



14th to 20th September 2025

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The shooting of Charlie Kirk, a controversial, outspoken conservative commentator and political ally of U.S. President Donald Trump, has revealed, once again, the depth of polarisation of opinion in the country and its disturbing proclivity towards using lethal violence to settle debates. Ironically, Mr. Kirk was a vocal advocate of the Second Amendment right to bear arms, even as he espoused a range of right-wing values at liberal university campuses, and in curbing abortion rights, and limiting the rights of transgender and LGBTQ persons — all the while recruiting young voters to the Republican cause. The man arrested on suspicion of shooting him, Tyler Robinson, is said to have diverged from his own conservative family roots although few specifics or possible motives are established so far. This much is clear: years of political vitriol backed by policies built on the values of nativism, revisionism, exclusion, religiosity, and a hateful intolerance of social and ideological diversity have brought the shutters down on any channels for open-minded dialogue and bipartisanship that might have existed earlier.

The U.S. is at a crossroads in terms of its standing as a moral and economic force espousing, respectively, for the merits of democracy and capitalism. Given the crackdown on and deportations of students, academics and residents protesting atrocities in Gaza, and the cruel family separations resulting from immigration raids, there are many who would doubt the claim that the U.S. remains the bedrock of substantive democracy. Economically, the rules-based international order that emerged through the years of the Washington Consensus stands in a shambles in some regards, with Mr. Trump's tariff policy that fuelled a worldwide trade war bringing global supply chains to their knees. Nowhere is the impact of these tectonic shifts in the U.S.'s ideological and policy posture more keenly felt than on its own soil, with Democrats on the retreat after two Trump terms, and Republicans embracing their President's political agenda, which is only an amorphous version of the classic conservatism that many of them adhere to. When conversations across the aisle fall silent, fear looms large, especially for minorities pushed to the fringes of the political discourse, and the desperate on all sides fall back on toxic gun culture to give vent to their frustrations with the status quo. Given that numerous past Presidents have tried and failed to start conversations on common sense gun control reform, including no fewer than 17 attempts by Barack Obama to introduce such legislation in Congress, it is only the emergence of a new, enlightened leadership in both parties that could hold out hope for a less fractured and hateful polity in the post-Trump years.

Is there ideological and political polarisation?

America has one of the highest income inequalities amongst high-income countries, which has only grown under both Democrats and Republicans in recent decades. Its racial composition has changed significantly in recent decades. In 1980, those who identified as white alone were 80% of the population. This had reduced to 58% in the 2020 census, while those who identify as Hispanic and Asian have increased from 8% to 25% (note: people do change how they identify their race, and there are also methodological changes in the census). The 2010s are the first decade in which the white population declined. There is also an increase in multi-racial families and babies.

What is the role of Donald Trump in polarisation?

American politics took a radically new turn with the rise of Mr. Trump, an anti-establishment figure, who became a vehicle to channel white Christian nationalism and further polarise an

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already polarised society. He has taken the Republican Party to the extreme right. During the first term, the Varieties of Democracy (V-Dem) Index recorded American democracy as falling back to 1976 levels. In the short period of the second term itself, experts see the regime acquiring authoritarian characteristics with executive power strengthening at the expense of the Congress, abnegation of institutional autonomy, targeting of political opponents, universities, critical media and free speech, and the deployment of the army to quell protests. Mr. Trump, as President of the nation, instead of lowering the volatile emotional atmosphere following Kirk's assassination, blamed the "radical left" even before a suspect was identified and listed only the attacks against himself and the Republican leaders. He ignored the violence suffered by Democratic politicians, or that of his supporters violently storming the Capitol after the 2020 elections (Mr. Trump had pardoned 1,500 of them).

Also, critically, the accused targeting Mr. Trump had mixed/confused political leanings, which included either being a registered Republican or actually voting for Mr. Trump. While Mr. Trump constantly demonises the radical left and anti-fascist groups as solely responsible for violence, his claims are unfounded. From 1994 to 2020, there was one fatality from anti-fascist attacks, and 21 killed in left-wing violence (2010 to 2020), while there were 329 victims from right-wing violence (Center for Strategic and International Studies). Democracy requires the abjuration of violence, whether it is by the left or the right. But by refusing to acknowledge racist anti-Black mass shootings like that in Buffalo and Charleston, and that white right-wing extremism is the biggest source of domestic terrorism, Mr. Trump dangerously whitewashes violence.

Is there an historical context to the present crisis?

It would be myopic to see the present moment solely as a result of the rise of Mr. Trump and MAGA. America, as a society built on the foundations of the genocide of the native population, as well as slavery, has a long history of white supremacy, racism, gender discrimination and vigilante violence. As the historian Steven Hahn has argued, illiberalism is not an aberration but as powerful a current as liberalism, and is sometimes mixed with it. Such illiberalism was the hallmark of even Democratic politicians like George C. Wallace, an influential governor (who failed to win the Presidential nomination) in the 1960s, who espoused racial hostility and segregation of races. And illiberal currents can be seen in aspects like racial inequalities in incarceration. America has an incarceration rate which is five to eight times higher than that of France, Canada and Germany in 2021 (The Sentencing Project 2023).

If racial justice and prison reform movements have led to the reduction of the prison population by 25% since 2009, it comes after a massive 700% increase since 1972, disproportionately affecting marginalised races. Even after a reduction of the Black prison population by 39% since 2002, Blacks were imprisoned at a rate five times that of whites in 2021. Worryingly, there has also been bipartisan Democratic and Republican consensus in rolling back some of the prison reforms. Beneath the liberal exceptionalist claims of the American polity lurks its violent face, exemplified by the right to keep and bear arms sanctified by the Constitution in 1791.

The staggering nature of gun violence in America is evident in the fact that the rate of gun deaths was 340 times that of the United Kingdom and 862 times that of Japan. In 2023, there were over 700 mass shooting victims alone, double that of 2018. Ironically, Kirk defended gun rights, and termed gun deaths as an unfortunate cost for protecting other "God-given rights."



ERIKA KIRK FORGAVE HER HUSBAND'S KILLER AND GAVE THE US WHAT IT MOST NEEDS RIGHT NOW

Erika Kirk's speech at her husband and political activist Charlie Kirk's memorial was one of those rare moments when private grief and public witness converged in a way that felt larger than the occasion itself. The memorial carried unmistakable religious overtones, but Erika's words stood out for their clarity, vulnerability, and courage. While others leaned into the rhetoric of combat and retribution, she chose a different register: Forgiveness. In a nation deeply fatigued by polarisation and inequalities, her decision to place mercy at the centre may be the most radical and necessary gesture America could hear right now.

The most striking element of her speech was her public act of forgiving 22-year-old Tyler Robinson, the man accused of killing her husband. "I forgive him," she said, invoking Christ's words from the cross: "Father, forgive them, for they know not what they do." It was not a throwaway line or an attempt at easy piety; it was the core of her message. To offer forgiveness at such a moment is almost unthinkable in human terms. Yet, in that unthinkable act lay its power. She chose to break the chain of vengeance that often defines both personal tragedies and narratives. In doing so, she lived out what the Christian tradition regards as one of its hardest but most transformative commands: To love one's enemies and to resist answering hate with hate.

For Christians, her words were a Christ-like act of discipleship since forgiveness in the face of violence lies at the heart of the Gospel. But her choice was also profoundly American. The nation has long wrestled with justice, mercy, accountability, and second chances. Former President Abraham Lincoln's call for "malice toward none" and minister and activist Martin Luther King's reminder that "hate cannot drive out hate" show mercy as a civic and a private virtue. In her own way, Erika Kirk stood in that lineage.

What made her speech particularly compelling was that it was in such contrast to the voices around her. At the same memorial, political leaders, including President Donald Trump, framed Kirk's assassination in terms of battle lines and cultural warfare. The temptation to weaponise tragedy is strong, and it so often prevails. Erika resisted that path. Her refusal to amplify division was itself an implicit rebuke to a culture where each fresh wound is used to deepen old resentments. In this sense, her speech was not only an expression of faith but also a civic intervention, cutting through the noise with a call to a higher standard.

Of course, her message was not limited to forgiveness alone. She spoke movingly about Charlie's devotion to faith and family, urging men to be protectors and leaders within their homes and women to nurture spaces of love and stability. These appeals reflected traditional Christian commitments and may have sounded dated for some. Yet even critics would have to acknowledge the sincerity with which she tied her husband's legacy to a vision of stronger and more compassionate communities. In an age when political discourse often drifts into abstraction, her insistence on grounding renewal in family and faith gave her words an immediate and human texture. What also stood out was her vulnerability. She did not hide behind platitudes or polished soundbites. She spoke of her heartbreak, of the intimate details of her marriage, even of regrets and moments left unfinished. That rawness made her message believable. It reminded listeners that such violence is not just political but also inflicts a human wound, borne in flesh and blood. In choosing honesty over performance, Erika extended an invitation to empathy at a time when empathy is in short supply.



Was her speech what America needed now? In many ways, yes. Because it modelled courage where outrage is easy and mercy rare, showing faith as a resource for healing rather than division. In addition, it pointed to public life shaped not by vendetta but by reconciliation. It revealed that forgiveness doesn't erase justice but refuses to let vengeance set the terms. Her words also highlighted the risk that louder, angrier voices could drown out such a countercultural message. In a nation driven by division and blame, her speech was a reminder that another way is possible.

In more ways than one, Erika Kirk's eulogy, therefore, was not merely a tribute to her late husband. Above all, it offered a compelling vision for a nation searching for its moral compass. By forgiving in grief, speaking love amid anger, and anchoring hope in faith and family, she sketched an alternative both Christian and American. Whether America will embrace it is uncertain, but in an age of bitterness and vengeance, her words remain a fragile yet luminous reminder that mercy and compassion may be the only way forward.

GENOCIDE IN GAZA

The UN Commission of Inquiry, after a multi-year investigation, has concluded that Israeli authorities have committed genocide in Gaza. The finding is hardly surprising as the world's leading rights organisations, including two Israeli groups, and genocide scholars, had already accused Israel of committing what is one of the gravest crimes in international law. Yet, the finding would lend weight to such reports and resonate before the International Court of Justice, which is hearing genocide charges against Israel, and the International Criminal Court, which has issued an arrest warrant for Prime Minister Benjamin Netanyahu. The UN Commission found "reasonable grounds" to conclude that four of the five genocidal acts — killing members of a community, serious bodily and mental harm, actions aimed at destroying the group, and preventing births — have been carried out since the war began following Hamas's October 7, 2023 attack. Israel, which denies allegations of genocide and war crimes, has killed at least 65,000 Palestinians in Gaza in 23 months, many of them women and children. "The responsibility for these atrocity crimes lies with Israeli authorities at the highest echelons who have orchestrated a genocidal campaign with the specific intent to destroy the Palestinian group in Gaza," says the panel's leader, Navi Pillay.

It is tragically ironic that Israel, a nation built by the survivors of the Shoah, is committing genocide against Palestinians. On the day the UN Commission released its report, Israel launched yet another ground offensive in the famine-stricken Gaza City. Israel's responses to reports of war crimes and mass killings have invariably been further escalations, killing and displacing even more Palestinians. The war, prolonged by Mr. Netanyahu for his political survival, has left a stain on Israel's national compass and deepened its global isolation. In the weeks ahead, France, the U.K. and several other countries are expected to recognise Palestinian sovereignty, while the European Commission has proposed to suspend trade concessions with Israel and sanction extremist Ministers. Yet, Israel, shielded by the U.S., shows little concern. The Trump administration is unlikely to turn up the heat on its closest ally. But Europe should start treating Israel as what it has become — a rogue state with genocidal intent and actions. India, once a champion of the Palestinian cause, has so far refrained from directly criticising the Jewish nation. But it should realise that an uncontrollable, expansionist Israel, blowing international law to smithereens, is not in India's national or regional interests. New Delhi should speak up against the genocide and use its leverage to help bring the war to an end.



WHY DID INDIA CONDEMN DOHA STRIKE?

The story so far:

India's condemnation of Israel's bombing in Doha last week as a "violation of sovereignty" is a shift from its more muted positions on previous Israeli operations in other countries, leading some to wonder if there's a larger change in New Delhi's stand on the crisis in West Asia. However, experts said that while the strong wording of the statement denotes growing distress over mounting civilian casualties in the war in Gaza, India's intervention has more to do with its close ties with Qatar and the Gulf region than with an assertion of principles of sovereignty and territorial integrity. This has become particularly important, given New Delhi's concerns over the Saudi-Pakistan mutual defence agreement signed in Riyadh on Wednesday.

Why did India criticise the Doha strike?

On September 16, India referred to the Israeli Defence Forces (IDF) bombing on September 9 of a home in Doha where leaders of Hamas gathered to discuss the United States' latest ceasefire proposal, as actions that "threaten peace, stability and security" in the region and worldwide. Israeli Prime Minister Benjamin Netanyahu defended the strike, which killed five, saying that it was "justified" as Qatar "harbours and funds" Hamas operatives.

"India is deeply concerned about the recent attacks in Doha and their impact on the security situation in the region. We unequivocally condemn the violation of the sovereignty of Qatar," said India's Ambassador to the UN Mission in Geneva Arindam Bagchi, speaking at the UN Human Rights Council, also invoking the UN charter and international law.

"Any escalation must be avoided, and respect for the sovereignty and territorial integrity of States must be upheld," Mr. Bagchi added, in a statement that built on an earlier statement by the Ministry of External Affairs, and another statement issued after Prime Minister Narendra Modi spoke to Qatari Emir Sheikh Tamin Bin Hamad Al Thani on September 10, expressing "solidarity with the Qatari people".

How does this differ from India's past reactions?

The statements are in stark contrast to New Delhi's reactions to Israel's bombings of several other countries in the region, including Lebanon, Yemen, Tunisia, Syria, and Iran.

When Israel bombed the Iranian Embassy in Damascus last April, the MEA had expressed some "concern", as it had when Israeli forces attacked a UN Peacekeeping post in southern Lebanon, but remained largely silent over other Israeli attacks on other countries. When Israeli intelligence detonated hundreds of pager bombs against Hezbollah in Beirut in September 2024, Indian Army Chief General Upendra Dwivedi called the operation a "masterstroke". On Iran — a country with close ties with India and where investments such as the Chabahar port are at stake — the government's reactions have been more puzzling. In June, India called for dialogue after Israeli and U.S. strikes on Iranian nuclear facilities, which Iran responded to. However, New Delhi disassociated from a statement issued by the Shanghai Cooperation Organisation (SCO) days later, which condemned the strikes on Iran. In a subsequent flip-flop, India signed on to the SCO joint declaration on September 1 that "condemned" Israel and the U.S. for the June strikes.



Why is Qatar treated differently?

“India’s ties with the other countries mentioned are not the same as ties with Qatar, with its large Indian diaspora and personal relations at the highest levels between PM Modi and the Qatari Emir,” explained former Ambassador to the UAE and Egypt, Navdeep Suri. “Eventually, in an age of ‘transactionalism’, this is not as much about values and principles as about the bilateral relationship with each of these countries, including Israel,” he told The Hindu.

The MEA declined to respond to a question from The Hindu on why the Modi government has taken conflicting positions on the issue. Experts said a number of reasons explained the varied statements, from geopolitical to regional and bilateral. According to former Ambassador and author of West Asia at War, Talmiz Ahmad, India’s response to the attack on Qatar had “no larger strategic purpose” but focused on Qatar being a “crucial supplier of gas”.

He also pointed out that Israel’s attack on Qatar had put Gulf countries that house U.S. military bases and count on the U.S. to guarantee security “on notice”, indicating a “fundamental geopolitical shift in the region”, which India may need to take note of.

“The message Israel has given is that every Arab country, every Gulf country, is within their target zone and put them all on notice. Israel has now ended the process of normalisation and made it clear that ties with other West Asian countries are not a priority over its operations. Thirdly, Israel has shown that the U.S. is no longer a guarantor of security for these GCC countries,” Mr. Ahmad said, speaking at a seminar organised by the India-America Friendship Association on Tuesday.

The alarm among Gulf countries was visible at an emergency joint session of the Arab League and the Organisation for Islamic Cooperation (OIC) conference in Doha this week, which condemned Israel’s actions, even as the Gulf Cooperation Council committed to building a “joint defence mechanism” to deal with future threats.

What does this mean for India’s broader West Asia policy?

In addition, experts said India’s silence on Gaza — where more than 65,000 have been killed, including at least 20,000 children, in Israel’s incessant bombardment of Gaza, including the latest offensive against Gaza City — is straining its ties with the Arab world. In a rare response to media queries on August 27, the MEA called the killing of journalists and civilians by the IDF “shocking and deeply regrettable”. India also voted in favour of a UNGA resolution endorsing the two-state solution for Palestine on September 12, indicating that, despite the steadfast relationship with Israel, the Modi government’s shifts may indicate that it needs to factor in the rest of the region as well.

Note:

Qatar is seeking legal action against Israel in response to an unprecedented strike on its territory that targeted leaders of the Palestinian militant group Hamas, resulting in casualties among both Hamas officials and Qatar’s internal security force. Qatar’s chief negotiator, Mohammed al-Khulaifi, met with International Criminal Court (ICC) president Judge Tomoko Akane in The Hague as part of efforts to pursue accountability through legal and diplomatic channels. Although Qatar cannot itself refer cases to the ICC, Arab and Islamic blocs have called for member states to take all possible legal and effective measures to prevent further Israeli actions.

The strike has sent shock waves through Gulf nations, raising concerns over regional security and the reliability of U.S. protection. The incident comes against the backdrop of the ongoing Gaza war,

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which began after Hamas's attack on Israel in October 2023, leading to devastating casualties on both sides. The ICC has previously launched prosecutions against Israeli and Hamas leaders for alleged war crimes and crimes against humanity during the conflict, including targeting civilians and the use of starvation as a weapon.

Overall, Qatar's current actions highlight growing regional alarm and the pursuit of international justice in response to Israel's military operations, as well as broader tensions affecting West Asia policy and relations with the Arab world.

CHINA ASKS U.S. AND JAPAN TO WITHDRAW TYPHON MISSILE UNVEILED AT MILITARY DRILL

China has strongly urged the United States and Japan to withdraw the U.S.-developed Typhon missile system, which was unveiled in Japan during the ongoing "Resolute Dragon" joint military exercises. While Japan's Self-Defence Forces confirmed the system's debut in the country, they clarified it would not be fired during the drills. China's Foreign Ministry expressed "strong dissatisfaction and firm opposition" to the deployment, criticising the move as disregarding its concerns. The Typhon system, a truck-based mobile platform capable of launching precision missiles, is part of the U.S. Army's modernisation efforts. Japanese officials argue that the deployment strengthens deterrence amid a worsening security environment. Notably, the Typhon system had previously been stationed in the northern Philippines in 2024 for joint exercises.

WHAT IS THE SCARBOROUGH SHOAL AND WHAT IS CHINA PLANNING THERE?

The Philippines has reacted strongly to China's announcement it would establish a nature reserve in the South China Sea at the disputed Scarborough Shoal, site of years of standoffs between the two countries.

Named after a British ship grounded on the atoll nearly three centuries ago, the Scarborough Shoal is one of Asia's most contested maritime features and a flashpoint for diplomatic flare-ups over sovereignty and fishing rights.

Located 200 km (124 miles) off the Philippines and inside its exclusive economic zone, the shoal is coveted for its bountiful fish stocks and a stunning turquoise lagoon that provides safe haven for vessels during storms. It is named Huangyan Island by Beijing, while Manila calls it the Panatag Shoal, or Bajo de Masinloc.

Its position is strategic for Beijing, sitting in the middle of the South China Sea and near shipping lanes carrying more than \$3 trillion of annual commerce. Activities there are closely watched by the United States and other major powers.

China has approved creation of a national nature reserve at Scarborough Shoal that it says is to preserve a 3,524-hectare (8,708-acre) coral reef ecosystem. It would cover the entire northeastern side of the triangle-shaped atoll, with close proximity to the sole entrance for larger vessels.

The announcement angered the Philippines, which for years has accused China of activities that damage coral and marine life, including clam harvesting, and it is exploring the possibility of further international arbitration over environmental issues. Beijing has made similar accusations against Manila.



China could be met by scepticism and international concern about its underlying motives. There have long been expectations China might one day build a manmade island on Scarborough Shoal, as it has on seven submerged reefs in the Spratly Islands, some equipped with radar, runways and missile systems.

The Philippines and China lay claim to the Scarborough Shoal but sovereignty has never been established and it is effectively under Beijing's control. Filipino boats operate there but are dwarfed by China's presence.

China seized the shoal in 2012 after a standoff with the Philippines and has since maintained a deployment there of coast guard and fishing trawlers. Manila has said some of the trawlers at the shoal and other disputed areas of the South China Sea are operated by Chinese maritime militia, which Beijing has never acknowledged.

A landmark ruling on various South China Sea issues by the Permanent Court of Arbitration in 2016 went in favour of Manila but establishing sovereignty over Scarborough Shoal was not within its scope. The ruling said Beijing's blockade there violated international law, however, as it was a traditional fishing ground for several countries, including China, the Philippines and Vietnam.

Tensions have simmered for a while at the shoal and multiple incidents in recent years have caused diplomatic rows, but none escalated into armed conflict.

A deterrent might be the United States, which has taken its defence alliance with the Philippines to a new level under Marcos. Any kind of military response by China would increase the stakes considerably.

The Philippines and United States have a 1951 Mutual Defence Treaty under which Washington would defend its ally in the event of attack, a commitment U.S. defence chiefs reinforce often. Marcos successfully lobbied for more specificity in the treaty, which now covers attacks "anywhere in the South China Sea".

Do You Know:

The nine-dash line demarcates China's territorial claims in the sea on Chinese maps. It was initially the "eleven-dash line" but in 1953, the CCP-led government removed "the portion encompassing the Gulf of Tonkin, simplifying the border to nine dashes," Council on Foreign Relations (CFR) said. The line runs as far as 2,000 km from the Chinese mainland to within a few hundred kilometres of the Philippines, Malaysia and Vietnam.

Notably, India and the Philippines recently conducted the two-day "bilateral maritime cooperative activity" in waters close to the Scarborough Shoal.

Defence cooperation is one of the strong pillars of bilateral relations and a promising area for future collaboration between India and the Philippines, says the website of the Indian embassy in Manila.

Notably, India delivered the first batch of BrahMos missile system to the Philippines on April 19, 2024, making it the first foreign nation to acquire the missile weapon system.

FRANCE'S STREETS OF FURY: A CRY AGAINST AUSTERITY'S IRON GRIP



As the autumn chill begins to settle over Europe, France finds itself once again engulfed in the familiar rhythm of unrest—barricades aflame, tear gas clouds billowing through city squares, and the defiant chants of workers echoing against the grandeur of Parisian boulevards. The "Bloquons Tout" movement, translating to "Block Everything," has morphed from a viral social media clarion call into a nationwide uprising, shaking the foundations of President Emmanuel Macron's beleaguered administration. What began on 10 September 2025 as a grassroots blockade of highways and transport hubs has escalated into a symphony of strikes, with unions vowing yet another showdown on 2 October. This is no mere spasm of discontent; it is a profound indictment of a political elite perceived as out of touch, prioritising fiscal orthodoxy over the fraying social fabric that has long defined the French Republic.

The spark for this conflagration was lit by the government's audacious €44 billion (£38 billion) austerity package, proposed by the short-lived administration of Prime Minister François Bayrou. Unveiled amid a swirling vortex of political paralysis—following snap elections in June 2024 that splintered the National Assembly into fractious blocs—this budget sought to slash public spending, freeze social benefits, and even abolish two public holidays to tame France's ballooning deficit, which stands at 5.8% of GDP and a debt-to-GDP ratio of 114%. Critics, from radical left firebrands in La France Insoumise (LFI) to the hardline CGT union, decry it as a "budget of social destruction," one that hammers hospitals, schools, and pensions while shielding the wealthiest from progressive taxation. Bayrou's ousting via a no-confidence vote on 8 September only fanned the flames, paving the way for Sébastien Lecornu—Macron's third premier in a year—to inherit a cauldron of rage.

On that fateful 10 September, the streets of France transformed into a mosaic of resistance. From the sun-baked ports of Marseille to the rain-slicked roundabouts of Lille, protesters erected barricades of burning tyres and rubbish bins, choking motorways and disrupting rail lines. In Paris, masked demonstrators clashed with riot police outside Gare du Nord, hurling projectiles as tear gas canisters hissed through the air; over 100 arrests ensued in the capital alone. Nantes and Rennes witnessed similar skirmishes, with gendarmes deploying water cannons against crowds that included schoolchildren blocking lycées in a bid to amplify the chorus of youth disillusionment. Estimates varied wildly—unions claimed 250,000 participants, while authorities pegged it lower—but the disruption was undeniable: RER lines ground to a halt, flights from Nice were slashed by half, and pharmacies shuttered in solidarity. This was the Yellow Vests redux, but with a sharper leftist edge, untainted by the apolitical populism of 2018, as noted by political scientist Antoine Bristielle.

The crescendo arrived on 18 September, when eight major unions—CGT, CFDT, FO, and others—united in a rare interprofessional front for what they dubbed a "day of reckoning." Hundreds of thousands, perhaps over a million by union tallies, flooded the avenues, dwarfing the earlier mobilisation. In Paris's Place de la Nation, a sea of red CGT balloons bobbed amid chants of "Macron resign!" as protesters, including nurses like Aya Touré, decried the erosion of public services: "Fed up," she told reporters, encapsulating the visceral exhaustion of a populace squeezed by eight years of Macron's pro-business reforms. Disruptions rippled nationwide—nine out of ten pharmacies closed, high schools recorded record strikes, and EDF's nuclear output dipped by 4,000 megawatts, equivalent to four reactors offline. Clashes marred the margins: in Lyon, three were injured by firecrackers; Nantes saw tear gas volleys; and in Marseille, activists blockaded the Eurolinks arms factory, waving Palestinian flags in a poignant fusion of domestic fury and global solidarity against perceived complicity in Gaza's horrors.



By midday, 140 arrests had swelled the tally, with 80,000 officers—backed by armoured vehicles and drones—struggling to contain the tide. Interior Minister Bruno Retailleau's preemptive deployments, including dawn raids on bus depots, underscored the state's anxiety: this was not just about budget lines but the spectre of ungovernability in a parliament cleaved between leftists, centrists, and the far-right National Rally. Protesters' placards railed against pension age hikes to 64, doubled medical deductibles, and civil service job cuts, demanding instead wealth taxes and a reversal of energy VAT hikes from 5.5% to 20%. Even as marches remained largely peaceful, the optics were damning—images of riot police charging women and minors, journalists singed by flash-balls—fuelled accusations of disproportionate force from LFI's Mathilde Panot.

From an Indian vantage, this tumult resonates deeply. We, too, have witnessed the streets as the ultimate parliament—recall the farmers' sieges around Delhi in 2020-21, or the anti-CAA protests that paralysed cities. France's woes mirror our own battles against neoliberal zeal: austerity that spares the elite while gutting the welfare state, much like GST's uneven burdens here. Yet, where India's youth often rally digitally before hitting the tarmac, France's blend of union muscle and social media savvy—Blaquons Tout's origins on platforms like X—offers a template for hybrid mobilisation. Globally, it signals a populist reflux: just as Trump's tariffs rattle supply chains, Macron's fiscal straitjacket risks derailing Europe's engine at a time when Ukraine's demands strain budgets further.

Lecornu's honeymoon is over before it began. Talks with unions collapsed last week, birthing the 2 October call to arms—a renewable strike wave targeting everything from refineries to air traffic control. Fitch's looming credit review on 12 September could spike borrowing costs, already at Italian highs, compounding the crisis. Macron, the erstwhile Rothschild banker, faces a legitimacy chasm: his snap election gamble yielded deadlock, not deliverance. The far-right lurks, ready to exploit the vacuum, while the left's cohesion under LFI hints at a potential NUPES revival.

In the end, these protests are not mere tantrums but a referendum on laïcité's social contract—liberté, égalité, or else. Will Lecornu pivot to "fair contributions from the richest," as Socialists urge? Or will France descend into deeper paralysis, echoing the 1995 strikes that felled Alain Juppé? History whispers caution: the streets have toppled governments before. As India watches a kindred spirit in ferment, one truth endures—when the people block everything, the elite must listen, or lose everything.

