



CURRENT AFFAIRS FOR UPSC

17th to 23rd May 2026



INTERNATIONAL

STUTTERING STARMER

U.K. Prime Minister Keir Starmer is facing an unprecedented challenge to the tenability of his role after the Labour Party lost a series of elections across the country, ceding ground to both the left and the right. The mild-mannered Mr. Starmer is the fifth head of government, since the 2016 Brexit referendum, to face such a serious loss of confidence in his leadership. Matters reached a head after Labour lost 1,100 English council seats including in its bastions, the Midlands and northern England. Far-right party Reform UK swept at least 1,400 seats, many in areas that had until now been the mainstay of Labour or their principal opposition, the Conservatives. According to some projections, Reform has gained the largest vote share in the recent election, at 26%, followed by the Greens at 18%, and then a near-tie between Labour and the Conservatives at approximately 17%. This election result might well be the clearest indication of the end of more than a century of two-party dominance. That the latest setback to Labour came on Mr. Starmer's watch bodes ill for his continuation in the Prime Minister's seat, especially since close to 100 of his party's 403 MPs have called for him to step down, and no fewer than five Ministers have resigned. Among those said to be angling for the throne are Andy Burnham, the Mayor of Manchester, Angela Rayner, former Deputy Prime Minister, and Ed Miliband, Energy Secretary.

Whoever the winner, and whatever the further twists and turns that unfold on Downing Street until the next general election, not likely until 2029, one inference that it would be safe to make from the revolving door at the Prime Minister's office is that the long shadow of Brexit continues to haunt the U.K. Some argue that Brexit truly hastened the dawn of multi-party democracy in the U.K. after it led in the 2024 election to some of the core supporters of the Leave campaign – primarily from the Conservatives – moving to Reform on the right and those of the Remain campaign — primarily from Labour — migrating to the Green Party on the left. Including the Liberal Democrats, therefore, the voting population has now splintered along the lines of five parties, while the core differentiation still relates to voters' views on being part of the European Union. With the global mood of nativist populism sweeping across nations, this splintering of the U.K. electorate has made it a low hanging fruit for the likes of anti-immigrant ideologues such as Nigel Farage of Reform. Meanwhile, every new prime ministerial candidate walking through the doors at Number 10 is faced with the unenviable challenge of a weak and factionalised support base, yet is required to produce robust answers to daunting questions on the spiralling cost of living and socioeconomic upheavals at every turn. The U.K. has become, it would appear, ungovernable.

TRUMP ADMINISTRATION'S PROGRAMME TO VERIFY VOTER ELIGIBILITY RAISES CONCERNS

The Donald Trump administration has run millions of U.S. voter registrations through government databases to determine their eligibility in a process that critics worry could end up purging valid voters from the rolls before the November election even as Democratic officials fight the effort in court.

At least 67 million registrations, primarily from Republican-controlled States, have gone through a beefed-up verification programme at the U.S. Department of Homeland Security (DHS), and tens of thousands of those have been flagged as potential noncitizens or people who have died. Some States allow only a month for people to prove their eligibility and others suspend it immediately.

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The scanning of State voter rolls at the national level is part of a broader effort by the Republican President to federalise certain election functions and promote his messaging that elections are marred by noncitizen voting, even though instances of that are rare. Voting and civil rights advocates say the DHS system is error-prone and can mistakenly flag people who are eligible to vote.

“If a voter is wrongly removed, by the time they learn about it and correct it, they may miss their opportunity to vote in that election,” said Freda Levenson, a lawyer with the American Civil Liberties Union of Ohio. The group is challenging an Ohio law requiring monthly checks with the DHS system.

Voters such as Anthony Nel, 29, have been caught in the middle.

The native of South Africa, who became a citizen more than a decade ago, was flagged as a potential noncitizen when Texas ran its voter file through the DHS verification system. Mr. Nel’s local election office in Denton, north of Dallas, temporarily canceled his registration last fall while he was waiting for a new passport to replace an expired one.

“I am like, ‘You should know that I am a citizen, that the passport exists,’” he said in an interview.

Mr. Trump has been trying to overhaul U.S. elections, including calling for a federal list of verified voters, and his Department of Justice has pushed States to hand over unredacted voter information for mass checks through the DHS program known as SAVE.

The Justice Department has sued States that refuse, saying the government is trying to ensure that they are complying with federal law and have accurate voter lists. States already take a number of steps to maintain the accuracy of their voter rolls.

SAVE, short for Systematic Alien Verification for Entitlements, was created under an immigration law mandating that DHS help federal, State, and local agencies prevent government benefits from going to noncitizens. U.S. Citizenship and Immigration Services, an arm of DHS, said more than 1,300 agencies use it.

At least 25 States have used SAVE to check their voter rolls since April 2025, after the Trump administration significantly expanded its search abilities, and 60 million registrations were checked in a year’s time, according to Citizenship and Immigration Services. That figure does not include an additional 7.4 million registrations from North Carolina, where Republicans control the State election board, that were recently run through the system.

Citizenship and Immigration Services said in an emailed statement that it is “committed to helping eliminate voter fraud” to restore Americans’ trust in their elections.

“SAVE is one of the most important tools States have to verify voter information,” Kansas Secretary of State Scott Schwab, a Republican, recently told a U.S. House committee examining how States keep voter rolls clean.

Mr. Schwab’s endorsement is notable because he once was publicly sceptical that noncitizens represented a significant voter fraud threat.

Citizenship and Immigration Services said the 60 million voter registration checks identified about 24,000 potential noncitizens. U.S. Assistant Attorney-General Harmeet Dhillon, who runs



the Justice Department's Civil Rights Division, said during a recent Fox News interview that those checks also identified about 3,50,000 people who appear to have died.

Even if all those eventually were verified as ineligible, they would represent small percentages of total registered voters.

The figure for noncitizens would be about 400 for every 1 million registrations. Some 3,84,000 people identified as potentially deceased in about 67 million registrations is a fraction of 1%.

Voting rights advocates have filed at least six federal lawsuits over SAVE checks, either against the Trump administration or States using the programme.

Republican officials say the administration does not portray SAVE searches as foolproof. Instead, it identifies registrations that should be further investigated, they said.

Once his office forwards flagged names to county officials, a State law enacted this year requires them to list the registrations as "in suspense" or "pending" until the cases are resolved. A flagged person still can vote, but the ballot is set aside for further review and might not be counted.

NATO MINISTERS SOUND OUT WASHINGTON ON TRUMP'S 'CONFUSING' TROOP MOVES

European members scrambled Friday to get clarity from U.S. Secretary of State Marco Rubio on troop shifts by Washington, as they sought to placate President Donald Trump's ire on Iran ahead of a July summit.

Mr. Trump left heads spinning as NATO Foreign Ministers gathered in the Swedish city of Helsingborg by announcing he would send 5,000 troops to Poland, in an apparent reversal of Washington earlier calling off the planned deployment.

The shift was welcomed by NATO chief Mark Rutte and Poland's Foreign Minister, but it fuelled concerns about a lack of coordination between the United States and its allies.

"It is confusing indeed, and not always easy to navigate," said Swedish Foreign Minister Maria Malmer Stenergard.

Mr. Trump's seeming U-turn came after Washington earlier this month abruptly announced it was withdrawing 5,000 troops from Germany following a spat between Mr. Trump and Chancellor Friedrich Merz.

Mr. Rubio insisted that the U.S. decisions on troops were "not punitive", and were due to Washington constantly needing to "re-examine" deployments to meet its global needs.

A string of NATO Ministers said that U.S. drawdowns on the continent were widely expected as Washington focuses on other threats and Europe ramps up its defences.

Diplomats said the aim was to turn the page ahead of the alliance summit in Ankara so that they could focus on showcasing increased spending by Europe.

He added that the Ankara summit would be "probably one of the more important leaders' summits in the history of NATO".

In a bid to calm the storm, some European allies have dispatched vessels closer to the region to help in the Strait of Hormuz when the war ends.



“Europeans have heard the message,” Mr. Rutte said.

German Foreign Minister Johann Wadephul said he did not expect NATO to send its own mission to the region.

“As the U.S. re-evaluates its level of engagement and presence in Europe within the alliance, it is exactly the opportunity... to Europeanise NATO,” said French foreign minister Jean-Noel Barrot.

One area where the Europeans are already standing more on their own is backing Ukraine.

In a bid to ensure all countries pulled their weight, he floated a plan to get European countries and Canada to vow 0.25% of GDP to arm Ukraine.

Mr. Rutte admitted that his proposal had been quickly rebuffed.

Major economies like France, Spain and Italy have been accused of punching below their weight.

IN XI AND PUTIN’S ‘NO LIMITS’ PARTNERSHIP, A GROWING ASYMMETRY

Less than a week after Xi Jinping hosted Donald Trump, Vladimir Putin arrived in Beijing for what was his 25th official visit in the 25th year since the signing of the Sino-Russian Treaty of Friendship. The summit celebrated a relationship with a long and turbulent past. Tsarist Russia was among the great predators of Imperial China’s “century of humiliation”. The Soviet Union became China’s patron after the 1949 communist revolution, only for the relationship to fracture in the Sino-Soviet split, leading Beijing to tilt towards Washington. Post-Cold War rapprochement occurred slowly, before deepening into a partnership that Xi and Putin have since elevated into one of “no limits”.

But cracks are bound to surface. China is a rising power, while Russia is not just in decline but also dependent on China. Xi holds significant leverage due to this asymmetry, visible nowhere more clearly than in Putin’s failure this week to secure a long-sought contract for a pipeline that would double Russian natural gas exports to China. The reality is that Putin needs Xi far more than the other way around, and unless Russia decides to enter into some form of reconciliation with the West, something Trump has expressed optimism about, Moscow’s dependence will deepen.

India has long bet on Russia. The military defeat to China in 1962 was a major driver of New Delhi’s tilt towards Moscow, as the US chose Pakistan as its frontline Cold War partner. The US-China rapprochement compounded India’s fears. But things are different now. A weaker Russia, a stronger China, and a mercurial US president wooing both should push India to strengthen its own capabilities. Cooperation with the US in technology and AI is a strategic necessity and India must build on that even as Russia remains a source of energy. As for China, India needs to manage a long border and a massive trade deficit. Alliances cannot substitute for the hard work of domestic reform and modernisation.

PAKISTAN DEPLOYED FIGHTER JETS, 8,000 TROOPS TO SAUDI ARABIA DURING IRAN WAR

Pakistan has deployed 8,000 troops, a squadron of fighter jets and an air defence system to Saudi Arabia under a mutual defence pact, ramping up military cooperation with Riyadh even as Islamabad serves as the main mediator in the Iran war.



The deployment, the full scale of which is reported here for the first time, was confirmed by three security officials and two government sources, all of whom described it as a substantial, combat-capable force intended to support Saudi Arabia's military if the kingdom comes under further attack.

Pakistan's military and foreign office and Saudi Arabia's government media office did not respond to requests for comment on the deployment. The full terms of the defence agreement, signed last year, are confidential, but both sides have said it requires Pakistan and Saudi Arabia to come to each other's defence in the event of an attack. Defence Minister Khawaja Asif has previously implied that it places Saudi Arabia under Pakistan's nuclear umbrella.

According to the sources, Pakistan has deployed a full squadron of around 16 aircraft, mostly JF-17 fighters made jointly with China, which were sent to Saudi Arabia in early April. Two of the security officials said Pakistan had also sent two squadrons of drones.

All five sources said the deployment includes around 8,000 troops, with a pledge to send more if needed, as well as a Chinese HQ-9 air defence system.

The equipment is operated by Pakistani personnel and financed by Saudi Arabia, they said.

Thousands of troops

The military and air force personnel deployed during the Iran conflict will primarily have an advisory and training role, according to two of the security officials, who said they had seen exchanges between the two countries and documents on the military assets' deployment.

The deployment adds to thousands of Pakistani troops with a combat role that were already stationed in the kingdom under previous agreements, all three security officials said.

One of the government sources, who has seen the text of the confidential defence pact, said it provides for the possibility of up to 80,000 Pakistani troops being deployed to Saudi Arabia, to help secure the kingdom's borders alongside Saudi forces. Two of the security officials said the agreement also involved the deployment of Pakistani warships. Reuters was not able to determine whether any had reached Saudi Arabia.

The scale and composition of the deployment — combat aircraft, air defences and thousands of troops — mean Pakistan has sent far more than a symbolic or advisory mission, the sources said. Reuters previously reported that Pakistan had sent jets to Saudi Arabia after Iranian strikes hit key energy infrastructure and killed a Saudi national, raising concerns that the Gulf kingdom might retaliate heavily and widen the conflict.

This took place before Islamabad emerged as the war's principal mediator, helping to broker a ceasefire between Washington and Tehran that has held for the past six weeks. Islamabad hosted the only round of U.S.-Iranian peace talks so far, and had planned further rounds which the sides called off. Reuters has since reported that Saudi Arabia launched numerous unpublicised strikes on Iran in retaliation for attacks carried out inside the kingdom. Pakistan has long provided military support to Saudi Arabia, including training and advisory deployments, while Riyadh has repeatedly stepped in to support Islamabad financially during periods of economic stress.



NATIONAL

INDIA, ITALY SEAL DEFENCE PACT, ELEVATE THEIR BILATERAL TIES TO A 'SPECIAL STRATEGIC PARTNERSHIP'

India and Italy have been in continuous contact over the conflicts in Ukraine and West Asia, said Prime Minister Narendra Modi on Wednesday, reiterating his call for “dialogue and diplomacy” to resolve the festering wars.

The Ministry of External Affairs said that the Special Strategic Partnership will lead to strengthened cooperation in trade, technology, defence, clean energy and innovation as well as in the field of mobility of skilled and non-skilled workers through safe and secure channels.

Agriculture research

The two sides also sealed a “Defence Industrial Road Map”, an Memorandum of Understanding (MoU) on cooperation in critical minerals, and another agreement for cooperation between the Italian Corps of the Guardia di Finanza and the Directorate of Enforcement.

A Joint Statement issued on the occasion of Mr. Modi’s visit announced that the two sides have signed an agreement on agriculture and agricultural research that will connect Ministries and institutions of India and Italy.

The two sides also expressed commitment “to a free, open, peaceful and prosperous Indo-Pacific, in line with international law, including United Nations Convention on the Law of the Sea (UNCLOS).”

On the Gulf situation, they called for “freedom of navigation and the resumption of global flows through Strait of Hormuz”.

In a significant push, ahead of the India-Africa Forum Summit-4, the two sides said they have agreed work on selected projects trilaterally in Africa.

In this regard, the Joint Statement said, “Recognising the strategic priority both countries attach to Africa, the two Prime Ministers agreed to work together in trilateral initiatives with African partners in areas such as Digital Public Infrastructure (DPI), agriculture, education, healthcare, artificial intelligence, connectivity and infrastructure and renewable energy in line with India’s development partnership in Africa and Italy’s Mattei Plan.”

Mr. Modi was conferred with the Agricola Medal for 2026 by the Food and Agriculture Organisation (FAO) of the United Nations, at the FAO headquarters in Rome.

BESIDES HORMUZ, TWO MORE STRAITS IN INDIAN OCEAN ARE VITAL FOR GLOBAL TRADE

Head of the Iranian Parliament’s National Security Committee, Ebrahim Azizi, on Saturday (May 16) announced on X that Iran “has prepared a professional mechanism to manage traffic in the Strait of Hormuz.” This announcement came just a few days after reports indicated that Iran had set up a new body, the Persian Gulf Strait Authority, to oversee vessel movement through the strait.



With these two developments, Iran has effectively formalised a toll system for the vessels transiting the Strait of Hormuz, the sole maritime gateway for one-fifth of global oil and LNG supplies, as per U.S. Energy Information Administration (USEIA) data. As the world still grapples with the energy crisis brought on by this stranglehold, these developments have exposed the Achilles' heel of global trade – the critical chokepoints that connect the world's chief maritime mercantile routes.

While Hormuz remains a global flashpoint, the Indian Ocean is also home to two of the world's most crucial straits on which the global economy hinges, the Straits of Malacca and Bab-el-Mandeb.

A closed ocean

As per C. Raja Mohan, visiting professor at the National University of Singapore's Institute of South Asian Studies, "Unlike the Atlantic and Pacific oceans, the Indian Ocean is closed, that is, a few straits control its access. This makes these straits immensely important for international trade."

By any measure, the Indian Ocean is at the centre of global trade. Each year, the Indian Ocean sees around 1,00,000 ships transit its waters, accounting for roughly 30% of global container traffic. Moreover, the Indian Ocean region annually carries nearly 80% of the world's sea-borne oil trade and about 9.84 billion tonnes of cargo.

While Bab-el-Mandeb and the Suez Canal form the western gateway to the Indian Ocean, the Malacca Strait forms the eastern opening. Professor Raja Mohan adds, "Unlike the Strait of Hormuz, which serves as the gateway to the Persian Gulf, the Malacca Strait and Bab-el-Mandeb work as links between larger sea routes."

Whereas Bab-el-Mandeb connects the Mediterranean Sea to the Indian Ocean via the Suez Canal, the Strait of Malacca links the Indian Ocean to the South China Sea.

Gate of Tears

Located between the Arabian Peninsula and the Horn of Africa, Bab-el-Mandeb links the Red Sea and Suez Canal to the Gulf of Aden. The Strait is 26-kilometre-wide at its narrowest and is around 50 km in length. Literally meaning the 'Gate of Tears', it got its name due to the navigational dangers it presents to mariners.

As per USEIA data, 9.3% of global crude oil and petroleum liquids shipments were transported through this route in 2023. UN Conference on Trade and Development (UNCTAD) data suggests that 8.7% of global sea-borne trade by volume transited the Strait in 2023. As a crucial link between Asia and Europe, Bab-el-Mandeb, along with the Suez Canal and Suez-Mediterranean pipeline, is the third busiest maritime chokepoint in global energy trade, according to USEIA data.

On April 18, Hussein al-Ezzi, Deputy Foreign Minister of the Houthis in Yemen, in a social media post, threatened to block Bab-el-Mandeb if U.S. President Donald Trump did not cease hostilities in Iran. Though the Iran-backed Yemeni militant group has not acted on these threats, it has disrupted maritime traffic through the strait in the past. In response to the Israeli attack on Gaza in 2023, the group attacked several vessels passing through the Bab-el-Mandeb. Though the attacks subsided by late 2023, the traffic recovered only marginally by 2024.



Gooseberry Strait

Christened after the Malay name of the Indian Gooseberry tree, the Strait of Malacca is the shortest sea route connecting the Indian Ocean to the South China Sea and the Pacific Ocean. Stretching roughly 900 km, the Strait is just 2.8 km at its narrowest. Indonesia, Singapore, and Malaysia are its littoral states.

According to the UNCTAD, 24% of global maritime trade passed through this strait in 2023. 45% of global oil shipments, 26% of all cars traded internationally, and 23% of dry bulk cargo shipments use it each year. A majority of consumer and industrial goods from the manufacturing hubs of East and Southeast Asia rely on this route to reach the rest of the world.

Nearly all of East Asia is heavily dependent on the Malacca Strait to meet its energy needs. China, for example, relies on it for 75% of its oil needs. In 2003, the then-President of China, Hu Jintao, coined the term “Malacca Dilemma”, describing the strategic exposure the strait presents for China.

