to detect antigens at much lower densities than a synthetic CAR.

A cancer biologist who peer-reviewed the study for the journal said anonymously that the finding could change how CAR-T therapies are designed: “If this principle holds for other tumour targets, it could change how we design CAR-T therapies. Instead of searching for perfectly uniform targets, we may need receptors that can detect very low levels of antigen.”

Power versus safety

Increasing sensitivity raised one concern, however: “When you make immune cells better at detecting weak signals, you also have to be careful they don’t start reacting to normal cells that carry small amounts of the same protein,” the researcher quoted earlier said.

This problem is often called the “Goldilocks challenge” of cell therapy. To evaluate this risk, the researchers analysed a large single-cell atlas of 30 human tissues and 222 different cell types, finding that CD70 activity was largely absent from most vital organs such as the heart, lungs, and brain.

A significant exception was activated immune cells, which naturally express CD70 during immune responses. But even in those tissues, the protein appeared only in a small fraction of cells, typically less than 5%.

In experimental models, the engineered T-cells did attack some activated immune cells but the researchers called the effects temporary and manageable.

The biologist noted that future therapies will have to include additional safeguards: “If these treatments move into patients, researchers will likely add safety systems such as molecular switches so doctors can turn the cells off if necessary.”

A new hope

Professor Lowe said the finding fits a broader pattern cancer biologists have been observing for years.

There is strong evidence that changes in how genes are turned on or off in cancer cells (without changing the DNA itself) can help tumour cells survive targeted therapies, he said. “These cells, often called drug-tolerant persisters, can tolerate treatment and later allow the tumour to regrow.”

The researcher quoted earlier has tempered expectations for now. “It is still a long way from bedside application but if this strategy works in clinical trials, it could help tackle the biggest hurdle in cancer immunotherapy,” he said.

As he suggested, for patients with kidney or ovarian tumours, where treatment options are still limited, being able to uncover and eliminate these hidden cells could make a real difference.