HOW HAS GEN Z FORCED CHANGES IN NEPAL?

The story so far:

On September 4, 2025 in Nepal, the (then) ruling Communist Party of Nepal (Unified Marxist-Leninist) [CPN-UML]'s K.P. Sharma Oli-led government banned 26 major social media platforms, citing non-compliance with registration requirements. This triggered widespread Gen Z-led protests from September 8, with demonstrators viewing it as an attempt to silence dissent. The protests quickly escalated from peaceful gatherings in Kathmandu to violent confrontations. At least 34 people died and over 1,000 were hospitalised. The next day, multiple government buildings were attacked, including Parliament, the Supreme Court, the Prime Minister's office complex and even the leading media house Kantipur's headquarters. Politicians' homes were burned down and prisoners freed from jails, including arrested politician and ex-minister Rabi Lamichhane of the Rastriya Swatantra Party (RSP). Prime Minister Oli also resigned on September 9. After three days of negotiations involving the President, Army Chief General Ashokraj Sigdel, and Gen Z leaders, former Supreme Court Chief Justice Sushila Karki was appointed as interim



Prime Minister with a mandate to conduct elections by March 2026. She immediately recommended dissolving Parliament.

What are the reasons for the protest?

In recent years, many Nepalis have migrated out of the country for better job opportunities. Social media outlets are used not just for venting about mis-governance but also for communication and business. The youth, however, did not term the protests as targeted only at the social media ban, but also against corruption. Ever since the 2015 Constitution, power has alternated between three leaders — Mr. Oli, Pushpa Kamal Dahal (Prachanda) of the CPN (Maoist-Centre), and Sher Bahadur Deuba of the Nepali Congress. Despite the relatively progressive Constitution, governments have been unable to improve economic conditions, providing unstable governance through constantly changing alliances.

What makes this uprising different?

The 2025 Gen Z uprising differs fundamentally from Jan Andolan 1 (1990) and Jan Andolan 2 (2006) in leadership, triggers, and objectives. Unlike previous movements led by established political parties like the Nepali Congress and UML in 1990, and the Seven Party Alliance with Maoists in 2006, the 2025 protests were driven by Gen Z activists with no traditional party affiliations. The movement was largely coordinated through social media platforms like Instagram and Discord.

Jan Andolan 1 was aimed at ending the Panchayat system to establish constitutional monarchy. Jan Andolan 2 sought to end absolute monarchy and establish a republic through a Constituent Assembly. The 2025 uprising occurred within an existing democratic republic but challenged the political class, demanding dissolution of Parliament and new leadership outside traditional parties.

Were monarchist forces behind the violence?

In the violence on September 9, multiple government buildings were targeted. Politicians' homes were also attacked and burned. Gen Z activists claimed that vandalism and arson were not done by them but by miscreants who infiltrated the protests. While it is too early to say that pro-monarchy activists were responsible for the September 2025 violence, there has been a pattern of pro-monarchist activity in recent months. In March 2025, pro-monarchy rallies turned violent, resulting in casualties when royalist forces clashed with security personnel. Former king Gyanendra's arrival in Kathmandu that same month sparked rallies calling for monarchy's return.

How was the interim government formed?

Following Mr. Oli's resignation, Nepal entered a three-day power vacuum. The selection process involved the President's Office, the Nepal Army, Gen Z leaders with the Army Chief playing a crucial mediating role. Hami Nepal, a non-profit organisation led by 36-year-old Sudan Gurung, originally established for earthquake relief in 2015, emerged as a key voice. The organisation had gained credibility through disaster relief work during COVID-19. Gen Z youth conducted online discussions before collectively endorsing Sushila Karki. Several prominent figures were considered, including Kathmandu Mayor Balendra Shah (who ultimately endorsed Ms. Karki), former Nepal Electricity Authority chief Kulman Ghising, ex-education minister Sumana Shrestha of the RSP, and Dharan Mayor Harka Sampang.



President Ram Chandra Poudel appointed Ms. Karki under Article 61 of the Constitution, citing “extraordinary circumstances.”

What about the dissolution of Parliament?

The dissolution could likely be unconstitutional. Article 76(7) of Nepal’s 2015 Constitution allows dissolution only after failed Prime Minister appointments and requires the PM’s recommendation. Article 66(2) mandates Presidential actions must occur “on [the] recommendation of the Council of Ministers.” No constitutional provision permits dissolution based on public protests alone. The fact that dissolution occurred immediately after the interim PM’s appointment makes it constitutionally questionable, as it bypassed procedures. This could constitute grounds for judicial review by the Supreme Court’s Constitutional Bench.

Major political parties including the Nepali Congress, CPN-UML, and CPN (Maoist Centre), along with the Nepal Bar Association, have condemned the dissolution as “unconstitutional” and “arbitrary”.

What are the upcoming challenges?

The 2025 uprising highlights fundamental flaws in Nepal’s post-2015 political settlement. While the 2015 Constitution established a progressive federal democratic republic with provisions for inclusive representation, its implementation has been marked by chronic political instability. The “musical chairs” approach to governance by the three major parties has prevented consistent policy implementation and economic development, fuelling public disillusionment.

Besides, the Constitution’s federal structure remains incomplete, with disputes over provincial boundaries and resource distribution. The Gen Z movement’s extra-constitutional success was an outcome of its impatience with traditional democratic processes. The interim government’s ability to conduct credible elections by March 2026 and whether new political forces can emerge to challenge the established triumvirate will be crucial tests. Nepal’s future depends on whether a newly reconstituted polity can move beyond patronage toward genuine policy competition. However, if anti-democratic forces exploit this moment to reverse the gains of the previous Jan Andolans, then Nepal will undergo democratic regression.

NEPAL, INDONESIA, BANGLADESH, SRI LANKA: WHEN DEMOGRAPHIC DIVIDEND ISN’T DELIVERED

Sri Lanka in 2022. Bangladesh in 2024. Indonesia in August 2025...and now Nepal, a month later. The past few years have been littered with youth-led uprisings in Asian countries, coming at a time when the headline growth numbers have not resulted in better lives for those entering the labour force.

— At the same time, the ruling elite and business class seem to have prospered. Over the last week, the children of Nepal’s political class have come under heavy fire for displaying their luxurious lifestyles on social media, with the phrase ‘nepo kids’ trending as the Gen Z’s ire over corruption took centre-stage.

— In 2024, Nepal was ranked 107 out of 180 countries in Transparency International’s corruption rankings. Bangladesh was ranked 151, Sri Lanka 121, and Indonesia 99.



— The high levels of corruption and lack of political continuity have meant economic growth has not been inclusive, with the youth suffering in particular. And these countries are all rather young. According to the United Nations' World Population Prospects 2024 report, the median age of Nepal last year was 25 years, only slightly lower than Bangladesh's 25.7. For Indonesia it was 30.1, while Sri Lanka's was 33.1 years.

— Countries with a young population bank on the youth to propel economic growth higher. This gain, called the demographic dividend, comes from changes in the age structure of a country's population which lead to the proportion of the working-age population becoming increasingly larger than those who don't work – young children and the retired.

— As young adults finish their education, they expect to enter the labour force and boost the talent available to domestic firms. An increase in supply of talent can also ensure wages don't rise much, helping raise profits, which can help finance future investments. This would then support the creation of more jobs. This, seemingly, has not happened in many of Asia's developing economies.

— In Indonesia, the national average unemployment rate in 2024 was 4.91 per cent. But for those in the 20-24 age bracket, the unemployment rate was more than three times as high: 15.34 per cent. In Bangladesh, the national unemployment rate in 2023 was 3.35 per cent. However, at 8.24 per cent, the highest unemployment rate was for those in the 15-24 years age bracket.

— In Nepal, the country's statistics office said in July that the employment challenge was "significant". "The high dependence on foreign employment and remittances, coupled with limited industrial development and job creation in the formal sector, presents ongoing challenges for policymakers," the National Statistics Office said in a report titled Demographic Dividend in Nepal, adding that the labour market sector had not shown any improvement, with unemployment increasing to 12.6 per cent in 2022-23 from 11.4 percent in 2017-18.

— With underemployment even more prevalent, especially among those aged 15-24, young Nepalis were looking abroad for jobs, resulting in remittances accounting for nearly a quarter of the country's GDP. "These trends highlight the urgent need for domestic job creation in emerging sectors and industries to retain talent and support the economy sustainably... without sufficient job creation, Nepal risks missing out on the economic benefits of its demographic dividend."

TROUBLED TRANSITION

After violent protests that left 74 dead, Nepal's elected government has fallen, with its Parliament dissolved and former jurist Sushila Karki leading an interim government until the 2026 elections. While the Gen Z protesters had legitimate grievances including poor governance, entrenched corruption and intolerance of critical views, seen in the ousted CPN-UML-led government's banning of 23 social media websites — the transition itself was blatantly unconstitutional, violating Article 76 of Nepal's 2015 Constitution which permits dissolution only after failed Prime Minister appointments. Yet, considering the exigent circumstances, there is little purchase for judicial review of the steps taken last week. Notably, the President did not dissolve the upper house, the National Assembly. More troubling were the protesters' egregious actions which included burning Parliament and the Supreme Court (destroying vital documents). Nepal is expected to suffer severe economic losses besides governance issues due to the destruction of property and documents. The targeting of democratic institutions suggests an assault on Nepal's post-Constitutional order — institutions established after the painstaking constitution-writing process that followed the much-needed ending of a decade-long civil war in 2006, overcoming an



anachronistic and discredited monarchy and which included marginalised sections beyond Kathmandu valley's power structures — even if there was half-hearted or ineffective implementation of the Constitution's spirit and letter.

The interim government must bring the criminals to justice as any inaction will lead to a normalisation of violence threatening all institutions that were set up to fulfil the promises of deeper democratisation and Nepal's transformation into a republic. Even if Gen Z protesters claim that impostors carried out the violence, their continued reliance on online forums, such as Discord, for decision-making reveals immaturity and an unrepresentative nature. The reliance on online forums, which feature anonymity, frivolity and impersonation, and the fact that there is no guarantee that these views are representative of the many marginalised groups suggest that giving into the demands from these unaccountable groups uncritically could be hazardous. The failures of mainstream leaders — the K.P. Sharma Oli-Sher Bahadur Deuba-Pushpa Kamal Dahal troika and their coteries — cannot justify discrediting democracy or the polity itself, as some protesters have made it out to be, echoing anti-social and destructive pro-monarchic elements. One outcome is that the entrenched leadership of mainstream parties could be compelled by party members to give way to fresh blood. Meanwhile, the interim government must protect Nepal's institutions and constitutional achievements while building the stage for free and fair elections — this is the surest path to safeguarding the promise of a democratic, plural and republican “Naya Nepal”.

US, UK, FRANCE PUT ON HOLD PAKISTAN BID TO DESIGNATE BALOCH GROUP AS TERRORISTS

The US, France and the UK have teamed up to put a “technical hold” on Pakistan's bid to list the Balochistan Liberation Army (BLA) and its alias, Majeed Brigade, as terrorist groups at the UN Security Council's 1267 sanctions committee.

— Pakistan, a non-permanent member at the UNSC, had China, a permanent member, backing the proposal, but three other permanent members of the Security Council said the BLA does not have links with Al Qaeda or ISIL.

— On September 17, Ambassador Asim Iftikhar Ahmed, Permanent Representative of Pakistan to the UN, had told a meeting of the UN Security Council: “Pakistan and China have jointly submitted to the 1267 Sanctions Committee a request to designate the BLA and Majeed Brigade. We hope the Council will act swiftly on this listing to curb their terrorist activities.”

— Unless Islamabad is able to furnish more information that links the BLA and Majeed Brigade to the two terror groups, the UNSC's 1267 sanctions committee – it deals with terror groups with links to Al Qaeda and ISIS – won't be able to list it, Pakistan and China have been told.

— On August 11, the US Department of State designated both the BLA and Majeed Brigade as Foreign Terrorist Organisations.

— The BLA was designated as a Specially Designated Global Terrorist (SDGT) in 2019 following several attacks. Since 2019, the BLA has claimed responsibility for additional attacks, including by the Majeed Brigade.

— In 2024, the BLA claimed it had carried out suicide attacks near the airport in Karachi and the Gwadar Port Authority Complex.



— In March this year, the BLA claimed responsibility for the hijacking of the Jaffar Express, travelling from Quetta to Peshawar. Over 300 passengers were taken hostage and 31 people were killed.

— Pakistan was hoping that following the BLA's designation by the US State Department, it would be able to get the grouping designated at the UNSC as well.

— This was after the US also designated the Resistance Front, a shadow outfit of the Lashkar-e-Taiba, as a terror outfit in July, following the Pahalgam terrorist attack.

— The TRF, which had claimed responsibility for the Pahalgam attack, had found a mention in the UNSC report monitoring sanctions on terror outfits.

Do You Know:

— The United Nations (UN) came into existence on 24 October 1945, after being ratified by 51 nations, which included five permanent members or P5 (France, the Republic of China, the Soviet Union, the UK and the US) and 46 other signatories.

— The BLA are a Baloch ethnonationalist group who emerged in the early 2000s with the aim of achieving independence for Balochistan. Pakistan banned the organisation in 2006, and the United States designated it as a global terrorist organisation in 2019.

— The Majeed Brigade has been active since 2011, and has been involved in other strikes, including on a complex near Balochistan's Gwadar port in March 2024, which resulted in the deaths of several security personnel and militants.

— Balochistan is the largest but least populated of Pakistan's four provinces – Balochistan, Sindh, Punjab and Khyber Pakhtunkhwa. It has substantial reserves of oil and gas, alongside gold and copper deposits, but has lagged in economic growth compared to other regions in the country.

— Leaders of the ethnic Baloch minority have long blamed the central government for the region's economic backwardness, as well as the stranglehold of Punjab over the country's resources.

— After Partition, Balochistan remained independent until March 1948 as part of a friendship treaty with the new state of Pakistan. The Khan of Kalat, the main tribal leader whose writ ran over much of the region, was keen to remain independent, but came under tremendous pressure to join Pakistan, including from his feudatories, the rulers of Makran, Las Bela, and Kharan.

— He signed the instrument of accession, but the sentiment in favour of Baloch independence remained alive.

— Tens of thousands of Baloch nationalists and civilians have been killed in the insurgency over the past decades. Pakistan has accused India of aiding the Baloch insurgent groups – an allegation that India has strongly denied.



NATIONAL

US REVOKED VISAS OF INDIAN BUSINESS EXECUTIVES OVER LINK TO FENTANYL TRADE: EMBASSY

The US embassy in Delhi said on Thursday that it has revoked and denied visas to some “business executives and corporate leadership” based on their alleged involvement in trafficking fentanyl precursors. It did not name the individuals or the companies involved.

— Fentanyl is a potent opioid drug that is blamed for widespread drug addiction in the US.

— In its statement, the US embassy said, “In furtherance to the Trump Administration’s efforts to keep Americans safe from dangerous synthetic narcotics, the U.S. Embassy in New Delhi has revoked and subsequently denied visas for certain business executives and corporate leadership based on involvement in trafficking fentanyl precursors.”

— “These actions are taken pursuant to section 221(i), section 212(a)(2)(C), and 214(b) of the Immigration and Nationality Act. As a result of this decision, these individuals and close family members may be ineligible for travel to the United States.”

— The statement said that the embassy remains steadfast in its commitment to combating illicit drug trafficking.

— Fentanyl and other synthetic opioids remain the most lethal drugs trafficked into the United States, causing more than 52,000 US deaths in a 12-month period ending in October 2024, a US intelligence report had said earlier this year.

— On Wednesday, US President Donald Trump had named India, China, Afghanistan and Pakistan among 23 major drug transit or major illicit drug-producing countries, saying that by manufacturing and trafficking illicit drugs and precursor chemicals, these nations were threatening the safety of the US and its citizens.

— The ‘2025 Annual Threat Assessment (ATA)’—a coordinated evaluation of global threats to US interests- stated that fentanyl and other synthetic opioids remain the deadliest drugs trafficked into the US, responsible for over 52,000 deaths in the 12-month period ending October 2024.

— Opioids are a class of drugs that “derive from, or mimic, natural substances found in the opium poppy plant”, according to the website of the US-based Johns Hopkins Medicine. Some common opioids include oxycodone, morphine, codeine, heroin, and fentanyl. It is used for the management of severe pain in cancer patients or those who have undergone various surgeries.

— The issue with fentanyl is that it can be 30 to 100 times more potent than heroin or morphine and is fast-acting, leading to a rapid and high number of overdose deaths. Fentanyl-related overdoses resulted in more than 69 per cent of the total overdose deaths in the US.

— According to a 2019 survey conducted by the AIIMS National Drug Dependence and Treatment Centre in India, heroin and its derivatives like smack continue to be the most common opioids leading to addiction. An estimated 63 lakh people are addicted to heroin as compared to 25 lakh to pharmaceutical opioids.



— According to the United Nations Office on Drugs and Crime (UNODC), two significant regions of drug production and drug trafficking are the “Golden Crescent” and “Golden Triangle”. Golden Crescent includes illicit opium production areas in Iran, Afghanistan, and Pakistan; and the “Golden Triangle” covers Myanmar, Thailand, and Laos.

EXPRESS VIEW ON H-1B VISA FEES: US PROTECTIONISM IS TARGETING MOBILITY OF HIGH-SKILLED PROFESSIONALS

In recent weeks, there have been signs of a thaw in India-US relations. But the Donald Trump administration’s announcement of raising the H-1B visa fees is a setback — it effectively targets Indians, by far, the biggest beneficiaries of the programme. It’s clear that labour mobility and services are the latest targets of America’s protectionist policies, which have, till now, used tariffs to repress the goods trade. Both ends of the employment spectrum are now under pressure — tariffs on goods have a bearing on low and semi-skilled jobs, while the visa fee will impact high-skilled IT jobs. Trump’s latest salvo will, no doubt, cast a shadow over the India-US trade talks — Commerce Minister Piyush Goyal is slated to visit the US in the coming days.

The Trump administration may well believe that IT firms have “manipulated the H-1B system”. But the move will have wide-ranging consequences for the US economy as well. Ensuring cost-effective labour replacement will be difficult for US companies. The demand-supply mismatch will put pressure on firm margins. More critically, skilled migrant workers form the core of the US knowledge and innovation ecosystem. As University of California economist Giovanni Peri has pointed out, 26 per cent of US-based Nobel Prize winners from 1990 to 2000 were immigrants. Stuart Anderson of the National Foundation for American Policy and Michaela Platzer of Content First, LLC, have also shown that between 1990-2005, 25 per cent of founders of public venture-backed US companies were immigrants. As companies are now unlikely to fork out \$100,000 for each visa, talent may simply move to other, more welcoming parts of the world.

The visa fee hike will impact operations of both American and Indian businesses — Indian IT majors like Infosys, TCS, HCL and Wipro have the most H-1B staff on their payrolls, as do US tech giants like Amazon, Microsoft, Meta, Apple and Google. The move will disrupt onshore projects of Indian tech companies. The Indian IT sector, already confronted with an uncertain global environment and grappling with the fallout of increasing adoption of AI, has its task cut out. A reduced flow of migrants could also have implications for remittances to India — the US accounted for 27.7 per cent of all remittances to the country in 2023-24. But there could be some silver linings. The visa restrictions could provide an impetus to India’s Global Capacity Centres. Britta Glennon of the Wharton School of Business has shown that restrictions on H-1B immigration result in increased foreign employment, with firms opening more offices and hiring more people. Such an expansion tends to be concentrated in Canada, India, and China. Indian policymakers and the industry have no time to lose. While India and other countries can do little to influence the ideological foundations of the American discourse on immigration, the question is what can be done domestically. Can the innovation hubs that power the US economy be replicated in India? Trump may, hopefully, soften his stance. The market, hopefully, will push him to do so. But hope, when it comes to Trump, is no strategy. India’s IT sector leaders have formidable talent, they need to look beyond their cost-plus, labour arbitrage model, get better at creating talent and nurturing an enabling ecosystem.



US DECIDES TO REVOKE WAIVER ON SANCTIONS FOR CHABAHAR PORT

The US administration led by President Donald Trump has said it is withdrawing the sanctions waiver granted to the Chabahar port in Iran, which is being developed by India, thereby ending the waiver from 2018 during Trump 1.0. The sanctions regime on the strategically-located port will come into effect from September 29, about 10 days from now.

— While this move is targeted towards Iran, it will adversely impact India — which has been developing the port (Shahid Beheshti Terminal, Chabahar Port) along with Iran — in accessing Afghanistan and Central Asia.

— Sources said that this is a major setback for India's plans to develop the strategically-located port, close to the Chinese-developed Gwadar port in Pakistan.

— The USA has revoked the sanctions exception issued in 2018 under the Iran Freedom and Counter-Proliferation Act (IFCA) for Afghanistan reconstruction assistance and economic development.

— Once the revocation is effective, persons who operate the Chabahar Port or engage in other activities described in IFCA may expose themselves to sanctions under IFCA.

— Chabahar is a deep water port located in the Sistan-Baluchistan province of Iran. It is the closest Iranian port to India, and is located in the open sea, providing easy and secure access for large cargo ships.

— During a visit by Prime Minister Narendra Modi in May 2016, a Trilateral Agreement to establish the International Transport and Transit Corridor (Chabahar Agreement) was signed by India, Iran and Afghanistan.

— India has so far supplied six Mobile Harbour Cranes (two 140 tonne and four 100 tonne capacity) and other equipment worth USD 25 Million.

— The Indian company, India Ports Global Limited (IPGL), through its wholly owned subsidiary, India Ports Global Chabahar Free Zone (IPGCFZ), took over the operations of the Chabahar Port in December 24, 2018.

— Since then, it has handled more than 90,000 TEUs of Container traffic and more than 8.4 MMT of Bulk and General Cargo. The port has also facilitated the supply of humanitarian assistance, especially during the Covid-19 pandemic.

— According to the US's Office of Foreign Assets Control, IFCA was signed into law on January 2, 2013, as a part of the National Defense Authorization Act for Fiscal Year 2013, and provides for several new sanctions related to Iran.

— IFCA authorizes broad sanctions on: certain activities related to Iran's energy, shipping, and shipbuilding sectors; the sale, supply, or transfer to or from Iran of precious and certain other metals; financial transactions involving sanctioned Iranian individuals and entities; and persons involved in the diversion of goods intended for the Iranian people.



SHIFTING SANDS

The signing of a mutual defence agreement between Saudi Arabia and Pakistan, which declares that “any aggression ... shall be considered an aggression against both”, is a moment of consequence for both countries as well as for West and South Asia. Saudi Arabia, the custodian of Islam’s two holiest mosques, and Pakistan, the Islamic world’s only nuclear power, have always enjoyed a special relationship. Pakistan has trained Saudi forces for decades, while the kingdom has provided generous financial assistance, including help for Islamabad’s nuclear programme. With the agreement, this partnership has now been institutionalised. Yet, its timing, announced a week after Israel bombed Qatar, underlines the shifting sands in the Persian Gulf’s security landscape. For decades, its monarchies relied on solid security guarantees from the U.S. But with the U.S. focus shifting away from West Asia, the durability of the old framework has come into question. When Saudi oil installations were attacked by Iranian allies in 2019, the U.S. did nothing. Israel’s attack on Qatar, which hosts America’s largest base in West Asia, seems to have expedited the realignment.

In the Abraham Accords, the U.S. tried to bring the Arab monarchies and Israel closer to build a common front against Iran. Four Arab countries, including the UAE, signed up, and Saudi Arabia was expected to follow. But the Hamas attack of October 7, 2023 and Israel’s Gaza war, which has spilled into other countries, have derailed the process. With the Pakistan agreement, Saudi Arabia is sending a clear signal to Washington and Tel Aviv that it is diversifying its security alliances. For Pakistan, which desperately needs Saudi financial assistance, closer defence ties at a time when Gulf monarchies are rattled by Israel’s unchecked militarism, are an opportunity to present itself as a security provider. For India, which fought with Pakistan in May, the agreement could complicate its manoeuvres in West Asia. As India has taken a pro-Israel tilt, Arab monarchies seem to be hedging their bets, even if that means overlooking India’s concerns. Yet, it is not clear whether the agreement offers Pakistan’s nuclear umbrella to Saudi Arabia or an immediate Saudi response if Pakistan comes under attack. Risks of entrapment come with the agreement: Pakistan could be dragged into West Asia’s polycrisis or Saudi Arabia could be pulled into the tensions in South and Central Asia. India must prepare for rapid changes in West Asia’s security order. It might be tempted to double down on its tilt towards an isolated, dangerous Israel. That would be a mistake. Instead, India’s long-term focus should be on promoting stability in the region, and maintaining a strategic balance among all pillars of its West Asia policy.

WHAT ARE FOREIGNERS TRIBUNALS’ NEW POWERS?

The story so far:

The Union Ministry of Home Affairs (MHA) recently notified Rules, Order and Exemption Order, which made the Immigration and Foreigners Act, 2025 operational. Parliament passed the legislation to regulate all matters relating to foreigners and immigration in April. It repealed and replaced several Acts, the Passport (Entry into India) Act, 1920; the Registration of Foreigners Act, 1939; the Foreigners Act, 1946 and the Immigration (Carriers’ Liability) Act, 2000.

What was the rationale?

The Government said a new legislation was required to avoid multiplicity and overlapping of laws on passports or other travel documents in respect of persons entering and exiting from India, and to regulate matters related to foreigners’ visa, registration and immigration issues. Though most provisions in the newly notified Rules, Order and Exemption Order were there in past



notifications, certain new clauses and conditions have been added, considering the vast changes that have occurred after the original pre-Independence Acts came into existence.

What does the Immigration and Foreigners Rules say?

For the first time, the Rules legally designate the Bureau of Immigration (BOI) to “examine cases of immigration fraud” and co-ordinate with the States to identify, deport or restrict the movement of foreigners and collate and maintain an immigration database among others. Though the BOI earlier also performed similar functions, its role was regulatory and not mentioned in the law. In another first, the Rules insert legal provision for recording of biometric information of all foreigners, earlier restricted to a few visa categories and enforceable through executive orders of the MHA.

Educational institutes will have to inform the Foreigners Regional Registration Office (FRRO) about all foreign students and even provide semester-wise “academic performance” summary such as attendance details and “general conduct” report. While earlier, the “civil authority” could direct to shut down any premise such as a resort, club or an entertainment place if it was frequented by foreigners who are “undesirable”, involved in crime or members of an unlawful group, the new Rules add “illegal migrant” to the list too.

The Rules define the role of an “immigration officer”, who will be officers provided by the Intelligence Bureau.

What does the Immigration and Foreigners Order, 2025 entail?

Foreigners Tribunals (FT), so far unique to Assam, have been given the powers of a first class judicial magistrate. It paves the way to send a person to a detention or a holding centre if he or she fails to produce any proof that they are “not a foreigner”. The 2025 Order that replaces the Foreigners (Tribunal) Order, 1964 empowers FTs to issue arrest warrants if an individual whose nationality has been contested fails to appear in person.

According to Assam’s Home Department, there were 11 Illegal Migrant Determination Tribunals (IMDT) in the State which were converted to tribunals after the Supreme Court scrapped the Illegal Migrants (Determination by Tribunals) Act, 1983 in 2005. A total of 100 FTs is currently operational in Assam. The number of FTs were enhanced after the National Register of Citizens (NRC) was published in 2019 in Assam on the orders of the top court. The NRC, again unique to Assam, excluded 19 lakh out of 3.29 crore applicants and FTs were to give adequate opportunity to those excluded to present their case. The State government has challenged the NRC in its current form and the final register is yet to be printed. Those excluded are yet to be provided with rejection slips.

Earlier, the FTs could have unspecified number of members, now the number of members has been capped at three, and the ex-parte orders can be set aside if the appellant files the review within 30 days. FTs are functional only in Assam. In other States, an illegal migrant is produced before a local court.