On April 22, the Indonesian Finance Minister floated the idea of imposing a levy on ships passing through the Malacca Strait. However, just a day later, Foreign Minister Sugiono backtracked on the idea and reinforced Indonesia’s commitment to freedom of navigation under international laws. Barring these statements, the strait has remained peaceful and has, in fact, never been formally closed in recorded history.

No alternatives

What makes Bab-el-Mandeb and Malacca strategically crucial is their geography. Though alternatives to these routes exist, they either involve circuitous routes that increase shipping costs or are not suited for high-volume global traffic due to shallow depths or lack of infrastructure.

The Strait of Malacca, for instance, is home to the world’s second-busiest container port, the busiest container transshipment hub, and the world’s largest ship refueling hub in Singapore. While alternatives to Malacca, like Lombok and the Sunda Straits, do exist, they can potentially add 1,000-1,500 nautical miles – around three to five extra days at sea. This results in higher fuel costs and loss of Singapore’s port infrastructure.

Similarly, for Bab-el-Mandeb, the only viable alternative is going through the Cape of Good Hope at the southern tip of Africa, which adds 10-14 days and approximately an additional \$2 million to costs.

Professor Raja Mohan adds, “The scale of commerce that goes through these chokepoints is unprecedented. From stoves in our houses to world economies, everything depends on these chokepoints. It is very important that these trade routes remain operable.”

INDIA, CYPRUS UPGRADES BILATERAL TIES TO STRATEGIC PARTNERSHIP

INDIA AND Cyprus agreed to elevate their bilateral ties to Strategic Partnership, unveiled a 5-year roadmap for defence cooperation (2026-2031), decided to establish a cyber security dialogue and strengthen cooperation on maritime transport, space and health as Prime Minister Narendra Modi met visiting President of Cyprus Nikos Christodoulides in the Capital on Friday.



Key Takeaways:

- The two sides signed six pacts, including an MoU on establishing a joint working group on counter-terrorism, in the field of diplomatic training, on innovation and technology, establishment of official coordination and cooperation on Search and Rescue (SAR), on higher education and research and cultural cooperation from 2026-2030.
- According to top Cypriot officials, the two countries also exchanged notes on Turkey’s influence in the region as there is a shared “concern” — Turkey had backed Pakistan last year and it has a strained relationship with Cyprus.
- Officials said Cyprus is keen to procure military equipment from India, including drones and missiles, which “have been tested” last year during Operation Sindoor against Pakistan.
- India and Cyprus also agreed to speed up negotiations on the mobility pact. “Indian professionals and students residing in Cyprus are further reinforcing the bonds between our peoples. To further consolidate these ties, we have reached a consensus to conclude, at the earliest, a comprehensive Migration and Mobility Partnership, alongside a Social Security Agreement,” said PM Modi.

The two sides are also working towards the India–Middle East–Europe Economic Corridor (IMEEC) project. “We will work in tandem to ensure connectivity through key initiatives such as the Indo-Pacific Oceans Initiative and the India-Middle East-Europe Economic Corridor,” said PM Modi.

Do You Know:

- Cyprus is located close to Turkey and Syria. It’s a EU member despite being geographically in Asia. Its location makes it a crucial part of the IMEEC, an infrastructure project that India expects multiple benefits from. IMEC is supposed to boost trade and connectivity between India and Europe via the Middle East, and Cyprus, in the Mediterranean, has an important role to play.

HOME AND ABROAD

Prime Minister Narendra Modi’s tour to the UAE and Europe — the Netherlands, Sweden, Norway and Italy — had a multi-pronged agenda. Much of the visit had been planned last year, including the India-Nordic Summit that had to be cancelled after the 2025 Pahalgam attack and conflict. It came amid a new push for India-Europe ties that have been forged at a time of growing concern over superpower behaviour — from Russia’s attacks on Ukraine and the U.S.-Israel conflict with Iran to China’s coercive economic measures — all of which challenge the international rules-based order. The India-EFTA trade agreement, which came into force last year, and the India-EU FTA, to be ratified/signed later this year, reflect a shared desire to diversify supply chains and markets, particularly with Nordic countries, where bilateral trade with India remains below \$20 billion. Finally, the visit came days after Mr. Modi’s new “austerity” push for foreign currency and energy conservation. Discussions in the UAE on long-term Strategic Petroleum Reserves, and in Europe and at the Nordic-India Summit on the “Green Strategic Partnerships”, were aimed to advance collaboration on energy security. Each of Mr. Modi’s stops included robust conversations on the Ukraine and Iran conflicts, bilateral and multilateral talks. There was also a focus on AI governance and critical mineral initiatives. The Nordic countries focused on maritime cooperation and scientific collaboration in the Arctic, which has been hit by climate change. While the visits yielded few concrete outcomes or actual trade deals, the bonhomie and awards conferred on Mr. Modi, indicated expectations of deeper India-Europe collaboration. The engagement will be

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strengthened as he travels in June for the G-7 outreach summit in France and a bilateral visit to Slovakia, and later this year for the India-EU FTA signing in Brussels.

The picture of common aims and shared values cracked somewhat, however, over controversies in the Netherlands and Norway, where journalists questioned their leaders and Mr. Modi for not addressing any press conferences during the visit. While press meets are the norm across Europe, Mr. Modi has mostly stopped taking questions during his foreign tours, and has not held a press conference in India since 2014. Such press engagements are the prerogative of a leader, and may not evince a response in some countries, but the refusal to take questions clearly stood out in the countries Mr. Modi travelled to. Addressing the press after the India-Nordic Summit in Oslo, Mr. Modi said that their “shared commitment to democracy, the rule of law, and multilateralism” made them “natural partners”. That commitment, particularly to transparency and accountability that comes with any democracy, must be manifest internally first, and not because of any objections raised abroad.

MEMORIAL UNVEILED IN SEOUL TO HONOUR INDIAN TROOPS

Defence Minister Rajnath Singh and the Republic of Korea’s Minister of Patriots and Veterans Affairs Kwon Oh-eul jointly inaugurated the Indian War Memorial at Imjingak Park in Seoul on Wednesday, commemorating the 75th anniversary of the Korean War and honouring the contribution of Indian troops during the conflict.

According to the Defence Ministry, the memorial has been constructed to pay tribute to the courage, sacrifice, and humanitarian service of the 60 Para Field Ambulance of the Indian Army and the Custodian Force of India (CFI), which played a significant role during and after the Korean War.

The two Ministers laid wreaths at the memorial and paid homage to the Indian personnel, whose service continues to be remembered with gratitude by the people of South Korea.

Speaking at the ceremony, Mr. Singh highlighted India’s enduring contribution to peace and humanitarian assistance on the Korean Peninsula. He said the sacrifices and shared history between India and South Korea form a strong foundation for the growing Special Strategic Partnership between the two nations.

He also thanked the South Korean government, particularly the Ministry of Patriots and Veterans Affairs, for supporting the establishment of the memorial. The South Korean Minister praised India’s humanitarian role during the war and acknowledged the lasting bonds of friendship forged through the service of Indian troops.

A memorandum of understanding (MoU) was signed between the two countries to strengthen cooperation in honouring Korean War veterans and promoting exchanges between them. A memoir dedicated to the sacrifices of the Indian soldiers was also released on the occasion.

The 60 Para Field Ambulance, led by Lt. Col. (Dr.) A.G. Rangaraj, earned widespread acclaim for treating thousands of wounded soldiers and civilians under difficult battlefield conditions. Their compassion and bravery earned them the title “Maroon Angels” from the Korean people.

India also played a key role after the armistice through the Custodian Force of India under the Neutral Nations Repatriation Commission chaired by Lt. Gen. K.S. Thimayya, overseeing the humane repatriation of prisoners of war. The memorial stands at the site where the CFI had



established “Hind Nagar” in 1954, which housed nearly 22,000 prisoners of war before their peaceful repatriation. The ceremony marked the conclusion of Mr. Singh’s four-day visit to Vietnam and South Korea.

LOOK BEYOND STRATEGIC AUTONOMY, AND CLOSER AT THE QUAD POSSIBILITY

Those in Delhi who are antsy about US President Donald Trump’s visit to Beijing and the prospect of a Sino-American détente should be even more worried as Xi Jinping serenades Vladimir Putin in Beijing this week.

Key Takeaways:

— Those perennially anxious about a G-2 between the US and China should worry even more about China’s deepening partnership with Russia. One of the core arguments for Russia’s centrality in India’s national strategy is that it serves as a balancing power in Eurasia.

— If Trump’s visit was about moving the US from confrontation to stabilisation of ties with China, Putin’s is about celebrating the strategic partnership unveiled 25 years ago. Since Putin’s invasion of Ukraine in 2022, Russia has become even more dependent on China. What do the two pilgrimages to Beijing mean for India?

— First, India should not be rattled by every shift in great-power relations. Since World War II, relations among the US, China and Russia have changed repeatedly, often violently. Taken in pairs, they have been allies, friends, enemies and frenemies at different moments. Dealing with that change is part of the national mandate.

— Second, the real challenge for India is addressing the consequences of China’s rise and assertion.

— For India, the problem is especially acute: A long, disputed and tension-prone boundary; Beijing’s growing influence in India’s neighbourhood; an expanding Chinese footprint in global institutions; and a trade deficit now above \$110 billion, rooted in India’s deepening dependence on Chinese manufactured goods.

— Third, the answer lies partly in accelerating India’s own rise. Shifts in great-power relations, the emergence of wars and global crises — these are variables India cannot control. What it can drive is its own modernisation.

— Fourth, India cannot close the gap with China anytime soon, but it can reduce the impact of the power imbalance through external cooperation that reinforces internal self-strengthening.

— Elevation of that engagement to higher levels is obstructed by an enduring suspicion of the US and the West in the Indian political mind, across Left and Right. Anti-imperialists and nativists alike have long united in limiting significant Western cooperation.

— It is this sentiment that gives sustenance to the idea of “strategic autonomy” — a term framed as neutral, but whose political content has always been about maintaining distance from the West.

— The Indian discourse may have acquired “strategic autonomy” from the imperatives on the ground, but the government has had no choice but to reconnect foreign policy to first principles, reflected in the fact that India fought to preserve its trade relationship with the US, has pushed



hard for a trade deal with the EU, and has focussed on deeper technology cooperation with both in the last two years.

— Hosting the Quad foreign ministers’ meeting early next week follows the same logic. The Quad’s revival a decade ago was rooted in the need to build a multipolar Asia amid intensifying challenges from China.

— The enthusiasm to write obituaries for the Quad may be both premature and excessive. The visit of Secretary of State Marco Rubio — who also serves as Trump’s National Security Adviser — provides a valuable opportunity to get a first-hand account of the US-China summit, assess Washington’s changing approach to alliances, and develop a productive and sustainable agenda for the Quad.

Do You Know:

— China has become Russia’s top trading partner. Beijing is now the top customer for Russian oil and gas supplies, and Moscow expects the war in Iran to increase the demand. China has also ignored demands from the West to stop providing high-tech components for Russia’s weapons industries.

— Russia and China have come to a “general understanding” on the Power of Siberia 2 pipeline — a major project set to transport up to 50 billion cubic metres of gas annually to China.

IWT: INDIA REJECTS ‘SO-CALLED ’ ARBITRATION AWARD AS ‘NULL & VOID’

India on Saturday rejected the “so-called award” issued on May 15 by the “illegally constituted so-called” Court of Arbitration (CoA) regarding disputes with Pakistan over the Indus Waters Treaty (IWT).

Key Takeaways:

— Responding to media queries, Ministry of External Affairs official spokesperson Randhir Jaiswal said: “The illegally constituted so-called Court of Arbitration (CoA) has, on 15 May, 2026, issued what it termed an award concerning maximum pondage supplemental to the award on issues of general interpretation of the Indus Waters Treaty.”

— “India categorically rejects the present so-called award, just as it has firmly rejected all prior pronouncements of the illegally constituted CoA,” Jaiswal said.

— He said India has never recognised the establishment of this “so-called” CoA. “Any proceeding, award, or decision issued by it is null and void. India’s decision to hold the Indus Waters Treaty in abeyance remains in force,” he said.

— The IWT was signed on September 19, 1960 after nine years of negotiations between India and Pakistan. The treaty has 12 Articles and 8 Annexures (from A to H). As per the provisions of the treaty, all the water of “Eastern Rivers”— Sulej, Beas and Ravi — shall be available for “unrestricted use” of India. Pakistan shall receive water from “Western Rivers”— Indus, Jhelum and Chenab.

— In January 2023, India issued a notice to Pakistan seeking a “modification” of the treaty. This was the first such notice in the more than six decades of the IWT’s existence.



— India upped the ante in September 2024 by issuing another formal notice to Islamabad, this time seeking the “review and modification” of the IWT. The word “review”, according to experts, effectively signals New Delhi’s intent to revoke and renegotiate the treaty, which will turn 65 this year. India decided to keep the IWT in abeyance after the April 22 Pahalgam terror attack, in which terrorists killed 26 people and injured another 10.

Do You Know:

— A river, along with its tributaries, is called a river system. The Indus River system comprises six rivers: Indus, Jhelum, Chenab, Ravi, Beas, and Sutlej. The Indus and Sutlej are antecedent rivers, meaning they existed even before the formation of the Himalayas and cut deep gorges after originating in the Tibet region. The other four rivers – Jhelum, Chenab, Ravi and Beas – originate in India.

CITIZENSHIP RULE CHANGE: DECLARE, SURRENDER PAK, BANGLADESH AND AFGHAN PASSPORTS

The Centre on Monday notified draft changes to the Citizenship Rules, 2009 that would require certain applicants to declare possession or surrender passports issued by Pakistan, Afghanistan and Bangladesh.

Key Takeaways:

- In a gazette notification issued on Monday, the MHA said the Citizenship (Amendment) Rules, 2026, published under section 18 of the Citizenship Act, 1955, insert a new paragraph into Schedule IC of the 2009 rules. “The new provision, paragraph (iiiA), obliges applicants to state whether they hold a valid or expired passport issued by any of the three neighbouring countries. Those who possess such passports must provide passport details – number, date and place of issue, and expiry – and agree to surrender the document to the Senior Superintendent of Post or Superintendent of Post concerned within 15 days of citizenship approval,” the notification said.

Do You Know

- According to the notification, the rules will come into force on the date of publication in the official gazette. An MHA official described the amendment as an administrative clarification aimed at strengthening verification and record-keeping in citizenship cases.
- Earlier this month, the Union Home Ministry had notified the Citizenship (Amendment) Rules, 2026, introducing electronic Overseas Citizen of India (e-OCI) cards, fully online applications and stricter norms on dual passports for minors. “The rules introduce a fully digital OCI framework, mandating online applications, electronic records and acknowledgements, while phasing out duplicative physical processes. A new provision allows issuance of electronic OCI (e-OCI) alongside physical cards, signalling a shift toward paperless identity for overseas Indians. Applicants must now consent to sharing biometric data for integration with fast-track immigration programmes, enabling possible automatic enrolment in the future,” the MHA official said.



WHY HAS RSS CALLED FOR DIALOGUE WITH PAKISTAN?

The story so far:

Last week, Dattatreya Hosabale, the second in command in the Rashtriya Swayamsewak Sangh (RSS), the ideological mothership of the Bharatiya Janata Party (BJP), said in an interview to news agency Press Trust of India (PTI) that India should persist with attempts at a dialogue with Pakistan. His statement triggered reactions from Pakistan, leaders of political parties in Jammu and Kashmir (J&K), India's former Chief of Army Staff, and from the Opposition.

Why have Mr. Hosabale's remarks made news?

There have been a lot of comments on not just the substance of the remarks, but also their timing, coming as they do close on the heels of the first anniversary of Operation Sindoor, which followed the 2025 terror attack in Pahalgam in J&K that left 16 people dead. The Narendra-Modi led National Democratic Alliance government has consistently held that there can be no dialogue as long as Pakistan-backed terror groups continue to carry out attacks in India. In the light of the filial relationship between the RSS and the BJP, Mr. Hosabale's views have therefore raised queries as to whether the Union government was being provided political cover to change its stance on talks with Pakistan.

What has been the RSS's record with regard to talks with Pakistan?

RSS office bearers maintain that the context of Mr. Hosabale's remarks had more to do with the organisation's long-held beliefs than with any immediate preoccupation with dialogue and discourse. They point out that Mr. Hosabale's remarks, taken in full, made it clear that while there was no trust in Pakistan's political and military leadership, people-to-people contact remains the most crucial aspect of engagement, in keeping with the RSS's own ideas about civil society engagement. The remarks are therefore not comments on what the government should or should not do, but relate instead to what the RSS has been saying for a while.

What has the RSS said about relations with Pakistan in the past?

In April 1964, Deendayal Upadhyaya and Ram Manohar Lohia issued a joint statement on relations with Pakistan. At the time, the latter, while canvassing support from Opposition parties for an anti-Congress front, had reached out to the Bharatiya Jana Sangh, the political wing of the RSS and the precursor to the BJP.

Both Lohia and Upadhyaya agreed that the division between India and Pakistan was historically proven to be based on artificial grounds (reflected in the RSS's conception of an Akhand Bharat or undivided Indian subcontinent) and the governments of the two countries always indulged in tooti baatchet (piecemeal dialogue) and toota vichar (piecemeal thinking) instead of establishing a comprehensive framework for talks. The concept of Akhand Bharat as a loose Hind-Pak Mahasangh also finds mention in the statement.

This may be too far in the past. But even more recently, the RSS, and indeed Mr. Hosabale himself, has advocated for dialogue. In 2015, at the conclusion of an RSS-led Samanvay Baithak or coordination meeting with all its frontal organisations, Mr. Hosabale had, in an answer to a question, said: "India is part of SAARC and has family-like cultural relations with neighbouring countries, be it Nepal, Sri Lanka, Pakistan or Bangladesh. It was one body which was divided to form Pakistan and Bangladesh. It is natural that people living there are part of the same family.



Sometimes relations [go bad], like it happens between brothers and so we also discussed how we can improve our relations with those who are historically and geographically attached to us.”

Similar sentiments were expressed in 2017 as well, after another joint meeting between the BJP and the RSS.

What were the reactions to Mr. Hosabale’s recent comments?

Pakistan’s Ministry of Foreign Affairs welcomed the remarks, calling them a “positive development” and hoping that “sanity will prevail in India”. In J&K, National Conference president Farooq Abdullah said that he is “glad that somebody is now thinking that war is not an option.” Peoples Democratic Party president Mehbooba Mufti said “talks are the only headway” to address the issues between the two countries. India’s former Chief of Army Staff, General Manoj Naravane (retd.), also welcomed the statement as a positive sign for engagement between the two countries, especially at a delicate time in bilateral relations. The Congress criticised the remarks, with MP Manish Tewari asking: What has “materially changed since the Baisaran [Pahalgam] massacre?”

Can Mr. Hosabale’s statement be extrapolated to reflect government policy?

The answer is complicated. Prime Minister Narendra Modi is a product of the Sangh Parivar and has publicly acknowledged this fact. His government has been one of the most intensely ideological in India’s history, fulfilling some of the core issues on the RSS agenda including the reading down of Article 370 and the construction of a Ram temple in Ayodhya.

With regard to the relationship with Pakistan, matters stray into a territory that is more dynamic, and affected by both internal and external events. The RSS’s views have been quite consistent for a long time; therefore, governmental intervention, which also depends on immediate circumstances, may not usually follow the same trajectory. What the comments suggest is that whenever or if ever Mr. Modi seeks to initiate dialogue with Pakistan, he will have political cover from the ideological parent of the BJP.

ORDINANCE INCREASES NUMBER OF SC JUDGES TO 37

President Droupadi Murmu has promulgated an ordinance increasing the number of judges in the Supreme Court to 37 — excluding the Chief Justice of India.

The May 16 Gazette notification says “Parliament is not in session and the President is satisfied that the circumstances exist which render it necessary for her to take immediate action [issue of ordinance]”.

The Supreme Court (Number of Judges) Amendment Ordinance, 2026, has been promulgated in accordance with the powers of the President under Article 123 of the Constitution. The ordinance will be placed in both Houses of Parliament when it convenes. It will cease to operate if six weeks expire without any resolution passed on it after the reassembly of Parliament or if resolutions are passed in both Houses of Parliament disapproving the ordinance.

The President can withdraw the ordinance at any time.

Strength crisis

The ordinance has amended Section 2 of the Supreme Court (Number of Judges) Act, 1956 to replace the word “thirty-three” with “thirty-seven”.



The promulgation has happened nearly two weeks after the Union Cabinet approved the proposal to increase the number of Supreme Court judges. With the ordinance in place, the total sanctioned judicial strength in the Supreme Court, including the Chief Justice of India, will rise from 34 to 38.

The move is seen as a step towards tiding over the continuing crisis of pendency plaguing the court for years now, especially after the COVID-19 pandemic, when the facility of e-filing of cases caught on.

The current backlog is over 93,000 cases.

The backlog is threatening to reach six figures even as the court is going into summer recess. or “partial working days”, in June.

Six-year hiatus

The government’s approval for more judges in the Supreme Court had come after a six-year hiatus. Parliament had last amended Section 2 of the Supreme Court (Number of Judges) Act, 1956 in 2019, raising the sanctioned strength from 30 to 33, excluding the Chief Justice of India.

At present, there are two judicial vacancies in the top court. These are of the previous Chief Justice of India, Justice B.R. Gavai, who retired in November 2025, and Justice Rajesh Bindal, who completed office in April 2026.

Three more judges are scheduled to retire in 2026. Justices J.K. Maheshwari and Pankaj Mithal will end their tenure in June, and Justice Sanjay Karol in August.

The Framers of the Constitution had originally in Article 124(1) envisaged a Supreme Court consisting of the Chief Justice of India and “not more than seven judges” until “Parliament by law prescribes a larger number”,

The Supreme Court (Number of Judges) Act 1956, as originally enacted, provided for the maximum number of judges (excluding the CJI) to be 10.

This number was increased to 13 by the Supreme Court (Number of Judges), Amendment Act, 1960, and to 17 by another amendment to the law.

The Supreme Court (Number of Judges) Amendment Act, 1986, augmented the strength of the Supreme Court judges from 17 to 25, excluding the CJI. Subsequently, a fresh amendment in 2009 further augmented the strength of top court judges from 25 to 30.

This was followed by the previous amendment in 2019.

CRIMINAL JUSTICE SYSTEM MUST ADOPT A MORE VICTIM-CENTRIC APPROACH: SC

The Supreme Court on Thursday observed that there is a pressing need for the criminal justice system to adopt a more victim-centric approach while refusing to entertain a plea seeking the clubbing of FIRs registered across several States by an accused in a chit fund scam.

“...You have taken money from poor people, and now you want us to ensure that you are provided the luxury of facing trial in one place... We have only been referring to accused-centric jurisprudence in criminal law. The victims have always been pushed into a corner,” Chief Justice of India (CJI) Surya Kant, heading a three-judge Bench, orally remarked.



The Bench, including Justices Joymalya Bagchi and Vipul M. Pancholi, was hearing a petition filed by Upendra Nath Mishra, an accused in the multi-hundred-crore chit fund scam involving Micro Finance Limited. The case was probed by the Central Bureau of Investigation (CBI).

Senior advocate Aman Lekhi, appearing for the accused, contended that where multiple acts of inducement and cheating arise in pursuance of a larger criminal conspiracy, all such transactions could be clubbed into a single FIR. "I am not saying don't prosecute. I am questioning the method of prosecution," he submitted.

Separate jurisdiction

The Bench, however, disagreed with the interpretation, observing that each overt act independently gives rise to territorial jurisdiction for trial. "When a criminal conspiracy results in some overt acts, each of those overt acts creates a separate jurisdiction for trial... The court has previously endorsed that the conspiracy charge and the subsequent acts can be tried before different courts," Justice Bagchi remarked.

The Chief Justice further pointed to the severe financial burden such a plea would impose on victims, many of whom were small investors residing in remote regions.

"An investment of ₹10,000 by one individual, multiplied by thousands of people, may amount to crores for you. But for that poor individual, it is only ₹10,000, and he seeks recovery of only that amount. You want him to travel from a remote village in Odisha to Delhi or from Bombay... How are victims' rights protected if courts entertain such prayers?" he remarked.

After the court indicated it was not inclined to club the FIRs, Mr. Lekhi sought permission to withdraw the plea, which the Bench granted.

MEASURE FOR MEASURE

While it is the courts' prerogative to punish contempt, how well they have separated contemptuous attacks from constitutionally protected criticism, especially by journalists, lawyers, activists, and scholars, has varied widely. This is because the judiciary has not been able to draw consistent lines between fair and exaggerated criticism, politically motivated and defamatory comments, and speech that obstructs justice. The judiciary faces misinformation, political pressure, abusive online discourse, and declining public trust, and the ways in which judges can respond to these attacks are limited. Rhetorical excess in oral observations must also not be confused with legal doctrine. However, recent comments by the Bench have created the appearance of a judiciary increasingly intolerant of external scrutiny. Last week, when hearing a lawyer's petition over not having been elevated to a senior rank, CJI Surya Kant described certain actors in the legal ecosystem as "parasites" and certain young lawyers engaging in RTI-based activism as "cockroaches". While he later said the remarks were directed at persons entering professions with bogus degrees, rather than critics of the judiciary, such language is unbecoming of the CJI. The tenor follows the NCERT textbook controversy, with the Supreme Court focusing its manifest ire on three academics involved in drafting the chapter, effectively excluding them from work on public school curricula without prior hearing. The action evoked concerns about the Court being aggrieved party and arbiter. In the Ali Khan Mahmudabad matter, the Court granted him relief from coercive action but also imposed a gag order. Then, in a display of willingness to discipline the norms of public conduct rather than determine legality, it urged the state to decline to prosecute him as a concession.



When a CJ's comments of this nature appear outside formal contempt proceedings, they render a chilling effect as they amount to institutional condemnation without the safeguards of due process. The comments on using the RTI Act as a basis for activism have a similar effect, beyond the Act being a legitimate instrument. Recently, when a journalist (with a law degree) sought data on complaints against specific judges, the Supreme Court Registry declined the existence of such information. When the journalist produced a Law Ministry disclosure to the contrary, the Registry's legal representative dubbed the inquiry "fishing and roving" — a moving goalpost that was, again, under-concerned with legality while raising questions of the Court arguing its own case. Former CJI D.Y. Chandrachud said that judges are public actors exercising state power and courts should not react defensively to every line of criticism. That attitude improved how the bar, the press, and the academy experienced courts. The recent comments have set the clock back.

SUPREME COURT ASKS PANEL TO REVIEW CARTOONS IN TEXTBOOKS

The Supreme Court on Friday asked a former apex court judge-led committee to review cartoons published in NCERT textbooks after Solicitor-General Tushar Mehta pointed out that "textbook is not a space where you use cartoons".

Appearing before a three-judge Bench headed by Chief Justice of India Surya Kant, Mr. Mehta, representing the Union Government, raised an objection about cartoons he happened to come across in "some" NCERT textbooks.

Mr. Mehta's objection raised the question whether children should be exposed to satire or lampoon through their study books.

The Solicitor-General said "per se" there were no objections to cartoons, but the ones printed in the school textbooks "were in a context" and would be seen by children of an "impressionable age".

The top law officer brought up the issue of cartoons displayed in NCERT textbooks during a suo motu hearing concerning a recent controversy about the contents in a Class 8 Social Science textbook about the judiciary.

Ban on textbook

In February, the court had prima facie concluded that the content was intended towards "maligning the Indian judiciary". It had initiated contempt proceedings and ordered a "blanket and complete" ban on the textbook.

On Friday, the Bench agreed with Mr. Mehta that the propriety of the cartoons published in the textbook should go to the government-appointed committee headed by former Supreme Court judge, Justice Indu Malhotra. The committee, which included senior advocate K.K. Venugopal and Prof. Prakash Singh, Vice-Chancellor, Hemwati Nandan Bahuguna Garhwal University, is collaborating with the National Judicial Academy at Bhopal to shape the Legal Studies curricula for Class 8 and other grades.

At the time, the NCERT had also reconstituted the National Syllabus and Teaching Learning Material Committee.

In the past, the court had emphasised that the "art of satire" should not be left to be evaluated by a "touchy and hyper-sensitive individual", but a reasonable person who could see the lighter side.



The court's 2020 judgment in *Indibly Creative (P) Ltd. v. State of West Bengal* had flagged satire's "unique ability to quickly and clearly make a point and facilitate understanding in ways that other forms of communication and expression often do not". The court had argued that choking freedom of expression stifled debate and endangered the stability of the community.

SC CITES CITIZEN'S RIGHT TO MOVE FREELY, ALLOWS EUTHANASIA OF 'RABID, DANGEROUS' STRAY DOGS

Underscoring the right to live with dignity under Article 21 includes the right to move freely in public spaces without the fear of dog bites, the Supreme Court, on Tuesday, dismissed the pleas challenging the standard operating procedure (SOP) to manage the stray dog menace.

Key Takeaways:

- The applications had challenged the November 27, 2025, SOP issued by the Animal Welfare Board of India (AWBI) for stray dog management.
- The top court had then directed all states and Union Territories to remove stray dogs from the premises of educational institutions, hospitals, sports complexes, bus stands and depots, and railway stations, "to a designated shelter, after due sterilisation and vaccination in accordance with the Animal Birth Control Rules".
- "The right to live with dignity under Article 21 of the Constitution of India necessarily encompasses the right of every citizen to move freely and access public spaces without living under a constant apprehension of physical harm, attack, or exposure to life-threatening events such as dog bites in public areas", the verdict highlighted.
- The Supreme Court on Tuesday May 19 dismissed all challenges on stray dog management and warned that the state cannot remain a "passive spectator" as citizens face the constant threat of dog attacks in public spaces.
- Linking the issue directly to Article 21 of the Constitution, the court held that the right to life includes the right to move freely in public spaces without fear of attack. "The Constitution does not envisage a society where children and elderly citizens are left to survive on the mercy of physical strength or chance".
- The SC stepped into the stray dogs issue last July after taking suo motu cognizance of a news report about a 6-year-old girl in New Delhi who died after a dog bite and suspected rabies infection. Calling the incidents and the rise of dog attacks and rabies deaths "disturbing", the court said the stray dog issue had become a serious public safety concern.
- The court on Tuesday directed every district in the country to establish at least one fully functional ABC centre and asked States and Union Territories to expand infrastructure depending on population density and local requirements.
- It also ordered authorities to ensure adequate availability of anti-rabies medicines and improve veterinary and vaccination services.
- The Bench also directed the NHAI and States to create a coordinated mechanism for dealing with stray animals on highways and expressways, including transport vehicles, shelter facilities and coordination with animal welfare organisations.



— The court further held that authorities may take legally permissible measures, including euthanasia, in cases involving rabid, incurably ill or demonstrably dangerous and aggressive dogs posing a threat to human life, strictly in accordance with the Prevention of Cruelty to Animals Act and the ABC Rules.

Do You Know:

— The Animal Birth Control Rules, 2023, issued under the Prevention of Cruelty to Animals Act, 1960, treat sterilisation and anti-rabies vaccination as the primary way to control stray dog populations.

— They also require dogs to be released back into the same locality after sterilisation, recognising that stray dogs are territorial by nature.

— The Rules do not permit indiscriminate killing or relocation of dogs. Euthanasia is allowed only in limited situations involving rabid, terminally ill or fatally injured animals.

— The case also raised constitutional concerns. Animal welfare groups relied on Article 51A(g), which asks citizens to show compassion towards living creatures. Petitioners representing residents and bite victims argued that unchecked stray dog populations affected citizens' rights under Articles 19 and 21, including the right to move freely and live safely.

— Dog bites are dangerous due to the bacteria harboured in the animal's mouth, which can cause serious infection, including staphylococcus, pasteurilla, and capnocytophaga, once the skin is broken.

— The bite itself may damage the skin, muscles, tendons, nerves, or even bones, especially in severe cases, which can result in scarring, disability, or even death, he underlines.

— "Complications from infection, such as sepsis, can be life-threatening if left untreated. Another critical risk is rabies, a fatal viral disease that can be transmitted through dog saliva."

— Survival from a rabies infection is extremely rare, according to doctors. Once symptoms appear, rabies is considered one of the deadliest infections known, with a nearly 100% fatality rate.

— Only a handful of human survivors have ever been documented worldwide, often due to either extremely aggressive critical care or infection by a weakened strain of the virus.

IN WEST BENGAL, THE ADHIKARI GOVERNMENT'S CHIEF SECRETARY AND A CHIEF CHALLENGE

The appointment of West Bengal's Chief Electoral Officer Manoj Agarwal as the Chief Secretary by the Suvendu Adhikari government raises many a question. Agarwal, who is the state's senior-most bureaucrat, but is set to retire in July, supervised the rollout of the Special Intensive Revision exercise in the state, which led to about 91 lakh deletions. Of these, nearly 27 lakh are seen as controversial, for which the appellate process is incomplete. The West Bengal SIR is also under challenge in the Supreme Court. Against this backdrop, the government's decision to appoint Agarwal is questionable not because of his own competence, but because it risks undermining trust in a premise larger than him — that those overseeing election processes are not keeping an eye on a post-election office. It is also for this reason, arguably, that the poll panel had wanted a CEO who would retire after overseeing the election. The problem is also this: As CEO, Agarwal oversaw the SIR process, and as Chief Secretary, he will steer the state response in terms of

4TH FLOOR SHATABDI TOWER, SAKCHI, JAMSHEDPUR



addressing infirmities in the process. There is also an issue of institutional credibility here. Fifteen years of Trinamool government saw a disquieting politicisation of the bureaucracy that smudged institutional lines. The new BJP government that seeks to make a departure from this past can ill afford to be unmindful of this.

The Adhikari government in Bengal has also said that while those whose cases are still under consideration by the appellate tribunals will receive the benefits of government schemes, those deleted through the SIR exercise will no longer be able to do so. A minister has underlined the new framework of exclusion: Those who have applied under the CAA for citizenship can also avail all government schemes. This resurrects the spectre that the amendments to the citizenship law a few years ago had touched off, and draws the SIR into it. The CAA drew criticism because, for the first time in a diverse democracy, it made religion a criterion for citizenship, providing an accelerated path to Indian citizenship for persecuted religious minorities from neighbouring countries — except Muslims. The SIR process that shifted the burden of proof onto the vulnerable voter, set unrealistic timelines for voters and no deadlines for appellate tribunals, and in which there were many more deletions in Muslim-dominated constituencies, cannot — and should not — become a test for citizenship. The watchful eye of the Court is needed more than ever.

The term “ghuspaithiya” or illegal immigrant — invoked to justify the new exclusionary framework and paper over its cracks — is part of the language of communal dog-whistle politics. In West Bengal, the BJP government has just won a formidable victory. It must deliver on a mandate to deliver change that includes all, not tarnish it by narrowing its vision at the very outset. As CEO, the process that Agarwal steered achieved a much-needed cleanup but has been tainted by exclusion. As Chief Secretary, can he hit reset and refresh? A lot rides on this question.

FIRST AND FOREMOST

The mixed architecture of the Bhojshala-Kamal Maula complex in Dhar, Madhya Pradesh, has fed uncertainty about its religious identity for more than a century, with the dispute intensifying around the time of the Ram Janmabhoomi mobilisation. The Archaeological Survey of India arranged in 2003 for people of different faiths to take turns using it until a petition in the Madhya Pradesh High Court sought a new survey to determine its ‘true’ character. The High Court obliged in 2024. The Supreme Court also allowed the survey to proceed with safeguards. On May 15, the High Court ruled that the complex had been a Hindu temple and suggested that the Muslim side seek alternative land from the State, while insisting that it was only determining its religious character. The finding, following from Chief Justice of India (CJI) Surya Kant’s revival of the Bhojshala proceedings in January, was based on the value of archaeological evidence and the Court’s 2019 Ayodhya judgment, especially the principles of “preponderance of probability” and “faith and belief.” While the Places of Worship (Special Provisions) Act 1991 had frozen the religious character of all places of worship as on August 15, 1947, the case proceeded through a loophole in Section 4(3) exempting “ancient and historical monuments” under the Ancient Monuments and Archaeological Sites and Remains Act 1958. Given the High Court’s determination, this is a procedural side door that hollows out the Act’s spirit.

The CJI’s involvement also amounts to the Supreme Court staying civil suits while allowing PILs to achieve functionally identical outcomes. The courts may believe that they are neutral adjudicators but they are operating in politically polarised terrain. Groups such as the ‘Hindu Front for Justice’, which initiated parts of the Bhojshala litigation, are politically backed entities using judicial findings to consolidate agitation around contested religious sites. Archaeological ambiguities in mediaeval structures are not new; however, adversarial litigation, in the form of



courts asking what was there 'first', can introduce arbitrary bounds favourable to the majoritarian political climate. A likely question is: why draw the line at mediaeval conquest and not go back to pre-Hindu histories? The Bhojshala ruling indicates that the Ayodhya verdict has paved the way to repeatedly challenge the status of minority religious sites if they are also protected by the Survey, extending a record that already includes Gyanvapi, Shahi Idgah, and the Bijamandal complex. The 1991 Act needs to be enforced strictly, with no determinations of religious character except when pertaining to title disputes already pending at the time of its enactment. Equally, shared use should be the norm as democratic coexistence outweighs any questions relating to 'first' ownership.

AS OWAISI TAKES ON RIJJU OVER MUSLIM NUMBERS, A QUESTION: WHAT'S A MINORITY?

A war of words has erupted again between AIMIM chief Asaduddin Owaisi and Union Minister for Minority Affairs Kiren Rijju over the status of Muslims as a minority community.

Key Takeaways:

- In response to Rijju's statement comparing the demographic size of Muslims with Parsis, a small minority group, Hyderabad MP Owaisi said the "minister is indulging in propaganda to deny Muslims their fundamental rights under Article 30".
- In an interview to The Indian Express last year, Rijju had said that "minorities receive more government support" than Hindus. "The main point we have to understand is that minority communities are receiving more funds and support from the government than the majority community, the Hindus. Whatever the Hindus get, the minorities also do. But what the minorities get, the Hindus don't," the minister had said.
- Earlier this week, addressing a conference of the State Minorities Commissions organised by the National Commission for Minorities in Delhi, Rijju said, "... if we look at the Muslim population in India as a separate country, it could be the sixth-largest country", while Parsis with a population of about 52,000 would constitute a town or a village. Still, both Parsis and Muslims have the status of minorities in the country, he said.