The order also legally allows border guarding forces or the coast guard to prevent illegal migrants attempting to enter into India by sending them back after capturing their biometric information and available demographic details on the designated portal of the Central Government. The Border Security Force (BSF) and the Assam Rifles (AR) posted along the Bangladesh and Myanmar



borders had been practising this through executive orders of the MHA — now, it has been stipulated under law.

What is the Immigration and Foreigners (Exemption) Order, 2025?

The Order exempts Nepalese, Bhutanese and Tibetans from the provisions of the Act. It has, however, added two other categories. Registered Sri Lankan Tamil nationals who have taken shelter in India up to January 9, 2015 have been exempted from the provisions of sub-sections (1), (2) and (3) of Section 3 (requirement of passport or other travel document or visa) of the 2025 Act. The notification also exempts undocumented members of six minority communities from Afghanistan, Bangladesh, and Pakistan from penal provisions and deportation if they entered India without passports or visas, or with expired travel documents, before December 31, 2024. MHA officials clarified that while minorities from the three countries could apply for long-term visas (LTVs), a precursor to citizenship, this is not applicable for Sri Lankan Tamils.

CASE PENDENCY CONTINUES TO PLAGUE THE SC AS BACKLOG HITS ALL-TIME HIGH OF 88,417

The pendency of cases in the Supreme Court has reached an all-time high of 88,417, even when the court is currently functioning with its full sanctioned judicial strength of 34 judges.

The court has 69,553 civil cases and 18,864 criminal matters pending currently, the National Judicial Data Grid shows. The filing of fresh cases in August surpassed the disposal rate. A total of 7,080 cases were instituted in the court in August. The court has managed a disposal rate of 5,667 cases in the month, that is, 80.04% of the cases filed. The escalation in pendency is despite Chief Justice B.R. Gavai's decision to have more Benches working through the long summer recess of the court in a bid to decrease the case log.

Working on holidays

The CJI had renamed the summer holidays from May 23 to July "partial working days". The CJI and five senior-most judges of the court had presided over the first batch of Benches hearing cases during the summer recess. A total of 21 Benches sat in batches throughout the "partial working days", hearing and disposing of cases, till the court reopened in July.

In 2025, 52,630 cases were filed while 46,309, nearly 88%, were disposed of during a year which has already seen two Chief Justices of India with a third, Justice Surya Kant, expected to be sworn in in late November. The corresponding period in 2024 had seen a similar climb in pendency to a then peak of over 82,000 cases. The increase in pendency persists despite successive Chief Justices, from Justice D.Y. Chandrachud to Justice Gavai, taking care to maintain judicial vacancy in the top court to a minimum, if not zero.

The unceasing increase in backlog has become a perennial phenomenon since the pandemic years, and especially since 2023. The pendency had continued to rise steadily despite Justice Chandrachud, when he was CJI, acting swiftly to fill vacancies in the top court. His successors to the top judge post, Justices Sanjiv Khanna and Gavai, have spearheaded their own collegiums to promptly recommend names of judges to the government.

Past Chief Justices and even collegium resolutions have raised the issue of "huge workload".



A November 2023 collegium resolution had mentioned the bare truth that the court cannot afford even one vacancy, taking into account the “ever mounting pendency of cases”. “The workload of judges has increased considerably. Bearing in mind the above, it has become necessary to ensure that the court has full working judge-strength leaving no vacancy at any point of time,” the collegium had underscored.

The recent months have seen the government approve collegium recommendations for appointment to the Supreme Court without delay, often within 48 hours. Yet, the backlog continues to rise steadily.

PRIOR RESTRAINT: HOW GAG ORDER IN ADANI CASE FLIES IN FACE OF WHAT SC HAS RULED

The Supreme Court’s prescription for granting pre-trial interim injunctions in defamation cases against journalists is the *Bonnard* standard, established in the 1891 English case *Bonnard vs Perryman*.

— *Bonnard* standard states that a court can grant an injunction only when it is satisfied that the defendant may not be able to justify the defamation, and not merely when it suspects defamation.

— In a 2024 decision, the Supreme Court reiterated the *Bonnard* principle while overturning an *ex parte* ad interim injunction that had ordered Bloomberg to take down an article about Zee Entertainment.

— The blanket gag order by a Delhi court on September 6 against journalist Paranjoy Guha Thakurta and other journalists and entities, restraining them from publishing alleged defamatory content on Adani Enterprises Limited (AEL), flies in the face of the threshold set by the top court.

— On Thursday (September 18), a district court set aside the September 6 order following a challenge by four journalists, Ravi Nair, Abir Dasgupta, Ayaskanta Das and Ayush Joshi. Another district judge, hearing a separate appeal filed by Guha Thakurta, has now posted the matter to September 22.

— The lower court’s order also restrains Guha Thakurta and other journalists from publishing or distributing any “unverified, unsubstantiated and *ex facie* defamatory reports” about the plaintiff.

— This “prior restraint”, which prevents publication before a full trial can determine whether the content is actually defamatory, has been held as an unconstitutional restriction on the fundamental right guaranteed under Article 19(1)(a) of the Constitution.

— Restrictions on free speech have to be found under Article 19(2) of the Constitution which lists out the “reasonable restrictions” that include interests of the sovereignty and integrity of India, the security of the State, friendly relations with foreign States, public order, decency or morality or in relation to contempt of court, defamation, and incitement to an offence.

— Legislations that impose a prior restraint on speech usually have a heavy burden to show that the reason for such restraint can be found under Article 19(2).

— The SC, in the Bloomberg decision, had also established a high threshold for granting *ex parte* injunctions in free speech cases, criticising the trial court for granting such orders without proper justification.



— Granting interim injunctions, before the trial commences, in a cavalier manner results in the stifling of public debate. In other words, courts should not grant ex parte injunctions except in exceptional cases where the defence advanced by the respondent would undoubtedly fail at trial

— Article 19 is a part of the Fundamental Rights (Part III) of the Indian Constitution.

— Article 19 which guarantees freedom of speech and expression is a right invoked against the state. Some fundamental rights such as those prohibiting untouchability, trafficking and bonded labour are explicitly against both the state and other individuals.

— It is available only to citizens and not to foreigners.

Protection of certain rights regarding freedom of speech etc

(1) All citizens shall have the right

(a) to freedom of speech and expression;

(b) to assemble peaceably and without arms;

(c) to form associations or unions;

(d) to move freely throughout the territory of India;

(e) to reside and settle in any part of the territory of India; and

(g) to practise any profession, or to carry on any occupation, trade or business

Note: Originally, Article 19 (1) (f) and article 31 contained the right to property, i.e. to acquire, hold and dispose of property subject to the right of State to compulsory acquisition for public purposes by authority of law.

— However, right to property ceased to be a fundamental right when the Constitution (44th Amendment) Act, 1978 omitted sub-clause(f) of Article 19 (1) and Article 31 from the Constitution.

CONSTITUTIONAL CLARITY

The hearings on the Presidential Reference that followed the Supreme Court judgment on April 8, 2025, clarifying the constitutional position on the powers of the Governor and the President in providing assent to Bills passed by State Assemblies, have largely confirmed that Governors should not indefinitely withhold assent to such Bills. Addressing the 14 questions posed in the Presidential Reference, the observations of the five-judge Bench largely converged on the constitutional principles elucidated in April. The question by the Chief Justice of India, B.R. Gavai, on whether the Court should “sit powerless” while Governors make “competent State legislatures defunct” echoed the core concern in the April judgment — that constitutional offices cannot paralyse democratic governance through inaction. While States’ counsel largely argued along political lines based on which parties governed them, this did not detract from the thorough examination of Articles 200 and 201 during the proceedings. The argument that the Constitution’s silence on specific timelines in these Articles does not grant unlimited discretion to Governors remains compelling. When the Solicitor-General argued that Governors serve as a “check on hasty legislation”, the Bench’s response also indicated the tension between this position and democratic



principles. Justice Vikram Nath's observation, that Governors "cannot sit over the wisdom of the legislature indefinitely", was succinct.

That only Opposition-ruled States have faced prolonged delays, as pointed out by Kerala's counsel, suggests the constitutional framework itself is not ambiguous but that its application has become selective. The Bench's examination of why judicial review applies to Governors' recommendations under Article 356 (President's Rule) but supposedly not to actions under Article 200 (assent to Bills) highlighted potential inconsistencies in arguments defending unlimited discretion for Governors. The proceedings related to the questions posed in the Presidential Reference demonstrate why the April judgment's framework remains constitutionally sound and necessary to maintain the balance between federal cooperation and State autonomy. The question from these hearings is on why the Centre chose this unusual route. As scholars have established, an advisory opinion by the Court under Article 143 does not override a binding judgment under Article 141. If the Centre genuinely sought clarity on the April judgment, well-established judicial procedures such as review petitions or curative petitions were available. When the Court's final reply to the Reference is received, the Centre should accept the constitutional boundaries that the April judgment and these proceedings have reinforced, rather than continuing to pursue powers that would alter the delicate federal balance that the Constitution has established.

BANU MUSHTAQ'S DASARA INAUGURATION: A BEACON OF SECULAR HARMONY IN DIVIDED TIMES

In a resounding affirmation of India's constitutional ethos, the Supreme Court's dismissal of petitions challenging Banu Mushtaq's invitation to inaugurate the 2025 Mysuru Dasara festivities stands as a pivotal moment for secularism. On September 19, 2025, Justices Vikram Nath and Sandeep Mehta upheld the Karnataka High Court's ruling, invoking the Preamble's principles of liberty, equality, and fraternity. This decision not only cleared the path for the acclaimed Muslim author—whose Kannada short story collection *Heart Lamp* earned the International Booker Prize—to light the ceremonial lamp atop Chamundi Hills but also rebuked attempts to infuse communal discord into cultural traditions. As Mushtaq herself eloquently stated during the September 22 inauguration, "At a time when the world is moving on the path of war and humanity is immersed in hatred... let Mysuru Dasara send out a message of peace." Her words resonate deeply, reminding us that festivals like Dasara are not silos of faith but vibrant tapestries of shared heritage.

The controversy, fuelled by petitioners including former BJP MP Pratap Simha, hinged on claims that a non-Hindu performing inaugural rituals—such as offering fruits, flowers, and reciting prayers—violated Article 25's guarantee of religious freedom. Critics labelled Mushtaq's past statements as "anti-Hindu" and decried the move as politically motivated, bypassing the Mysuru royal family. Yet, these arguments crumble under scrutiny. Dasara, historically celebrated by rulers like Hyder Ali and Tipu Sultan, has long transcended religious boundaries. As Karnataka Chief Minister Siddaramaiah aptly noted, "Dasara festivities cannot be confined to a particular religion." The state government's stance, backed by a high-level committee, underscores that this is a secular public event, not an exclusive religious rite. The Supreme Court's pointed query—"How can the state distinguish between A, B, and C?"—exposes the fallacy of exclusionary logic in a pluralistic democracy.

This ruling arrives at a juncture when India's social fabric is strained by rising polarization. Opponents' "well-planned conspiracy" narrative, as Siddaramaiah termed it, reflects a broader



trend of weaponizing culture for political gain. By contrast, Mushtaq's participation embodies empowerment and unity. Her literary work, which deftly critiques patriarchal norms through stories like those in *Heart Lamp*, adds a layer of progressive symbolism. In one tale, she transforms everyday frustrations into poignant metaphors, much like how *Dasara* transforms regional folklore into national pride. Allowing her to inaugurate reinforces that merit and contribution—be it literary or cultural—trump faith-based barriers. It's a nod to India's melting pot identity, where festivals serve as bridges, not walls.

Critics might argue that blending secular and religious elements risks diluting traditions, but the judiciary's swift dismissal—pronounced after a brief hearing—prioritizes constitutional values over subjective sentiments. The Delhi High Court's earlier observation that no legal rights are infringed aligns with this: inclusivity doesn't erode faith; it enriches it. In an era of chronic debates on religion and politics, this verdict sets a precedent for other cultural events, from Ganesh Chaturthi to Eid celebrations, ensuring they remain accessible to all.

Ultimately, Banu Mushtaq's graceful inauguration amid the glittering lights of Mysuru is more than a ceremonial act—it's a defiant stand for fraternity. As she called for "the fragrance of unity in diversity," she echoed the essence of India's soul. The Supreme Court has not just upheld a decision; it has illuminated the path toward a more harmonious society. In these divided times, such gestures are not luxuries but necessities, fostering trust and countering the shadows of intolerance. Let *Dasara 2025* be remembered not for controversy, but for its bold embrace of pluralism.

ECHOES OF INSENSITIVITY: WHEN JUDICIAL WIT WOUNDS FAITH

In the hallowed corridors of the Supreme Court, where justice is dispensed with the gravity of a Vedic incantation, a seemingly offhand remark has ignited a conflagration that exposes the fragile fault lines between secular authority and sacred sentiment. On 16 September 2025, during a hearing on a petition seeking the restoration of a mutilated Lord Vishnu idol at the Javari Temple in Khajuraho—a UNESCO World Heritage Site in Madhya Pradesh—Chief Justice of India B.R. Gavai's bench dismissed the plea, observing that such matters fell under the Archaeological Survey of India's purview. But it was the CJI's oral riposte to petitioner Rakesh Dalal that has reverberated like a thunderclap: "Go and ask the deity himself to do something. If you are saying that you are a strong devotee of Lord Vishnu, then you pray and do some meditation." To many, these words, laced with what appeared to be judicial sarcasm, were not mere levity but a laceration to the soul of Hindu devotion, prompting an outcry that has traversed courtrooms to the digital agora of social media.

The Javari Temple, a jewel in the Chandela dynasty's 11th-century architectural crown, stands as a testament to India's syncretic heritage, its Nagara-style spires whispering tales of Vaishnava glory amid the erotic sculptures of Khajuraho. The seven-foot idol in question, headless and armless, bears the scars of historical desecration—allegedly inflicted during Mughal incursions, though scholars debate whether it was deliberate vandalism or an unfinished artefact left by ancient sculptors. Dalal's petition was no frivolous filing; it invoked Article 25 of the Constitution, arguing that the state's inaction infringed upon the fundamental right to worship, transforming an archaeological relic into a living emblem of faith denied. Yet, the bench, comprising CJI Gavai and Justice K. Vinod Chandran, branded it "publicity interest litigation," redirecting the devotee from the Constitution's embrace to the deity's lap. In suggesting an alternative sojourn to the temple's grand Shiva linga—"If you are not averse to Shaivism, you can go and worship there"—the CJI perhaps intended a nod to Hinduism's pluralistic ethos. But in the retelling, it morphed into

4TH FLOOR SHATABDI TOWER, SAKCHI, JAMSHEDPUR



mockery, fuelling accusations of insensitivity towards a faith that venerates the preserver of the universe.

The backlash was swift and searing. Within hours, X (formerly Twitter) erupted with hashtags like #ImpeachCJI and #RespectForFaith, as advocates and influencers decried the remarks as an assault on Sanatan Dharma. Even the Shankaracharya of Puri, Swami Nischalananda Saraswati, weighed in, challenging the remarks as unbecoming of the nation's moral guardian. Calls for impeachment trended virally, a stark reminder of how social media amplifies outrage, turning a bench's banter into a national brouhaha.

Two days later, on 18 September, CJI Gavai sought to douse the flames. Addressing the controversy during another hearing, he affirmed, "I believe in true secularism, in all religions," and lamented the "misportrayed" narrative on social media. Senior advocate Sanjay Nul, who represented the petitioner, corroborated that the remarks were misconstrued, emphasising they formed no part of the judicial record. The CJI drew parallels to Nepal's political upheavals, underscoring the perils of digital distortion in an age where every syllable is scrutinised. Yet, for critics, this clarification rings hollow without an unequivocal retraction, echoing the words of former CJI D.Y. Chandrachud: public life invites criticism, but it demands accountability.

IN DELHI RIOTS CASE, FABRICATION OF EVIDENCE AND WITNESS STATEMENTS BY DELHI POLICE DENT CREDIBILITY OF JUSTICE SYSTEM

Five years after more than 50 people were killed in one of the worst communal riots in the national capital, the wheels of justice appear to be moving slowly. As of August 2025, of the 695 cases of rioting, arson, and unlawful assembly filed by Delhi Police, verdicts have been pronounced only in 116, with 97 acquittals. In themselves, these figures paint a dismal picture of investigative and prosecutorial failures and judicial delays. They are, unfortunately, only a prologue to a more disturbing story. An investigation by this newspaper has found that in at least 93 of the 97 acquittals, courts pointed out procedural lapses and, in some cases, outright fabrication of evidence and witness statements by the Delhi Police. Judges have pulled up investigating officers for "padding evidence", preparing false statements to "belatedly solve the case", and "dictating" witness statements. Both in themselves and as part of a broader pattern in the Delhi riots cases, the actions of the police dent the credibility of the justice system.

During the Delhi riots, questions were raised about the police's lack of action. At times, the conduct of its personnel invited even more serious allegations. Last year, for instance, the Delhi High Court accused the police of being "driven by a bigoted mindset" after no action was taken against policemen who were seen in videos beating up a young man during the riots. In times when tension between communities runs high, the police must not be seen as doing anything that shows it as prejudiced — anything less also threatens to violate the fundamental promise of the Constitution and the rule of law. The Delhi Police was not always faithful to that principle during the riots in the city. As Additional Sessions Judge Parveen Singh pointed out while acquitting six people, there has been "a serious trampling of the rights of the accused... Such instances lead to serious erosion of the faith of the people in the investigating process and the rule of law." That none of the officers have faced criminal action for lying to the court points to the lack of enforcement of anti-perjury laws, and a broader lack of accountability where it is needed most — among those meant to uphold the law.

The Unlawful Activities (Prevention) Act has been deployed in several of the riots cases. The Act's stringent provisions relax the burden of proof and make bail for the accused extremely difficult.



In some cases, the police and prosecution have sought, questionably, to link the Delhi riots with the 2020 protests against the Citizenship Amendment Act (CAA), and even equated the latter with terrorism. At the same time, the poor conviction rate in the fraction of cases in which a verdict has been pronounced is a marker of the deficiencies and inefficiencies of the criminal justice system as a whole. With a cloud over the investigations, a modicum of closure for the victims will remain elusive. The Delhi Police must be held accountable for its shortcomings. It must course correct.

SC ON ANTICIPATORY BAIL IN CASTE CRIME

The story so far:

On September 1, the Supreme Court quashed a Bombay High Court order that had granted anticipatory bail to an accused of caste crimes. In the case of Kiran vs Rajkumar Jivaraj Jain, a Bench led by Chief Justice of India B. R. Gavai held that Section 18 of the Scheduled Castes and Scheduled Tribes (Prevention of Atrocities) Act, 1989, creates a specific bar against anticipatory bail for crimes made out prima facie. This case involves caste-based assault, abuse, and intimidation linked to an electoral dispute.

Facts of the case

In this case, on November 26, 2024, a First Information Report (FIR) was filed by Kiran, a member of the Scheduled caste community, alleging that Rajkumar Jain and others had attacked him and his family after he refused to cast a vote as directed in the Assembly elections. According to the complaint, the accused attacked him with iron rods, abused him with his caste name, molested his mother and aunt, looted the mangalsutra, and threatened to burn their home with petrol bottles. The incident was witnessed by independent witnesses. The Additional Sessions judge at Paranda rejected anticipatory bail, noting clear casteist intent and corroboration. However, the Bombay High Court (Aurangabad Bench) reversed this decision, terming the case politically motivated, exaggerated, and inconsistent, and granted bail. This prompted an appeal before the Supreme Court.

Why is anticipatory bail barred under the SC/ST Act?

The Supreme Court underlined that Section 18 of the Scheduled Castes and the Scheduled Tribes (Prevention of Atrocities) Act, 1989, categorically excludes the application of Section 438 of the Criminal Procedure Code (CrPC) (Section 482 of BNSS), which allows anticipatory bail. The Parliament has inserted this bar to protect victims from intimidation and to ensure effective prosecution.

Drawing upon precedents such as *State of M.P. vs Ram Krishna Balothia* (1995), *Vilas Pandurang Pawar vs State of Maharashtra* (2012), and *Prathvi Raj Chauhan vs Union of India* (2020), the court reiterated that offences under the Act form a distinct class tied to systemic untouchability and caste discrimination. The bar is constitutionally valid and does not violate Article 14 or 21 of the Constitution. Courts, the Bench clarified, cannot conduct a “mini-trial” at the bail stage and are only required to examine whether a prima facie case exists.

In this case, the use of caste slurs, the public nature of the assault, and the electoral motive made the offence squarely fall within the ambit of the Scheduled Castes and the Scheduled Tribes (Prevention of Atrocities) Act, 1989, thereby ruling out anticipatory bail.



Key observations

The Bench clarified that insults and assaults that occur outside the complainant's house, in a manner visible to others, count as acts "within public view," a statutory requirement under Section 3(1)(r). It further noted that the attack was triggered by the complainant's voting choice, which attracted Section 3(1)(o) of the Act that criminalises coercion or retaliation in voting against SC/ST members. Independent witness accounts, recovery of weapons, and medical evidence strengthened the prosecution's case, making the High Court's dismissal of the FIR untenable. The court also cautioned High Courts against overstepping into evidence appreciation at the pre-arrest bail stage.

Ultimately, the Supreme Court cancelled the anticipatory bail, calling the High Court's order a "manifest error and jurisdictional illegality."

The way forward

The ruling reinforces that the SC/ST Act is not a procedural formality but a substantive shield to safeguard the dignity and security of vulnerable communities. The bar on anticipatory bail, although strict, is constitutionally sound because it addresses the very real threat of intimidation and retaliation against Dalit and tribal complainants.

Going forward, courts must respect the legislative intent of Section 18 and avoid diluting its force by treating allegations as exaggerated without trial, and apply the "prima facie test" strictly on the face of the FIR, without slipping into evidentiary analysis. The judgment also recognises that electoral retaliation against SC/ST voters carries broader implications for democratic participation and social justice.

The judgment strengthens accountability under the SC/ST Act and underscores that the rule of law must stand firmly on the side of protecting the most marginalised.

CONSENSUAL ADULT RELATION NOT SEXUAL ASSAULT: HC

In a landmark ruling on 13 September 2025, the Delhi High Court quashed an FIR against Gautam Sharma, a married pilot accused of rape under Section 376, IPC, by a cabin crew colleague. The case, rooted in a two-year consensual relationship, unravelled when the complainant, aware of Sharma's marital status, alleged deception via a false promise of marriage. Justice Swarana Kanta Sharma, rejecting the claim, reaffirmed that consensual adult relationships, even if they sour, cannot be criminalised absent clear deceit.

The court's reasoning was incisive. Evidence—shared travels, cohabitation, and post-discovery intimacy—showed no inducement. The FIR, filed months after the August 2020 breakup, appeared vengeful, burdening an overburdened justice system. "Courts are not to judge the morality of such relationships," Justice Sharma declared, urging a modern lens over outdated mores. Educated adults, she noted, bear the weight of their choices, echoing the Supreme Court's 2022 Ansaar Mohammad verdict, which clarified that rape charges require deceit at the relationship's inception.

This verdict aligns with a progressive judicial tide. Recent rulings, including a Delhi court's September bail for a Sikh-Muslim couple and prior High Court protections for interfaith unions, underscore Article 21's guarantee of personal liberty. From decriminalising adolescent love under



POCSO to shielding marital intimacies via Section 377, courts are championing autonomy over patriarchal control.

DIGNITY OF CHOICE

A same-sex couple has moved the Bombay High Court, challenging the law that discriminates against them by taxing gifts received by one partner from the other. Under the Income Tax Act, no such tax on gifts is levied on heterosexual couples. This discriminates against them according to Article 14 and 15 of the Constitution.

— October 17, 2023 was indeed a very disappointing and sad day for supporters of same-sex marriages in India. On this day, while deciding on a batch of petitions seeking marriage equality for non-heterosexual couples, the Supreme Court held that there was no fundamental right to marry.

— The Supreme Court also recorded that the Union government will constitute a committee chaired by the Cabinet Secretary for the purpose of defining and elucidating the scope of entitlements of queer persons who are in unions.

— In April 2024, Government of India, constituted a committee with the Cabinet Secretary as the chairperson and secretaries of key ministries as members. After a series of meetings the Department of Food and Public Distribution issued an advisory to all the states and Union Territories, that partners in a queer relationship are to be treated as part of the same household for the purposes of ration card and should not be subjected to any discrimination.

— The Department of Financial Services has issued an advisory that there are no restrictions for persons of the queer community to open a joint-bank account and to nominate a partner in a queer relationship as a nominee.

— The Ministry of Health and Family Welfare has issued instructions to states prohibiting discrimination to the community with relation to healthcare and claiming the body of a deceased partner. — While these seem to be baby steps in the right direction, how are these advisories and any favourable court verdicts — as in the case of the gift tax — going to be implemented? — The answer may lie in making a provision for a Deed of Familial Association (DoFA), originally suggested in Justice N Anand Venkatesh judgment of the Madras High Court, dated November 17, 2023. He suggested that the Tamil Nadu government consider recognising a DoFA as a right of partners to choose to form or retain families.

Do You Know:

— In 2023, a five-judge bench of the Supreme Court unanimously ruled against legalising same sex marriage in India. The bench also ruled in a 3:2 verdict against civil unions for non-heterosexual couples. All five judges agree there is no fundamental right to marry.

— Chandrachud said that the SC cannot strike down the provisions of the Special Marriage Act (SMA) or read words differently. The focus of the petitions filed is the gender-neutral interpretation of the SMA. It is a secular legislation designed to facilitate inter-caste and inter-faith marriages.

— On September 6, 2018, a five-judge Constitutional bench, led by Chief Justice Dipak Misra, delivered judgments that decriminalised sex between two consenting adults irrespective of their gender.



THE VANTARA VERDICT: JUSTICE SERVED OR JUSTICE RUSHED?

The Supreme Court's clean chit to Vantara, the sprawling private animal facility led by Anant Ambani, has effectively closed a legal case but opened a profound debate on judicial process, corporate influence, and the nature of justice itself. While the court presents its decision as a definitive conclusion based on an exhaustive investigation, a closer look reveals a controversy characterized by extraordinary judicial haste and a process that has left more questions than answers.

On September 15, 2025, a Supreme Court bench accepted the report of a Special Investigation Team (SIT), declaring it had "no hesitation" in finding that Vantara committed "no contravention of law whatsoever"

. The SIT, tasked with probing allegations of illegal animal acquisition, wildlife smuggling, and financial irregularities, concluded that the facility not only complied with regulations but in many respects "exceeded prescribed standards" of animal care, as evidenced by its Global Humane certification . For Vantara's supporters, this was a vindication, a relief that allows their "work to speak for itself" . The court, urging the public to "allow certain good things to happen in the country," has barred any future complaints on the same allegations

A Flawed Process?

However, the path to this exoneration raises serious concerns. The entire process, from the SIT's formation to the final verdict, was completed in a startlingly short three weeks. The court gave the SIT a mere 18 days to investigate a mammoth task: verifying tens of thousands of animal acquisitions, auditing welfare conditions, and examining complex financial allegations . This timeframe is difficult to reconcile with the court's description of an "exhaustive investigation"

Critics argue the SIT's approach was fundamentally flawed. It appears to have relied heavily on records provided by Vantara itself and taken at face value the assurances of government agencies—the very bodies the petition had accused of complicity

. Furthermore, in a moment that "chills the bone," the presiding judge publicly admitted that the bench had "deliberately not read" the SIT report until the hearing itself, then proceeded to skim it in open court before immediately accepting its conclusions in full . This combination of breakneck speed and procedural opacity has stripped the exercise of credibility for many observers, suggesting a predetermined outcome aimed more at exoneration than investigation.

The Supreme Court's verdict, while legally decisive, has not settled the matter in the court of public opinion. Instead, it highlights a troubling tension between the power of private capital to undertake massive conservation projects and the mechanisms of public accountability meant to oversee them. By sealing the full SIT report from public view and rushing to a final judgment, the court has avoided a transparent airing of the facts. In its hurry to protect what it sees as a "pride of the country," the court may have inadvertently undermined something equally precious: confidence in a judicial process that is deliberate, transparent, and immune to influence. The Vantara verdict may be law, but for those who value rigorous scrutiny, it remains deeply controversial.