Do You Know:

- The Constitution does not define a "minority" even when it offers fundamental protections to them. Articles 29 and 30 safeguard the protection of the interests of minorities and the right of minorities to establish and administer educational institutions of their choice, respectively.
- The framers of the Constitution deliberately left it to the Executive to define who is a minority. However, the term minorities is constitutionally understood in two contexts: religious and linguistic. Statutorily, the National Commission for Minorities Act, 1992 provides a definition: "minority" is a community notified as such by the Central government. This law empowers the government to notify "minority communities".
- Currently, six religious communities are recognised as minorities at the national level. These are Muslims, Christians, Sikhs, Buddhists, Parsis, who were notified in 2013, and the latest one, Jains, who were added in this list in 2014. This is a Central notification that entitles communities to benefits under government welfare schemes, including scholarships, Waqf protections, and various Ministry of Minority Affairs programmes.



DISABLED INMATES FACE 'DOUBLE DISADVANTAGE' IN INDIAN PRISONS: REPORT

India's prison system continues to treat disability as an "afterthought" and denies prisoners with disabilities statutory rights, entitlements and adequate healthcare, according to a report by iProbono India, a women-led social justice organisation.

The report, titled 'Inaccessible by Design: A Disability-Centred Review of State Prison Manuals in India', released in March, found that prison manuals continue to use derogatory and outdated terms such as "lunatic", "filthy", "noisy" and "insane" in official documentation, which reflect an entrenched "ableist framework that dehumanises prisoners with psychosocial disabilities".

The report stated that incarcerated persons with disabilities are disproportionately affected not only by systemic neglect of their disability-related needs, but also by the general harshness of the prison environment. This creates a "double disadvantage" that often results in violations of their fundamental rights to health, reasonable accommodation, security and equal treatment, it said.

'Systemic failure'

The report highlighted a "systemic failure" to identify persons with disabilities at key pre-trial stages, including at the time of arrest, first production before a Magistrate, remand proceedings, or recording of statements under the Bharatiya Nagarik Suraksha Sanhita (BNSS), 2023. It noted that while most prison manuals mandate medical examinations for new inmates, these assessments largely focus on visible injuries or general health conditions, failing to identify psychosocial, intellectual or invisible disabilities.

As per the report, only Karnataka provides for standardised disability screening or self-declaration during prison admission while Tamil Nadu alone mentions the involvement of trained personnel such as psychologists or welfare officers in the intake process. The report noted that the National Crime Records Bureau's 'Crime in India' and 'Prison Statistics of India' databases do not record the disability status of accused persons or prisoners, leaving disabled inmates "unnoticed, unidentified and unrecorded within the criminal justice system".

Dearth of professionals

It also highlighted the severe shortage of mental health professionals in Indian prisons. "There is a widely reported nationwide staffing crisis, with only 25 psychiatrists/psychologists employed across 1,330 prisons in 2022," the report said. This translates to one mental health professional for every 23,000 inmates, it said.

"In Delhi's prisons, as of May 2025, 849 inmates with mental illnesses were identified, with severe gaps in mental healthcare despite active civil society oversight and judicial attention," the report said. It added that only 36 inmates had been transferred to psychiatric wards while just four full-time psychiatrists were serving 16 jails against a sanctioned strength of 10.

"The human consequences of these data gaps are starkly evident in cases such as Father Stan Swamy, G.N. Saibaba and L. Muruganatham," the report said. It stated that Swamy, who had Parkinson's disease, died in custody in 2021 after prolonged detention. "He repeatedly requested a simple straw to drink water but was denied access until compelled by a court order, exemplifying the systemic neglect of basic needs for incarcerated persons with disabilities," the report said.



IN 'COCKROACH PARTY' HANDLE, GOVT SEES A NATIONAL SECURITY THREAT, ASKS X TO BLOCK

The X handle of 'Cockroach Janta Party', a satirical account opened after Chief Justice of India Surya Kant's remarks about those who "attack the system", was withheld Thursday following a direction from the Centre in the wake of inputs from the Intelligence Bureau (IB) that raised "national security concerns," a senior government official told The Indian Express.

Key Takeaways:

— The Ministry of Electronics and Information Technology (MeitY) asked X to withhold the account under Section 69 (A) of the Information Technology Act, 2000, the official said, adding that the input to do so came from the IB.

— "MeitY received an input from the IB to block the X account of Cockroach Janta Party, citing that it posed a threat to the sovereignty of India. The IB believed that the account was posting inflammatory content through its account, which could have jeopardised the country's national security," the official said.

— Section 69 (A) of the Information Technology Act empowers the Central government to restrict public access to information in the interest of sovereignty, security, public order or preventing incitement to offences.

— The process is governed by the Information Technology (Procedure and Safeguards for Blocking for Access of Information by Public) Rules, 2009. Blocking orders are confidential.

— Although the account has been withheld in India, it is accessible from other locations - it had more than 200,000 followers on X as of Thursday evening. A second government official said that the blocking order was sent to the social media company when the account had roughly around 90,000 followers.

— According to X guidelines, any account or post is withheld if the social networking site receives a "valid and properly scoped request from an authorized entity".

— On May 15, the CJI pulled up a lawyer who had filed a petition seeking directions to the Delhi High Court over the designation of a Senior Advocate, a status he himself was aspiring to. "There are already parasites of society who attack the system, and you want to join hands with them? There are youngsters like cockroaches, who don't get any employment or have any place in (the) profession. Some of them become media, some of them become social media, RTI activists and other activists, and they start attacking everyone," he said.

— The remarks triggered an uproar, following which the CJI said it was "totally baseless" to suggest that he had criticised the youth.

ON MEASURING FREEDOM OF THE PRESS IN INDIA

A patient complaining of pain can be asked to quantify it on a scale of 10 — a practice common in the West but still rare in India. There are experts who "aim to deeply investigate happiness measurement through biomedical signals, using psychophysiological methods to objectify the happiness experience." Objective, universal facts are supposed to be the basis of management and governance.



The Norwegian journalist who wanted to ask Prime Minister Narendra Modi a question prefaced it by saying that her country had the freest press in the world, citing the World Press Freedom Index prepared annually by Reporters Without Borders. Press freedom, and even democracy, can apparently be ranked. India is ranked 157 in the World Press Freedom Index. Ukraine is at 55, Qatar at 75, Burkina Faso at 110, Oman at 127, Kuwait at 136 — countries some of which do not even hold a pro forma election rank higher on press freedom than India, according to this report.

Norway is number one. But what the ranking does not take into account is the unfiltered racism of an apparently free press — such as a Norwegian mainstream newspaper that portrayed Mr. Modi as a snake charmer, an age-old trope to depict India. The rankers have themselves clarified that the quality of journalism is not a criterion. The racism of the freest press does not affect its standing.

Mr. Modi has not addressed a press conference as Prime Minister. After a joint appearance with U.S. President Donald J. Trump, he took a couple of questions in February 2025. Mr. Trump, for his part, routinely seeks out confrontational interviews to make his point, while simultaneously seeking to delegitimise the media. Press conferences and probing interviews have become rare across India's leadership. No leader wants to take questions — whether in the legislature or the media. Political communication has become a one-way street in which the principal actor broadcasts without the inconvenience of being contested — that applies as much to several Opposition leaders as well.

The contestations within the media space are often a reflection of society, and state control of the media is an extension of the control the state seeks to enforce across other domains of people's lives — movement, thinking, learning, and the mingling of populations. In Norway, the media, the society and the state share broadly the same consensus. Of its 55 lakh people, 95 per cent speak Norwegian and 60 per cent are affiliated to the Church of Norway. A largely homogenous country where the media does not require to contest the state is not comparable to a large, diverse country riven by conflicting viewpoints about everything, and where the state is simultaneously trying to control the thinking of its people. Political contestation in such a society produces a multitude of media narratives — and a multitude of pressures.

That said, those who seek to dismiss Western standards as irrelevant are curiously selective in their approach. They would dismiss the Press Freedom Index but in the same breath celebrate some random ranking on Ease of Doing Business, or a foreign country's national honour conferred on their leader. The convenience of the dismissal gives it away. Rankings exist. They are often methodologically dubious, frequently corrupted by subjective factors and sometimes by outright prejudice. No global ranking is required to establish that the Indian media is under severe stress — from market forces and from state measures alike. Equally, no amount of fine print can sustain the argument that Kuwait belongs far above India on any honest measure of press freedom. The index's own methodology undermines its own conclusions at the extremes.

The better argument is not that rankings are worthless but that they are blunt instruments — useful for identifying broad patterns, unreliable as precise judgements.

WHY WORLD'S RICHEST CRICKETING BODY IS NOT COVERED UNDER RTI ACT

The Central Information Commission (CIC) on Monday, May 18, held that the BCCI is not a “public authority” under the Right to Information Act and therefore cannot be compelled to disclose information under the law.



Key Takeaways:

— The order came in a case filed by a Delhi resident who had sought to know under what authority the BCCI selects players to represent India, why governments provide stadiums and police security to what is technically a private association, and whether the government exercises any legal control over cricket administration in India.

— The CIC noted that the BCCI does not fall within the ambit of a “public authority” under Section 2(h) of the RTI Act and dismissed the appeal filed in 2018 after the Ministry of Youth Affairs and Sports informed the applicant that the information sought was not available with it.

— The BCCI’s position outside the ambit of both “State” under Article 12 of the Constitution and “public authority” under Section 2(h) of the RTI Act sits at the heart of the order.

— Section 2(h) defines a “public authority” as “any authority or body or institution of self-government established or constituted” by the Constitution, laws made by Parliament or state legislatures, or government notifications.

— It also includes bodies that are “owned, controlled or substantially financed” by the government, including NGOs substantially financed by public funds.

— Article 12 defines “State” to include the government and Parliament of India, state governments and legislatures, and “all local or other authorities” under the control of the government.

— Over the years, courts have expanded this definition through judicial interpretation, particularly in cases involving bodies performing public functions.

— The National Sports Governance Act, 2025, which provides that sports bodies receiving grants from the government would be treated as public authorities under the RTI Act to the extent of utilisation of those funds. Since the BCCI receives no such grants, it falls outside this statutory extension.

— The Lodha Committee had recommended bringing the BCCI under the RTI. The Law Commission, in its 275th report in 2018, also recommended that sports bodies performing public functions be brought within the ambit of the RTI Act, as it “exercises state like powers” and “virtually acts as a National Sports Federation”. But none of these recommendations translated into binding law.

— Relying on the Supreme Court’s judgment in *Thalappalam Service Cooperative Bank Ltd v State of Kerala* (2013), the Commission held that the “control” contemplated under Section 2(h) must be “substantial and pervasive” over management, policy, administration and financial affairs, not mere regulatory supervision.

— The CIC found that the BCCI’s internal structure does not reflect governmental control. Its office bearers are elected internally under its own rules, no government nominee sits on its committees, and government approval is not required for its decisions.

— Section 2(h)(d) of the RTI Act includes within the definition of “public authority” bodies that are “substantially financed” by the government. The Commission held that “substantial financing” means funding so significant that the body would struggle to exist without it, not incidental benefits or tax exemptions available to many entities.



— The CIC noted that the BCCI generates its revenue independently through media rights, sponsorships, broadcasting agreements and ticket sales. It rejected the argument that the use of government-owned stadiums or police deployment during matches amounts to substantial government financing.

— In 2016, the Supreme Court in BCCI v Cricket Association of Bihar, arising out of the IPL spot-fixing and conflict-of-interest scandals, imposed sweeping governance reforms on the BCCI through the Lodha Committee recommendations. These included tenure limits, the one-state-one-vote principle, conflict-of-interest norms and structural governance reforms.

Do You Know:

— The RTI Act, which came into force in October 2005, was seen as a significant development towards freedom of information. It gave ordinary citizens the right to request information from government bodies, making authorities accountable for their actions and decisions.

— According to the official site of the Right to Information, “the basic object of the RTI Act is to empower the citizens, promote transparency and accountability in the working of the Government, contain corruption, and make our democracy work for the people in a real sense.” These are the four pillars of the Act.

— The RTI Act, 2005, provided for a Central Information Commission and State Information Commissions to deal with appeals and complaints against public authorities. Section 12 of the RTI Act states, “The Central Information Commission shall consist of the Chief Information Commissioner (CIC), and such number of Central Information Commissioners, not exceeding 10, as may be deemed necessary.”

ONE-HORSE RACES ARE NO TRIUMPH FOR DEMOCRACY

There was an industrialist whose company was doing exceptionally well. In a decade since its inception, it captured over 40% of the market share. When I asked him, “Having reached thus far, what do you perceive as your biggest challenge going forward?”, he paused for a while, his eyes gazing into the distant future, and replied gravely: “Lack of competition.”

Ask cricketing legends who have been successful batsmen and they will tell you that their finest innings were those played against formidable bowling attacks, not the centuries scored against minnows. Even spectators enjoy a seesaw, hard-fought contest more than a tame one-sided affair, even if it involves their favourite player trouncing a neophyte.

As in business and sports, competition is the haemoglobin of a democracy. It gives meaning to the precept of “rule by the people” by allowing citizens to “fire” incumbents and choose alternatives, thereby liberating them from the TINA (“there is no alternative”) trap. However, that presupposes the existence of rivals with the capacity to contest, and challengers who aspire to win against the odds because they believe in the fairness of the system.

Mandates require genuine contests

It is ironic that the rules of the game, as far as elections are concerned, do not consider competition essential to an electoral outcome. Section 53(3) of the Representation of the People Act, 1951, provides for “unopposed” winners, which means that competition takes place only when enough players enter the fray. Otherwise, one can have a contestant but no contest, a winner without a



game, and a people's representative without a single vote cast in his favour — a walkover “killing” both the game and its spirit.

For a player to tout his victory there should have been a contest. For a government to claim legitimacy, the electorate must believe that those elected ‘earned’ (pun unintended) their position through a fair process. You can win power without a contest; not a mandate. Competition also gives ‘losers’ hope that they can try to win in the future, making them accept fair electoral outcomes. Peaceful transition of power is one of the healthiest achievements of any electoral democracy.

Competition and contestation enable differing ideologies and social classes to flourish. Going by the economic logic of competition breeding efficiency, it would be reasonable to expect political parties to refine their policies as opponents always look to highlight failures. Political scientist Robert Dahl referred to a system with high participation but low contestation (like one-party States with high voter turnout) as a “plebiscitary autocracy” rather than a true democracy.

However, competition also presupposes a level playing field and a neutral referee to ensure that. The absence of either tilts the scales against challengers, minimising their chances of success while also denting their morale and undermining the people's confidence. In fact, the partisanship of a referee tends to rob the victor of the sweet taste of success, even if deserved. One might be seeded higher, have played better than the opponent, enjoy spectators' support, and even deserve to win, but if the referee is seen as partial, the triumph appears tainted.

In West Bengal

Take the example of the West Bengal Assembly elections. Anti-incumbency could well have influenced the voters' choice, and the winning party may have run an effective campaign for its resounding victory. And yet, its performance stands tarnished by accusations of favouritism against the constitutionally designated umpire mandated to provide the “superintendence, direction, and control” of the electoral process.

The outcome is being linked to the Special Intensive Revision (SIR) of electoral rolls (ER), and analysts have presented constituency-wise data showing deletions of electors that exceed the victory margins, suggesting that the result might have been different but for the SIR.

That the SIR was unwarranted is established by the inability of the process to identify those “ineligible” in terms of Article 326, which was the Election Commission of India (ECI)'s war cry when it commenced the SIR in Bihar in June 2025. Neither at the end of the Bihar SIR nor for the States in the second round has the ECI released figures on the “ineligible” electors weeded out for not meeting the eligibility conditions under Article 326. There have, no doubt, been deletions through the SIR, but these pertain to “permanently shifted, dead, or duplicate” entries, which could have been removed through the normal revision process mandated before every poll.

What we had instead in West Bengal was over 60 lakh electors included in the electoral rolls under the “under adjudication” category, with 27.16 lakh of them deleted after a lightning exercise carried out by judicial officers hastily appointed by the Supreme Court of India. Over 700 judicial officers sprinted through a marathon in their ‘supreme’ effort to accomplish the impossible task of disposing these cases in a short span of time. Those whose claims were rejected were asked to appear before non-existent Appellate Tribunals.



How, when, and even whether their appeals will be heard is hard to tell, going by the experience of those placed on the doubtful voters (D-voter) list a few years ago in Assam. No official data is in the public domain to indicate whether their voting rights have been restored or whether they remain in limbo. Soon, the 27 lakh affected in West Bengal may join those “missing in action”. The cruel irony is that the ECI excluded Assam from the current SIR process, even though the National Register of Citizens prepared there a few years ago classified over 19 lakh people as “non-citizens”, yet their voting rights remain unaffected.

A neutrality that faces scrutiny

The ECI has invited an indelible taint by engineering a system that made such omission possible under its ‘superintendence’. What sanctity does its slogan, “No voter to be left behind”, hold if 27 lakh electors were treated as jetsam? How could the ECI “direct” the use of the illogical “logical discrepancy” tool that created discrepancies of its own? Why did it allow the legitimate functions of the Electoral Registration Officer to be exercised by a system beyond its “control”? Why did it announce the election schedule if it was not confident of finalising the electoral rolls on time? Why did it abdicate the legal provision that allowed the existing rolls to remain valid in the case of “under adjudication” electors who could not go through the full process because of a paucity of time? Why did the ECI not seek the Court’s permission to defer the schedule when a mandatory process could not be completed? That the Court did not think it worthwhile to ask the ECI to “tarry a little”, and was willing to “suspend” the voting rights of 27 lakh electors, is inexplicable and unfortunate.

With the gradual fading away of political rivals in the States and at the national level, will we witness more “victories” without a fight because the arena is either bereft of competitors, the challengers are too weak, or the umpire’s decisions tilt the balance? Interestingly, the umpire himself would become an “extra” if there were no competition. Neither the “pathbreaking” constitutional reform of One Nation, One Election nor the idea of an Opposition-mukt Bharat is aimed at fostering competition, and that does not augur well. There will be little thrill left in a one-horse race.

That it strikes at the very roots of the democratic character of the nation may be a minor matter.

VOTING PATTERNS OF GOVERNMENT EMPLOYEES IN RECENT ELECTIONS

The Election Commission (EC) allows postal ballots for certain sections of voters, including government employees who are on poll duty, those who are serving in the armed forces, elders aged 85 years or above and persons with disabilities. Among these groups, it is government employees who exercise their franchise through postal votes the most.

Postal votes account for only a miniscule percentage of the total votes cast in the elections (Table 1). However, it serves as a useful proxy to understand how the people who are part of the ruling establishment, that is, the government employees voted in the elections. Consequently, it can also serve as an indicator to gauge the anti-incumbency sentiment against the ruling party among the State’s administrative workforce.

An analysis of the recently concluded Assembly elections in the States of West Bengal, Tamil Nadu, Kerala, Assam and the Union Territory (UT) of Puducherry reveal certain interesting patterns. Of these, the incumbent governments were voted out in West Bengal, Tamil Nadu and Kerala, while they were retained in the other two.



In the three States where the ruling parties lost the elections, their vote share among postal votes came down compared to their performance in 2021. This was true in Puducherry as well even though the All India N.R. Congress (AINRC)-led National Democratic Alliance returned to power in the U.T. Assam was the only place where the ruling BJP saw a noticeable increase in its vote share among those who used postal ballots.