SUPREME COURT EXPRESSES CONCERN OVER NON-FUNCTIONAL CCTVS AT POLICE STATIONS

The Supreme Court on Monday said it was considering setting up fully automated control rooms to detect non-functional CCTV cameras at police stations.

A Bench of Justices Vikram Nath and Sandeep Mehta said such a system could prevent instances of police deliberately switching off cameras or erasing recordings. The judges noted that these concerns persist even when CCTV cameras are installed in compliance with earlier directions and State authorities file affidavits claiming adherence.

“What we were thinking of is a control room in which there is no human intervention. So all feeds are provided to the control room, and if any camera goes off, immediately, there is an alert. That is the way this thing can be tackled,” Justice Mehta said.

The Bench said inspections of police stations by an independent agency would be necessary initially. “We may think of involving some IIT to provide us with a software, by which every CCTV feed is monitored at a particular place, and even monitoring should not be human, all by artificial intelligence,” it said. The judges further said that any CCTV camera found non-operational should be immediately reported to the legal services authority or the designated oversight body.

In 2020, a Bench led by Justice Rohinton F. Nariman (now retired) in *Paramvir Singh Saini v. Baljit Singh* had directed the Centre to install CCTV cameras and recording equipment at all police stations as a safeguard against custodial torture. However, the court on September 4 took suo motu cognisance of a report which said that 11 people had died in police custody over the past eight months.

The Bench also heard submissions from senior advocate Siddhartha Dave, who was appointed amicus curiae in the 2020 case. Mr. Dave pointed to a “glaring fact” that the Centre, despite overseeing multiple investigative agencies, had failed to comply with the top court’s directions.

HOW DOES SC’S ORDER AFFECT WAQF LAW?

The story so far:

The Supreme Court, on September 15, declined to suspend the Waqf (Amendment) Act, 2025, in its entirety, but stayed the operation of certain contentious provisions pending further judicial scrutiny. The interim order, delivered by a Bench led by Chief Justice of India B.R. Gavai and Justice A.G. Masih, put on hold the enforcement of provisions that empowered District Collectors to unilaterally decide whether a property claimed as waqf belonged to the government, and the clause stipulating that only a lawful property owner who has been practising Islam for at least five years could create waqf through a formal deed. It also capped the number of non-Muslims who may be appointed to the Central Waqf Council and State Waqf Boards.

What did the challenge entail?

Waqf, under Islamic law, denotes a charitable endowment through which property is dedicated for religious or philanthropic purposes. The 2025 law, notified in April as an amendment to the Waqf Act of 1995 (1995 Act), has been projected by the government as a comprehensive reform aimed at streamlining the administration of these properties. However, critics have described it as an attempt to extend State control over religious institutions.



Earlier this year, multiple petitioners moved the Supreme Court challenging the law on the ground that it infringed upon the Muslim community's fundamental right to manage its own religious affairs under Article 26 of the Constitution. The petitioners included leaders across the political spectrum, such as AIMIM MP Asaduddin Owaisi, Trinamool Congress MP Mahua Moitra, and RJD MP Manoj Kumar Jha, alongside parties like the YSR Congress and the Communist Party of India. They argued that the stipulation requiring an individual to be a practising Muslim for at least five years before creating a waqf was arbitrary and curtailed religious freedoms. They also opposed vesting District Collectors with the authority to decide ownership disputes, maintaining that such questions fall within the exclusive domain of civil courts and tribunals. Another ground of challenge was the decision to allow non-Muslims on Waqf boards and councils, which, according to the petitioners, contravened the minority community's right under Article 30 to manage its own institutions.

Defending the law, Solicitor General Tushar Mehta submitted that the amendments were designed to promote transparency and improve accountability in the management of waqf properties. He argued that establishing a system of centralised registration of properties and vesting preliminary inquiry powers in District Collectors would reduce litigation and ease the load on tribunals. The government also maintained that including non-Muslim members was consistent with principles of inclusivity and oversight, while the five-year practice requirement was aimed at preventing opportunistic claims of conversion.

What are the provisions that have been stayed?

In its 128-page order, the court upheld the presumption of constitutionality of the legislation but cautioned that enforcing it in full, without safeguards, could have "serious consequences" for property rights and weaken minority protections. It therefore stayed certain contentious provisions, clarifying that these were only interim directions pending final adjudication of the constitutional challenge.

The court suspended Section 3C of the amended law, which authorised District Collectors to inquire into whether property claimed as waqf was in fact government land and to alter revenue records accordingly. It also struck down the clause that automatically divested property of its waqf status once an inquiry commenced, calling it "prima facie arbitrary" and holding that questions of title must be decided by judicial or quasi-judicial bodies. To balance interests, the court clarified that waqf properties will not be dispossessed during the pendency of proceedings, but mutawallis or custodians are barred from creating third-party rights in the disputed properties until the matter is finally decided by Waqf tribunals or High Courts.

The court further stressed that land belonging to Scheduled Tribes or notified as protected monuments under central or State laws cannot be declared waqf, citing constitutional safeguards for tribals and statutory protections for heritage sites. It also noted that the Ancient Monuments and Archaeological Sites and Remains Act, 1958, allows citizens to continue their customary religious practices even within areas notified as protected monuments.

The 2025 Act amended the definition of 'waqf' to restrict its creation to a "person showing or demonstrating that he is practising Islam for at least five years." The petitioners challenged this stipulation as arbitrary and discriminatory, arguing that it effectively empowered executive officials to adjudicate the religiosity of citizens. The Bench, however, declined to strike down the provision, holding that it was justified as a measure to prevent the potential misuse of waqf properties. "The possibility of any person not belonging to the Muslim community converting to



the Islamic religion only to take benefit of the protection of the Waqf Act to defeat creditors and evade the law under the cloak of a plausible dedication cannot be ruled out,” it observed.

At the same time, the court acknowledged that no procedure currently exists to verify whether a person has been practising Islam for five years. It therefore suspended the operation of the provision until the Centre frames rules under the Act, clarifying that the requirement would take effect only once such a mechanism is in place. The Bench also upheld the related requirement that only property owned by the person creating the waqf may be dedicated, noting that both classical Islamic jurisprudence and principles of charity require a person to donate their own property, not that of others.

The petitioners strongly opposed the 2025 law’s provisions permitting non-Muslims to serve on Waqf boards and the Central Waqf Council, arguing that it undermined the community’s constitutional right to manage its own religious affairs. Addressing these concerns, the court said that such participation must be limited. It directed that the Central Waqf Council, a 22-member national advisory body under the Union Ministry of Minority Affairs, shall not include more than four non-Muslim members. State Waqf boards, which have 11 members, were similarly capped at three non-Muslim members.

The court also noted that the amended law removes the requirement that the Chief Executive Officer of a Waqf board should be a Muslim. Accordingly, it is suggested that the post should preferably be held by a member of the community, given the religious character of Waqf institutions.

What are the provisions that will continue to operate?

The court allowed certain key provisions to remain in force, relying on the government’s argument that they were necessary to curb mismanagement and misuse of Waqf endowments.

The petitioners contested the removal of the long-standing doctrine of “waqf by user,” under which land employed for Muslim religious or charitable purposes over a sustained period could be deemed waqf even without formal registration. They contended that abolishing this principle struck at the very core of waqf jurisprudence.

However, the court declined to suspend the provision’s prospective operation, observing that the doctrine had frequently been exploited to claim extensive tracts of government land as waqf property. “... We are also of the view that if the legislature, in 2025, finds that on account of the concept of ‘waqf by user’, huge government properties have been encroached upon and to stop the said menace, it takes steps for deletion of the said provision, the said amendment, prima facie, cannot be said to be arbitrary”, it said. The judges also recalled a 2022 ruling in which the Supreme Court had struck down a notification of the Andhra Pradesh Waqf Board that sought to designate thousands of acres of State-owned land as waqf.

The court also upheld the requirement of registering waqf properties on a central digital portal, reasoning that it is essential for transparency and noting that such registration has been required by law since 1923.

The court refused to stay the application of the Limitation Act, 1963, to waqf properties, noting that the statute applies uniformly to all properties. Under the 1995 Act, waqf land had been exempt, allowing Waqf boards to reclaim encroached property without being bound by the Act’s 12-year limitation period.



What are the implications?

— Faizan Mustafa writes: The Court has temporarily stayed Section 3(r) of the Act till rules to determine who is a practising Muslim for five years are framed. This section of the interim order is problematic as it gives the executive officials powers to adjudicate the religiosity of citizens.

— Are we going to have moral policing along the lines of Iran? A person's claim should be enough to determine his or her religious identity. Section 3(r) uses the term "professing Islam", but the CJI Gavai-led bench has used the expression "practising Islam". This gives state officials a say on religious rectitude – on the performance or non-performance of religious duties.

— In other words, a Muslim who prays just once a week on Friday or does not keep fasts or lies or takes bank interest or does not pay zakat may not be certified as "practising Islam".

— The court's justification that petitioners have themselves argued that waqf is unique to Islam is not a convincing reason to justify this exclusion. This is because the argument is in the context of a concept novel to Islam, where the owner loses control over his own property.

— The right of a property owner has nothing to do with any religious law as it is part of the general jurisprudence, common to all legal systems. An owner is free to do whatever he wants with his property, including destroying or alienating it the way he or she wants. By denying a non-Muslim owner of properties the right to create a waqf, the Act infringes the ownership rights of non-Muslims.

— A waqf is different from a trust. A waqf's founder cannot take any benefits for himself or herself. Unlike trusts, a waqf is perpetual, irrevocable, and inalienable. The property in trust vests rights in the trustee, but in waqf, it vests them in God. If an owner does not want to create a trust, can the law force him?

WHAT DO SC GUIDELINES SAY ON DNA?

The story so far:

The Supreme Court, in *Kattavellai @ Devakar v. State of Tamil Nadu*, recently issued guidelines to maintain the integrity of deoxyribonucleic acid (DNA) samples in criminal cases. The court directed the Director Generals of Police of all States to prepare sample forms of the Chain of Custody Register and all other necessary documentation as directed, and to ensure their dispatch to all districts with instructions.

What was the need to issue such directions?

The court, in the above case involving rape, murder, and robbery with an attempt to cause death, found significant unexplained delays in sending samples of the vaginal swabs to the Forensic Science Laboratory (FSL) for DNA analysis. Moreover, the chain of custody of the sample could not be established. Under such circumstances, the court held that the possibility of sample contamination could not be ruled out.

The court observed that although some guidelines have been issued by various bodies, there is neither uniformity nor a common procedure required to be followed by all investigating authorities. Even though 'Police' and 'Public Order' are subjects mentioned in the State List of the Seventh Schedule of the Constitution, the Supreme Court deemed it necessary to issue these guidelines to have uniformity of procedure.



What are the guidelines?

The Supreme Court issued four guidelines for cases where DNA evidence is involved. The first guideline states that the collection of DNA samples once made after due care and swift and appropriate packaging, including FIR number and date, the sections and statutes involved, details of the investigating officer, the police station, and the requisite serial number, shall be duly documented. The document recording the collection must include the signatures and designations of the medical professional present, the investigating officer, and independent witnesses.

Second, the investigating officer shall be responsible for the transportation of the DNA evidence (sample) to the concerned police station or hospital, as the case may be. He must also ensure that the samples reach the concerned FSL within 48 hours of collection. In the event of any delay, the reasons must be recorded, and all efforts should be made to preserve the samples.

Third, while samples are stored pending trial or appeal, no package shall be opened, altered, or resealed without express authorisation from the trial court.

The fourth guideline states that from the time of collection to the logical end, i.e., conviction or acquittal of the accused, a Chain of Custody Register must be maintained. This register must be appended to the trial court record. The investigating officer is responsible for explaining any lapses in compliance.

What has the Supreme Court said so far?

The DNA profiles have a tremendous impact on criminal investigations. In *Anil v. State of Maharashtra* (2014), the Supreme Court observed that a DNA profile is valid and reliable, but this depends on quality control and procedure in the laboratory. However, in the *Devakar* case, the court said that quality control and procedure outside the laboratory are equally important to ensure that the best results can be derived from collected samples.

In a three-judge Bench decision in *Manoj and Ors. v. State of Madhya Pradesh* (2022), the Supreme Court rejected a DNA report on the ground that recovery was made 'from an open area and the likelihood of its contamination cannot be ruled out'. It was also observed that the blood stains found on the articles were disintegrated, and the quantity was insufficient to run any classification test.

In another case, *Rahul v. State of Delhi, Ministry of Home Affairs* (2022), DNA evidence was 'rejected because it remained in the police Malkhana for two months and during such time, the possibility of tampering could not be ruled out'. It was said that 'the collection and sealing of the samples sent for examination were not free from suspicion'. The court also said the trial court and the High Court did not examine the underlying basis of the findings in the DNA reports or whether the techniques used had been reliably applied by the concerned expert.

Therefore, while the investigating agency needs to ensure that samples are collected properly, without any possibility of contamination, and sent to the FSL without any (unexplained) delay, the expert must also ensure proper quality control and procedure in the FSL.

How important is the DNA evidence in criminal cases?

DNA is a molecule that encodes the genetic information in all living organisms. It can be obtained from biological materials, such as bone, blood, semen, saliva, hair, or skin. Generally, when the DNA profile of a sample found at a crime scene matches the DNA profile of a suspect, it can be



concluded that both samples have the same biological origin. However, it is not substantive evidence in criminal cases.

The Supreme Court, in the Devakar case, stated that DNA evidence is in the nature of opinion evidence as envisaged under Section 45 of the Evidence Act (Section 39 of the Bharatiya Sakshya Adhinyam, 2023), and like any other opinion evidence, its probative value varies from case to case. Therefore, DNA evidence must be proved scientifically and legally.

PATNA HC DIRECTS CONGRESS TO TAKE DOWN AI-GENERATED VIDEO OF MODI'S MOTHER

The Patna High Court has ordered the Congress party to remove an AI-generated video featuring Prime Minister Narendra Modi and his late mother from its social media platforms. This directive came in response to a public interest litigation, with the court noting that the video violated established judicial guidelines and fundamental rights such as privacy and dignity. Notices were also issued to Congress leader Rahul Gandhi and other parties involved. The ruling prompted criticism from leaders of the Janata Dal (United) and the Bharatiya Janata Party, who labelled the video as an example of “dirty politics” and welcomed the court’s intervention as a move towards cleaner political discourse.

QUIT STALLING

In yet another press conference, Congress leader and Leader of the Opposition in the Lok Sabha Rahul Gandhi levelled serious allegations against the Election Commission of India (ECI) and the Chief Election Commissioner of India. He accused the ECI of inaction in a case of fraud involving electoral rolls in the Aland constituency in the run-up to the 2023 Karnataka Assembly elections. While his allegations in an earlier press conference, on electoral roll inconsistencies in the Mahadevapura constituency in Karnataka, did not really add up to the definite existence of a ploy to aid a particular party, his accusations on Aland are a smoking gun — that attempts were made at manipulation, to the Congress’s disadvantage, in a close contest with the Bharatiya Janata Party. The Aland findings, brought out first in an investigative report in The Hindu earlier this month, did not pertain to any actual effect on the elections. This is because the ECI did manage to stop the fraudulent deletion of nearly 6,000 voters after miscreants filed Form-7 applications designed to remove the names of legitimate voters. But Mr. Gandhi’s allegations, taking off from The Hindu’s report, are centred on the fact that a CID probe into the fraudulent activity has been stalled due to the ECI’s refusal to provide access to crucial technical documentation, leaving investigators unable to follow the digital footprint of the fraud, buried in a maze of shifting IP addresses and phone numbers.

The ECI’s reaction is puzzling — it acknowledges that fraudulent attempts to delete voter names were made and that it had shared details with the police investigating the case, but it does not address the core allegation about not responding to the CID’s repeated requests for “destination IP and destination port” data, which are necessary to pinpoint device data and, in turn, the identity and location of the fraudsters. Without this, it would be akin to finding a needle in a haystack. The ECI must respond specifically to these allegations and to the requests made by the Karnataka CID. It should also work to prevent Form-7 misuse, especially to stop voter removal by third parties. At a time when the ECI’s credibility has taken a hit — largely of its own doing given the manner in which it has gone about the Special Intensive Revision (SIR) in Bihar — its dismissive reaction to the serious allegations in the Aland case is unnecessary and counter-productive. Mr. Gandhi and



his party should not limit their critique of the ECI, the SIR process and inconsistencies in electoral rolls to rhetoric and a regurgitation of known data. They must do more to raise public consciousness about the need to have a fair and just electoral process.

Form 7 of the Election Commission of India

— Leader of Opposition in the Lok Sabha Rahul Gandhi alleged that there were attempts to delete the names of 6,018 voters from the electoral rolls in Karnataka's Aland constituency in 2023.

— Section 22 of the Representation of the People (RP) Act, 1950, empowers the Electoral registration officers (EROs) of Parliamentary constituencies to make corrections and deletions to the electoral roll either on their own or acting on applications made to them.

— The Registration of Electors Rules, 1960, provide for the forms for new applications, corrections, and deletions from electoral rolls. Form 7 is the one for making "objection for proposed inclusion/deletion of name in existing roll".

— Electors can file a Form 7 if they want to delete their own name or if they want to object to any other elector in their constituency.

— Form 7 requires the applicant to provide their own name, EPIC number and phone number, as well as the name, EPIC number (if available) and address of the person against whom they are objecting.

EVMS TO HAVE COLOUR PHOTOS OF CANDIDATES SOON, SAYS EC

The Election Commission has updated its guidelines for electronic voting machine (EVM) ballot papers, starting with the Bihar Assembly election. Key changes include printing colour photographs of candidates on ballot papers, with each face occupying three-fourths of the photo space for better visibility. Serial numbers will be more prominent, using bold font and international Indian numerals. For Assembly elections, pink-coloured paper with specified RGB values will be used. No more than 15 candidates will appear on one sheet, with the NOTA option following the last candidate; any remaining space will be left blank if there are fewer than 16 names including NOTA. Printing will preferably be handled by government or semi-government presses, though private presses may be used if necessary, provided proper procedures and safeguards are followed.

THE PERILOUS PIXEL: BJP'S AI VIDEO STIRS ASSAM'S COMMUNAL CAULDRON

In Assam, where the Brahmaputra weaves a tapestry of diverse cultures, a digital dagger has struck. On 15 September 2025, the Bharatiya Janata Party's Assam unit released an AI-generated video on X, titled "Assam Without BJP". The clip paints a dystopian nightmare: skull-capped men and burqa-clad women flooding Guwahati's airport, tea estates, and Rang Ghar; beef stalls mushrooming; and a 90 per cent Muslim population allegedly erasing Assam's indigenous identity. With Congress leaders Rahul Gandhi and Gaurav Gogoi depicted under a Pakistani flag, the video warns of "illegal infiltrators" seizing land, urging voters to "choose carefully". This is no mere campaign stunt; it's a communal grenade lobbed into Assam's fragile social fabric ahead of the 2026 assembly polls.

The outrage was immediate. AIMIM chief Asaduddin Owaisi slammed it as a blueprint for a "Muslim-mukt Bharat", exposing the BJP's "repulsive Hindutva ideology". Gaurav Gogoi, mocked

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as "Paaijaan" (implying Pakistani ties), called it "cheap propaganda" unfit for Assam's plural ethos. The Congress filed an FIR at Dispur police station on 18 September, accusing the BJP's IT cell and minister Pijush Hazarika of inciting enmity and religious outrage through "deliberate fabrications". Opposition parties, from AIUDF to Trinamool, echoed the condemnation, while X users decried the video's portrayal of Bengali-origin Muslims—pejoratively called "Miyas"—as perpetual invaders. With Bodoland elections looming, this digital venom risks igniting real-world violence.

The BJP's defence is flimsy. Hazarika claimed the video targets only "undocumented Bangladeshi migrants", not Assam's 34 per cent Muslim population—a distinction too subtle in a state scarred by the 1983 Nellie massacre and NRC debates. The timing betrays intent: it followed Prime Minister Narendra Modi's Darrang rally, where he railed against "infiltrators" altering Assam's "demographic balance". The AI-crafted imagery—diverse crowds morphing into uniform "invaders"—weaponises technology to stoke Islamophobia, conflating migration concerns with anti-Muslim fearmongering. As Rana Ayyub noted on X, the silence from the Election Commission and police signals that "Muslim lives have no value". Why no suo motu action? Why no takedown under the Representation of the Peoples Act, which bans religious appeals as "corrupt practices"?

This isn't an isolated tactic; it's the BJP's playbook. The 2024 Lok Sabha polls saw Modi's Islamophobic dog-whistles—like "infiltrators" and "those with more children"—in 110 speeches, per Human Rights Watch. In Assam, Chief Minister Himanta Biswa Sarma's evictions, Citizenship Amendment Act push, and "anti-infiltrator" rhetoric amplify the video's narrative: without BJP, Assam falls to "Kanglus". Yet, the BJP's decade-long rule hasn't sealed porous borders it now blames on Congress "appeasement". The video indicts its own failures, begging votes on fear, not performance.

Assam faces real woes—floods, unemployment, indigenous tribes' cultural erosion—that demand solutions, not scapegoats. Muslims, many long-settled, enrich Assam as farmers, traders, and soldiers; their "crime" is visibility. By framing their lives as a "takeover", the BJP erodes Assam's syncretic spirit, from Sankardev's Bhakti to Jhumur's Hindu-Muslim rhythms. The Election Commission must probe this AI travesty, courts must pursue the FIRs, and voters must reject this hate in 2026. Assam's salvation lies in unity, not division—a shared future, not a fractured past.

TRANSGENDER ENUMERATORS FAN OUT FOR FIRST SURVEY OF SEXUAL MINORITIES IN KARNATAKA

The Karnataka government has launched what it claims is India's first survey of sexual minorities, focusing on transgender individuals. Conducted at government hospital ART centres across all 31 districts, the survey aims to gather data on housing, employment, and education for over 40,000 transgender people to inform inclusive policies. All enumerators are also from the transgender community to ensure participant comfort. The survey will run for 45 working days but faced initial challenges such as network and technical issues with tablets. Simultaneously, Karnataka's third survey of devadasis began, but confusion over required identity documents and server problems hindered participation, with some being unaware of the survey or unable to complete registration due to missing paperwork.

POST-DHARALI, CENTRE TO RE-EXAMINE SAFETY OF UTTARKASHI-GANGOTRI ROAD

Acting on a letter sent by two experts — a current and a former member of a Supreme Court-appointed committee — the Ministry of Road Transport and Highways (MoRTH) is learnt to have

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directed implementing agencies to re-examine the safety of certain stretches of the under-construction Uttarkashi-Gangotri road, under the Char Dham highway project in Uttarakhand.

— The letter was sent on August 12, a week after flash floods and landslides destroyed Dharali village near Harsil, on the Gangotri highway in Uttarkashi district.

— The experts, geologist Navin Juyal and social expert and environmentalist Hemant Dhyani, were part of the high-powered committee appointed by the Supreme Court in August 2019 when it was examining the environmental concerns raised about the Char Dham project.

— In the letter, Juyal and Dhyani suggested a reassessment of the environmentally-sensitive road project, and referred to modifications proposed in an alternative detailed project report (DPR) they had submitted in October 2023, after consultations with the ministry. They warned that future road works in the Bhagirathi eco-sensitive zone cannot be based on old designs.

— They pointed out that despite their warnings, a uniform 10-metre widening of the Valley-side slopes was carried out in lesser and higher Himalayas, creating new chronic landslide zones along the widened roads. The 2023 DPR had suggested certain measures that could minimise tree felling and slope tampering.

— In response, the ministry, through its regional office in Dehradun, is learnt to have instructed the Tehri Hydro Development Corporation India Limited (THDC) to address the concerns raised by the experts and review the slope protection and landslide measures.

— THDC works as a consultant with MoRTH to study landslide susceptibility areas, and recommends mitigation measures for road stretches under development, including the Char Dham highway.

— The five stretches on the Uttarkashi-Gangotri route of NH34 include Gangotri to Jhala (28.6 km), Heena to Tekhla (8.07 km), which is also known as the Netala bypass road, Tekhla to Gyansu (5.20 km), Jhala to Garampani (15.7 km) and Garampani to Heena (29.5 km). The Uttarakhand forest department recently cleared the Netala bypass project that will need felling of 2,750 trees in untouched forest area.

Do You Know:

— On August 5, a sudden flash flood caused by a cloudburst in the Kheer Ganga river catchment area swept away houses, shops and roads, leaving a trail of destruction. Two cloudburst incidents were reported, one in Dharali and another in the Sukhi Top area, resulting in widespread destruction.

TOPOGRAPHY, CLIMATE CHANGE: BEHIND HEAVY RAINS IN HIMALAYAS

Dehradun and several other districts in Uttarakhand have experienced very heavy rainfall over the past few days, triggering landslides in multiple areas and causing rivers to swell to dangerous levels. At least 15 people have reportedly died in the region due to landslides.

— A series of such incidents has occurred in Uttarakhand and Himachal Pradesh over the past month. Extreme rainfall or cloudbursts have led to landslides, mudslides, flash floods, and swollen riverbanks, resulting in large-scale destruction, loss of life, and communication disruptions.

— While these types of events in the two states are not uncommon during the monsoon, the increase in their frequency and intensity over recent years has become a significant cause for concern.

— The monsoon has been quite active this season. The northwestern region of the country has



been quite wet, especially in the last month and a half. During this time, consecutive rain-bearing low-pressure systems — formed in the Bay of Bengal — have travelled farther north than normal, causing intense rainfall in the region.

— The impact of extreme rainfall varies according to geography. For instance, 300 mm or more of rainfall over 24 hours is not unusual for some places in Goa, Konkan, coastal Karnataka, Kerala, or Meghalaya. However, rainfall of this magnitude is a recipe for disaster in the Himalayas, especially the western Himalayas spanning Jammu and Kashmir, Uttarakhand, and Himachal Pradesh. — In mountainous regions, favourable conditions can help the air rise swiftly, which leads to the formation of massive clouds with steep heights. These overgrown, rain-bearing clouds can, in turn, cause higher-than-normal precipitation locally over the hilly region. This represents the typical climate pattern of these mountainous areas.

— Over the plains, such intense rainfall can drain out into rivers or locally available water sources. However, in mountainous regions, extreme rainfall can trigger landslides, mudslides and flash floods as the descending rainwater carries along with itself mud, loose soil, gravel, and all materials in its pathway. This happened across Mandi, Kullu, Dharali, Tharali, and Jammu over the past two weeks.

— Also, when major river streams are choked, gushing water and/or mudslides and landslides are forced to enter settlements, cutting through roads and bridges, which can cause larger disasters.

— However, not all cloudburst-like events lead to disasters. Several conditions have to come together to cause disasters. For example, if extreme rainfall occurs on a side of a hill that is not prone to landslides, or if debris does not fall into any river, the results are very different.

— An emerging and worrisome meteorological observation in recent years has been the southward shifting of large-scale weather systems — in this case, western disturbances.

— Originating in the Mediterranean Sea, western disturbances are streams of eastward-propagating wind bands that cause precipitation (rain or snow) along their route. — Western disturbances have a pronounced impact on India, particularly northern regions, during the winter months. However, the southward shift of western disturbances and their interaction with massive southwest monsoonal systems is adding another layer of complexity to rainfall prediction over the

Himalayas.

— Global warming is believed to be the main driver of this shifting trend. Meteorologists warn that extreme rainfall events will become more common in the future, particularly in hilly regions, along with longer periods of dry spells during the season. Arctic sea ice melting could represent yet another factor in this deepening mystery of monsoon variations in the hills.

Do You Know:

— A cloudburst is a localised but intense rainfall activity. It is a short-term extreme precipitation that takes place over a small area; it is not, as is sometimes understood, the breaking open of a cloud resulting in the release of huge amounts of water. Cloudbursts have a very specific definition.

— The India Meteorological Department (IMD) defines cloudburst as unexpected precipitation exceeding 100mm (or 10 cm) per hour over a geographical region of approximately 20 to 30 square km. Significant amounts of rainfall such as this can result in floods.

— Basically, all instances of cloudbursts involve heavy rain in a short period, but all instances of heavy rain in a short period are not cloudbursts if they do not fit this criterion.



'SAIYAARA' HAS STARTED A CONVERSATION ON ALZHEIMER'S — THE GOVERNMENT MUST NOW DO ITS PART

The Bollywood film Saiyaara has proved to be an important milestone in raising awareness about a serious disease like Alzheimer's disease in India. This film promotes the need to recognise the symptoms at an early stage and start treatment in time. It shows the mental and emotional state that both the patient and their family have to go through. Such portrayals seem to enhance empathy and cooperation in society. The film also discusses healthy lifestyle, diet, stress control and social engagement, which can be helpful in preventing Alzheimer's. The discussion on Saiyaara has also contributed to necessary dialogue and discussion on Alzheimer's across the media and medical community.

One of the most serious challenges for India's ageing population is Alzheimer's disease, which gradually affects memory, decision-making ability and day-to-day functioning. World Alzheimer's Day is celebrated every year on September 21 to spread awareness. However, this is not just a medical problem but is gradually becoming a serious public health and socio-economic issue. In a country like India with a rapidly ageing population, Alzheimer's and other forms of dementia are going to put a huge burden on the health system, families and the economy in the coming years.

Recent estimates suggest that about 7.4 per cent of adults aged 60 years or above suffer from dementia — about 8.8 million people — a large proportion of whom suffer from Alzheimer's disease. This is expected to triple by 2050 due to demographic changes, increasing life expectancy and a large elderly population. In India, diagnosis is often delayed or overlooked due to low awareness, inadequate health infrastructure and stigma associated with dementia. Effective public health strategies require tailored, culturally appropriate interventions focused on early identification, education and modifiable lifestyle factors.

Due to widespread lack of awareness, families and communities attribute early symptoms to ageing or mental impairment rather than considering it a medical condition. Dementia and Alzheimer's are also often misunderstood and stigmatised as "madness" or mental impairment, and families are reluctant to discuss the condition openly. This stigma discourages acknowledgement, diagnosis, and seeking care. Many regions, especially rural areas, lack specialised medical facilities and trained professionals who can provide proper cognitive assessment and early diagnosis of dementia. The shortage of geriatric specialists and mental health professionals is particularly severe.

Tackling this issue requires a multi-pronged public health approach that focuses on prevention, early diagnosis, care services, caregiver support, and research. A national Alzheimer's plan is necessary, which should integrate dementia with other non-communicable disease programmes, allocate dedicated funds, and focus on awareness, training, support, integrated care, and research. The state-wide Dementia Strategy launched in Kerala in 2014 is a perfect example, which involves public-private partnerships for awareness, diagnosis, care centres, and caregiver support. Kerala has initiated the project "Ormathoni" to develop a dementia-friendly state, focusing on establishing memory clinics and creating community support systems to improve diagnosis and management of dementia. This state-level strategy, supported by the Social Justice and Health Department, aims to build a comprehensive care network.

The Indian government may adopt a coordinated national strategy, especially prevention through risk factor control, early detection innovation, expansion of Alzheimer-friendly services, etc.



Early diagnosis and treatment, especially in rural areas and developing community-based care models, including home care, day-care centres, respite care, and support for family caregivers who currently shoulder most of the care burden, could also be helpful. Caregiver support programmes — training and psychological support — help reduce caregiver stress. It is the shared responsibility of the government, society, and the health system to ensure that every elderly person is able to live with dignity and support.

AFLATOXIN IN GROUNDNUT: INDIA'S HIDDEN HARVEST HAZARD

In the sun-scorched fields of Gujarat and Andhra Pradesh, where groundnut—India's 'poor man's cashew'—sustains millions of smallholders, a silent toxin lurks beneath the soil. Aflatoxin, the insidious byproduct of *Aspergillus flavus* fungi, has once again thrust Indian agriculture into the global spotlight, not for its bounty but for its peril. As of September 2025, Indonesia's abrupt suspension of groundnut imports from India over elevated aflatoxin levels has dealt a body blow to exporters, echoing a litany of rejections from the European Union and the United States. This is no isolated skirmish; it is a symptom of a deeper malaise in India's post-harvest ecosystem, where humid monsoons and lax storage practices conspire to contaminate up to 21% of groundnut samples beyond safe limits. With groundnut production touching 10 million tonnes annually, the stakes are staggering: billions in lost revenue, and a creeping threat to public health that demands urgent reckoning.

Aflatoxins, particularly the potent B1 variant, are nature's cruel trick—carcinogenic, hepatotoxic, and immunosuppressive compounds that thrive in warm, moist conditions. They infiltrate groundnut pods pre-harvest during drought spells or insect damage, and post-harvest in poorly ventilated godowns where moisture lingers above 8%. Acute exposure can trigger aflatoxicosis, as seen in Kenya's 2004 outbreak that claimed over 100 lives from contaminated maize. Chronic ingestion, insidious and widespread in India, correlates with 25% of global hepatocellular carcinoma cases, stunting child growth, impairing immunity, and elevating liver cancer risks in hepatitis B carriers. Groundnut, a dietary staple yielding oil, butter, and snacks, is a prime vector: studies show levels soaring to 3,000 µg/kg in some samples, dwarfing the EU's stringent 4 ppb threshold for B1. Even milk from cattle fed tainted feed carries aflatoxin M1, endangering infants. In India, where per capita consumption hits 70 grams daily in regions like Anantapur, this 'hidden poison' exacts a toll far beyond numbers—eroding livelihoods and futures.

The economic haemorrhage is equally dire. India, the world's second-largest groundnut producer, exports a mere fraction of its yield—800,000 tonnes—hamstrung by aflatoxin non-compliance. The Indonesian ban, effective from 3 September 2025, cites delayed notifications and non-WTO testing, but the root lies in domestic lapses: outdated drying methods, rudimentary storage, and scant adoption of biocontrol agents like non-toxigenic *Aspergillus* strains. Exporters, chasing quick profits, often sideline proven interventions—lime applications slashing contamination by 72%, or farmyard manure by 42%—leaving premium markets to competitors like Argentina. Social media buzz, from quizzes on current affairs to experts lamenting ignored technologies, underscores the frustration: why does India persist in shipping 'bird-feed' grade nuts when aflatoxin-free protocols, piloted by ICAR and ICRISAT, promise organic excellence?

Yet, amid the gloom, glimmers of hope persist. Genetic breeding has yielded resistant varieties, with QTL mapping reducing B1 accumulation via additive effects.

This crisis is a clarion call for systemic overhaul. As climate volatility—erratic rains and rising temperatures—fuels fungal proliferation, India must transcend blame games between APEDA and



exporters. Invest in farmer training, fortify value chains from field to fork, and leverage omics for resilient hybrids. Aflatoxin is not fate; it is fixable folly. By prioritising science over shortcuts, India can transform its groundnut fields from hazard zones to health havens, ensuring that the nut that nourishes does not, in turn, betray. The harvest awaits—not just of pods, but of progress.

MYSTERIOUS MALADY STRIKES GUNTUR VILLAGE

In the sun-baked fields of Turakapalem, a modest village nestled just a few kilometres from the bustling streets of Guntur in Andhra Pradesh, an insidious shadow has fallen. What began as whispers of untimely passings has escalated into a full-blown crisis, claiming nearly 30 lives since January 2025. The air here, once filled with the rhythmic hum of daily chores and the laughter of children, now carries an undercurrent of dread. As medical teams scour the soil and streams for clues, and families huddle in grief-stricken homes, one cannot help but question: how did a quiet hamlet become the epicentre of such unrelenting tragedy?

The numbers paint a grim picture. Reports indicate that from July to early September alone, at least 23 villagers succumbed to what officials term a "mysterious malady." In a community of scarcely 3,000 souls, this translates to a death rate alarmingly higher than the national average of seven per 1,000 annually—more akin to a wartime casualty list than the ebb of natural life. Symptoms, as recounted by grieving kin, are hauntingly similar: fevers that rage like wildfires, organ failures that strike without mercy, and a fatigue that saps the spirit before the body. Satish Babu, the first known victim, breathed his last in a Guntur hospital after dialysis failed to stem the tide of kidney and liver collapse. His father, Dodda John Babu, recalls the bewilderment: "Doctors spoke of co-morbidities, but why us? Why now?" Since then, the toll has mounted weekly, sometimes daily, leaving behind orphans as young as five or six.

The government's response, while swift in declaration, has been tardy in revelation. Chief Minister N. Chandrababu Naidu, alerted to the mounting panic, proclaimed a health emergency on 5 September, dispatching high-level teams from Guntur Medical College and even roping in experts from AIIMS Mangalagiri. Blood and water samples from every household are being rushed to labs, with a 15-day medical camp transforming the village panchayat into a makeshift fortress of hope. Safe drinking water and rations are trucked in daily from Guntur city, and villagers are urged to shun local sources—lest the culprit lurk in the very earth they till. Health Minister Y. Satya Kumar Yadav, during his visit, did not mince words, lambasting local ASHA workers and medical officers for their complacency: "How could 23 deaths go unnoticed? This is dereliction at its worst."

Yet, amid the frenzy of tests and audits, a tentative diagnosis emerges: melioidosis, a bacterial scourge caused by *Burkholderia pseudomallei*, thriving in contaminated soil and stagnant waters. At least two cases stand confirmed, with seven more suspected, including admissions at Government General Hospital. This "great mimicker," as physicians call it, often masquerades as pneumonia or sepsis, evading detection until it's too late—especially in diabetics or those with weakened immunity, common in rural Andhra. Transmission, experts posit, could stem from the monsoon floods that turn fields into breeding grounds, or even from cattle, the villagers' lifeline. But questions linger: why Turakapalem alone? Preliminary probes rule out heavy metals or pesticides, yet the spike defies coincidence. As one resident lamented on social media, "We've lost neighbours, not to age, but to something silent and unseen."

Melioidosis, though treatable with prompt antibiotics, thrives where poverty and poor hygiene converge—a stark reminder of environmental inequities exacerbated by erratic monsoons. As global warming stirs dormant pathogens, rural India must fortify its defences: robust early-



warning systems, community health outposts, and investments in clean water that transcend election cycles. The state has pledged compensation for bereaved families and vowed no further lapses, but words must yield to action. International aid, if sought, could illuminate blind spots in diagnostics.

HIV STRAINS IN INDIA RESIST SOME BROADLY NEUTRALISING ANTIBODIES

In 1994, a landmark paper in *Science* reported the isolation of an antibody called b12 from an HIV-infected individual. The study showed that while pooled plasma containing billions of antibodies from HIV patients could neutralise viruses isolated from only 3 of 12 patients, b12 alone achieved similar neutralisation in 8 of the 12, and that, with one-fifth the amount of the pooled plasma. Soon, other antibodies with similar properties were identified that were capable of neutralising a wide range of HIV variants at low concentrations. These protein molecules, called broadly neutralising antibodies (bNAbs), raised hopes that they may one day help end the pandemic.

But while hundreds of bNAbs have since been identified from different HIV-infected individuals, the genetic variation demonstrated by HIV poses a challenge. Even within a single patient, countless viral variants coexist, making it virtually impossible for any single bNAb to neutralise every virus. The virus also counters combinations of bNAbs by invading cells, then remaining silent and not producing new virus particles, thus evading immune detection.

Notwithstanding the fact that only a small fraction of people with HIV ever develop bNAbs on their own, researchers are currently working to induce their production by vaccination. The effort is worth it because, unlike conventional antibodies, bNAbs recognise conserved regions of the viral envelope: sites that the virus cannot change without compromising its survival. One such location is the site the virus uses to bind to CD4 receptors on the T-cells for infection.

HIV can be classified into 'subtypes', which are similar but not identical variants of the virus. Each subtype has innumerable strains that circulate. No single bNAb can block all of them. Even within the same subtype, strains can differ in how sensitive they are.

A recent paper published in the *Journal of Virology* by a team of researchers led by Jayanta Bhattacharya of the Translational Health Science & Technology Institute, Faridabad, has found that bNAb effectiveness can also differ between viruses of the same subtype circulating in different geographical regions.

'Strong resistance'

The study, funded by the Team Science Grant of the DBT/Wellcome Trust India Alliance, compared the ability of 14 of the best bNAbs in the world to neutralise contemporary HIV variants circulating in India and South Africa.

The researchers found that Indian strains of HIV were most effectively neutralised by broadly neutralising antibodies (bNAbs) that target a region on the viral surface known as the V3 glycan. Antibodies directed against the CD4 binding site also showed good activity, though somewhat less so. In contrast, antibodies aimed at the V1/V2 apex of the viral spike protein were far less effective, with most Indian strains showing strong resistance to this class. An intriguing pattern also emerged: viruses that resisted neutralisation by V1/V2-apex antibodies were often well controlled by CD4-binding-site antibodies.



Building on these observations, the team proposed a novel cocktail of three bNABs called BG18, N6, and PGDM1400, that they predict to be able to neutralise a large proportion of circulating Indian HIV-1 strains with high efficiency. Such rational combinations could help overcome the virus's ability to evade individual antibodies.

The study also uncovered striking regional differences.

When viruses from India were compared with those from South Africa, the researchers found that Indian strains were more sensitive to antibodies such as N6, 10-1074, and BG18, but slightly more resistant to CAP256-VRC26.25. According to Prof. Bhattacharya, these differences likely arise from subtle changes in the viral spike protein, particularly in the structural motifs that form the antibody binding sites. These altered motifs can determine whether a particular antibody will be effective.

He also emphasised that the results of the study unearth opportunities for region-specific HIV prevention strategies, such as passive immunisation of high-risk individuals with carefully chosen antibody cocktails or the design of vaccines that elicit similarly broad and potent antibody responses. He also highlighted the need for ongoing surveillance of both viral diversity and antibody effectiveness to ensure the most promising antibody combinations are prioritised for clinical development.

Overall, the study highlights an important lesson for HIV researchers worldwide. Because HIV's genetic diversity allows it to evolve differently in different parts of the world, novel treatments and vaccines may not work everywhere in the same way.

As Prof. Bhattacharya pointed out, regional studies like this one are essential to design therapies that are truly effective worldwide.

SLIVER OF HOPE

The recent survey of saltwater crocodiles in the Sundarban Biosphere Reserve is a notable advance for conservation in India. The census indicates a rise in overall numbers and demographic diversity, implying an ecological success that is also a marker of how wildlife law and conservation policy are gradually moving beyond their fixation on a handful of charismatic species, including the tiger and the elephant. In the early years of the Wildlife (Protection) Act 1972, protection was disproportionately directed at megafauna whose appeal could mobilise public opinion. Saltwater crocodiles do not command the same affection, so their recovery demonstrates how the statutory framework, when coupled with targeted interventions such as the Bhagabatpur Crocodile Project, can yield durable gains even for less prominent species. In many countries, reptiles continue to receive weaker safeguards, often subordinated to fisheries or land-use concerns. The increase in Sundarban crocodiles suggests that India's model of combining blanket legal protection with site-specific captive breeding and release programmes has been effective. But in absolute terms, the law still has gaps: it does not adequately anticipate emerging threats linked to climate change, rising salinity or habitat fragmentation. Protection has also been reactive.

As hypercarnivorous apex predators, crocodiles regulate prey populations and remove carcasses from water channels, contributing to the health of mangroves. Thus, their presence signals that creeks and rivers still sustain a functioning food web despite immense pressures from human settlement, cyclones and sea-level rise. Better juvenile survival also indicates that the breeding habitat retains sufficient quality. This is an important ecological marker for the delta, where rising



salinity and erosion are narrowing the niches available to wildlife. If the crocodile population can establish a stable age structure, it may bolster the resilience of the Sundarbans' mangrove networks. The species' trajectory also highlights what can be done for other neglected ones. Current Schedules under the Act should be accompanied by proactive, well-funded recovery plans, and public communication strategies need to be recalibrated. The crocodiles did not gain numbers because they became beloved but because conservation agencies invested in their protection. A similar shift in focus can support other species. Climate change integration is also essential. Saltwater crocodiles tolerate wide salinity ranges but many amphibians or freshwater reptiles do not. Anticipatory measures including identifying climate refugia and enabling assisted breeding are thus required. The recovery illustrates that non-charismatic species can benefit from law and policy with sustained attention. For India, the lesson is that a richer, more inclusive, vision of conservation is possible and necessary.

CHECK, MATE: PLANS FOR A SECOND INDIGENOUS POPULATION OF CHEETAHS IN MP

Madhya Pradesh wildlife officials have initiated plans to introduce a female cheetah to the Gandhi Sagar wildlife sanctuary, with hopes that the animal will mate with a male coalition (a group that lives together).

— The move is part of the state's ambitious plans to populate the site as a second home for cheetahs. The Kuno National Park currently has 19 cubs who have adapted well to the Indian summer and monsoon conditions.

— In April, two cheetahs were relocated from Kuno to Gandhi Sagar, originally brought from South Africa in 2023. They were chosen due to their wild traits, hunting record and age. Gandhi Sagar and Kuno are 250 km apart.

— Under Project Cheetah, the animals were first relocated from Africa to India in September 2022 to reintroduce the species after its extinction in 1952. The key aims are rejuvenating the local ecosystem and enhancing biodiversity. With 19 cubs and 10 older cheetahs, their population in India stands at 29.

— Gandhi Sagar is spread across 2,500 sq km, abutting Rajasthan, and is a mix of grasslands, dry deciduous forests, and riverine evergreen patches — an ideal habitat for cheetahs. It has a carrying capacity of 10 cheetahs, at present.

— Researchers say that a female cheetah typically reaches physiological puberty between 25–30 months of age and has their first litter at around 29 months. Whereas, male cheetahs delay reproduction until reaching prime adulthood (between 48 to 96 months), when they are capable of acquiring and defending territories.

— Cheetahs can have multiple mating partners. A female cheetah's receptive period, part of the estrous cycle where hormones induce physiological changes, occurs multiple times a year and can last between 0 to 6 days.

— A female needs to display receptiveness before copulation, with signals like spray urinating on bushes and rocks and undertaking extensive movement. Other signs include frequent rolling, rubbing, sniffing, vocalising, and increased tolerance or affection toward male cheetahs in the vicinity.

— Following a gestation period of three months, female cheetahs give birth to litters of up to six cubs. She chooses to be in bushy areas or rock cavities to ensure their protection.



— Since all cheetahs in India are radio-collared, the den site can be precisely identified. Females tend to stay in the same location for two to three days and then develop a star-patterned movement — exploring different directions but returning to the den.

— The nursing period lasts for four months. During late pregnancy and lactation, energy expenditure in female cheetahs can increase up to two to five-fold due to activities such as predator avoidance and searching for water and food.

Do You Know:

— Project Cheetah was launched in September 2022 and introduced African cheetahs into India from Namibia and South Africa. Initially, 20 cheetahs were imported from the two countries.

SUBJECT OF RECENT PROTEST, HISTORY OF KOLHAN TRIBE'S MANKI-MUNDA SYSTEM

On Tuesday (September 9), adivasis from the Ho tribe staged a protest in Jharkhand's West Singhbhum district against the Deputy Commissioner (DC), accusing him of interfering with their traditional self-governance system by removing village heads, known as Mundas.

The district administration has since clarified that the protest was a result of rumor mongering on social media, and that Mankis and Mundas remain integral to the revenue system. But adivasi concerns persist, with many fearing the loss of their autonomy and a traditional system.

This conflict threatens a century-old balance between the indigenous governance system, the so-called Manki-Munda system, and the state administration in Ho areas of Jharkhand's Kolhan region.

For centuries before the arrival of the British, the Ho tribe of Jharkhand's Kolhan region lived under their traditional, decentralised system of governance which revolved around the social and political responsibilities of various stakeholders.

The Munda, or the head of the village, was responsible for resolving socio-political disputes at the village level. Each village had one Munda, appointed hereditarily. The Manki headed the pir, which generally consists of 8 to 15 villages. If cases were not resolved by the Munda, they moved upwards to the Manki.

The Manki and Munda had no responsibilities for revenue or land-related issues. The system was purely an internal, self-governing mechanism, with no sovereign authority outside or the concept of paying taxes. Then came the East India Company, and with it, taxes.

After the Battle of Plassey in 1757, the Company quickly expanded its territory and influence. In the aftermath of the Battle of Buxar (1764), the Company signed the Treaty of Allahabad with the Mughal emperor Shah Alam II in 1765, which granted it diwani rights (right to collect taxes) over the province of Bengal (including present day Odisha, Bihar and Jharkhand).

In 1793, the Company administration introduced the Permanent Settlement Act, which allotted land deeds to zamindar and set land revenue demands on them (which they had to pay to the Company). These demands were set at an amount fixed forever but higher than most zamindars' capacity to pay.

As a result, there was immense pressure on zamindars to be as extractive as possible. In Kolhan, they began actively seizing Ho lands to bring them under direct control. This system would



eventually trigger a number of early-19th century adivasi revolts, such as the Ho revolt (1821-22) and the Kol revolt (1831-32).

After repeated failures to subdue the Ho people through brute force, the British decided to arrive at a strategic compromise by recognising and co-opting the Manki-Munda system.

The British appointed Captain Thomas Wilkinson as their Political Agent in the Kolhan Government Estate (KGE), an administrative unit created in 1837 to control the Ho-dominated region.

In 1833, he drafted a set of 31 rules, (henceforth, 'Wilkinson's Rules') meant to be the "guiding principles" for the Ho community's leaders. This was the first time that the traditional system of the Ho community — or for that matter any adivasi community — had been formally codified.

The KGE was dissolved after 1947, but Wilkinson's Rules are still applicable. While general civil procedure laws were enacted in India after Independence, Kolhan was largely exempted.

In Feb 2021, the Jharkhand government recognised the traditional judicial system known as the Nyaya Panch to work on revenue related activities such as tax collection and reporting of land purchase and sale, maintaining law & order and settlement of disputes.

To become Munda or Manki, a son inherits the role from his father. This has created problems in recent times, as many of these traditional leaders are not formally educated, making it difficult for them to navigate the modern, document-based administrative system. This is what drives unsatisfied villagers to the district administration.

Do You Know:

The Kols, tribal people from the Chhota Nagpur area, rose in revolt against the British in 1831. The trigger here was gradual takeover of tribal land and property by non-tribal settlers who were aided by new land laws.

The simmering discontent over economic exploitation of the original inhabitants, led to an uprising led by Buddhu Bhagat, Joa Bhagat and Madara Mahato among others. The Kols were joined by other tribes like the Hos, Mundas and Oraons.

SABARIMALA AGAIN IN SPOTLIGHT AS SANGAMAM STIRS POLITICAL POT

The Kerala High Court may have cleared the way, but uncertainty still looms over the Travancore Devaswom Board's (TDB) 'Global Ayyappa Sangamam' on the banks of the Pampa river on September 20.

With the Supreme Court set to urgently hear a fresh challenge, what was meant to be a grand devotional conclave is quickly turning into Kerala's hottest political flashpoint. Officially, the Sangamam marks the platinum jubilee to project Sabarimala as a 'Global Pilgrimage Centre', drawing over 3,000 devotees from across the world. Spread across three venues, it promises discussions on the Sabarimala master plan, spiritual tourism, and crowd management. But beyond ceremony, the conclave has reignited the political wrangling over Sabarimala, one of Kerala's fiercest battlegrounds.



Timing fuels suspicion

With local body polls approaching and the Assembly election on the horizon, suspicions of a political agenda are inevitable. The Congress-led United Democratic Front has accused the ruling Communist Party of India (Marxist) or CPI(M)-led Left Democratic Front of “hypocrisy”, pointing out that cases filed against devotees during the 2018 women’s entry protests remain unresolved.

The Sangh Parivar, meanwhile, has criticised the event as an attempt to politicise the temple, raising objections to corporate sponsorships and ‘privilege cards’ for donors. Unlike in 2018 when the Supreme Court’s verdict on women’s entry triggered a storm of protests, the Sangh Parivar has struggled to revive that wave of outrage. Instead, it has announced a parallel summit in Pandalam, a township central to Ayyappa lore. Whether it can match the scale or visibility of the Sangamam remains to be seen.

The State government insists it is merely a facilitator. Yet, the decision to have Chief Minister Pinarayi Vijayan inaugurate the conclave has undermined that claim. Critics see it as a strategic bid to encroach on Hindu voters, traditionally a BJP stronghold.

Development vs reality

While the Sangamam makes tall promises of development, the scope for fresh initiatives is limited. The Sabarimala master plan has already been vetted by the Supreme Court and the Ministry of Environment and Forests. What the event may ultimately deliver is less on development and more on recalibrating community equations.

A notable shift is the Nair Service Society’s (NSS) softened stance. Once vocal against women’s entry, the NSS has agreed to send a representative so long as the event avoids politicisation and customs of the shrine remain intact. The CPI(M) views this as a dividend of its years-long behind-the-scenes outreach to the community.

The real suspense lies in Pandalam. The royal family, custodians of Ayyappa lore, has stayed silent. Their stance is crucial as in 2018, their fierce opposition to women’s entry bolstered the Sangh Parivar’s clout. Their current hesitation leaves the Sangh anxious, and the Left quietly optimistic.

The Sree Narayana Dharma Paripalana Yogam, by contrast, has been openly supportive. General secretary Vellappally Natesan has endorsed the Sangamam’s vision of making Sabarimala an international hub. In Kerala, few platforms carry the symbolic and electoral heft of Ayyappa’s shrine

SARNATH ON UNESCO RADAR, ASI PREPARES TO INSTALL ‘CORRECTED’ PLAQUE TO SHOW LOCAL ROLE

Even as the stage is set for a UNESCO team to visit Sarnath soon, after the Buddhist site near Varanasi was nominated by India for the World Heritage List, the Archaeological Survey of India (ASI) is preparing to install a “corrected” plaque at the location to credit the family of an erstwhile local ruler for its preservation — instead of the British, The Indian Express has learnt.

— Sources told this newspaper that the move is based on a proposal submitted by the descendants of Babu Jagat Singh to the ASI regarding the main plaque at the site. Jagat Singh came from the family of the erstwhile Benares ruler Chait Singh.



- The proposal challenges the perception that the site, which is associated with Lord Buddha's first sermon, was preserved due to the efforts of British archaeologists and officers, and claims it was exposed during a digging exercise ordered by Jagat Singh.
- The proposal is for the new plaque to credit him for bringing to light Sarnath's archaeological importance for the first time in 1787-88, and not in 1798.
- The relevant portion in the plaque currently at the site reads: "...The archaeological importance of the site was first brought to light by Mr Duncan and Col E Mackenzie during 1798 AD, which was followed by a series of excavations by Alexander Cunningham (1835-36), Major Kittoe (1851-52), FO Oertel (1904-5), Sir John Marshall (1907), MH Hargreaves (1914-15) and lastly by Dayaram Sahni..."
- When contacted by The Indian Express, ASI Director-General Yadubir Rawat confirmed that the year of the site's exposure would be revised and corrected according to new findings.
- Earlier this year, following a previous submission by the family, the ASI had "corrected" another plaque at the Dharmarajika Stupa in Sarnath that described Jagat Singh as a "diwan" of the ruler and "destroyer" of the stupa.
- The revised plaque omits the descriptions and states the "structure came to light" due to him and was once known as Jagat Singh Stupa.
- Earlier this year, India officially nominated Sarnath for the UNESCO World Heritage List for the 2025-26 cycle — a move that could end its 27-year wait on the tentative list.
- India has been pitching itself globally as the land of Buddha. Recently, the Ministry of Culture issued legal notices to Sotheby's Hong Kong to stop the auction of a section of Buddhist relics.

Do You Know:

- Buddhism is a significant world religion today, influencing many with its teachings. Originating in the 6th century BCE in the Indian subcontinent, Buddhism, along with other Śramanic sects emerged as a result of growing discontent towards ritualistic and hierarchical aspects of the Brahmanical tradition.
- The date of the Buddha's life and death has long been a subject of debate among scholars. The canonical texts in Pali, especially the Pitakas (Sutta and Vinaya), contain his hagiography (writing about the lives of saints). One can also find information about Buddha and his life in texts like Mahavastu, Buddhacharita, and others.
- 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.
- 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.