The Trinamool Congress in West Bengal, which had won the previous three elections, saw its share in postal votes dropping sharply than the drop it witnessed in the remaining votes polled through Electronic Voting Machines (EVMs), indicating strong anti-incumbency among government employees. The Trinamool, which secured 41.1% of the EVM votes, took 33.7% of the postal ballots, which was a fall of 13.2 percentage points compared to 2021. The State government employees' sustained protests over delays in disbursement of arrears in Dearness Allowance could have played a role in the Trinamool's performance.

In Kerala, the voting pattern in the postal votes was largely reflective of how the State's overall electorate voted. The Left Democratic Front (LDF), which lost the elections, secured 38.9% in postal votes and 36.8% in votes polled via EVMs. The United Democratic Front (UDF), which won the elections secured 45% in postal votes and 46.1% in EVM votes.

The unusual case is, however, Tamil Nadu. It is the only State where the alliance led by the ruling party, the Dravida Munnetra Kazhagam (DMK), which lost the elections, secured the highest share of postal votes (Chart 1). The Tamilaga Vettri Kazhagam, which emerged as the single largest party, secured the third spot by securing 24.5% votes, which is roughly 10 percentage points lower than its overall vote share. This was DMK's lowest performance among the postal ballots, at least since 2006. The party has traditionally enjoyed more support among government employees than the All India Anna Dravida Munnetra Kazhagam.

It is important to note that though there were protests by several sections of government employees during the previous DMK rule, the government also fulfilled a number of promises including the Tamil Nadu Assured Pension Scheme, which remained an unfulfilled demand for over 20 years.

COMING UP NEXT, THE ARTIFICIAL INTELLIGENCE (AI) POLITICAL CANDIDATE?

Picture this. It's the 2034 general elections. Constituency 247, somewhere in coastal Andhra Pradesh. On the ballot: a name, a symbol, and a QR code. The candidate does not exist. Not in any meaningful sense. There is no body, no biography, no childhood in a modest home that the speech writer romanticises.

It is entirely virtual — a large language model dressed in electoral clothing, with a face generated by a diffusion model, a voice cloned from a composite of beloved regional actors, and a policy position recalibrated to the microsecond by sentiment analysis of 340 million social media posts.

It feels nothing — not ambition, not empathy, not the particular anxiety of counting day. What it does, with unnerving precision, is know.

It knows what the voter in Ward 12 is angry about before she has fully articulated it to herself. Its manifesto rewrites itself nightly based on trending grievances and aspirations.

On counting day, it wins by 40,000 votes.



The distance between the fiction above and what just happened in Tamil Nadu is shorter than anyone in the political establishment is comfortable admitting.

The human algorithm

In less than two years after launching TVK, Joseph Vijay emerged victorious through a campaign that depended heavily on digital circulation rather than constant roadshows, marathon speeches or primetime television visibility.

And the manner in which he got there should make every traditional political strategist quietly rethink their career. TVK's campaign moved the way Internet culture does: through repetition, virality, remixing and constant social circulation — reels, fan edits, whistle-themed memes and teaser-style videos travelling rapidly across Instagram, WhatsApp, YouTube Shorts and X. This wasn't a political campaign.

It was a content operation with electoral intent.

The masterstroke was scarcity. Vijay rarely engaged in constant media interactions or daily television appearances. Even short speech fragments gained traction once clipped and redistributed. In an attention economy flooded with noise, infrequent visibility itself became part of the communication strategy.

What the breathless “celebrity politician wins!” narrative misses is the infrastructure beneath the aura. The foundation went back to 2009, when Vijay organised his fan clubs — reportedly numbering around 85,000 across Tamil Nadu — under the umbrella of Vijay Makkal Iyakkam.

By 2026, those fan clubs had evolved into a digitally disciplined political mobilisation network, with tens of thousands of WhatsApp groups coordinating messaging, trends, hashtags and emotional narratives — decentralised cells capable of extraordinary reach.

AI-generated visuals and hologram projections extended Vijay's virtual presence without depending entirely on physical rallies. The man was everywhere without being anywhere.

A global playbook

Tamil Nadu didn't write this playbook alone. In Nepal, rapper-turned-politician Balen Shah defeated K.P. Oli — who had won the same constituency six consecutive times since 1991 — by almost 50,000 votes, riding a Gen-Z revolution fuelled by the #nepobabies trend, which migrated from Indonesia to Nepal via TikTok and Instagram reels.

Discord — a platform built for gamers — became a hub for political decision-making amid the power vacuum. Nepal's Gen-Z negotiated government formation via group chat.

In Hungary, Peter Magyar's initial popularity was linked to a YouTube interview in February 2024 that gained over a million views.

Streamed speeches

Blocked from State television, Magyar streamed his speeches on social media, responding within hours to government developments and incorporating them into his campaign. Politico attributed his eventual landslide victory partly to his successful use of social media and the large youth turnout it generated — toppling Viktor Orbán's 16-year grip on power.



The throughline from Chennai to Kathmandu to Budapest is identical: platform fluency, outsider credibility, and a generation that trusts influencers more than institutions.

Back to 2034

Which returns us to that virtual candidate in Constituency 247. It has no ideology — only a perpetually optimised approximation of one. It does not believe in anything. It believes in everything you believe in, reflected back at you with supernatural accuracy.

This is the logical terminus of a journey Vijay's campaign accelerated: the understanding that modern elections are won not in town squares but in feeds, not through conviction but resonance, not by being real but by being 'felt'. Political visibility is now built more through online momentum, recall value and "vibe marketing".

The only thing separating Thalopathy from the machine is that he actually exists.

IN MANIPUR, PULL BACK FROM EDGE, BUILD TRUST

After months of brittle calm, Manipur could once again be on the edge. The immediate provocation — the ambush and killing of three Kuki church leaders travelling back to the Kuki-Zo majority Kangpokpi district — has degenerated into a broader atmosphere of fear. There have been retaliatory abductions, disappearances and mounting tensions between Kuki and Tangkhul Naga communities across the hill districts. In a state mired in ethnic conflict for the last three years, and burdened by layers of historical grievance, incidents such as these could turn into communal flashpoints.

The present crisis, that began in Ukhrul earlier this year, however, cannot be understood through the lens of the violence between the state's Meiteis and Kukis that has riven Manipur since May 2023. It can be traced back, instead, to the older, more serrated Naga-Kuki fault line, shaped by decades of territorial contestation, insurgent rivalry and competing visions of political belonging. The Nagas remain among the Northeast's most politically influential communities, with powerful tribal bodies, longstanding armed networks, and aspirations tied not merely to demands of autonomy within Manipur, but to a wider Naga political settlement that transcends state boundaries. Instability in the hill districts, therefore, echoes far beyond Manipur, intersecting with unresolved questions of autonomy, territory and ethnic representation. The Kukis, meanwhile, carry their own histories of displacement and grievance. In an already militarised landscape, where weapons continue to circulate freely and trust in state authority has eroded sharply, these unresolved antagonisms threaten to pull Manipur back into another cycle of violence.

The return of an elected government led by Yumnam Khemchand Singh in February had raised cautious hopes of rapprochement in a state exhausted by prolonged conflict. Presented as a conciliatory figure capable of balancing Meitei, Kuki and Naga interests, Singh cannot afford to fall back on the political equivocations of his predecessor. His inclusion of both Kuki and Naga deputy chief ministers offers an opening, but representation alone cannot substitute for trust. His government must move beyond reactive measures towards sustained political mediation: Securing the unconditional release of hostages, guaranteeing safe movement across districts, prosecuting the guilty and establishing credible inter-community dialogue mechanisms. This moment must be decisively defused, too much is at stake.



INDIA STILL SHORT ON EXPERTISE, TOOLS TO MANAGE FUNGAL HEALTH BURDEN

The World Health Organization released a priority list of fungal pathogens in 2022 while also saying data of fungal diseases and their morbidity are lacking.

A 2024 review in *The Lancet Infectious Diseases* estimated 3.8 million people die every year due to fungal diseases, compounded by public fears about antimicrobial resistance and concerns about whether antifungal drugs will work.

For this situation, however, India lacks expertise on the genesis and effects of fungal pathogens as well as a paucity of institutes dedicated to fungal outbreaks, like it does for viral and bacterial infections (such as tuberculosis).

Mindset, investment problem

Fungi grow well in hot and humid conditions, putting tropical countries at higher risk than those in temperate regions.

“In the western world, especially in temperate conditions, ophthalmologists see one to a couple of cases per year,” Prashant Garg, executive chair of the L.V. Prasad Eye Institute (LVPEI), Hyderabad, said. “These numbers are way higher in tropical countries. We see three to four cases of fungal eye infections in our hospital daily.”

According to one estimate published by scientists from India and the U.K. in the *Open Forum Infectious Diseases* in 2022, more than 5 crore Indians likely suffer from fungal diseases — one of the highest national burdens worldwide.

These diseases are generally called mycoses; they affect the eyes, skin, lungs, vagina, and brain and cause blood infections.

During the COVID-19 pandemic, an opportunistic infection called mucormycosis captured the public imagination. Caused by black fungus, its prevalence is about 80-times higher in India than in the economically developed countries.

Despite the burden of fungal diseases in India, clinicians are often not equipped to deal with them. Most clinicians prescribe antibacterial medications first. When those don't work, they try antifungals. This delay allows the fungi to intrude deeper into a patient's body and becomes harder to get rid of.

'A dying art'

Anuradha Chowdhary, director professor at the Vallabhbhai Patel Chest Institute in the University of Delhi, said, “Many cases that test negative for *Mycobacterium tuberculosis* are still called tuberculosis and treated with anti-tuberculosis drugs. Our country's microbiology departments do not test them for common respiratory fungal conditions like aspergillosis or the rarely identified histoplasmosis.”

“Fungal testing must begin at the same time as bacterial testing in a microbiology lab,” Dr. Chowdhary added.



Fungi are present everywhere. When an individual tests positive for a fungal infection, there is sometimes a doubt as to whether the fungus came from the patient's sample or if it is a contaminant that entered the sample from the testing facility or the tester.

The most trusted way to confirm a fungal infection is to have it grow on microbiology culture plates.

"We lightly scrape a sample from an infected region of the eye, place it on various culture media. Some allow growth of bacteria and some of fungi," LVPEI head of microbiology Joveeta Joseph explained.

"We sometimes have to wait for days to see if a fungus grows where we placed the patient sample on the culture plate. If a fungus grows elsewhere on the plate, that is because of contamination."

Identifying the actual pathogen can take longer than just confirming a fungus's presence. Here, the details of fungal spore morphology matter.

Fungal spores come in different colours, shapes, and sizes. And microbiologists use fungal handbooks and databases to identify the spores.

"It is a dying art," Dr. Chowdhary said.

"Plus, some fungi do not form spores in lab cultures. Or the entire procedure can take up to a month," Dr. Joseph added. "Very few medical setups invest in that kind of investigation. It is expensive for the patient and technically demanding for the healthcare providers."

Treating animals

These challenges aren't confined to human medicine. The chytrid fungus causes an infection called chytridiomycosis, and it has been annihilating frogs and salamanders in many parts of the world. Chytrids grow on the animals' skin — an organ crucial for respiration among these amphibious animals.

To make matters worse, it is very difficult to outwardly distinguish an infected animal from an uninfected one in the earlier stages of infection, when the animal can still be saved.

"Culturing chytrid fungus in the lab is almost a fluke since it is present in low numbers," CSIR-Centre for Cellular and Molecular Biology scientist Karthikeyan Vasudevan said. "Some add hair to their culture, some snake skin since keratin helps in growing this fungus. But details such as how much to add or when are often not shared in research papers."

Of course, more advanced tests are more helpful. They help reduce contamination as well as accelerate the reactions required to identify specific species.

For example, a test called MALDI-TOF — short for matrix-assisted laser desorption/ionisation time-of-flight mass spectrometry — has an automated technique that can identify the proteins on the pathogens' surfaces. It does this by creating a surface protein signature of the sample and compares that with an existing database of pathogens.

While MALDI-TOF can identify fungi in about 30 minutes, it remains in the dark about new pathogens emerging in tropical countries, and which are not reflected in the prevailing fungi databases.



MALDI-TOF is also very expensive. New units can cost upwards of ₹1.5 crore apiece; even refurbished ones can cost ₹10 lakh or more.

The PCR tests that check for pathogen's genetic material, and which were widely used during the COVID-19 pandemic, are one alternative.

But while they worked well for the coronavirus, they're not well-suited for fungi. This is because fungal cells have tough cell walls that need to be broken open first to extract the fungal DNA. (PCR works by creating numerous copies of DNA material, then checking them for species signatures.)

Timely diagnostics

Some work here is underway — such as that of BRIC-Centre for DNA Fingerprinting and Diagnostics, Hyderabad, staff scientist Rupinder Kaur said. However, these lab-level processes have yet to be standardised for clinical settings. One major challenge is the small quantity of pathogenic material when working with patient samples.

She added that more advanced PCR tests have not been tested enough for use in fungal contexts.

Timely diagnostics help clinicians decide the appropriate next steps, such as choosing the right antifungal drugs to treat a particular infection.

This said, the number of antifungal options available is limited. Fungal cells are eukaryotic cells, like our own cells. So molecules that kill fungus can also be harmful to us.

To make matters worse, many antifungals have also been rendered less effective thanks to rampant self-medication by patients, over-the-counter sales, and use in plant agriculture.

When fungi are repeatedly exposed to antifungal compounds in the environment, they develop resistance.

From her own experience at LVPEI, Dr. Joseph recalled how identifying pathogens has allowed her to help her clinician colleagues about when they can rely on an antifungal to work.

Limited understanding

Candida infections among a small group of fungal infections that have received sustained research attention.

Most fungus biologists in India use fungi as a model system to understand eukaryotic cell processes such as how genes are expressed in cells and how cells divide. But these experiments are done with baker's yeast (*Saccharomyces cerevisiae*) and the results don't always lead to clinically relevant findings. That said, *Candida* is structurally similar to baker's yeast, and the technical know-how from one species can be translated to the other.

"Fungal cells exist morphologically in two forms — roundish forms called yeast and long filamentous forms called molds," Dr. Garg said. "India has many moldy infections due to pathogens like *Aspergillus* and *Fusarium*."

"We do not have enough people looking into the biology of filamentous fungi," Dr. Kaur added. "Even with *Candida*, basic questions like what turns this fungus, which is often found on human skin, suddenly pathogenic is not well-understood."



“We need to also study the fungus in its native state and understand its relationship with its host,” Dr. Vasudevan said. He also highlighted the importance of skilled taxonomists who can painstakingly grow, identify, and maintain fungal cultures.

Just like the medical community, the wildlife biology community will also benefit from fungal expertise within the country because samples can't be out of the country, limiting access to skilled personnel elsewhere.

The good news is that researchers in India are working to identify priority fungal pathogens circulating within its borders, both including and beyond a list of species the World Health Organization released in 2022. They are also working to map antifungal resistance in pathogens in the environment and develop newer therapeutics such as antimicrobial peptides. Better-equipped hospitals are also training others in the medical community to pay attention to the fungal infection crisis.

WAITING FOR THE STORM

Late last week, a pacy pre-monsoon weather system barrellled into Uttar Pradesh, bringing a compound of thunderstorms, dust storms, lightning, heavy rain, and thundersqualls to multiple districts at once. By May 14, the toll was 111 deaths and 72 injuries across 26 districts, rendering the storms among the deadliest weather-related disasters in Uttar Pradesh in recent times. The State has experienced similar weather events in May-June since 2018, if not before. The distinction this year seems to have been the intensity, with winds capable of uprooting trees. The storm appears to have been driven by a pre-monsoon convective system, with a fresh western disturbance over the northwest further destabilising conditions. The India Meteorological Department (IMD) had issued thunderstorm and lightning alerts before the event and the Uttar Pradesh government reportedly issued more than 34 crore red and orange alert messages via the SACHET portal. However, it is not clear whether these warnings were sufficiently geographically precise or reached their intended beneficiaries in time — and in fact if they simply warned of impending adverse weather or carried instructions for people to act on.

Indeed, advance preparation is pertinent for two reasons. The State is sometimes in a convergence zone as the hot, dry, 'loo' winds from the Thar move east over the plains while moisture-laden winds from the Bay of Bengal push in from the southeast. Second, over the undulating Vindhya hills in Mirzapur and Sonbhadra, the convergent air masses may lift rapidly, producing thunderstorms over specific parts of the State. Effectively, while no authority could have predicted the storms' local intensity, the underlying risk was hardly unforeseeable. Their recurrence at this time of the year and place should raise sharp questions about why so many deaths still occurred. Part of the answer is surely the proximate causes of death and damage, including housing and public infrastructure. Uttar Pradesh has a large number of structurally vulnerable rural and peri-urban households. If a storm strikes at dusk or later, people are often indoors or resting under fragile roofs. In addition, people are also vulnerable to improperly placed or poorly installed hoardings, electrical wiring, and public signage. The State was aware of the kinds of damage such storms could cause as it announced separate relief packages depending on the type of farming, crop, and loss. The underlying risk was foreseeable, yet the vulnerability was high.

MINIMUM TEMPERATURES ARE RISING FASTER THAN MAXIMUM

Several parts of the country experienced many days of maximum heat, breaching 40 degrees Celsius last month. While this in itself is enough to make one sweat, literally and figuratively, a

4TH FLOOR SHATABDI TOWER, SAKCHI, JAMSHEDPUR



deeper look at last month's weather pattern tells an interesting story — while maximum temperatures are getting warmer across the country, minimum temperatures are heating up relatively faster in many places. Across large parts of central and western India, the daily maximum temperatures were close to or even below the normal expected temperatures of those areas.

The “normal” here refers to IMD's long-term baseline, which is the average April temperatures recorded at each station between 1991 and 2020. This 30-year reference period is the standard currently used by both the IMD and the World Meteorological Organization (WMO). So, when a station shows below-normal temperatures, it means April 2026 was cooler than that location's April average, even if absolute temperatures were still high.

The IMD's Monthly Climate Summary for April 2026 found that across the country, maximum temperatures were near normal — just 0.11 degrees Celsius above the long-period average — while minimum temperatures averaged 0.5 degrees Celsius above normal. In other words, maximums barely deviated from what April typically experiences, while minimums were warmer than expected.

The minimum temperature at Delhi's Safdarjung station averaged 2.2 degrees Celsius above its normal while maximum temperatures averaged 0.3 degrees Celsius under the average. While the beginning of the month was relatively cooler, in the second half, Delhi's minimum temperature was more than 1.5 degrees Celsius higher than expected, leaving the city little time to recover from the heat. Punjab told the same story as Delhi but even more starkly. April maximums averaged a degree below the expected value of 34.8 degrees Celsius, while minimums were 2.4 degrees Celsius hotter than the State's average of 18 degrees Celsius.

Several Maharashtra stations also recorded higher minimum temperatures throughout April. Nagpur's minimum temperatures were 3.6 degrees Celsius above the average of 23.9 degrees Celsius while its maximums at an average of 40.1, were just slightly above the normal of 40.6 degrees Celsius.

Of the 442 stations for which data was available, Chaparmukh in Assam and Phulbani in Odisha deviated the most from their normal minimum temperatures, running 5.5 degrees Celsius and 5.1 degrees Celsius above their April baselines of 14.9 degrees Celsius and 19.6 degrees Celsius respectively.

A cooler night gives the body time to recover from the day's heat. When that window closes, heat stress compounds across the day. The same logic applies to crops too. The UN Food and Agriculture Organization and WMO warned in an April report that high night-time temperatures force plants to keep burning the energy they built through photosynthesis in the day. This could cause stunted growth in plants.

Tehri in Uttarakhand and Thoothukudi in Tamil Nadu departed the most from their expected maximums. Andhra Pradesh, Maharashtra and Telangana were the States with the most number of days where the maximum temperature crossed 40 degrees Celsius.

ON SARANDA FORESTS, JHARKHAND MUST RESPECT SC ORDER

In November last year, the Supreme Court asked the Jharkhand government to notify 314 sq km of the Saranda forests in the state's West Singhbhum district as a wildlife sanctuary. The order came after the apex court had pulled up the state government on at least two occasions for failing

4TH FLOOR SHATABDI TOWER, SAKCHI, JAMSHEDPUR



to comply with its directives on checking illegal mining in the biodiverse forests. However, after assuring the Court of compliance, the Hemant Soren government has dilly-dallied over protecting one of Asia's largest sal forest ecosystems. It has missed the February deadline for declaring Saranda a wildlife sanctuary and instead filed two review petitions before the SC — the last on April 30. The state government's argument — according protected area status to the forests would curtail the rights of indigenous people — flies in the face of the SC's clarifications. The Court has repeatedly said that individual and community rights under the Forest Rights Act will remain protected and traditional livelihoods will not be displaced by conservation efforts.

The Saranda forests are among the country's most important elephant corridors. Mining operations have, over the past two decades, altered the ecosystem's integrity. They have disrupted the migratory routes of elephants and forced them to move through human settlements and fields, leading to increased human-animal conflict across Jharkhand and neighbouring Odisha and West Bengal. A study published last year in *Ecology and Evolution* reported that rampaging elephants had killed more than 1,300 people in Jharkhand between 2000 and 2023. Deforestation also weakens watershed systems, accelerates soil erosion, hampers local climate resilience, and affects agriculture and people's livelihoods. The Jharkhand government is, therefore, ill-advised in framing conservation as a choice between forests and indigenous communities. It should see the protection of the sal forests as a matter of long-term ecological security.

Jharkhand's prevarication reflects a deeper and troubling pattern — a widening chasm between judicial directives and executive action on environmental matters. Whether in the inadequate response to Delhi's deteriorating air quality, the bypassing of Court orders aimed at protecting the fragile Himalayan ecology, or dilution of safeguards within coastal zones, the executive has too often failed to match the judiciary's interventions with meaningful enforcement. Public faith in environmental governance is undermined when governments offer assurances before courts and then delay or dilute implementation. The Jharkhand government should course correct and listen to the SC.

BARN SWALLOWS IN MANIPUR SHED THEIR MIGRATORY TRAIT

Descendants of migratory barn swallows may have gradually stopped making long journeys and settled permanently in Manipur's Imphal Valley, a new study suggests.

The finding, published in the *Journal of Wildlife Science*, also says that these fork-tailed birds may represent a mixed population shaped by ancient movements and interbreeding between their different groups over thousands of years.

The authors of the study are Amarjeet Kaur and R. Suresh Kumar of the Wildlife Institute of India (WII). Their study is based on field surveys conducted in 2022 and 2023.

The barn swallow (*Hirundo rustica*) is a widespread synanthrope that has expanded its range across continents. In India, two subspecies of barn swallows are reported to breed in the Himalayas, while one is believed to winter in parts of the country's northeastern region.

The two WII scientists, one from the Department of Habitat Ecology and the other from the Department of Endangered Species Management, did not find any barn swallows in Manipur's hill districts. They found thriving colonies in the Imphal Valley, recording nests in about 50 homes and buildings across Bishnupur, Imphal East, Imphal West, and Thoubal districts.



Variety of colours

They captured 45 individuals — 26 males and 19 females. The swallows showed a variety of colours, ranging from buff to rich chestnut-orange underparts, with differences in throat and breast markings. Measurements of their wings and tails overlapped with several recognised subspecies, making it impossible to determine which population they belonged to.

During the survey, adult barn swallows were seen at the nesting sites throughout the year, indicating that they do not leave the valley after breeding.

The scientists suggest two possible explanations for why the Imphal Valley birds challenge the understanding of barn swallows.

One is that these birds shed the migratory trait of their ancestors to settle down in the valley that offers ideal conditions — a mild climate, plentiful flying insects, and structures suitable for building their cup-shaped mud nests. The other is the impact of interbreeding of different groups over thousands of years.

The scientists did not rule out the role of local culture in the birds' evolution from temporary to permanent residents. "The Meitei community, a Tibeto-Burman ethnic group native to Manipur, regards the barn swallow as a symbol of Goddess Lakshmi, prosperity, and good fortune. This belief translates into strong protection of nests and barn swallows within private properties, likely contributing to the persistence of breeding populations in densely inhabited areas in Imphal Valley," they observe.

The researchers note that the study provides the first documentation of a resident breeding population of barn swallows in Manipur, extending the species' known breeding range in the Indian subcontinent.

"It highlights a critical ecological gap in our understanding of avian biogeography in this understudied region and challenges long-standing assumptions about subspecies limits," they state, underscoring the need to use tracking devices and genetic analyses in future studies to find out where these birds came from and how long they lived in Manipur.

SOARING PRICES, IMPORT CURBS PUSH ODISHA'S FILIGREE ARTISANS TO THE BRINK

Last week, the central government decided to raise the customs duty on imports of gold and silver to 15% from 6% and eventually put silver imports for domestic consumption under the restricted category, meaning prior government approval is required.

— The development — announced by the government to save precious foreign exchange — comes at a time when a persistent supply deficit and higher industrial demand, coupled with geopolitical tensions, have sent prices soaring.

— For the nearly 500 artisans of the Geographical Indication-tagged Tarakasi artwork in Odisha's Cuttack, already reeling under soaring prices, the latest measure spells bad news, especially as the festival season from September to March approaches.

— A 1,000-year-old city, Cuttack is famous for its Rupa Tarakasi (silver filigree) work of intricate design and fine craftsmanship. It has also received the Geographical Indication tag in March 2024.



— In Odia, “tara” means wire and “kasi” means to design. As part of Rupa tarakasi, silver bricks are transformed into thin fine wires or foils and used to create jewellery, artefacts or showpieces.

— Though the exact origin of the filigree art in Cuttack is unclear, it is known to have existed as far back as the 12th century, with the art form receiving considerable patronage under the Mughals.

— Typically, Tarakasi art is hereditary, with artisans learning it from their ancestors and supplying products to jewellery shops across the country and to Utkalika, the Odisha state-owned agency. The grand chandi medhas – or silver filigree tableaux – are also popular in puja pandals.

Do You Know:

— India, as a member of the World Trade Organization (WTO), enacted the Geographical Indications of Goods (Registration & Protection) Act, 1999, that came into force with effect from 15th September 2003.

— A Geographical Indication (GI) is a tag used on products that originate from a specific geographical area and have qualities or a reputation that are characteristic of that region. This tag signifies the product’s unique identity and authenticity. It helps to raise awareness and build trust among consumers.

— Once a product gets this tag, any person or company cannot sell a similar item under that name. This tag is valid for a period of 10 years following which it can be renewed. The other benefits of GI registration include legal protection to that item, prevention against unauthorised use by others, and promoting exports.

— In India, the Department for Promotion of Industry and Internal Trade, Ministry of Commerce and Industry, awards GIs. Darjeeling Tea was the first Indian product to get the GI tag.

— A GI registration is given to an area, not a trader, but once a product gets the registration, traders dealing in the product can apply to sell it with the GI logo. Authorised traders are each assigned a unique GI number.

WHY RAHUL GANDHI UNVEILED STATUE OF ‘FORGOTTEN HERO’ OF 1857 REVOLT

On Wednesday, Leader of Opposition in the Lok Sabha Rahul Gandhi unveiled a statue of Veera Pasi, a “forgotten hero” who had fought the British during the Revolt of 1857, in Raebareli.

Key Takeaways:

— While this was not the first attempt by a political party to woo the Pasi community in Uttar Pradesh through an icon from the community, Gandhi’s move in his parliamentary constituency is significant ahead of the state Assembly election next year.

— Veera Pasi was a trusted companion and commander of Rana Beni Madhav Baksh Singh, the ruler of the Shankarpur Estate in modern-day Raebareli during the 19th century.

— A Dalit belonging to the Pasi caste, Pasi was born on November 11, 1835, into an impoverished family in Lodhwari village of Raebareli district.



— He lost his parents at an early age and went to live at his sister’s house. In the local dialect, a brother living with his sister’s family was called “Veerna”, which later evolved into the name “Veera”.

— Pasi was recruited by Singh for his army, after he was impressed by the former’s strength and went on to become one of his most trusted lieutenants. According to local folklore, when the British captured Singh during the 1857 revolt, Pasi displayed remarkable bravery by rescuing Singh from prison. The British government then announced a reward of Rs 50,000 for the capture or information on Pasi’s whereabouts.

— While Veera Pasi doesn’t feature too prominently in the history books, oral history has kept his legacy alive in Raebareli and adjoining areas where the Pasi community resides in sizeable numbers. As per local folklore, Pasi died while trying to protect Singh from the British forces

— Over the last few years, political parties in UP have worked towards invoking Dalit icons from the past and their contribution to the freedom struggle.

— In 2024, after the general election, Awadhesh Prasad, Samajwadi Party (SP) MP from Faizabad (Ayodhya), had invoked “Veerangana” Uda Devi and “Maharaja” Bijli Pasi, two prominent personalities of the Pasi (Dalit) community while taking oath in the Lok Sabha.

— Uda Devi was part of the royal guard of Begum Hazrat Mahal of Awadh and participated in the 1857 revolt. She is credited with having mobilised people to take up arms against the British. In November 2022, the SP had commemorated Uda Devi’s death anniversary at its party headquarters.

— Bijli Pasi is among the most prominent Dalit icons, having ruled over some parts of UP in the medieval period. The Yogi Adityanath-led BJP government in UP has announced plans to renovate and redevelop Bijli Pasi’s fort in Lucknow as a tourist destination.

— Ajay Kumar, assistant professor at Babasaheb Bhimrao Ambedkar University’s sociology department, says that mainstream historical writing has often neglected the contributions and experiences of Dalits, Adivasis, and other marginalised communities.

— “Since these communities traditionally possessed relatively few written records, their histories survived through folk tales, folk songs, memories, and oral traditions. These oral traditions became important carriers of their social experiences, struggles, and collective consciousness,” he added.

— The Pasis make up around 7 per cent of the state’s Scheduled Caste population, making them the largest group among Dalits in UP after the Jatavs. While they also have significant presence in other states, their largest population is in UP. In the 2024 Lok Sabha election, when the SP won 37 seats, the party had received a boost as five Pasi candidates fielded by the SP had won, compared with three of the BJP.

— With the Mayawati-led Bahujan Samaj Party steadily declining in UP — its vote share fell from 22.23% in the 2017 Assembly election to 12.88% five years later, with the vote share roughly proportional to the population of Jatav-Ravidasi Dalits, who are its core support base — everyone, from the SP and the Congress to the Aazad Samaj Party (Kanshi Ram) led by Chandrashekhar Azad is trying to fill that space.



Do You Know:

- The rebellion of 1857, also known as the Sepoy Mutiny or the First War of Indian Independence, began on May 10, 1857. In the revolt, Indian sepoys rose up against the might of the British officers of the East India Company. This revolt witnessed an extraordinary amount of violence unleashed by both sides.
- The introduction of the newly Enfield rifle became the immediate cause of the outbreak of the Revolt. The cartridges had a covering that was believed to be made of animal fat (beef and pork), and which had to be bit open before the cartridges could be used.
- This was viewed by the soldiers as a direct assault on their religious beliefs by the British who intended to bring an end to their religion and propagate Christianity.
- Along with economic exploitation in the form of increased rents, illegal acquisitions of land, and decline of traditional handicrafts, several other factors contributed to the outbreak of the Revolt.
- The increased interference of the Britishers in Indian affairs, Doctrine of Lapse, the annexation of Awadh by Lord Dalhousie on the grounds of alleged misgovernance of Awadh and failing to introduce reform had an adverse effect on the Bengal Army, leading to the outbreak of the revolt.
- The Revolt ended the rule of the East India Company in India by an Act of Parliament known as the Queen's Proclamation of 1858. With this, the rule of the Indian empire was taken over by the British crown.

NETHERLANDS RETURNS 11TH-CENTURY CHOLA PLATES

More than 300 years after they were taken away from a remote site in Tamil Nadu's Nagapattinam, the 11th century Chola plates were handed over to India by the Netherlands on Saturday during Prime Minister Narendra Modi's visit, marking a significant milestone in New Delhi's pitch for restitution of colonial pillage.

Key Takeaways:

- Behind the return of 30-kg Chola Plates is a foolproof provenance claim made by India and a national policy framed by the Dutch government for the return of colonial plunder. Even as they were handed over by Dutch PM Rob Jetten, the plates — in the possession of Leiden University since 1862 — will be returned to India in a few weeks, according to sources.
- The restitution comes on the advice of the national Colonial Collections Committee of the Netherlands, they add, in response to a request by the Ministry of Culture in 2023, stating that the Copper Chola Plates originate from India and record important agreements about the right of a Buddhist shrine and a number of monasteries in Nagapattinam in India to the revenue of villages.
- Calling it a joyous moment for every Indian, the PM said in a post on X, "... The Chola Copper Plates are a set of 21 large plates and 3 small plates and largely contain texts in Tamil, one of the most beautiful languages of the world. They relate to the great Rajendra Chola I formalising an oral commitment made by his father, King Rajaraja I. They also showcase the greatness of the Cholas. We in India are immensely proud of the Cholas, their culture and their maritime prowess." He also thanked the Netherlands government and the Leiden University.



— One object (origin: 1687) comprises 21 copper plates held together by a bronze ring bearing the seal of King Rājendra Chola I during his reign in the 11th century. Five plates contain Sanskrit inscriptions, and the remaining are in Tamil.

— The other object (origin: 1688) comprises three copper plates with Tamil inscriptions also held together by a bronze ring bearing the seal of King Kulōttunga Chola I (who ruled from 1070 to 1120).

— As per the Leiden university statement, the provenance investigation demonstrated that the plates were most likely excavated during the construction of Fort Vijf Sinnen and the redevelopment of the site at the 'Chinese' Pagoda in Nagapattinam by the Dutch East Indies Company (VOC) between 1687 and 1700. At the time, Nagapattinam had been captured by the VOC.

Do You Know:

— According to the Customs Department in Chennai, the Anaimangalam copper plates comprise a set of 21 large plates and three smaller ones. These were issued to commemorate grants made by the renowned Chola ruler Rajaraja I to a Buddhist vihara (monastery) at the Chola port town of Nagapattinam in Tamil Nadu. The vihara had been constructed by Chulamanivarman, the Sailendra ruler of Southeast Asia.

— The Chola kingdom stretched across present-day Tamil Nadu, Kerala, and parts of Andhra Pradesh and Karnataka.

— Rajaraja I, born to King Parantaka II in 947 CE, is considered the most powerful Chola ruler. Records from copper plate inscriptions have revealed that upon his birth, he was named Arulmozhiarman. Upon accession to the throne in 985 CE, he adopted the regnal title 'Rajaraja' or king of kings.

— Prime Minister Narendra Modi last year unveiled a commemorative coin and inaugurated an exhibition on Rajendra Chola's northern conquest. Rajendra I, the maritime monarch of the Chola dynasty, inherited a powerful kingdom from his father Rajaraja I and expansion of the Chola empire continued under him.

— Three royal temples - the Tanjore Brihadēśvara, Gangaikōṇḍacōḷapuram, and Darasuram Airavatēśvara - built between the 11th and 12th centuries CE, are the finest examples of the Cholas' artistic brilliance. These temples were inscribed as a UNESCO World Heritage Site as the 'Great Living Chola Temples' in 1987.

HOW INDIA AND PERSIA SHAPED EACH OTHER

Connections between India and Persia stretched back to prehistoric movements of people, long before written history. Genetic and archaeological evidence suggests that populations linked to ancient Iranian farmers moved eastward into the subcontinent around 10,000 years ago, interacting with older forager communities.

This early layer shaped agriculture, settlement patterns, and ritual life in regions that later became part of the Harappan civilisation.



Linguistic and religious connections

By the Bronze Age (c. 3000–1500 BCE), the Indus Valley Civilisation maintained trade links with regions of the Iranian plateau and Mesopotamia. Sites like Shortugai in Afghanistan acted as intermediaries, while goods such as lapis lazuli, carnelian beads, and textiles moved across these zones.

Linguistic evidence (from c. 2000–1500 BCE; some scholars extend the formative phase slightly earlier, to around 2500 BCE) also reveals deep Indo-Iranian connections. Indo-Iranian languages shared common roots, visible in Sanskrit and Avestan parallels. Deities such as Mitra (Mithra) and Varuna (Ahura-related concepts) showed shared cosmological ideas before diverging into distinct religious traditions.

What later became the Vedic religion in India and the Zoroastrian traditions in Iran emerged from this shared Indo-Iranian matrix. The opposition between deva and asura in India and ahura and daeva in Iran reflected a theological inversion that likely took shape during this early separation.

Political links

During the first millennium BCE, political connections between India and Iran became more visible. Parts of northwestern India came under the Achaemenid Empire of Darius I in the 6th century BCE. Regions like Gandhara and Sindh were incorporated as satrapies (an ancient provincial state or territory governed by a satrap, a Persian term for a provincial governor).

Persian administrative practices, including taxation systems and the use of Aramaic script, influenced local governance. The famous Behistun inscription listed Indian territories as part of the imperial network. This is where the Persian emperor identified himself as 'Arya' and India as 'Hind'.

This phase connected India to a wider imperial economy stretching from the Mediterranean to Central Asia. After the Achaemenids, interactions continued through trade and cultural exchange rather than direct rule. Persia was a major supplier of horses to India (after 500 BC), which came by land as well as by sea.

How Mughal Empire deepened ties

Persian influence became prominent again during the early medieval period with the spread of Islam. From the 8th century onwards, Arab and Persian merchants frequented Indian ports along the western coast. Persian gradually became a language of administration and high culture in many Islamic courts in India.

The Delhi Sultanate adopted Persian bureaucratic models, literary styles, and court etiquette. Sufi traditions, especially those linked to Persian lineages, created spiritual networks that bridged regions from Iran to India.

The Mughal Empire deepened these ties. Founded by Babur, who had Timurid and Central Asian roots with a strong Persian cultural orientation, the Mughal court embraced Persian as its primary language. Under rulers like Akbar, Persian literature, miniature painting, and architecture flourished.



The Mughal aesthetic blended Persian elements with Indian motifs, producing distinctive forms such as the charbagh garden and domed mausoleums. Administrative systems also drew on Persian precedents, while local conditions reshaped them.

Economic and cultural exchanges

Economically, Indo-Persian connections were sustained by trade across the Arabian Sea. Horses from Persia and Central Asia were highly valued in India, especially for cavalry. In return, India exported textiles, spices, and precious stones.

Ports like Surat became hubs linking Mughal India with Safavid Persia and beyond. Merchant communities, including Armenians and Persians, played key roles in facilitating this exchange.

Culturally, Persian influence penetrated literature, music, and language. Urdu emerged as a contact language, combining local Prakrits with Persian vocabulary and script. Court chronicles, poetry, and Sufi texts created a shared intellectual space.

Hindustani classical music has many roots in Persian musical traditions. Yet this was not one-sided. Indian ideas also travelled westward, influencing mystical traditions and trade practices.