SHORT NEWS

GLOBAL INNOVATION INDEX 2025

- The Global Innovative Index 2025 is published by the World Intellectual Property Organisation (WIPO). It shows that R&D growth fell to 2.9 per cent in 2024 and is expected to drop further to 2.3 per cent in 2025.
- Switzerland is the world's most innovative country, followed by Sweden, the United States and others.
- Europe leads as the most innovative region, with 15 countries in the global top 25.
- India is ranked 38 and holds the #1 spot among lower-middle-income economies and in the Central and Southern Asia region.
- India performs best in Knowledge & Technology Outputs (#22) and Market Sophistication (#38), while its weakest rankings are in Business Sophistication (#64), Infrastructure (#61), and Institutions (#58).

HURUN INDIA WEALTH REPORT 2025

- According to the latest Mercedes-Benz Hurun India Wealth Report 2025, India is projected to have 871,700 millionaire families by 2025, each with a net worth of at least Rs 8.5 crore (US\$1 million).
- This marks a sharp jump from 159,900 in 2017 and 458,000 in 2021 — an increase of nearly 90 per cent over four years.
- Millionaire families now represent about 0.31 per cent of India's population. However, the report shows that wealth creation remains heavily concentrated.
- Maharashtra has consolidated its position as the country's richest state, home to 178,600 millionaire families — a 194 per cent rise since 2021. Mumbai is at the top among the cities, followed by New Delhi and Bangalore.

WORLD TRADE REPORT 2025

- According to the World Trade Report 2025 released by the World Trade Organization, artificial intelligence could boost the value of trade in goods and services by nearly 40% by 2040, but without adequate policies it could also exacerbate economic divides.
- Lower trade costs and enhanced productivity could drive substantial increases in trade and GDP by 2040, with global trade projected to rise by 34-37% under various scenarios.

WTO AGREEMENT ON FISHERIES SUBSIDIES

- On 15th September, WTO Agreement on Fisheries Subsidies came into effect, which commits members to curbing billions of dollars in annual spending on the most harmful subsidies that contribute to the depletion of marine fish stocks.



— It is the WTO's first multilateral agreement with environmental sustainability at its core. It prohibits government support to illegal fishing activities and overexploitation of stocks, contributing to the protection of marine life.

— Adopted by consensus at the WTO's 12th Ministerial Conference in June 2022, the Agreement's disciplines prohibit subsidies for illegal, unreported and unregulated fishing, for fishing overfished stocks, and for fishing on the unregulated high seas.

— A WTO Fish Fund was also established to provide developing economies and least-developed countries (LDCs) with technical assistance and capacity-building needed to implement the new obligations and manage their own fisheries more sustainably.

— India has not signed the agreement.

JORE SAHIB

— The Jore Sahib, meaning holy or sacred shoes, are a pair of footwear belonging to Guru Gobind Singh, the last of the ten Sikh Gurus, and his wife Mata Sahib Kaur.

— It is considered a sacred relic as it is revered as the personal belongings once worn by the Sikh spiritual leaders.

— The pair of footwear, measuring 11" by 3½" for the right foot of the 'Dasam Pita', or Tenth Father, and 9" by 3" for the left foot of Mata Sahib Kaur, are sacred relics deeply revered in Sikhism.

— Guru Gobind Singh, the last human Guru of the Sikhs, founded the Khalsa Panth, or the community of the pure. He declared the Guru Granth Sahib as the eternal successor.

— He laid down a code of conduct for followers through the five K's: Kesh (uncut hair), Kangha (wooden comb), Kada (iron or steel wrist bracelet), Kirpan (sword), and Kachera (short breeches).

SCHEMES AND CAMPAIGNS LAUNCHED ON THE OCCASION OF PM MODI'S 75TH BIRTHDAY

— To mark the 75th birthday of Prime Minister Narendra Modi, the BJP governments in various states launched public welfare programmes and campaigns on Wednesday (September 17).

— Prime Minister Narendra Modi visited Madhya Pradesh, where he launched the 'Swasth Nari Sashakt Parivar' and the '8th Rashtriya Poshan Maah' campaigns, highlighting the government's commitment to nutrition and family well-being.

— Suman Sakhi Chatbot: This chatbot aims to raise awareness on maternal and child health, and provide timely and accurate information to pregnant women in rural and remote areas, ensuring access to essential health services.

— Adi Seva Parv: As part of the Adi Karmyogi Abhiyan, Prime Minister launched the "Adi Seva Parv" for Madhya Pradesh. The Adi Seva Parv, symbolising the pride of tribal communities and nation-building, will continue until October 2.



— The Aadi Karmayogi Abhiyan, launched this year by the Union Ministry of Tribal Affairs, is an initiative for the socio-economic development of tribal communities across the country.

NATIONAL MAKHANA BOARD

— On 15th September, Prime Minister Narendra Modi launched the National Makhana Board in Purnea, Bihar.

— The announcement for the creation of the Makhana Board was made in the Union Budget 2025-26.

— The Centre is also establishing the National Institute of Food Technology in Bihar which will provide a strong fillip to makhana processing activities.

— Makhana, commonly known in English as fox nut, is the dried edible seed of the prickly water lily or gorgon plant (*Euryale ferox*). This plant is found in freshwater ponds throughout South and East Asia.

— Bihar accounts for approximately 90% of India's makhana production. This production is primarily concentrated in nine districts located in northern and eastern Bihar.

— In 2022, 'Mithila Makhana' was conferred a Geographical Indication tag.

16TH COMBINED COMMANDERS' CONFERENCE (CCC)

— Prime Minister Narendra Modi on 12th September inaugurated the 16th Combined Commanders' Conference (CCC) at the Army's Eastern Command headquarters in **Kolkata**.

— The conference is organised **once every two years**. It is the apex forum that brings together the nation's top civilian and military leadership to chart the path of India's defence preparedness.

— It was last held in Bhopal in 2023, which was inaugurated by Modi.

— On the final day of the conference, India's top military hierarchy decided to form **three joint military stations** — the first in the country — and also agreed to merge the education branches of the three defence services into a single **tri-services Education Corps**.

BLUE ECONOMY CONCLAVE

— A two-day blue economy conclave was organised in **Kerala** on September 18 and 19. Representatives from 29 European countries attended the Conclave.

— The conclave 'Blue Tides-Two Shores One Vision' is being organised by the State's Fisheries department in collaboration with the Union government and the European Union (EU).

NATIONAL POLICY ON GEOTHERMAL ENERGY 2025

— The Ministry of New and Renewable Energy (MNRE) has released the "National Policy on Geothermal Energy 2025" to facilitate the exploration and development of untapped geothermal energy resources.



- The policy aims to establish geothermal energy as one of the major pillars of India’s renewable energy landscape, reinforce the commitment to achieve the 2070 Net Zero Goal, and ensure energy security.
- Geothermal energy refers to the heat and electricity produced by using the heat from the interior of the Earth. It is a site-specific renewable source of energy specifically suitable for catering to the energy needs of remote/interior localities.
- The Geological Survey of India (GSI) has mapped 381 hot springs nationwide with surface temperatures between 35°C and 89°C.

PM INAUGURATES INDIA’S FIRST BAMBOO-BASED ETHANOL PLANT

Prime Minister Narendra Modi inaugurated India’s first bamboo-based ethanol plant in Golaghat, Assam, emphasising the nation’s need for energy self-sufficiency and a shift towards clean energy. The plant, described as the world’s first zero-waste facility producing ethanol from green bamboo, aims to reduce dependence on fossil fuels and support the local economy. Alongside this, he laid the foundation stone for a ₹7,230-crore polypropylene plant at the Numaligarh Refinery. The new facilities are expected to benefit local farmers and tribal communities, with the government assisting in cultivation and procurement. Modi highlighted Assam’s role in advancing India’s energy sector and criticised previous policies restricting bamboo cutting. The ethanol plant will source five lakh tonnes of bamboo annually from the northeast, generating ethanol and other valuable by-products, and is projected to give a ₹200-crore boost to Assam’s rural economy through a joint venture involving Numaligarh Refinery Limited, Finland’s Fortum, and Chempolis OY.

AI FOR VIKSIT BHARAT ROADMAP AND FRONTIER TECH REPOSITORY

- NITI Aayog launched two transformative initiatives, AI for Viksit Bharat Roadmap: Opportunity for Accelerated Economic Growth and NITI Frontier Tech Repository under its Frontier Tech Hub.
- The AI for Viksit Bharat Roadmap delivers a clear, sector-specific action plan, while the Frontier Tech Repository inspires states and districts to scale technology for real-world impact.
- The NITI Aayog Frontier Tech Hub convenes leading experts across government, industry, and academia to assess frontier technologies—such as AI, quantum, and biotechnology—evaluate their opportunities and risks for India, and design strategies to harness them for Viksit Bharat@2047.
- NITI Aayog also launched the Frontier 50 Initiative to amplify grassroots adoption of technology and scale impact creation. It will support 50 Aspirational Districts / Blocks to pick use cases from the Repository and deploy those frontier technologies that have the potential to accelerate saturation of services across ADP/ABP themes.
- NITI Frontier Tech Impact Awards for States will recognize three states excelling in the use of tech to improve governance, education, healthcare, livelihood etc., and supporting them to scale measurable, transformative outcomes.



AIR DEFENCE (AD) RADARS

- The Army has sought to procure a range of advanced air defence (AD) radars — 45 Low Level Light Weight Radars (Enhanced), up to 48 Air Defence Fire Control Radar-Drone Detectors (ADFCR-DD), and 10 Low Level Light Weight Radars (Improved).
- These AD radars can detect, track, and engage aerial objects with small radar cross-sections (RCS), like the Pakistani drones which infiltrated Indian airspace in May.
- Radar is the acronym for RAdio Detection And Ranging. It is a specialised electronic system that uses radio waves to determine the direction, distance, and velocity of target objects. AD radars are used by the military to search, detect, identify, and help destroy aerial threats.
- A radar comprises two basic components: a transmitter which sends out radio signals, and a receiver which collects any reflected signals from a target.
- There are primarily two kinds of AD radars: surveillance radars and fire control radars.
- Surveillance radars are not directly connected to any anti-aircraft weapon system unlike fire control radars, which help surface-to-air guns or missiles target aerial threats.
- RCS, or radar signature, is a measure of how detectable an object is by radar, usually represented in square metres; larger the RCS, greater the detectability.

TORONTO INTERNATIONAL FILM FESTIVAL (TIFF)

- Neeraj Ghaywan-directed Homebound and Jitank Singh Gurjar-directed In Search of The Sky (Vimukt) won at the TIFF.
- While Homebound is the second runner-up in the International People's Choice Awards category and In Search of The Sky is the recipient of the NETPAC Award.
- Homebound is also India's official entry for the Oscars 2026 in the Best International Feature category.
- Homebound documents the socio-political realities of contemporary India and captures the unprecedented displacement of migrant workers across the country following the outbreak of the COVID.

DADASAHEB PHALKE AWARD 2023

- Malayalam superstar Mohanlal will be honoured with the prestigious Dadasaheb Phalke Award for his services to cinema at the 71st National Film Awards ceremony to be held on Sept 23, 2025.
- Mohanlal has also won five National Film Awards and multiple Kerala State Film Awards.
- He was honoured with the Padma Shri in 2001 and the Padma Bhushan in 2019.
- About Dadasaheb Phalke Award: It was instituted in 1969 to commemorate Dadasaheb Phalke's contribution to Indian cinema who directed India's first full-length feature film, Raja Harishchandra in 1913.



— The first recipient of the award was Devika Rani. This award is considered the highest award in the field of cinema.

— The award comprises a Swarna Kamal (Golden Lotus) medallion, a shawl, and a cash prize of ₹10 lakh.

EMMY AWARDS 2025

— The Emmy Awards are the most prestigious television honours in the United States. They celebrate excellence in acting, writing, directing, programming and technical fields across genres.

— The first Emmy Ceremony took place on January 25, 1949, at the Hollywood Athletic Club in Los Angeles. Ventriloquist Shirley Dinsdale won the first Emmy for “Most Outstanding Television Personality.”

— How the winners are selected: Emmys operate on peer voting. Members of the academies are divided into professional peer groups – actors, writers, directors, technicians, producers – and they can only vote within their field of work.

— Shows should be submitted for consideration, following which nominations are announced, which is then followed by the final round of voting.

SUREKHA YADAV

— Surekha Yadav, Asia’s first women locopilot, is set to retire on September 30 after 36 years of service.

— She became India’s first woman train driver in 1988 and was also the first loco pilot of the ‘Ladies Special’ local train for Central Railways in 2000. Further, she became the first woman loco pilot of the CST to Pune Deccan Queen train.

MITHUN MANHAS

— Former Delhi batsman Mithun Manhas is set to become the next president of the Board of Control for Cricket in India (BCCI).

— Manhas was the convener of the North Zone for Duleep Trophy and he was also support staff of the IPL franchise Gujarat Titans before, and is currently administrator of the Jammu and Kashmir Cricket Association (JKCA).

WORLD SPEED SKATING CHAMPIONSHIPS

— India has secured three Gold Medals and two Bronze medals at the World Championships 2025.

— Anandkumar Velkumar won India’s first-ever gold medal at the Speed Skating World Championships, clocking 1:24.924 in the senior men’s 1,000m sprint event. He followed up with another Gold in the Men’s marathon event and also secured a bronze in the 500 m sprint.

— Krish Sharma has also won the Gold medal in the 1000-meter race in the junior category.



— Anish Raj claimed a Bronze in the junior men’s one-lap sprint event.

— The Speed Skating World Championships were organised in Beidaihe, China, from September 13 to September 21.

FIDE GRAND SWISS TOURNAMENT 2025

— Vaishali Rameshbabu has won the FIDE Grand Swiss tournament for the second time in two editions after drawing her final game against former women’s world champion Tan Zhongyi.

— Vaishali winning the title is historic because no player in the short history of the event has won the Grand Swiss twice.

WORLD ATHLETICS CHAMPIONSHIPS 2025

— The 2025 World Athletics Championship was held in Tokyo from September 13 to 21. The World Athletics Council has selected Beijing, China, as the host of the 2027 World Athletics Championships.

— Sachin Yadav’s fourth-place finish in the men’s javelin throw emerged as the country’s standout performance. Neeraj Chopra, who was the reigning champion heading into Tokyo25, had to settle for an eighth-place finish in the final.

— Sarvesh Kushare scripted history by becoming the first Indian high jumper to qualify for the final of a World Athletics Championships.

— Indian athletes have won three medals at the world championships – Anju Bobby George’s long jump bronze at Paris 2003, Neeraj Chopra’s javelin silver at Oregon 2022, and his historic gold at Budapest 2023.

DreamIAS



BUSINESS AND ECONOMY

DIAMONDS GROWN IN LABS ARE ROBBING BOTSWANA OF RICHES

Botswana and southern African peers that built much of their prosperity on diamonds are scrambling for alternatives as cheaper, lab-grown stones threaten their economies.

Diamond-dependent Botswana is leading the way and launched a sovereign wealth fund this week to lay the “foundation for a more resilient, sustainable and diversified future beyond diamonds”. It is exploring other avenues too, like boosting luxury wildlife tourism, launching into the medicinal cannabis market and exploiting its abundant sunshine for solar power.

President Duma Boko has even mooted taking a majority stake in industry giant De Beers and selling Botswana’s diamonds independently.

“Countries such as Angola, Namibia and South Africa are all exposed but not to the same degree as Botswana,” economist Brendon Verster at the Oxford Economics Africa think tank said.

The stones are the country’s main source of income and account for about 30% of its gross domestic product (GDP) and 80% of its exports, according to the International Monetary Fund. But, as consumers turn to cheaper diamonds created in China and India, the average price of a one-carat natural diamond is falling. The price dropped from a peak of \$6,819 in May 2022 to \$4,997 by December 2024, according to the World Diamond Council.

Botswana, which is 70% desert, was lifted from poverty by the discovery of diamonds in the 1960s. It is already feeling the effects of the lab-grown competition.

WHAT IS ‘INVOLUTION’ THAT IS PLAGUING CHINESE EV SECTOR?

The story so far:

For some years now, the Chinese economy has faced what has locally come to be called *nêjuân*, or an involution. It is a process in which rivals in certain sectors indulge in price wars, attempting to capture market share and clear out oversupply of goods. However, these price wars are counterproductive, as they reach thresholds where the retail price of the product is so low that even the production costs cannot be realised, pushing firms into losses. This has been most apparent lately in China’s electric vehicle sector, so much so that China’s President Xi Jinping has prescribed corrective measures in a recent article in *Qiushi*. This phenomenon is not new in China; a similar trend has been witnessed in the solar industry as well.

Where does the phrase “involution” originate from?

Involution is derived from the Latin phrase *involutiōn-em*, meaning ‘to turn inwards.’ According to the Oxford English Dictionary, the earliest known use of the noun “involution” dates back to 1611, in the writings of lexicographer Randle Cotgrave. But the dictionary lists nine meanings for the noun, ranging from its usage in literature to mathematics and pathology. The term appears to have been popularised by American anthropologist Clifford Geertz in the 1960s. Geertz used “involution” in his 1969 book *Agricultural Involution: The Processes of Ecological Change in Indonesia* to describe a dynamic in Java’s wet-rice (sawah) economy, where ever more labour and intricacy were packed into the same agro-ecological system, raising output per acre somewhat



but not per person— so incomes stagnated even as effort and social complexity increased, according to a blurb of his book in the University of California Press website.

Have EU and U.S. tariffs exacerbated involution in the Chinese EV sector?

Yes, they have. The U.S. Section 301 tariffs on Chinese EVs, set at 100% (from 2024), along with higher duties on EV batteries and parts, effectively mean a trade embargo on Chinese EVs by the United States.

This has been exacerbated by steep tariffs from the EU, and other countries on Chinese EVs, forcing Chinese manufacturers to compete fiercely at home, leading to market instability and warnings of industry consolidation. The Chinese government, recognising the damaging effects, is now intervening with new regulations to curb predatory pricing and promote a more orderly market, as highlighted by President Xi Jinping's recent statements and policy proposals.

IN NORDIC DISPUTE OVER EUROPEAN UNION 'S FOREST TARGETS, ECHOES OF GREECE'S CRISIS

The European Union (EU) is once again facing a test of how well its supranational frameworks can accommodate diverse economies and ecologies of its member-States. A dispute over forest management has now erupted with Sweden and Finland warning of “dire” economic consequences if they are forced to cut back on logging to meet the EU’s climate-policy targets. The argument turns on carbon uptake and emissions accounting as well as on questions of sovereignty, livelihoods, and fairness. For observers of Europe’s recent past, the situation carries echoes of another era of tension between national economies and EU rules: the Greek debt crisis of the last decade.

Under the EU’s Land Use, Land-Use Change and Forestry (LULUCF) regulation, member-States are required to ensure their forests are “sinks” rather than “sources” of greenhouse gases. That is, the total volume of carbon absorbed by trees and soil must not fall below a given threshold. Sweden and Finland have been assigned ambitious targets to raise carbon uptake by around 4 million tonne (MT) of CO₂ a year by 2030 in Sweden’s case and 3 MT for Finland.

Economic assets

On paper, these numbers are designed to keep Europe on track to achieve net-zero emissions by 2050. In practice, however, the Nordic governments have said they are unworkable. Slower tree growth, which is partially attributable to climate change itself, means forests are less efficient carbon sinks than scientists once believed. At the same time, the war in Ukraine has driven the demand for timber, pulp and biomass up, imposing additional pressure on logging. Both governments have thus insisted, without revised figures, the EU framework will lead to “unreasonable and unjustified restrictions” on forestry.

To be clear, forests are not a marginal industry in Nordic economies. They cover about 70% of the land area in both countries, directly employ more than 2 lakh people and generate a sizeable share of exports: more than 10% in Sweden and almost 20% in Finland. Also, forestry has long been woven into national narratives of resourcefulness and resilience as well in the region.

The EU’s demand to reduce logging strikes at this foundation. For Finland in particular, the wood products sector supports rural communities where alternative employment is hard to come by. Policymakers in Helsinki and Stockholm have argued that tightening restrictions would trigger



job losses, depress regional economies and erode the competitiveness of domestic companies in global markets.

This said, industry and many national policymakers see forests as renewable resources that, if managed sustainably, could support economic growth and contribute to green transition. Timber, pulp, and biofuels have been promoted as substitutes for fossil fuels, plastics, and concrete — all materials with currently very high carbon footprints.

Structural challenge

On the other hand, environmental scientists and NGOs have countered that intensive logging, planting monocultures, and using short harvest cycles will diminish biodiversity and reduce forests' capacity for sequestering carbon. They have also contended the EU's climate goals won't be met if forests are treated primarily as economic assets. From this perspective, the Nordic States' protest reflects an unwillingness to accept "business as usual" forestry practices are incompatible with climate neutrality.

This standoff isn't only a disagreement over numbers: it highlights a structural challenge at the heart of European integration, concerned with designing uniform frameworks that are effective at the EU level as well as feasible for very different member states.

Just as Greece once complained that deficit-reduction targets ignored the realities of its economy, which was struck by recession, Sweden and Finland argued LULUCF benchmarks ignore ecological and geopolitical contexts they alone face. In both cases, a "one size fits all" approach threatens to become politically combustible. EU frameworks often embody long-term objectives such as debt sustainability in the case of Greece and climate neutrality in the case of forestry. Yet the States that implement them experience consequences in the short term as austerity and economic restriction, respectively. The ultimate political risk is that populations view Brussels as imposing hardship without offering credible paths to adjustment.

Setting industrial policy

Both crises also touch on sovereignty. For Athens, the issue was fiscal autonomy, and for Stockholm and Helsinki, control over national resources. If Sweden and Finland were to comply strictly with the EU's targets, the economic costs would likely include reduced export earnings, job losses in forestry communities, and ripple effects in industries such as paper, packaging, and bioenergy. If they resist, they risk fines, reputational damage, and potentially lower influence within EU climate negotiations — a dynamic that mirrors the "damned if you do, damned if you don't" trap Greece found itself in, as austerity compliance meant deep recession while defiance meant financial isolation.

Another parallel lies in recognising that the EU's rules aren't just technical adjustments but industrial policy by another name. By setting carbon-sink targets, Brussels is effectively shaping the future structure of Nordic economies, pushing them away from resource-intensive forestry toward other forms of value creation. In the same way, debt and deficit targets reshaped the Greek economy, shrinking public services, lowering wages, and forcing privatisation.

Cautionary tales

All this said, the Greek crisis is not an exact template — though it also offers warnings and, possibly, limited guidance. For example, Greece's fiscal targets were widely judged by economists



to be unattainable without catastrophic economic contraction. Sticking with them stretched the recession and deepened public resentment.

The lesson for today's forestry dispute is the EU risks discrediting its climate policy if targets are set beyond ecological or economic feasibility. Second, in Greece, a rigid insistence on austerity nearly pushed the country out of the euro. A more flexible approach could have preserved economic stability and public trust. Likewise, for Sweden and Finland, the space for talks, perhaps through transitional allowances, differentiated accounting methods and investment support, could prevent confrontation.

Third, Greece eventually received bailouts, although they were tied to painful conditions. If the EU expects Nordic States to bear the cost of adjusting forestry practices to fit its needs, it will have to install mechanisms of solidarity such as compensatory funds and support for diversification. If climate neutrality is to be viewed as a collective good, the burden must also be shared collectively. Finally, the Greek crisis fuelled Euroscepticism and left scars on the EU's legitimacy. If the forestry dispute is mishandled, it could have similar but more magnified effects by eroding confidence in climate policy.

Of course, the analogy is also limited. Greece was insolvent and depended on the EU and the International Monetary Fund for financing. Finland and Sweden, on the other hand, are fiscally stable, wealthy, and central to EU security since they joined NATO in 2023 and 2024, respectively. Their bargaining power is thus far greater.

Also, enforcing sound climate policy remains an urgent global necessity whereas the Greek debt restructuring could (technically) be postponed.

Thus the Greek episode offers fewer solutions than cautionary tales, in particular to avoid rigid targets, maintain solidarity and respect national contexts. The rest will have to be worked out through political talks and by recognising climate action always entails economic trade-off.

FED CUTS RATES — NOW TO ENSURE PRICE STABILITY AND EMPLOYMENT

After holding steady for nine months, on Wednesday, the US Federal Reserve lowered the target range for the federal funds rate by 25 basis points to 4 to 4.25 per cent. The decision, though, was not unanimous. Stephen Miran, a recent appointee of Donald Trump, was in favour of a more aggressive rate cut of 50 basis points. Notwithstanding Trump's repeated calls to reduce interest rates, the Fed's pivot does indicate that further policy easing is on the cards. In fact, the central bank's latest projections, which accompanied this "risk management rate cut", do indicate the possibility of multiple rate cuts this year.

While the decision to lower rates is due to a weakening labour market, recent data also point towards inflation staying higher than previously expected, complicating the policy matrix. As per the US Bureau of Labour Statistics, non-farm payroll employment increased by just 22,000 in August, significantly lower than expectations. Alongside, the combined employment in June and July was also revised downwards. The Fed highlighted this weakness. It noted that "job gains have slowed, and the unemployment rate has edged up", adding that the "downside risks to employment have risen". Alongside this deterioration in the labour market, inflation risks are also surfacing. Inflation, as measured by the personal consumption expenditures price index, has been inching upwards – from 2.2 per cent in April to 2.6 per cent in July. But, while the central bank's expectation of inflation this year remains unchanged at 3 per cent, it expects price pressures to



remain elevated — it has raised its inflation projection for next year to 2.6 per cent, up from 2.4 per cent earlier. Inflation is now expected to return to the 2 per cent target only by 2028. The Fed has, however, also marginally revised upwards its growth forecasts. But, the uncertainty over the economic outlook continues to linger. Fed Chairperson Jerome Powell acknowledged that, saying, “It’s not incredibly obvious what to do”.

The decision to lower interest rates comes against the backdrop of increasing attacks on the central bank’s independence by Trump, who has not only been quite vocal about the path of monetary policy he prefers, but has also tried to fire Fed Governor Lisa Cook. Powell, whose term as Fed chair ends in May 2026, will have to navigate this period carefully as the central bank seeks to fulfil its dual mandate of price stability and maximum employment.

EU’S NEW STRATEGY DOCUMENT SHOWS: NEW DELHI IS A VALUED PARTNER

The EU’s latest strategy document on India, issued this week, marks a definitive moment in the evolution of Delhi’s relations with Brussels, long defined by mutual neglect. This had begun to change in the 21st century, but the two sides had struggled to boost the partnership quickly. In the last few years, there has been a determined effort by Brussels and Delhi to plug the gap between the promise of the partnership and its performance. Troubled by the assertion of Russia, the muscular economic policies of China, and the disruption of historic US alliances by President Donald Trump, Europe is in the middle of rebooting relationships with other powers. Its latest outreach to India is part of that effort. Framed as a “comprehensive strategic agenda” to deepen, broaden, and better coordinate cooperation, the EU strategy is a blend of ambition and pragmatism. In stating that “India’s success benefits the EU, just as the EU’s success benefits India,” Brussels has moved from treating New Delhi as a useful interlocutor to recognising it as an indispensable partner in shaping the international order.

The EU is the second most important commercial partner of India, after the US. Bilateral goods trade has climbed to €120 billion and services to €60 billion. Yet, India still accounts for less than 2.5 per cent of the EU’s total trade. The EU, therefore, focuses on securing a far-reaching Free Trade Agreement with India that reduces tariff and non-tariff barriers and unlocks the enormous possibility of trade and investment flows between Europe and India. After years of drift, India is now equally committed to an early conclusion of the FTA. Buffeted by a massive and persistent trade deficit with China, and shocked by Trump’s exorbitant tariffs, India sees free trade with the EU as a major strategic objective now. The EU also frames India as a rapidly expanding manufacturing and technology hub hosting nearly half of global capability centres; India appreciates Europe’s edge in research, regulation and green and digital technologies. Together, they could gain from EU-India Innovation Hubs, a Startup Partnership, and joint work in AI, semiconductors, and outer space.