A turning point

The relationship reached a dramatic turning point in the 18th century with the invasion of Nader Shah in 1739. He sacked Delhi, defeated the Mughal forces, and carried away immense wealth, including the Peacock Throne and the Koh-i-Noor diamond.

This event symbolised both the enduring connection and the shifting balance of power. Persia was no longer merely a cultural influence but a military force exploiting the weakening Mughal state.

From prehistoric migrations to imperial encounters, the India–Persia connection remained continuous yet evolving. It moved from shared ancestry and trade to political integration, cultural exchange, and eventual conflict.

Across millennia, the two regions remained linked by geography, language, economy, and imagination, shaping each other in ways that neither remained unchanged.

SPORTS ECOSYSTEM IS DEPRIVED OF ITS DUE WHEN FUNDS ARE DIVERTED FOR BUREAUCRATS' RECREATIONAL FACILITIES

Most sporting powers rely on ecosystems that nurture young talent and instil confidence in athletes to compete at the highest level. In India, the creation of such an enabling milieu remains a work in progress. The National Sports Development Fund (NSDF), established in 1998, was conceived as an important step in that direction — to support promising sportspersons, expand access to training facilities and coaching, and help athletes gain crucial international exposure. Over the years, the fund has played a significant role in backing initiatives such as the Target Olympic Podium Scheme. That is why the findings of an investigation by this newspaper are deeply troubling — between 2021 and 2025, more than Rs 6 crore from the NSDF was used to construct recreational facilities for bureaucrats. The justification offered — that this did not constitute a diversion of funds but was intended to promote sporting culture — is specious. India's bureaucratic elite do not lack access to clubs and leisure amenities, while athletes across the country continue to grapple with inadequate training facilities and limited institutional support.



The revelations come at a time when the NSDF's resources are shrinking. The contribution to the fund fell sharply from Rs 85.26 crore in 2023-24 to Rs 37.02 crore in 2025-26. Last year, a 31-member parliamentary panel expressed concern about waning corporate faith in government-administered sports bodies. It also noted that public sector units are reducing their contribution to government-administered sports initiatives. Such trends warrant greater financial discipline and probity in the use of resources meant to enhance infrastructure at the grassroots levels, where sporting talent is emerging. Funding is urgently needed in rural West Bengal and Tripura, which have consistently produced gifted gymnasts. The country has fewer than 20 swimming pools that satisfy Olympic standards. The need is equally pressing for badminton courts in Punjab, Chhattisgarh and Haryana, wrestling mats in Kolhapur, judo infrastructure in Manipur, and hockey astro turfs across the country, where the sport has a strong grassroots presence. Aspiring boxers in Haryana continue to train in substandard facilities despite the state's success in the sport. Telangana, Bengal and Gujarat, where youngsters have shown a hunger for table tennis, need more international-quality infrastructure. Even metros such as Mumbai require accessible multipurpose indoor complexes where children can take up sports, other than cricket, without prohibitive costs.

The allocation and utilisation of NSDF resources should be subject to regular audits. Public disclosure of expenditure could restore the fund's credibility. This paper's investigation is a warning. A nation aspiring to emerge as a global sporting power cannot afford the elite capture of resources intended to lay the foundations of athletic excellence.

SHORT NEWS

4TH INDIA-AFRICA FORUM SUMMIT

The 4th India-Africa Forum Summit, scheduled to take place in New Delhi from May 28 to 31, has been postponed by the Ministry of External Affairs (MEA) and the African Union (AU) due to the ongoing Ebola outbreak in parts of Africa.

Key Points:

Reason for Postponement: The decision was made in light of the "evolving health situation," specifically the Ebola outbreak affecting the Democratic Republic of Congo (DRC) and Uganda, which the WHO has declared a Public Health Emergency of International Concern (PHEIC).

Impact: Several associated diplomatic and cultural events have been cancelled, though some African delegates had already arrived in New Delhi. New dates will be decided through mutual consultation.

Responses: India expressed solidarity with Africa, pledging support through an "Africa-led" approach. The AU emphasized that pandemics respect no borders and require collective international cooperation to manage future health emergencies.

Historical Context: This summit was already delayed by 11 years (the last was held in 2015) due to the COVID-19 pandemic. Notably, the previous summit (held prior to 2015) was also postponed for a year due to an earlier Ebola outbreak.

Future Outlook: Despite the setback, Indian officials and former diplomats remain confident that the summit will be rescheduled and held once the current health emergency in Africa stabilizes.



THIRD INDIA-NORDIC SUMMIT 2026

— Prime Minister Narendra Modi was in Norway for the third India-Nordic summit. He also visited three more countries — the Netherlands, Sweden and Italy.

— The first India-Nordic summit was held in Stockholm (2018) and the second in Copenhagen (2022), bringing together leaders of India, Norway, Sweden, Denmark, Finland and Iceland. Only the US holds an equivalent summit-level engagement with the Nordics.

— The India-Nordic trade in goods and services reached \$19 billion in 2024 (exports \$9.4 billion, imports \$9.6 billion).

India-Sweden

— In Sweden, PM Modi was conferred with the 'Royal Order of the Polar Star, Degree Commander Grand Cross,' one of Sweden's oldest and most distinguished honours, instituted in the 18th century. It was conferred by Her Royal Highness Crown Princess Victoria.

— The award is Sweden's highest honour conferred on foreign Heads of Government in recognition of exceptional public service and contribution towards strengthening relations with Sweden.

— Prime Minister Modi is the first Asian leader to be conferred the award.

Outcomes of the meeting:

— India and Sweden elevated the bilateral relationship to a Strategic Partnership. Both leaders endorsed the upgraded Joint Action Plan 2026–2030 to implement the Strategic Partnership.

— The partnership rests on four pillars:

- i. Strategic Dialogue for Stability and Security;
- ii. Next-Generation Economic Partnership;
- iii. Emerging Technologies and Trusted Connectivity
- iv. Shaping Tomorrow Together – People, Planet and Resilience.

— They also agreed that a bilateral summit, "India–Sweden: Stronger Together – towards 2047", will be held in India in 2027.

— Both leaders called for a new four-year phase of Leadership Group for Industry Transition (LeadIT), LeadIT 3.0, to be announced at COP31. COP31 will be hosted in Antalya (Türkiye) from November 9-20, 2026.

India and the Netherlands

— Prime Minister Narendra Modi paid an official visit to the Netherlands on 16-17 May 2026. This marked Prime Minister Modi's second visit to the Netherlands.

— PM Modi and the Prime Minister of the Netherlands, Rob Jetten have decided to elevate their bilateral ties to a 'Strategic Partnership' by agreeing on a comprehensive five-year roadmap (2026–30).



— Both the leaders signed 17 pacts spanning semiconductors, critical minerals, migration, water management, and renewable energy.

— The MoU for semiconductor was signed between Tata Electronics and ASML, which aims to support the semiconductor fab facility in Dholera, Gujarat.

ASML is the world's only producer of extreme ultraviolet (EUV) lithography machines, the highly sophisticated systems required to manufacture advanced semiconductors. Without its machines, the production of cutting-edge chips becomes virtually impossible.

— On defence cooperation, they agreed to plan a structured Joint Tri-services interaction between the Ministries of Defence and the Directorates of International Military Cooperation to coordinate bilateral military cooperation, including cooperation between Defence Industry and Research Centres, the statement said.

INDIA-ITALY RELATIONSHIP

— PM Modi paid an official visit to Italy on 19-20 May 2026 on the invitation of the President of the Council of Ministers of the Italian Republic, Giorgia Meloni.

— Both leaders reaffirmed their commitment to cooperate on the India-Middle East-Europe Economic Corridor (IMEC).

Major outcomes of the meeting:

— They have decided to elevate India-Italy relations to the level of a Special Strategic Partnership.

— They announced the creation of INNOVIT India, an innovation hub located in India aimed at strengthening cooperation between the respective innovation ecosystems, supporting startup acceleration programs, market access and business matching.

— They also agreed to launch a 'Dialogue on Maritime Security', with the aim of increasing maritime security cooperation, coordination and the exchange of information and best practices in the maritime domain.

— They welcomed the launch of 'ICI-Italy Calls India: A University-Enterprise Talent Bridge' aimed at enhancing the talent of Indian students enrolled in Italian universities by offering concrete pathways for guidance, matching and qualified integration into Italian enterprises.

— They signed an MoU on "Italy's participation in the development of the National Maritime Heritage Complex in Lothal".

— They also signed a MoU for cooperation in critical minerals.

IMEC

— The India-Middle East-Europe Economic Corridor (IMEEC or the IMEC) is a landmark project announced during the G20 Leaders' event in New Delhi in 2023. It aimed to stimulate economic development by enhancing connectivity and integration among Asia, the Middle East, and Europe.



— It will have two separate corridors, the east corridor connecting India to the Arabian Gulf and the northern corridor connecting the Arabian Gulf to Europe, along with a railway route for supplementing trade exchanges between India, the UAE, Saudi Arabia, Jordan, Israel, and Europe.

— India, Saudi Arabia, the UAE, France, Germany, Italy, the European Union and the United States signed an MoU for its development, linked to the Partnership for Global Infrastructure and Investment (PGII).

AFSLUITDIJK DAM

— Prime Minister Narendra Modi on 17th May visited the iconic Dutch water management project Afsluitdijk – a 32-km dam and causeway.

— Afsluitdijk is considered a global benchmark in flood control and land reclamation, protecting large parts of the Netherlands from the North Sea while enabling freshwater storage.

— Constructed nearly 80 years ago, this 32-kilometer-long barrier dam separates the North Sea from a freshwater lake.

— The dam also protects large low-lying regions of the Netherlands from severe flooding, making it a global benchmark in flood control. Its most remarkable feature is that it blocks salty seawater and creates a vast freshwater reservoir inside.

— Besides freshwater storage, the Afsluitdijk project also integrates shipping, transportation connectivity, and renewable energy generation.

— During the PM visit to the Netherlands, a Letter of Intent was signed between India's Ministry of Jal Shakti and the Netherlands' Ministry of Infrastructure and Water Management for technical cooperation on the Kalpasar Project of the Gujarat government.

— The Kalpasar Project envisions the construction of a massive dam across the Gulf of Khambhat to utilise the waters of seven rivers that currently flow into the sea.

— The project aims to create a vast freshwater reservoir in the gulf, integrating tidal power generation, irrigation, and transportation infrastructure development.

COLOSSEUM

— PM Modi and his Italian counterpart, Giorgia Meloni visited the iconic Colosseum, pictures from which took the Internet by storm.

— Constructed in 80 AD, the Colosseum was built under Emperor Vespasian. Although he died before it was completed, it was later finished under his two sons, Emperors Titus and Domitian. The name "Colosseum" originated from the colossal bronze statue of Emperor Nero.

— Located in the centre of Rome, it is the largest ancient amphitheatre and is the largest standing amphitheatre in the world. The oval-shaped building spans 6 acres and measures 189 meters long, 156 meters wide, and 894 meters tall, consisting of three levels with a series of semicircular arches.



— As per the official website, these arches are supported by pillars and columns of the travertine stone, and can accommodate up to 50,000 people. Its iconic arches stand nearly 30 metres tall, with a total of 80 arches forming part of its grand structure.

— The lower level was mainly used for administrative and organisational purposes, while the upper tiers were designed to accommodate large gatherings, assemblies, and public events for the Roman people.

— It is declared as a UNESCO World Heritage Site and ‘One of the New Seven Wonders of the World’.

PM MODI’S GIFT DIPLOMACY

— During Prime Minister Narendra Modi’s recent five-nation diplomatic tour, he presented the diplomatic leaders a diverse range of gifts showcasing India’s cultural diversity.

Recipient	Country/Position	Gift Presented	Indian Origin/Art Form	Significance
Giorgia Meloni	Prime Minister of Italy	Muga silk stole and off-white Shirui Lily silk stole	Assam and Manipur	Showcased India’s textile diversity; Muga silk is known as Assam’s “golden silk”, while the Shirui Lily stole reflects Manipur’s rare endemic flower.
Queen Máxima	Queen of the Netherlands	Pair of Meenakari and Kundan earrings	Rajasthan	Combined two historic craft traditions; orange honoured the Dutch House of Orange-Nassau, while blue reflected serenity, openness and the Netherlands’ relationship with water.
Jonas Gahr Støre	Prime Minister of Norway	Pressed orchid painting and orchid paperweights	Sikkim	Featured real pressed orchids and ferns, highlighting India’s Himalayan biodiversity and natural craft traditions.
King Harald V	King of Norway	Silver sailboat model	Tarakasi silver filigree from Cuttack, Odisha	Represented Odisha’s ancient silver filigree craftsmanship and India’s maritime-cultural symbolism.
Sheikh Mohamed bin Zayed Al Nahyan	President of the UAE	Rogan painting with the Tree of Life motif	Kutch, Gujarat	Displayed a rare textile art form; the Tree of Life symbolised interconnectedness, strength, renewal and continuity.



SAMPLE REGISTRATION SYSTEM (SRS) STATISTICAL REPORT 2024

— The Sample Registration System is a large-scale demographic sample survey that is being conducted in a random sample of villages and urban blocks.

— It is released by the Office of the Registrar General & Census Commissioner, India.

What are the silent features of the SRS Report?

- i. In 2024, the Crude Birth Rate (CBR) at the National level stands at 18.3 exhibiting a decline of 0.1 points over 2023. The maximum CBR has been reported in Bihar (26.8) and the minimum in Kerala (11.1).
 - ii. The Infant Mortality Rate (IMR) declined by one point to 24 in 2024 at the National level. Chhattisgarh recorded the highest IMR at 36, while Kerala reported the lowest at 8.
 - iii. Sex Ratio at Birth has gone up by 1 point to 918 in 2022-24 from 917 in 2021-23. Chhattisgarh and Kerala have reported the highest Sex Ratio at Birth at 978 and 974 respectively, while Uttarakhand has the lowest (872).
 - iv. The Total Fertility Rate (TFR) is estimated at 1.9 in 2024. Bihar recorded the highest TFR at 2.9, while Delhi had the lowest at 1.2.
- **Crude Birth Rate (CBR):** According to the WHO, the crude birth rate is the annual number of live births per 1,000 population. It is generally computed as a ratio. The numerator is the number of live births observed in a population during a reference period, and the denominator is the number of person-years lived by the population during the same period.
 - **Infant Mortality Rate (IMR):** The infant mortality rate is the number of deaths of a baby that occur between the time it is born and 1 year of age out of every 1,000 live births.
 - **Total Fertility Rate (TFR):** According to the website of OECD, the total fertility rate in a specific year is defined as the total number of children that would be born to each woman if she were to live to the end of her child-bearing years and give birth to children in alignment with the prevailing age-specific fertility rates.

UAV-LAUNCHED PRECISION GUIDED MISSILE (ULPGM)-V3

— The Defence Research and Development Organisation (DRDO) on May 19 completed the final deliverable configuration development trials of the ULPGM-V3 in both air-to-ground and air-to-air modes.

— The trials were carried out using an integrated ground control system (GCS) to command and control the ULPGM weapon system.

— The GCS features state-of-the-art technologies to automate readiness and launch operations.

— The ULPGM-V3 is fitted with a high-definition dual-channel seeker, an advanced guidance system using multiple sensors to accurately track targets — allowing it to strike a wide range of threats.



- The missile can be deployed in both plains and high-altitude regions and is capable of operating during both day and night. It is also equipped with a two-way data link, enabling operators to change or update the target even after the missile has been launched.
- The missile can be fitted with three different types of warheads depending on the mission.
- The missile can engage both stationary and moving targets with precision in all-weather, day-and-night combat conditions.

HOLLONGAPAR GIBBON SANCTUARY

- The first instance globally of a Western hoolock gibbon using an artificial canopy bridge over a railway line was recorded in Assam's Hollongapar Gibbon Sanctuary recently.
- The Hoollongapar Gibbon Sanctuary, previously called the Gibbon Wildlife Sanctuary or Hollongapar Reserve Forest, is an isolated evergreen forest in Jorhat district, Assam, India. It was renamed on May 25, 2004.
- It is home to India's only gibbons, the hoolock gibbons, and Northeast India's only nocturnal primate, the Bengal slow loris.
- The Hollongapar sanctuary got its first artificial canopy bridge in 2015. The rigid iron structure (see photo) remained unused because its design did not accommodate the hoolock gibbon's specialised suspensory form of movement, known as brachiation, in which the animal swings hand-over-hand through the canopy.
- Arboreal (tree-dwelling) species rely on continuous tree canopies to move, forage, and disperse. Linear infrastructure such as roads, railways, powerlines and canals often interrupts this continuity, isolating wildlife populations in fragmented forest patches.

Hoolock Gibbon

- The forests of Northeast India are home to the country's only apes: the western hoolock gibbon (*Hoolock hoolock*) and the eastern hoolock gibbon (*Hoolock leuconedys*).
- The western hoolock gibbon is found in all the states of the northeast, restricted between the south of the Brahmaputra River and east of the Dibang River. It is also found in eastern Bangladesh and north-west Myanmar. It is listed as Endangered in the IUCN Redlist and Schedule 1 of the Indian (Wildlife) Protection Act 1972.
- The eastern hoolock gibbon inhabits specific pockets of Arunachal Pradesh and Assam in India, southern China, and north-east Myanmar. It is listed as Vulnerable in the IUCN Redlist.

DELHI'S SANJAY LAKE

- Due to heatwave conditions in Delhi, Sanjay Lake in East Delhi's Trilokpuri turned into a fish graveyard.
- The deaths came amid rapidly receding water levels at the lake, with officials attributing the situation partly to a critical pipeline supplying treated water from Kondli sewage treatment plant (STP) to the lake developing leakages and remaining under repair.



— Environmental experts said low water levels during a heatwave may result in pollutants becoming more concentrated. Higher temperatures also reduce the ability of the water to hold dissolved oxygen, while decomposing organic matter and waste consume more oxygen.

— Sanjay Lake is a popular artificial lake in Delhi, developed by the Delhi Development Authority to provide a natural recreational spot for locals and tourists.

INTERNATIONAL BOOKER PRIZE 2026

— The book, Taiwan Travelogue by Yáng Shuāng-zǐ and translated by Lin King, was announced as the winner of the International Booker Prize 2026.

— The £50,000 (approximately Rs 65 lakh) prize, which is divided equally between author and translator, was presented by Natasha Brown.

— Taiwan Travelogue is the first book translated from Mandarin Chinese to win the International Booker Prize, and Yáng and King are the first Taiwanese and Taiwanese-American winners in the prize's history.

— Launched first in 2005 as the Man Booker International Prize, it was a biennial honour awarded to a writer for their entire body of work.

— A biennial prize initially, it was then awarded for a body of work available in English, including translations, with Alice Munro, Lydia Davis and Philip Roth becoming some of the early winners.

— In 2015, the rules of the International Prize changed to make it an annual affair. The new rules stipulated that it will be awarded annually for a single book, written in another language and translated into English.

ENGLISH PREMIER LEAGUE

— Arsenal won the 2025/26 Premier League champions, winning the title for the first time in 22 years.

— It's the 14th English title for Arsenal, putting them behind only Liverpool and Manchester United at 20.

— Arsenal's success means the title has been won by three different clubs in the last three seasons, following Liverpool in 2024/25 and Man City in 2023/24.

— This is only the fifth time the Premier League has produced three or more different winners in successive seasons.