In the emerging multipolar world, the EU also recognises the growing salience of security cooperation with India. The planned EU-India Security and Defence Partnership will anchor cooperation on maritime security, defence industrial expansion and modernisation, cyber and hybrid threats, counterterrorism, and crisis management. Yet the war in Ukraine casts a long shadow. The EU is not on the same page with Delhi on India’s oil imports and defence ties with Moscow. This is not surprising, given the fact that Europe is now in the middle of a prolonged and unwanted war with Russia since Moscow’s invasion of Ukraine in early 2022. It is time, though, for India to stop seeing Europe through the eyes of Russia, as it has since Independence. While Delhi must maintain a productive relationship with Moscow, it also needs to balance its ties with



Brussels and Moscow. The rapidly rising stakes in India's relationship with the European Union require such a recalibration.

INDIA GETS LICENCE TO SCOUR INDIAN OCEAN FOR PRECIOUS METALS

India has bagged an exploration contract from the International Seabed Authority (ISA) to look for a class of precious metals in the northwest Indian Ocean.

This is the first licence granted globally for exploring polymetallic sulphur nodules in the Carlsberg Ridge, M. Ravichandran, Secretary, Ministry of Earth Sciences, told The Hindu.

The agreement with the Jamaica-based ISA was signed in Delhi on Monday, he added.

These nodules are concentrations of rock found in the deep ocean and said to be rich in manganese, cobalt, nickel, and copper.

The Carlsberg Ridge is a 3,00,000-sq.km stretch that lies in the Indian Ocean, specifically in the Arabian Sea and northwest Indian Ocean. It forms the boundary between the Indian and Arabian tectonic plates, extending from near Rodrigues Island to the Owen fracture zone.

For exploration in areas part of the 'high seas' or part of the ocean that is so far away from any country, that it is not part of their territories, countries must obtain permission from the ISA. Currently, 19 countries have such exploration rights.

India too had applied in January 2024 for exploration rights in two regions of the Indian Ocean. While one in the Carlsberg Ridge has been granted, the second – the Afanasy-Nikitin Sea (ANS) mount – is yet to be approved. The ANS is located in the Central Indian Ocean, and the territory has been claimed by Sri Lanka for exploration rights. While countries can claim up to 350 nautical miles from their coasts as their 'continental shelf', those in the Bay of Bengal can, in theory, claim up to 500 nautical miles as per the United Nations Convention on the Laws of the Sea (UNCLOS).

Earlier exploration

Previously, India had obtained such exploratory rights from the ISA in the Central Indian Ocean Basin. The first was signed in March 2002 and is set to expire on March 24, 2027, after two extensions. The second was for polymetallic sulphides in the Indian Ocean Ridge. It was signed on September 26, 2016, with validity till September 2031.

FOR A STRONGER RUPEE, INDIA NEEDS TO CLOSE TRADE DEALS

On Thursday, India's Chief Economic Adviser V Anantha Nageswaran provided a ray of hope for Indian exporters when he said that the additional US tariffs of 25 per cent on India levied over the purchase of Russian oil are not likely to continue beyond November 30. His statement is, of course, not based on an official communication, but Nageswaran seems to have drawn his conclusion on the talks held earlier this week between the US and Indian negotiators in New Delhi. As things stand, India faces 50 per cent tariffs from the US, a key trade partner for India, one with which India enjoys an over \$40 billion trade surplus. Notwithstanding his good personal relations with Indian Prime Minister Narendra Modi, US President Donald Trump has often described India as one of the most protected countries when it comes to trade. The strain of ever-increasing tariffs throughout the year pushed the Indian currency to fall to an all-time of 88.44 to a dollar on September 11.



The fall last week was not sudden, but a part of a steady slide in the rupee's value against the dollar in recent times. Just since the start of 2025, the rupee has lost almost 3 per cent of its value against the dollar. What makes this situation worse is that the currencies of almost all of the countries India competes with have actually strengthened significantly. For instance, the euro has gained 12 per cent over the dollar, the British pound (notwithstanding its own economic woes) has gained almost 8 per cent, and the Japanese yen has gone up by over 6 per cent. Economies considered most comparable with India, too, have gained substantially against the dollar. Brazil's real is up almost 16 per cent against the dollar, the South African rand is up over 7 per cent, while the Chinese yuan is up 2.5 per cent. In other words, a wide gap seems to be emerging between the value of the rupee and the other currencies as well.

For a country that heavily imports essential goods like energy, a weaker currency can upset several equations (including government finances) and fuel inflation in the economy. Of course, there is a silver lining in that a weaker rupee may help Indian exporters push their goods in global markets at a time when most economies are starting to turn away from trade. Since US tariffs are a big reason, possibly the biggest one, for the slide in the value of the rupee, Nageswaran's statement provides hope. The sooner India concludes trade deals with the US and other partners, the better it is for the rupee's international standing.

LUTNICK'S FURRY: WHY INDIA FINDS IT DIFFICULT TO BUY US CORN

US Commerce Secretary Howard Lutnick has questioned India for not opening up its market to American corn: "India brags that they have 1.4 billion people. Why don't 1.4 billion people buy one bushel of US corn?", he has asked.

— The US official isn't entirely wrong. Out of India's total corn (maize) imports of 0.97 million tonnes (mt) in 2024-25, a major chunk came from Myanmar (0.53 mt) and Ukraine (0.39 mt). Some quantity was also imported from the US, but it was minuscule at 1,100 tonnes.

— There are two reasons why India's corn imports aren't much. The first has to do with tariffs. India allows up to 0.5 mt of corn imports annually at 15%, with quantities beyond that attracting 50% duty. Secondly, it does not permit any import of corn that is genetically modified (GMO).

— Both these conditions are major irritants for the US, which is the world's biggest producer as well as exporter of corn.

— With both production and exports for 2025-26 projected to hit new records of 427.1 mt and 75 mt, the Donald Trump administration is naturally looking at new markets for the corn.

— In the current calendar year (from January to July), as the trade war with China has escalated, the latter has further cut its corn imports from the US to a mere \$2.4 million. That explains the desperation behind Lutnick's statement.

— For the US, India is a huge potential market for corn, given its rising consumption of animal products – milk, eggs, fish and meat – with an increase in population and per capita GDP that would, in turn, drive demand for feed and ingredients such as maize and soyabean meal.

— While the US would obviously want to grab a big piece of this pie, the problem is that an estimated 94% of its total area planted to corn in 2024 was under GM varieties.



— These incorporate genes from bacteria that code for proteins enabling the crop to “tolerate” the application of chemical herbicides such as glyphosate and glufosinate or resist attacks by specific insect pests.

— India, at present, neither permits the import of GM corn nor its planting by farmers here. One proposal that was mooted in a now-withdrawn NITI Aayog report has been to allow GM maize imports exclusively for use as a feedstock for manufacturing fuel ethanol.

— For now, it is unlikely that India will relent to the US demand to cut tariffs or allow imports of GM corn. That likelihood is even less ahead of assembly elections in Bihar: The state is India’s third-largest maize producer after Karnataka and Madhya Pradesh.

Do You Know:

— According to the APEDA, India is the 5th Largest producer (Source: FAO(Updated as on 01-12-2023) and 14th Largest exporter of Maize in the world (Source: UN-COMTRADE data 2022).

— Major Maize-growing states in India are Karnataka, Madhya Pradesh, Bihar, Tamil Nadu, Telangana, Maharashtra and Andhra Pradesh.

— Maize grains contain 68-72% starch and 1-3% of other carbohydrates (sucrose, glucose and fructose).

— While carbohydrates are the principal energy source for livestock, they can be fermented into ethanol, too, using yeast. One tonne of maize gives some 380 litres of ethanol; the process involves milling the grains into flour, breaking down the starch into shorter carbohydrate chains and fermentable sugars, fermentation (to 15% pure alcohol), distillation (to 94% spirit) and dehydration (to 99.9% fuel ethanol).

— In India, the introduction of GM crops is a laborious process which involves multiple levels of checks. The Genetic Engineering Appraisal Committee (GEAC), a high power committee under the Ministry of Environment, Forest and Climate Change, is the regulator for introduction of any GM material and in case of agriculture multiple field trials, data about biosafety and other information is necessary for getting the nod before commercial release of any GM crop.

IMPROVING MACROS

Neither the government nor the RBI will likely be alarmed by the rise in retail inflation in August 2025, even though it snapped a nine-month streak of declining inflation rates. At 2.1%, it is just marginally within the RBI’s comfort band of 2%-6%, with no real macroeconomic risk. The government would be glad to see food inflation remaining subdued at the urban and rural levels. Especially heartening would have been the 15.9% and 14.5% contraction in the prices of vegetables and pulses, respectively. When combined with the free foodgrains provision under the National Food Security Act, this downward movement in food prices ensures affordable supplies of these necessities. Other necessities, such as clothing and footwear, housing, and fuel and light, are all seeing inflation remain low, and lower in August than in July. As things stand, India’s macroeconomic outlook looks the exact opposite of what it was last year. From a relatively low growth, high inflation scenario, India is now witnessing high growth and low inflation. In other words, the differential between growth and inflation at this time last year was about 2.1 percentage points. This year, it is about 5.5 percentage points, a welcome and large gap. Of course,



there are legitimate questions to be asked about GDP and inflation data, but those questions were valid last year as well, and so do not erode the comparability of the two years.

Looking ahead, the overall outlook for inflation continues to appear benign. Even if India decides to accede to the U.S.'s demands and abandon its purchase of Russian oil, the economic impact is likely to be limited. Global crude prices are relatively low, and so the discount Russia is able to provide is not as attractive as it was in 2022. The cost increase of switching to other countries for oil is, therefore, likely to be limited. As a result, the impact on inflation within India is also likely to be limited, if such an eventuality comes to pass. On the other hand, the new GST rates will come into effect from September 22. With most prices set to come down due to their rates being cut, the impact on the inflation rate is also going to be in the same direction. The low inflation rate and high growth in Q1 have raised expectations that the RBI's Monetary Policy Committee will cut interest rates further in its next meeting at the end of September. However, given the ongoing global uncertainties, this might be premature. Depending on how the renewed bonhomie between India and the U.S. progresses, a rate cut in December is the more likely outcome.

FISCAL HEALTH OF STATES UNDER STRAIN AS PUBLIC DEBTS TREBLES IN 10 YEARS

The public debt of all 28 states combined trebled in 10 years — from Rs 17.57 lakh crore in 2013-14 to Rs 59.60 lakh crore in 2022-23 — according to a first-of-its-kind report by the Comptroller and Auditor General of India (CAG) that provides a decadal analysis on fiscal health of states.

— The report was released Friday by CAG K Sanjay Murthy during the State Finance Secretaries Conference.

— According to the report, the total public debt (internal debt and loans and advances from the Centre) of the 28 states was Rs 59,60,428 crore at the end of FY 2022-23 — or 22.96 per cent of their combined Gross State Domestic Product of Rs 2,59,57,705 crore. GSDP is the value of all finished goods and services produced within a state's geographical boundaries.

— According to the report, at the end of 2022-23, the highest debt-to-GSDP ratio of 40.35 per cent was recorded in Punjab, followed by Nagaland (37.15 per cent) and West Bengal (33.70 per cent) (see chart). The lowest ratio was recorded in Odisha (8.45 per cent), Maharashtra (14.64 per cent) and Gujarat (16.37 per cent).

— The states' total debt in 2022-23 was 22.17 per cent of the country's Gross Domestic Product (GDP), which stood at Rs 2,68,90,473 crore, said the report.

— The Public Debt of states includes loans raised from open market through securities, treasury bills, bonds, etc.; loans from State Bank of India and other banks; Ways and Means Advances (WMA) from Reserve Bank of India, besides loans from financial institutions such as Life Insurance Corporation of India (LIC) and National Bank for Agriculture and Rural Development (NABARD).

— Observing that the “golden rule of borrowing” suggests that the government should borrow only to invest or capitalise and not to meet its operating cost/ current spending, the report highlighted that 11 states used borrowed money to finance their current expenditures.

— “This could be due to part of debt receipts meeting the revenue deficit. In the case of Andhra Pradesh and Punjab, capital expenditure was as low as 17 per cent and 26 per cent of the net borrowings and in the case of Haryana and Himachal Pradesh, about 50 per cent,” the report said.



Do You Know:

— WMA is a facility for both the Centre and states to borrow from the RBI. These borrowings are meant purely to help them to tide over temporary mismatches in cash flows of their receipts and expenditures. In that sense, they aren't a source of finance per se.

— Section 17(5) of the RBI Act, 1934 authorises the central bank to lend to the Centre and state governments subject to their being repayable "not later than three months from the date of the making of the advance".

— Covering 18 major states for the financial year 2022-23, the Fiscal Health index assigned a score to each state on the basis of five parameters – quality of expenditure, revenue mobilisation, fiscal prudence, debt index, and debt sustainability. Odisha led overall, followed by Chhattisgarh, Goa, Jharkhand, and Gujarat.

— Odisha, Chhattisgarh, and Jharkhand led NITI Aayog's new Fiscal Health Index on the back of mining-linked premiums, whereas Punjab, Andhra Pradesh, and West Bengal emerged as major laggards across parameters including revenue mobilisation and fiscal prudence.

WHY ARE MAHARASHTRA'S ONION FARMERS PROTESTING?

The story so far:

Since September 12, thousands of farmers from Maharashtra, India's largest onion-producing State, have been holding a phone protest. The main reason for the agitation is the distress caused by the fall in market prices of onions. Farmers are demanding immediate government intervention and aid of ₹1,500 per quintal. Experts say the problem is systemic. Maharashtra has produced more onions than needed this year, and the quality of stored Rabi onions has deteriorated, lowering market prices. They argue that the government must streamline onion exports, establish a uniform export policy, build trust among importers, and hold discussions with key buyers to secure stable markets.

Why are farmers protesting?

At present, farmers say they earn only ₹800 to ₹1,000 per quintal for their onions, while the production cost stands at ₹2,200 to ₹2,500 per quintal. The Rabi onions stored by farmers in the hope of better rates are deteriorating, forcing them to sell at even lower prices. At the same time, the government has released its buffer stock in the market at cheaper prices, further dragging down rates.

"NCCF and NAFED should be stopped from selling their stocks in cities across the country," one of the key demands put forth by the Maharashtra State Onion Producer Farmers' Organisation said. National Cooperative Consumers' Federation of India Ltd. (NCCF), a major consumer cooperative in India; and National Agricultural Cooperative Marketing Federation of India Ltd. (NAFED), the apex cooperative organisation for promoting and developing the cooperative marketing of agricultural produce for the benefit of farmers, jointly procure, store and thereafter sell the onions in the market as a part of the Government of India's price stabilisation policy.

How is the onion price stabilisation policy affecting the farmers?

India's onion price stabilisation policy focuses on maintaining a strategic buffer stock under the Price Stabilisation Fund (PSF) to manage price volatility. The government procures onions to

4TH FLOOR SHATABDI TOWER, SAKCHI, JAMSHEDPUR



build this buffer, and during periods of high prices or lean supply, they are released from the stock into major consumption centres through outlets and mobile vans to ensure affordability for consumers and prevent hoarding.

However, at present, farmers are still sitting on the stocks of Rabi onions and are trying to sell them in the market.

At a time when their produce is receiving a market price lower than the production cost, the prices are brought down further due to the NAFED and NCCF stocks.

What solutions are farmers and experts proposing?

According to government data, 25.25 lakh tonnes of onions were exported in the year 2022-23, a significant surge compared to previous years. But within two years, exports fell by more than half — in 2024-25, only 11.47 lakh tonnes were exported. “There is an urgent need to restore competitiveness and secure India’s position in global onion markets. Bangladesh and Sri Lanka were the two main importers of Indian onions. Today, both of them have looked away from us. The government needs to have a stable export policy. Any flip-flops lead to a loss of credibility for the country in the international market,” an exporter who did not wish to be named said.

Farmers and exporters want the government to incentivise exports, as India is one of the leading growers of onions in the world. During the flux in the government’s export policy, countries like China and Pakistan have taken over India’s export market, farmers said.

Meanwhile, the Andhra Pradesh government has announced procurement of onions at ₹1,200 per quintal, a base price considered crucial to protecting farmers. One of the suggestions given to the government of Maharashtra is to emulate the Andhra model and incentivise the onion farmers.

HOW UPS DIFFERS FROM OTHER GOVT PENSION SCHEMES, WHY ITS UPDATE IS LOW

Central government employees have till September 30 to opt for the Unified Pension Scheme (UPS) under the National Pension System (NPS), which was approved by the Cabinet last August and came into effect from April 1 this year.

— The department on September 2 notified the Central Civil Services (Implementation of the Unified Pension Scheme under the National Pension System) Rules, 2025 to regulate service matters for central government employees opting for UPS.

— Till the UPS was announced last year, central government employees hired before January 1, 2004, were under the Old Pension Scheme (OPS), which guarantees a fixed pension, while those employed after that were under the NPS, which is market-linked.

— While NPS subscribers and employee unions continue to demand a return to the OPS for all employees, the government last August announced the UPS.

— While the NPS was mandatory for all central government employees joining from January 1, 2004, the UPS is optional. The scheme gives an assured payout of 50% of the average basic pay drawn by the employee in the last 12 months before retiring for a minimum service of 25 years.

— Upon the death of the pensioner, the spouse will be given an assured pension of up to 60% of the pension being drawn.



- The first major difference is that the NPS was mandatory, while the UPS is optional. According to the rules notified by the department, employees who opt for the UPS till September 30 have a one-time option of going back to the NPS.
- They can exercise this option up to one year before superannuating or three months before opting for Voluntary Retirement Scheme (VRS). Once this choice is made, the employee cannot opt for the UPS again.
- Under NPS, the contribution to the pension account through the Permanent Retirement Account Number (PRAN) is 10% by employee and 14% by employer of the basic pay plus dearness allowance.
- For UPS, the PRAN contribution is 10% each for the employee and employer of the basic plus DA. There is an assured payout of 50% of the average basic pay of the last 12 months subject to completion of 25 years in service under UPS. The NPS does not have an assured amount; it is based on the accumulated corpus.
- For this assured payout, the UPS has the provision of a pool corpus that would be formed through a contribution by the government of 8.5% of the basic pay plus DA.
- A minimum payout of Rs10,000 per month is guaranteed after 10 years of service under UPS. Employees being dismissed from service would not be eligible for the assured payout.
- The NPS does not have a lump sum payment, while UPS has one of 1/10th of the last basic pay plus DA for each completed six months of service.
- In a move aimed at popularising the National Pension System among the employees in the non-government sector, the Pension Fund Regulatory and Development Authority (PFRDA) on Tuesday permitted fund managers to customise and offer multiple schemes with equity exposure up to 100% to private-sector subscribers.
- Private-sector participation in NPS has grown at a fast pace in recent years, but still it accounts for a fifth of the total assets Under Management (AUM).

Do You Know:

- The National Pension Scheme (NPS) replaced the Old Pension Scheme (OPS) on January 1, 2004. However, there have been persistent demands for a return to the OPS because for government employees, the NPS not only gave lower assured returns, it also implied employee contributions
 - which was not the case with the OPS.
- In 2023, the government constituted a committee chaired by then Finance Secretary (now Cabinet Secretary) T.V. Somanathan. Its recommendations led to the announcement of the UPS.
- According to the government's notification, the UPS has five key features:
 1. Assured Pension: Employees with at least 25 years of qualifying service will receive an assured pension of 50% of their average basic salary from the previous 12 months before superannuation. The payment would be correspondingly reduced for shorter service periods, up to a minimum of 10 years of service.



2. Assured minimum pension: The UPS guarantees a monthly pension of Rs 10,000 for superannuation after at least 10 years of service.
3. Assured family pension: If a retiree dies, their immediate family is entitled to 60% of the pension last taken by the retiree.
4. Inflation indexation: Dearness relief for three types of pensions will be determined using the All India Consumer Price Index for Industrial Workers, which is similar to serving workers.
5. Lumpsum payment at superannuation: In addition to gratuity, lump sum payments upon superannuation are computed as 1/10th of the monthly compensation (pay + dearness allowance) on the day of superannuation for every six months of service completed.

STOP PAYING MORE FOR BEING A WOMAN: AVOID PINK TAX

Same haircut, yet different price tags. Ever observed why your daughter's haircut often costs more than son's? Do the scissors charge extra for braids and bows? Nope. It's just a markup born out of gender-based price discrimination! And it's not just haircuts. Pink toys are heftier than other toys, and women's shampoos, conditioners and razors are often expensive than men's variants.

This gender-based price disparity is subtle, yet real. Welcome to the world of pink tax, where being a woman could mean paying extra. But wait, the Pink Tax is not a problem meant for women alone. It can silently erode a significant portion of a family's savings, especially in households where women are not part of the workforce.

What is Pink Tax?

Pink tax is neither a real tax, nor is it a government-imposed fee. It's just a pricing phenomenon wherein women pay more for buying a product exclusively made for them or enjoying a service tailor-made for them. As there is no outright ban on pink tax, firms reap benefits by pocketing extra revenue generated out of selling the items, without contributing to government's coffers.

Pink toys, haircuts, drycleaning, razors, shampoos, body lotions, deodorants, facial care, skincare items, beauty care, clothing, T-shirts, jeans, salon services etc. suffer the tax.

Across the globe

The term "Pink Tax" is believed to have originated in the U.S. in California in 1994. As per a study done in the U.S., personal care products targeting women were 13% costlier than men's. Further, women's accessories and adult clothing were 7% and 8% more expensive.

The study showed that in their entire lives, women pay thousands of dollars more than men for buying similar products. It further said since many women earn less than men on an average, the Pink Tax throws additional burden on them, economically. Another study in the U.S. said the price for dry cleaning women's shirts were 90% more expensive than those of men's.

In the U.K, an analysis showed women's deodorant was at least 8.9% more expensive than men's variant and women's facial moisturiser was 34.28% more expensive.

In 2017, the United Nations urged its member states to put an end to this gender-based price discrimination and to help women gain equal access to economic participation.



Pink Tax in India

The problem of Pink Tax is yet to bother most Indian families. As per International Finance Students Association's (IFSA) research 'The Gender Tax: Assessing the Economic Toll on Women,' almost 67% of Indian individuals have never heard of the Pink Tax.

In July 2018, the Union Government exempted sanitary napkins and tampons from the Goods and Services Tax (GST). Prior to this rule, these hygiene items were levied 12% GST. Probably, this was the time when Indian women took notice of this gender-based disparity in pricing.

How to avoid Pink Tax?

With a little awareness, you can outsmart the Pink Tax. Choose gender-neutral products or men's variants whenever possible. Compare the quality and if the men's variant is better, skip the pink packaging or choose unisex products.

Instead of comparing prices of the entire package, check the price per unit. For example, compare cost per ml or gram before buying. This can lead to huge savings over time. Often, salons charge more for girls/women even for "basic" short haircuts. Bargain to save a considerable amount. Ask for gender-neutral pricing or visit unisex salons that offer fair and transparent pricing. Compare the cost of men's and women's variants in e-commerce websites before rushing to buy.

Do some research. There are some Indian start-ups that market themselves as gender-neutral and pocket-friendly brands. Further, there are several consumer advocacy groups that campaign for the cause; supporting them could encourage a shift toward fair pricing.

NCDRC ruling

While there are no specific laws in India to address the issue of Pink Tax, the National Consumer Disputes Redressal Commission ruled that companies must follow fair pricing policies and avoid gender-based price discrimination.

The Pink Tax exists because you pay quietly. If people started comparing prices and switched smartly, markets might ensure fair pricing. Avoiding the pink tax is not just about saving money, it's also about claiming equality in the marketplace.

SHOULD YOU BE A LOAN GUARANTOR?

Becoming the guarantor of a loan may seem like a simple gesture for helping someone close to get credit. However, in reality, it creates a binding financial responsibility for a long period. As lenders treat loan guarantors almost at par with borrowers, they hold loan guarantors for repayment defaults. Thus, understanding the implications of becoming a loan guarantor can help protect both relationship and long-term financial well-being.

Asking for guarantee

Lenders usually need prospective borrowers to rope in loan guarantors when they are not fully convinced about the repayment capacity or loan eligibility of the primary and co-borrowers. Situations where the need for a guarantor might arise include huge loan amounts, applicants with risky job profiles, unsatisfactory employer profiles, low credit scores, etc. Including a guarantor in such cases reduces credit risk for the lender, providing an additional layer of protection. Factors to be considered before becoming a loan guarantor include:



Guarantor's credit profile check

As the guarantor would be held liable for loan repayment in case of default by primary and co-borrowers, lenders would check the credit profile of the individual proposed as loan guarantor. As in the case of primary and co-applicants, lenders may consider income, credit score, repayment capacity, job and employer profile, etc. of the proposed guarantor to evaluate his eligibility as a guarantor.

Contingent liability

Becoming a loan guarantor would make one equally liable for ensuring timely repayment. Thus, if the primary and co-borrower(s) of a loan fail to repay EMIs by due dates, then the lender can demand the guarantor to repay the outstanding loan amount as well as the applicable penal rates and other charges for non-repayment.

Thus, if you are agreeing to sign in as the loan guarantor, try to persuade the primary as well as co-applicant(s), if any, to opt for loan protection insurance plans.

These policies cover contingencies arising due to the death or disability of primary/co-borrower of the loan. Note these insurance plans do not cover repayment defaults caused by other reasons.

Impact on guarantor

The contingent liability of repaying the loan EMIs in the event of default by the primary and co-borrower(s) adversely impacts the future loan eligibility of a loan guarantor.

Once a person signs in as a loan guarantor, his own loan eligibility would get reduced by the outstanding amount of the loan. Thus, prospective loan guarantors should carefully assess his own loan requirements in the short and mid-term before signing as a loan guarantor.

Guarantor's credit score

Any delay or default in repayment of the loan EMIs would adversely impact the credit score of the loan guarantor as well. Thus, always evaluate the financial condition of the primary and co-borrower(s), if applicable, before guaranteeing a loan. You can also ask the primary borrower and co-borrowers to share their credit reports to get a fair idea about their repayment track-record and credit discipline. You should avoid guaranteeing loans where the primary borrower(s) have a very poor repayment track-record or lack financial discipline. Once you step in as a loan guarantor, ensure to closely track the repayment activities in the guaranteed loan account.

Difficulties in opting out

Once you step in as the guarantor of a loan, you cannot withdraw from the responsibilities of a guarantor until the lender and the borrower(s) find a mutually acceptable new loan guarantor. This becomes another reason to carefully assess one's short and mid-term financing requirements before agreeing to guarantee a loan.

BIMA SUGAM ENTITY'S WEBSITE UNVEILED

Bima Sugam India Federation (BSIF), the entity that will steer electronic marketplace Bima Sugam mooted by insurance regulator IRDAI, has launched its official website.



It marks the first visible step in building India's pioneering digital public infrastructure for insurance, IRDAI said after Chairman Ajay Seth unveiled the website.

The roll-out of platform features, however, will follow a phased approach, ensuring highest levels of security, compliance and scalability.

The marketplace will progressively go live with real transactions as insurers and ecosystem partners complete necessary integration over the coming months, Insurance Regulatory and Development Authority of India said.

Mr. Seth, who assumed office as IRDAI chairman recently, on Wednesday chaired a meeting with the insurance industry CEOs and appointed actuaries. The insurers were advised to ensure full benefit of the decision to exempt GST on individual life and health insurance policies, effective September 22, is passed on to policyholders, IRDAI said.



DreamIAS



LIFE AND SCIENCES

RED PLANET BLUES

Does Mars have life?

Since the previous century, scientists have been reporting signs of life on Mars. In 1976, a Viking mission experiment reported signs of metabolism, but another detector found no organic molecules. In 1996, the meteorite ALH 84001 was presented with microfossil-like shapes but lab studies reproduced similar features through nonbiological processes. In the 2000s, several teams reported methane in Mars's atmosphere but later measurements failed to confirm those levels. Reports in 2005 described life sheltered in Martian caves and sustained by liquid water. However, NASA issued a correction later saying there was no observational evidence.

On September 10, scientists reported data from the Perseverance rover indicated the presence of mudstones in Mars's Jezero Crater, containing carbon, ferrous phosphate, and sulphide minerals. The study said organic materials and these minerals often occur together, raising questions. The authors concluded only detailed lab studies of samples brought from Mars to earth could settle the questions.

UNSEEN LABOUR, EXPLOITATION: THE HIDDEN HUMAN COST OF ARTIFICIAL INTELLIGENCE

AI's efficiency and accuracy are built on the invisible labour of low-paid workers in developing countries. From data labelling to content moderation, 'ghost workers' face exploitation, insecurity, and mental health risks. Data annotators play a major role in training LLMs like ChatGPT, Gemini, etc.

The world is gearing towards an 'automated economy' where machines relying on artificial intelligence (AI) systems produce quick, efficient and nearly error-free outputs. However, AI is not getting smarter on its own; it has been built on and continues to rely on human labour and energy resources. These systems are fed information and trained by workers who are invisibilised by large tech companies, and mainly located in developing countries.

Areas of human involvement

A machine cannot process the meaning behind raw data. Data annotators label raw images, audio, video, and text with information that trains AI and Machine Learning (ML) models. This, then, becomes the training set for AI and Machine Learning (ML) models. For example, an large-language models (LLM) cannot recognise the colour 'yellow' unless the data has been labelled as such. Similarly, self-driving cars rely on information from video footage that has been labelled to distinguish between a traffic sign and humans on the road. The higher the quality of the dataset, the better the output and the more human labour is involved in creating it.

Data annotators play a major role in training LLMs like ChatGPT, Gemini, etc. An LLM is trained in three steps: self-supervised learning, supervised learning and reinforcement learning. In the first step, the machine picks up information from large datasets on the Internet. The data labellers or annotators enter in the second and third steps, where this information is fine-tuned for the LLM to give the most accurate response. Humans give feedback on the output the AI produces for better responses to be generated over time, as well as remove errors and jailbreaks.



This meticulous annotating work is outsourced by tech companies in Silicon Valley to mainly workers in countries like Kenya, India, Pakistan, China and the Philippines for low wages and long working hours.

Data labelling can be of two types: those which do not require subject expertise and those which are more niche and require subject expertise. Several tech companies have been accused of employing non-experts for technical subjects that require prior knowledge. This is a contributing factor in the errors found in the output produced by AI. A data labeller from Kenya revealed that they were tasked with labelling medical scans for an AI system intended for use in healthcare services elsewhere, despite lacking relevant expertise.

However, due to errors resulting from this, companies are starting to ensure experts for such information being fed into the system.

Automated features requiring humans

Even features marketed as 'fully automated' are often underpinned by invisible human work. For example, our social media feeds are 'automatically' filtered to censor sensitive and graphic content. This is only possible because human moderators labelled such content as harmful by going through thousands of uncensored images, texts and audio. The exposure to such content daily has also been reported to cause severe mental health issues like post-traumatic stress disorder, anxiety and depression in the workers.

Similarly, there are voice actors and actors behind AI-generated audios and videos. Actors may be required to film themselves dancing or singing for these machines to recognise human movements and sounds. Children have also been reportedly engaged to perform such tasks.

In 2024, AI tech workers from Kenya sent a letter to former U.S. President Joe Biden talking about the poor working conditions they are subjected to. "In Kenya, these US companies are undermining the local labor laws, the country's justice system and violating international labor standards. Our working conditions amount to modern-day slavery," the letter read. They said the content they have to annotate can range from pornography and beheadings to bestiality for more than eight hours a day, and for less than \$2 an hour, which is very low in comparison to industry standards. There are also strict deadlines to complete a task within a few seconds or minutes.

When workers raised their concerns to the companies, they were sacked and their unions dismantled.

Most AI tech workers are unaware of the large tech company they are working for and are engaged in online gig work. This is because, to minimise costs, AI companies outsource the work through intermediary digital platforms. There are subcontract workers in these digital platforms who are paid per "microtask" they perform. They are constantly surveilled, and if they fall short of the targeted output, they are fired. Hence, the labour network becomes fragmented and lacking transparency.

The advancement of AI is powered by such "ghost workers." The lack of recognition and informalisation of their work helps tech companies to perpetuate this system of labour exploitation. There is a need to bring in stricter laws and regulations on AI companies and digital platforms, not just on their content in the digital space, but also on their labour supply chains powering AI, ensuring transparency, fair pay, and dignity at work.



HOW THE DEEPSEEK-R1 AI MODEL WAS TAUGHT TO TEACH ITSELF TO REASON

The story so far:

For many decades, one of the great challenges in artificial intelligence (AI) has been teaching machines to reason. Reasoning goes beyond memorising facts or completing sentences. It's the ability to follow steps, reflect on mistakes, and adjust strategies until the right answer is found.

Humans use reasoning for everything from solving maths problems to writing computer programmes, from negotiating their daily lives to deciding whom to vote for. Large language models (LLMs) such as GPT-4 or DeepSeek-V3 have surprised scientists by showing signs of reasoning when scaled to large sizes. Another method, called chain-of-thought prompting, where the model is nudged to “think step by step”, has also boosted performance.

But both these approaches come with limits. Training models to reason usually demand human-made examples. E.g., people show an AI model how to solve problems and the AI learns to copy the method. This is slow, expensive, and introduces human biases. It also caps the AI's creativity because the model can't explore problem-solving methods that humans didn't think of.

In a paper published in Nature on September 17, the DeepSeek-AI team reported that it was able to reach its model, called just R1, to reason by asking an ambitious question: what if we allowed the model to teach itself to reason without showing it human examples first? That is, they found that R1 could develop new forms of reasoning using reinforcement learning, a method of trial and error guided only by rewards for correct answers.

What is reinforcement learning?

The team's aim was to make the model smarter at maths and coding, as well as to uncover how reasoning behaviours might emerge naturally when a machine is given the proper incentives.

DeepSeek researchers began with V3 Base, a large language model similar to other state-of-the-art systems. Instead of using the usual supervised fine-tuning, where humans provide the reasoning steps, they applied 'group relative policy optimisation', a reinforcement learning method designed for efficiency.

In this setup, the model, called R1-Zero at first, was asked to solve mathematical and algorithmic problems. For each attempt, it had to produce two parts: a reasoning process inside ``<think>...</think>`` tags and a final answer inside ``<answer>...</answer>`` tags. The only reward came from whether the final answer was correct, judged by rule-based systems like answer keys or code compilers. No one told the model how its reasoning should look.

Over thousands of training steps, the model learned by trial and error. If an answer was wrong, the path that led there was discouraged; if it was right, the path was reinforced. Importantly, the researchers also tracked how the model's thinking time, i.e., the number of tokens it used in its reasoning section, changed. Strikingly, the model began writing longer and more reflective reasoning chains on its own, sometimes including phrases like “wait” or “let's try again”, revealing an ability to self-correct.

Was there human intervention?

To address weaknesses such as poor readability and mixing English with Chinese, the team built R1 from R1-Zero. This process included adding incentives for consistently using one language,



supervised fine-tuning with both reasoning and non-reasoning data. The final model thus inherited the raw reasoning power of R1-Zero while also becoming easier to use and safer.

The results were striking. On the American Invitational Mathematics Examination (AIME) 2024, a tough competition that usually the smartest high-school students attempt, R1-Zero's accuracy jumped from just 15.6% at the start of training to 77.9% by the end. With more tuning, it reached 86.7%, surpassing the average performance of human students.

At a certain stage, R1-Zero began using the word “wait” more often in its reasoning, just like a human might have when a mistake is spotted. The researchers said this meant the model wasn't blindly following a path but actively rethinking steps when something seemed off. In effect, reinforcement learning had coaxed the AI into behaviours that resembled reflection and verification, both elements of reasoning.

The ultimate R1 model was even stronger: it was good at maths and coding as well as on benchmarks for general knowledge, answering questions, and following instructions. Compared to its predecessors, R1 was also more consistent with its choice of language and better aligned with human preferences for helpfulness and safety. When evaluated with frameworks like AlpacaEval 2.0 and Arena-Hard, which test how well a model follows instructions, R1 improved by 25% and 17%, respectively, which are considered large.

What are the pros and cons of reasoning?

Many large language models, including widely used systems like ChatGPT, often demand large amounts of computational resources during testing. R1, on the other hand, could adapt how much it “thought” depending on the task's difficulty. Simple problems were met with short reasoning chains, while harder ones led to longer, more elaborate chains. This dynamic allocation avoided demanding power on questions that didn't warrant it. However, reinforcement learning itself is energy-intensive.

Taken together, the findings confirm that reinforcement learning alone (with the right design) could produce reasoning behaviours that were previously thought to require human examples. This could change the way we think about how intelligence might grow in artificial systems. For instance, in the future, researchers could build verifiers that check answers and let the model figure out its own strategies. If the answer to a maths problem, a computer programme or a factual question can be reliably checked, then reinforcement learning can do the rest. This could speed up progress while reducing human labour and bias.

Indeed, traditional LLM training pipelines bank heavily on large human-labelled datasets — people writing question-answer pairs, reasoning steps, preference judgments, etc. They are expensive and often assembled under exploitative labour conditions. If machines can be taught to reason using reinforcement learning alone, the demand for human-annotated data can shrink, thus also reducing pressure to source cheap labour worldwide. However, the study paper also acknowledges that tasks without clear ground-truthing still rely on human-labelled data for reward models. So human input is not eliminated; only its scope may shrink to areas where no reliable verifier can be built.

A model that learns to reason will also demand better reward signals for open-ended tasks like writing, which is difficult, as well as stronger safeguards as it becomes capable of generating dangerous or manipulative content. In fact, watching a machine develop reflective behaviour (pausing, checking, revising, etc.) raises questions about how far such systems can go. If reasoning



emerges from incentives rather than instructions, could creativity or deeper forms of understanding emerge in the same way?

Time will tell — unless DeepSeek-R1 figures it out first.

ANCIENT ASIANS MUMMIFIED DEAD BEFORE EGYPTIANS

A groundbreaking archaeological discovery is reshaping our understanding of ancient cultures and the universal human experience of mourning. Recent research reveals that hunter-gatherers in Asia practiced smoke-drying to mummify their dead as early as 14,000 years ago. This finding positions these as the oldest known human mummies, predating the famous mummies of Egypt by nearly 10,000 years and those of South America's Chinchorro culture by 7,000 years.

The study, published in the 'Proceedings of the National Academy of Sciences', examined dozens of skeletons from burial sites across southern China, Vietnam, Indonesia, and other parts of Southeast Asia. What unites these ancient remains is not what is visible to the naked eye, but what scientists uncovered through careful detective work. The skeletons were found in tightly 'crouched, squatting positions' that seemed anatomically impossible for a fresh body to achieve. This extreme contortion, along with specific patterns of charring on bones like the elbows and skull, suggested the bodies had been meticulously manipulated and preserved before burial.

Using advanced imaging techniques, researchers found chemical signatures of prolonged exposure to low-temperature heat. This evidence points to a deliberate practice: bodies were likely arranged over smoky fires for weeks or even months, slowly drying the tissue until the remains could be folded into their final resting pose. In the humid environments of tropical Asia, smoke-drying was likely the most effective method for preservation, a practice still used by some Indigenous communities in Papua New Guinea today.

Beyond the technical achievement, this discovery speaks to a profound cultural and emotional sophistication among ancient hunter-gatherers. The immense time and effort required for this process—a commitment of "profound love and spiritual devotion," as lead researcher Dr. Hsiao-chun Hung describes it—suggests these societies held complex beliefs about death and the afterlife.

This discovery does more than rewrite a timeline; it reminds us of a shared humanity. Across vast distances and millennia, people have sought ways to defy the finality of death, driven by the timeless wish that our loved ones might never truly leave us. The silent, smoke-dried mummies of Asia are a powerful testament to the enduring bonds of family and community that have connected us since the dawn of human history.

HOW SERIOUS IS THE GLOBAL PLASTIC POLLUTION CRISIS?

The story so far:

Rapidly increasing plastic pollution is a serious global environmental issue as it significantly impacts ecosystems, their functions, sustainable development, and ultimately the socio-economic and health dimensions of humanity. With this realisation, this year's World Environment Day (June 5) focused on "Ending Plastic Pollution" and encouraging worldwide awareness and action against it.



How serious is the issue?

The OECD's 'Global Plastic Outlook' reveals that global plastic consumption has increased significantly due to the growth of emerging economies and markets. Plastics production doubled from 2000 to 2019, reaching 460 million tonnes, while waste generation grew to 353 million tonnes. Nearly two-thirds of plastic waste has a lifespan of less than five years, with 40% coming from packaging, 12% from consumer goods, and 11% from clothing and textiles. Among this waste, only 9% is recycled. Another 19% is incinerated, 50% ends up in landfills, and 22% evades waste management systems, often entering uncontrolled dumpsites, being burned in pits, or ending up in terrestrial or aquatic environments, especially in poorer countries.

According to the Intergovernmental Negotiating Committee on Plastic Pollution, in 2024 alone, 500 million tonnes of plastic were produced or used, generating around 400 million tonnes of waste. If the current trends continue, global plastic waste could almost triple by 2060, reaching 1.2 billion tonnes.

The Ocean Conservancy data reveal that each year, 11 million tonnes of plastic enter the ocean, in addition to the estimated 200 million tonnes that already flow through our marine environment. According to a United Nations Environment Programme (UNEP) expert, if the current rate of plastic production and waste generation continues, there will be more plastic in the ocean than fish by the mid-century.

Why is plastic pollution such a grave problem?

The non-biodegradable character of plastics is a serious challenge. It simply breaks into smaller and smaller pieces over time, creating micro- and nano-plastics that infiltrate and contaminate every part of the planet, from the summit of Mount Everest to the depths of the oceans. Plastics account for 3.4% of global greenhouse gas emissions. UNEP has stated that plastic production, use, and disposal could account for 19% of the total global carbon budget by 2040.

What remedies are being proposed?

At the fifth session of the UN Environment Assembly (2022), all 193 UN member states agreed to end plastic pollution through a legally binding international agreement. This is critical to achieving the UN Sustainable Development Goals, including climate action, sustainable consumption and production, protection of oceans, and the restoration of ecosystems and biodiversity. UNEP's ambitious goal of reducing plastic waste by 80% within two decades requires serious action and international cooperation, innovation, better product design, and environment-friendly alternatives, as well as efforts to improve waste management and increase recycling.

As plastics and their chemical additives are primarily made from petrochemical feedstock, limiting their production and eliminating unnecessary items, especially single-use plastics, is urgent. Governments should permit production only within existing legal frameworks.

Most plastics used today are virgin (primary) plastics, while global production of recycled (secondary) plastics is only 6%. Improving recycling technologies and building profitable markets for recycled plastics are crucial.

Imposing landfill and incineration taxes can incentivise recycling. Extended Producer Responsibility schemes, landfill taxes, deposit refunds, and pay-as-you-throw systems need to be introduced.



Finally, people must adopt greener alternatives that have been used in the past. The media, too, has a significant role to play in shaping awareness.

MOSQUITOES SUCK — BUT SHOULD WE SIMPLY GET RID OF THEM?

The U.S. Centres for Disease Control and Prevention (CDC) calls mosquitoes the “world’s deadliest animals.” They have good reason. Small, annoying but dangerous: this disease-carrying insect helps kill more than a million people in the world every year.

Now, as the world becomes warmer, their domain could be expanding. Previously, mosquitoes were only a concern in the warmer, tropical areas of the world. But now, malaria cases in the U.S. are on the rise, as are the number of warm and humid days when the insects can thrive.

Mosquitoes can adapt

Anopheles mosquitoes, which spread malaria, are spreading into cooler and drier parts of the African continent. A London School of Hygiene and Tropical Medicine study warned that if the current rate of emissions continues, billions more people will be at risk of dengue and malaria by 2100.

Mosquitoes can also adapt to higher temperatures. A team of University of California Berkeley scientists reported on January 7 that mosquitoes had natural variations in their genes that helped them tolerate heat better. “This paper found that mosquitoes might have the ability to respond to warming temperatures, rather than just being static players and just taking it and dying,” said Dr. Lisa Couper, an environmental health scientist at Stanford University and lead author of the paper.

Scientists previously believed that as some parts of the world got hotter, mosquitoes might be forced to move to cooler areas, shifting the populations of the mosquitoes. But if they can keep pace with the changing climate, mosquito populations may actually expand their territories even further.

Against the backdrop of a world increasingly in the clutches of mosquito-borne diseases, does it make sense for scientists to try and wipe out some mosquitoes altogether, especially the ones that spread diseases?

Molecular biologists, environmental health scientists, and mosquito ecologists are all united by the goal to reduce the deadly impact of mosquitoes in our world — yet each group has varying takes on the topic of eradicating them altogether.

Steering clear of extremes

“There are over 3,000 species of mosquitoes,” Dr. Couper said. “If we just target the few species that are vectors for human disease, like the ones that [carry] dengue and malaria, [or] West Nile virus for example, I don’t think that there’s major ecological harm that comes from eliminating those.”

Getting rid of all the mosquitoes could have ecological ramifications, as some of them may be plant pollinators or their larvae could be food to small fish. Of the 3,000+ species of mosquitoes, eradicating some could affect the delicate balance of certain food chains. But the ones that spread disease may not even have a major role to play in pollination.



Mosquito eradication also need not be permanent, according to Dr. Andrea Smidler, a molecular biologist working on genetic engineering in mosquitoes at the University of California, San Diego (UCSD).

In the 1930s, the U.S. used to have cases of malaria. But federal relief organisations took aggressive mosquito control and malaria prevention steps — improving drainage, eliminating breeding grounds, and spraying insecticides like DDT — until the disease was eliminated from the country in 1951. The Anopheles mosquitoes were temporarily eradicated or at least brought down to such low levels that they couldn't spread the disease.

Later, however, there were mosquitoes that could transmit malaria again. "But when there's a malaria case, the CDC comes in and wipes out the mosquito locally and eliminates transmission," Dr. Smidler explained. "It's probably too difficult to expect [eradication] to be permanent, right?"

'Their one job in life...'

Some scientists believe using only insecticides to eradicate mosquitoes is futile because of how adaptable they are. "Eradicating mosquitoes is similar to killing bacteria with antibiotics," Dr. Marcelo Jacobs-Lorena, an entomologist at the Johns Hopkins Bloomberg School of Public Health in Maryland, the US, said. "It works very well in the beginning [but] gradually the bacteria become resistant to the antibiotics, and that's exactly what's happening with the mosquitoes."

He referred to a graph in the 2024 WHO Malaria Report, which shows how malaria-induced deaths worldwide dropped by nearly half from 2000 to 2015. "But from 2015 to present, there is no change. It stopped declining ... because mosquitoes become resistant."

Insecticides like DDT also wrought significant environmental harm. A 1962 book called *Silent Spring* by Rachel Carson documented how DDT caused birds to lay eggs without shells.

Enter chemical-free, species-specific elimination methods like the sterile insect technique. The idea was to sterilise the male mosquitoes of a specific species and release hundreds of them back into the population.

"The males are literally flying penises in these insect systems: they don't bite; they don't spread disease; their one job in life is to find a female and mate with her," Dr. Smidler said. "In mosquitoes, it's only females that bite and spread disease."

When a normal female mates with one of the sterile males, they won't produce any viable offspring. So briefly flooding the population with sterile males can lead to a population crash, a method that scientists have previously used to eliminate pests like the screw-worm fly (*Cochliomyia hominivorax*).

Frying pan or fire?

But traditional methods to sterilise the male flies involves irradiating their reproductive organs with X-rays, which leads to many males dying as well.

Some scientists are developing precision-guided sterile male techniques to further optimise the strategy. Using CRISPR-Cas9 methods to specifically target genes that affect fertility, Dr. Smidler and her colleagues in Dr. Omar Akbari's lab at UCSD are trying to create genetically modified sterile males. They also aim to target genes that cause "femaleness," such that all offspring end up being males.



The WHO also encourages research on genetically modified mosquitoes — as long as scientists are “supported by clear governance mechanisms to evaluate the health, environmental and ecological implications,” according to a 2020 position statement.

Additionally, scientists are repurposing existing drugs to be used as mosquito-killers. A team of scientists at Liverpool School of Tropical Medicine investigated the use of nitisinone, an FDA-approved drug that is taken by patients with rare metabolic disorders. They discovered that drinking blood containing the drug was lethal to the malaria-causing *Anopheles gambiae*, as it acts by blocking a key enzyme the mosquitoes rely on for digesting their blood meals. Nitisinone outperformed another mosquitocidal drug ivermectin and even killed insecticide-resistant mosquitoes.

However, Dr. Phil Lounibos, a mosquito ecologist at the University of Florida, said that mosquito reduction or eradication may not be the most prudent way forward to curb diseases. He pointed out that even if one species is locally removed, another, potentially more dangerous species could quickly move into the area — or the same species could invade as well.

“The chances of actually getting rid of many of these vector species is relatively challenging: not only do they reproduce very fast, many of them are species that have been skilled in invading new environments,” he said.

“Even if a project aimed at mosquito reduction is successful locally, you’re going to need to set up a laboratory skilled at producing more of the modified mosquitoes that are used in the reduction efforts,” Dr. Lounibos added.

‘Nothing is 100%’

Dr. Scott O’Neill, founder and CEO of the World Mosquito Program non-profit, figured out a way to curb disease spread without eliminating mosquitoes altogether. He and his team discovered that *Wolbachia*, a naturally occurring bacteria in some insects, protected these insects from viral infections. They transferred *Wolbachia* into *Aedes aegypti* mosquitoes and realised that the bacteria prevented dengue viruses from growing inside the mosquitoes. It could also be used to target chikungunya, yellow fever, and Zika viruses.

When they bred and released these *Wolbachia* mosquitoes locally in some places in Australia, Brazil, Colombia, and other countries, the modified mosquitoes could not transmit viruses as much, leading to a reduced spread of dengue. The bacteria can also pass down generations in mosquitoes, making it a more sustainable disease control method. In the Australian regions where Dr. O’Neill first deployed it, team members were even able to show that dengue transmission had completely stopped. “It is mosquito modification as opposed to mosquito reduction, and I still feel that this is potentially a much more powerful tool,” Dr. Lounibos said.

There was one drawback. Unlike *Aedes aegypti* mosquitoes that spread viruses, *Anopheles* mosquitoes spread a parasite called *Plasmodium* — which causes malaria — and *Wolbachia* didn’t seem to work well in these mosquitoes. But then, GlaxoSmithKline researchers stumbled upon a bacterium that seemed to prevent *Plasmodium* infections in their *Anopheles* mosquitoes. They reached out to Dr. Lorena for help.

Dr. Lorena and his colleagues found that this bacterium secreted a toxic product called harmaline that could block *Plasmodium* parasites from developing in the mosquito gut. Just like *Wolbachia* in *Aedes aegypti*, this bacterium could “cure” *Anopheles* mosquitoes of the *Plasmodium* parasite,



preventing them from carrying malaria. “The [bacteria method] does not rely on killing mosquitoes. So every mosquito becomes resistant. They continue to bite people but without transmitting the disease,” Dr. Lorena said.

Dr. Lorena and his team had also previously discovered a different bacterium that prevented Plasmodium infections in mosquitoes. This one had the advantage of being able to spread across mosquitoes more easily, passing down mosquito generations via the female’s eggs and being sexually transmitted from males to females. In the next steps, the scientists aim to test these methods extensively in wild Anopheles populations.

But Dr. Lorena doesn’t support the idea of stopping the killing of mosquitoes altogether. “Nothing is 100%,” he said. “What we envision is these bacteria being a new tool that’s added to all the existing tools.”

According to him, these different strategies should all be used together to stop mosquitoes from spreading diseases like malaria. Even the act of eradicating mosquitoes—like the other tools—need not be the ultimate goal, but just another cog in the wheel moving towards ridding the world of mosquito-borne diseases.

“We should continue treating people with malaria to eliminate the reservoir, we should continue killing the mosquitoes as well as we can—even though it’s getting less effective. We are now gradually introducing vaccines. What’s extremely important is not to rely on only one approach but to combine every single approach together,” he advised.

AUSTRALIA APPROVES FIRST VACCINE TO SAVE KOALAS FROM CHLAMYDIA

Australia has approved the world’s first single-dose vaccine to protect koalas from chlamydia, a disease causing infertility and death among the endangered species. Developed over more than a decade by the University of the Sunshine Coast, the vaccine reduces the likelihood of koalas developing symptoms and has been shown to decrease mortality by at least 65% in the wild. It can now be administered in wildlife hospitals, clinics, and in the field. While conservationists welcome the vaccine’s approval, some, like the Australian Koala Foundation, argue that more focus should be placed on conserving koala habitats, as habitat loss remains a significant threat. Chlamydia, which can cause severe health issues in koalas, is worsened by the disruption of their natural habitats due to wildfires and urban expansion. Traditional antibiotic treatments can interfere with koalas’ digestion of eucalyptus leaves, often resulting in starvation. The vaccine’s development has received government support at both state and federal levels.

ON WHO ESSENTIAL MEDICINES LIST, GLP-1 DRUGS FOR DIABETES, WEIGHT LOSS MAY BECOME CHEAPER

With the World Health Organization (WHO) updating its Model Lists of Essential Medicines (EML) to add the GLP-1 class of drugs for diabetes with associated comorbidities such as obesity, access to these drugs might just become easier. Listing a medicine on the EML is one step in a series of actions that can lead to lower costs, better affordability, and greater access.

The 25th meeting of the WHO Expert Committee on the Selection and Use of Essential Medicines was held from May 5 to 9. It reviewed scientific evidence showing that a group of medicines called glucagon-like peptide-1 (GLP-1) receptor agonists can help people with type 2 diabetes — especially those who also have heart or kidney disease — and concluded that semaglutide,



dulaglutide, liraglutide, and tirzepatide would be added to the EML. These drugs are used as glucose-lowering therapy for adults with type 2 diabetes mellitus and cardiovascular disease or chronic kidney disease and obesity.

High price

According to the WHO, the rationale for including these drugs is very clear: diabetes and obesity are two of the most urgent health challenges facing the world today. According to statistics from 2022, over 800 million people live with diabetes, with half going untreated. At the same time, more than one billion people worldwide are affected by obesity, and rates are rising fast especially in low- and middle-income countries.

The prices of these drugs are so high that access is limited. "A large share of out-of-pocket spending on noncommunicable diseases goes toward medicines, including those classified as essential and that, in principle, should be financially accessible to everyone," Deuseddit Mubangizi, WHO Director of Policy and Standards for Medicines and Health Products, says.

WHY PROMPT MEDICAL ATTENTION IS CRUCIAL IN CASES OF TESTICULAR TORSION IN CHILDREN

Children's testicular pain is frequently brushed off as a minor injury, or it is assumed that it will go away on its own. Testicular torsion is one condition though, where a delay could mean the difference between saving or losing the testicle. Raising awareness is the first line of defence against long-term effects.

When the testicle twists around the spermatic cord and cuts off its blood supply, this condition is known as testicular torsion.

The testicle may sustain permanent injury if treatment is not given immediately, typically within four to six hours.

Although it can happen at any age, newborns and children as well as teenagers during puberty are more likely to sustain this condition, when growth spurts cause the testicles to become more mobile. Timely intervention is critical. Taking the pain seriously and seeking immediate medical care can ensure the testis is saved.

Children might not always be able to express their symptoms as well as adults do. Parents need to be aware of any unexpected changes, such as: sudden, severe pain in one testicle, scrotal swelling or redness, nausea and vomiting, the child walking awkwardly, refusing to sit or play and pain that comes on after a minor injury but continues to worsen.

Children frequently arrive at the emergency room hours after the pain starts, which can significantly lower the testicle's chances of survival. Awareness is key. Teenagers, young adults, and parents must be educated about the symptoms of torsion and the need for immediate medical attention. Until proven otherwise, treat scrotal pain in children as an emergency. A physician can confirm the diagnosis through an examination or with an ultrasound. Emergency surgery to untwist the spermatic cord and fix both testicles is the standard treatment for testicular torsion in order to prevent recurrence. The testicle can be saved if blood supply to it is promptly restored. Delays longer than six to eight hours, however, significantly reduce the affected testicle's chances of surviving.



In cases where the testicle cannot be saved, removal may be required. Even then, with one healthy testicle, boys usually maintain normal fertility and hormonal function. Although a normal sexual life and good quality of life are possible even with a single testis, the goal should always be to preserve both, for the physical and psychological well-being of the individual.

Although torsion is uncommon, it can have major consequences. The testicle can be saved with early detection and prompt treatment.



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