BUSINESS AND ECONOMY

SINGAPORE PIPS UAE AS INDIA'S SECOND-LARGEST EXPORT DESTINATION

India's trade flows have begun shifting amid the prolonged closure of the Strait of Hormuz since March, as traders have begun finding alternate routes to export goods amid disruption in trade with countries in the West Asia region, an analysis of data shared by the Commerce and Industry Ministry showed.

Key Takeaways:

— The most notable shift in trade routes was seen in the two transshipment hubs that India has free trade agreements (FTA) with – UAE and Singapore. Replacing UAE, Singapore became India's second largest export market in April, registering a five-fold jump compared to February. The US continues to be India's largest export destination.

— The Strait of Hormuz was closed on March 2. While exports to Singapore surged by 180% in April to \$3.20 billion compared to \$1.14 billion a year ago, exports to UAE slipped by 36% to \$2.18 billion last month compared to \$3.43 billion a year ago. Exports from Singapore have been rising month-on-month too since February amid the disruption in trade with UAE.

— On the import side too, the West Asia war has led to new import partners. Energy exporters such as Oman, Peru and Nigeria broke into India's top 20 import sources. Shipment from Oman alone more than tripled to \$1.48 billion in April compared to \$429.58 million.

— These changes come as traditional sources of energy are facing restrictions. The war in West Asia has led to a sharp jump in global energy prices, with the closure of the Strait of Hormuz and damage to Gulf nations' energy infrastructure adversely impacting supplies. For India, in addition to a widening of the import bill and a cloudy outlook for exports, the conflict has directly impacted the rupee, which has fallen to multiple record lows against the US dollar on its way to tumbling 5.2% since the end of February.

— To ward off further pressure on the currency, the government has been taking austerity measures to ease the strain on the use of foreign currency and reduce fuel consumption. In addition to a hike in the import duty on precious metals, oil marketing companies on Friday increased the pump price of petrol and diesel for the first time in four years.

Do You Know:

— The Strait of Hormuz, the narrow waterway between Iran and Oman, is a critical maritime choke point that accounted for about a fifth of global oil flows before the West Asia war began on February 28. Since then, vessel movements through the strait have been effectively halted, leading to an unprecedented global energy supply crisis.

HOW INDIA'S COOKING FUEL SHORTAGE IS DRIVING UP CALIFORNIA'S GAS PRICES

In India, there is a shortage of cooking gas. In California, motorists are paying \$6 a gallon for gasoline. They are both symptoms of the worst-ever energy supply disruption. They are also directly connected, and evidence of the knock-on effects across the global economy of the U.S.-Israeli war with Iran. Iran's near-closure of the Strait of Hormuz has thrown global oil trade into disarray, cutting off importers from around one-fifth of the global oil supply that traversed the



waterway before the war. This has forced oil buyers to burn through stockpiles and take other emergency measures to manage global fuel shortages.

Some attempts to address the shortages, such as the Indian government's efforts to shore up liquefied petroleum gas supplies, are spreading the pain. India, the most populous country, uses LPG as its primary cooking fuel. Cut off from Middle Eastern LPG, which represented over 90% of India's total imports of the fuel before the Iran war, New Delhi has directed refiners to maximise LPG output. To comply, refiners have cut production of alkylates — motor fuel additives made using LPG as feedstock.

Double whammy

For California, shrinking alkylate supply compounds concerns of a potential gasoline shortage due to declining fuel production and exports from Asian refiners struggling to access Middle Eastern crude oil. Alkylates are highly sought in California because they burn cleaner than other additives, and the state requires a unique gasoline blend to reduce smog. That is why California's motorists face a double whammy from the war: a slump in Asian fuel exports has directly hit its motor fuel supply chain, and additives needed for the state's unique gasoline blend are harder to procure because of India's conservation of cooking fuel.

Exporting less

"With India's LPG supply constrained by the closure of the Strait of Hormuz, refiners there are producing and exporting less alkylate, adding pressure to an already tight California gasoline market," said Mason Hamilton, chief economist for the American Petroleum Institute industry group.

AUSTRALIAN LNG SUPPLIES TO INDIA WILL SURGE, SAYS GREEN

Amid the global energy shortage triggered by the West Asia crisis and tensions around the Strait of Hormuz, enhanced LNG supplies from Australia could become a viable alternative to bridge India's energy demand-supply gap, Australian High Commissioner to India Philip Green has said.

Mr. Green said Australia's proximity to India's east coast and a crisis-free maritime route made Australian LNG well-suited to support eastern India's growing energy needs and green steel production. At present, most LNG used for industrial and domestic needs in India comes from West Asian countries through ports on India's west coast. He added that maritime routes between Australia and India remain free and supply chains intact.

Australia's metallurgical coal exports for Indian steel-making and imports of processed petroleum products from India are continuing and uninterrupted.

Mr. Green said that Australia currently exports LNG mainly to East Asian markets such as Japan, Korea and Singapore. The Indian Ocean route offers India a supply chain free from strategic choke points, he said.

ECTA-led surge

Since the implementation of the Australia-India Economic Cooperation and Trade Agreement (ECTA), Indian textile exports to Australia have risen 25%, agricultural exports 50%, and car exports 85%.



Australia is also aiming to play a major role in supplying critical minerals such as lithium and copper for the clean energy sector. The country produces nearly half of the world's lithium and already exports considerable quantities of copper to India.

Mr. Green said India's growing electric vehicle (EV) and battery industries will require much larger lithium supplies, making Australia a natural partner.

Australia is working with Indian government agencies and companies to build a direct lithium supply chain, including investments and offtake agreements in Australian lithium mines. He added that India must remain proactive in securing Australian lithium amid rising global competition from Europe, North America and East Asia.

UNLEARNT LESSONS

Last week, the Centre hiked retail petroleum product prices after a gap of four years. This was expected, since the government had been warning about high crude prices, and how public sector oil marketing companies (OMCs) had been bleeding heavily due to under-recoveries. It was also expected that this would happen after the results of the five Assembly elections. But the Prime Minister's appeal for austerity due to the drain on foreign exchange, the sharp depreciation of the rupee in recent months and the April's inflation prints point to a much deeper problem that India could have addressed decades earlier — the country's inadequate strategic petroleum and gas reserves. India did build out a strategic petroleum reserve (SPR) of about 36.7 million-39 million barrels, a programme conceived following the post-1991 vulnerability and formalised in the early 2000s. But today, this covers about seven days of consumption demand at 5.5 million barrels per day (mbpd). Combined with inventories of OMCs and import cover, this amounts to more than 70 days of stock. But over the years, India has emerged as the world's third-largest automobile market after the U.S. and China, and a comparison with those nations reveals the scale of India's vulnerability.

While the U.S. built its SPRs in the aftermath of the 1973 oil shock — which, at 714 million barrels, is 18 times larger than India's — China's roughly 900 million barrels is even larger. The U.S. has about 400 million barrels currently in its reserve system, providing it with roughly 20 days of consumption. The country has emerged as the world's largest oil producer in the past 10 years with an output of about 13 mbpd and a commercial system wide inventory, pushing it above the 90 day-mark recommended by the International Energy Agency for reserves. The same applies to China, which is comparable with India as a more oil import-dependent nation. These numbers become even starker when compared with reserves for liquefied petroleum gas (LPG) and liquefied natural gas (LNG), where India is most exposed. India has about 1.4 lakh tonnes of LPG storage, while its daily consumption is about 80,000 tonnes — more than half its reserve capacity. As for LNG, India largely relies on stocks at regasification facilities of Petronet LNG and BPCL, without any underground storage for a fuel vital to produce fertilizers. Both the U.S. and China have heavily invested in underground LNG storage. The EU was quick to adapt following the Russia-Ukraine war as it drew down its dependence on Russian gas. These reserves have enabled advanced economies to hedge against supply disruptions by relying on long-term contracts at times of supply disruptions, cushioning them from spot market spikes. As for China, its defiance of American sanctions against Russian oil has paid off handsomely. India would have benefited too, had it maintained greater strategic autonomy.



WHY RISING GOVT BOND YIELDS ARE BAD NEWS FOR PEOPLE AND BUSINESSES

It is becoming increasingly costly for governments across the world to borrow money. In many cases, the interest rates that lenders are charging governments are reaching their highest levels since the global financial crisis of 2008.

Key Takeaways:

- What's more, this upward shift in the interest rates demanded of various governments has been quite sharp, which is a problem all by itself, regardless of the level of interest rates. Sharply rising borrowing costs for governments imply that borrowing costs for average consumers will also rise, possibly by a greater degree.
- In most countries, governments struggle to meet their expenditures just from taxation and other revenue sources. As such, governments have to borrow money to meet the gap.
- This demand is typically higher in developing countries and lower in developed countries, simply because developed countries' governments are more capable and efficient at raising tax revenues. Poorer countries don't have enough people in the well-off bracket to tax.

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- In any economy, the government is the least risky borrower because it is least likely to fail in paying back. It is, after all, the government. In a crisis, it can even resort to printing money — a facility not available to businesses or households.
- However, governments borrow in a slightly different way. They float a bond — differently referred to as Treasuries in the US, Gilts in the UK, Bunds in Germany, G-Secs or government securities in India, and JGBs in Japan — which is essentially like an "I owe you" statement.

RS 2.86 LAKH CR: RBI CLEARS RECORD SURPLUS TRANSFER TO CENTRE

At a time when the West Asia conflict and the surge in crude oil prices are weighing heavy on the fiscal, the Reserve Bank of India's (RBI) Central Board Friday approved a record surplus transfer of Rs 2,86,588 crore to the Central Government for the accounting year 2025–26, offering a significant boost to the Centre's finances.

Key Takeaways:

- The sharp increase in dividend pay outs was supported by the RBI's strong earnings during the year. At the same time, the RBI raised the contingency risk buffer (CRB) to Rs 109,379 crore to create a safeguard in case geopolitical tensions escalate or crude oil prices worsen. A significant contributor to higher surplus was the central bank's large-scale sale of US dollars in the foreign exchange market to support the rupee amid persistent depreciation pressures, leading to substantial trading gains for the RBI.



- The ongoing geopolitical tensions, conflict in West Asia, risks to energy prices, and volatility in bond and currency markets may have led the RBI to favour building a stronger CRB, analysts said.
- The record transfer is expected to provide the government, which has been facing a fiscal strain, with additional fiscal space, helping it to manage expenditure commitments, support infrastructure spending, and contain the fiscal deficit without significantly increasing borrowing.

Do You Know:

- The RBI is a “full service” central bank— not only is it mandated to keep inflation or prices in check, it is also supposed to manage the borrowings of the Government of India and of state governments; supervise or regulate banks and non-banking finance companies; and manage the currency and payment systems.
- While carrying out these functions or operations, it makes profits. Typically, the central bank’s income comes from the returns it earns on its foreign currency assets, which could be in the form of bonds and treasury bills of other central banks or top-rated securities, and deposits with other central banks.
- It also earns interest on its holdings of local rupee-denominated government bonds or securities, and while lending to banks for very short tenures, such as overnight. It claims a management commission on handling the borrowings of state governments and the central government.

SOVEREIGN GOLD BONDS MISSED AMID PM’S AUSTERITY APPEAL, IMPORT DUTY HIKE

The rapid fall of the rupee has forced policymakers to come up with some quick solutions, with Prime Minister Narendra Modi calling for austerity measures that reduce the need to expend foreign currency for imports. Then, the government also hiked the import duty on gold, silver, and platinum. But economists don’t expect this to move to meaningfully bring down the gold import bill.

Key Takeaways:

- “Historically, the effectiveness of gold import duty hikes in controlling imports has been mixed,” Nomura economists Sonal Varma and Aurodeep Nandi said on Wednesday. “When India raised duties to 10% in 2013, gold imports did decline initially, but gold smuggling increased to meet suppressed demand. More recently, the reduction of the duty to 6% was intended to curb smuggling and formalise the market.”
- One possible solution the government may not implement is something it has previously deployed: Sovereign Gold Bonds (SGBs).
- Launched in late 2015, the scheme was discontinued in early 2024 despite being an appealing investment opportunity for the public, who bought bonds equivalent to 147 tonnes of gold (worth Rs 72,275 crore). These bonds are now giving incredibly high returns to their holders of more than 200% of their life of eight years, and that is without taking into account the 2.5% interest and zero long-term capital gains tax on redemption. The scheme discontinued despite the obvious benefits for the public because the government felt it was having to pay too much.
- The logic of SGBs was sound: meet the investment demand for gold without importing the metal – all the government had to do was set aside money for interest payments and the market value



of the bonds maturing in a year. However, the rationale for discontinuing the scheme had a different consideration: the cost of borrowing.

— Any bond the government issues to an investor – be it banks, foreign investors, or individuals – is considered a borrowing. “The recent global geo-political unrest has impacted gold prices significantly, increasing the cost of borrowing through SGBs,” the finance ministry told the Parliament in a written response to a question in July 2025. But the SGBs were never intended to be a way to finance the government’s fiscal deficit.

— Demand in SGBs only picked up pace after Covid struck, with roughly Rs 63,000 crore of these bonds being purchased from FY21 to FY24. Over these four years, the central government borrowed Rs 40 lakh crore on a net basis to help meet its annual fiscal deficits.

— What the SGBs did was ease the strain on the import bill and reduce the need to spend the country’s foreign currency reserves.

— Indians’ demand for gold is a structural weakness of the economy. While our inherent affection for the precious metal offers an easy diversification of savings, the lack of domestic supply means almost the entire demand has to be met via imports, which adversely impacts the trade balance. And we import a lot of gold: \$72 billion in FY26, up 24% from FY25, or more than 700 tonnes. More than 9% of all our imports in FY26 were gold, with another 1.6% being silver.

— In the absence of SGBs, Indians have gone the Exchange Traded Fund (ETF) route over the last year in a manner never seen before. But gold ETFs – essentially mutual funds that invest in gold – require investments to be backed by gold holdings.

— According to the World Gold Council, there has been a “structural shift” in India’s gold demand, with investment demand making up nearly 70% of the total demand in January-March 2026, while the share of jewellery fell to around 30% – the lowest in at least 25 years. Unless this investment demand for gold is met, imports – through ETFs and other routes – will continue and the rupee will keep weakening.

Do You Know:

— Gold in its purest form is a bright, slightly reddish yellow, dense, soft malleable and ductile metal. It is one of the least reactive chemical elements and is solid under standard conditions.

— Gold often occurs in free elemental (native) form, as nuggets or grains, in rocks, in vein and in alluvial deposits. Gold is resistant to corrosion and to most acid and has unique properties distinct from other metals.

— Gold is a relatively scarce metal in the world and a scarce commodity in India. The domestic demand is mainly met through imports.

— According to the Indian Minerals Yearbook 2022 (Part II: Metals & Alloys), by states, the largest resources in terms of gold ore (primary) are located in Bihar (43%), followed by Rajasthan (24.92%), Karnataka (20%), West Bengal (2.47%), Andhra Pradesh (3.03%) and Jharkhand (2%).

— SGBs are debt securities issued by the Reserve Bank of India (RBI) on behalf of the government, with each unit denoting a gram of gold. These bonds offer the flexibility of trading in the secondary market, providing investors with the opportunity to accrue capital gains.



— An ETF, or exchange traded fund, is a marketable security that tracks an index, a commodity, bonds, or a basket of assets like an index fund. Unlike regular mutual funds, an ETF trades like a common stock on a stock exchange.

— Gold ETFs are the ETFs with gold as the underlying asset. It gives investors an option of holding gold electronically instead of physical gold. It is a safer option to hold the precious metal since there are no risks of theft or purity.

AFTER DUTY HIKE, GOVT CURBS SILVER IMPORTS TO AID RUPEE

The government on Saturday put silver imports for domestic consumption under the restricted category, requiring prior government approval.

Key Takeaways:

— This follows a series of steps taken over the last few days to discourage precious metal imports, which strain the current account and increase forex outflow due to high global prices.

— On Wednesday, the government raised the customs duty on imports of gold and silver to 15% from 6%, and on platinum to 15.4% from 6.4% to moderate these non-essential imports amidst the West Asia crisis.

— A day later, it put a quantitative limit of 100 kg on the import of the yellow metal under a key export scheme to curb misuse of the duty-free import facility for value-added exports.

— As per a Directorate General of Foreign Trade (DGFT) notification, imports of bars containing silver up to 99% would now be in the restricted category if it is meant for domestic consumption.

— However, silver imported for processing and value-added exports as jewellery would continue to be unrestricted. Imports by 100% export-oriented units and units located in Special Economic Zones (SEZs) shall also not be subject to any restrictions provided the imported goods are not sold in the domestic tariff area.

— Rising imports of gold and silver amidst their rising prices in the past one year have been a cause of concern. With the onset of war in West Asia from February 28, the government has taken steps over the past week to curb imports and conserve foreign exchange in an uncertain global atmosphere.

— As a large importer of crude oil, India remains vulnerable to elevated energy prices and supply-side disruptions, which can increase the import bill, exert pressure on inflation, and the current account deficit, officials said at the time of the duty hike on gold and silver last week.

— A depreciating rupee is adding to the country's import bill burden. India's foreign exchange resources, therefore, must be prioritised towards essential imports such as crude oil, fertilisers, industrial raw materials, defence requirements, critical technologies, and capital goods, the official had said. Over the last few years, India has seen significant foreign exchange outflows on account of higher imports of precious metals and spending on overseas travel under the Liberalised Remittance Scheme (LRS).

— The pressure on India's external sector has been felt amid the ongoing West Asia war, with forex reserves plummeting by \$32 billion in 10 weeks since the onset of the conflict, and crude oil prices continuing to hover above \$100 a barrel.



Do You Know:

- Silver is a soft and lustrous metal that is classified as a noble metal. Its white colour, malleability and resistance to atmospheric oxidation have enhanced its value as a highly desired precious metal which is used in many industrial applications.
- Unlike gold, which is primarily purchased by households and central banks as a store of value and investment, silver actually has inherent physical properties that make it a key component in the manufacture of items, such as batteries and solar panels.
- The “bedrock of demand” for silver also includes artificial intelligence. Silver is also used to make jewellery and coins. That is why buyers and their reasons to purchase silver are more varied than those of gold.
- The supply of silver is also markedly different from gold. Primarily a byproduct when other minerals are mined, silver’s supply has not moved to match the increase in demand from various quarters, including industry, for several years.
- Apart from its monetary and decorative uses, silver is known to have the highest electrical conductivity amongst all metals that enhances its potential in modern age applications. Notably, in November last year, the US added silver to its list of critical minerals.
- In India, there are no native silver deposits except the small and unique Bharak deposit in Rajasthan.

THE WARNING SIGNS IN INDIA’S IMPORT BILL

Last week, Prime Minister Narendra Modi urged citizens to reduce spending on petroleum products, cut edible oil consumption, delay non-essential gold purchases by a year, avoid unnecessary foreign travel, and prioritise the purchase of locally made products. He also advised increased use of public transport and electric vehicles, and called for the revival of Covid-era measures such as work-from-home, all aimed at reducing petrol and diesel consumption.

Mr. Modi’s appeals have a singular focus — reducing the country’s foreign currency spending. This is an alarm bell that no government has sounded before, not even during the severe economic crisis of 1991, when the country’s foreign exchange reserves were less than \$1 billion, barely enough to finance imports for a fortnight. The Reserve Bank of India was then forced to pledge the country’s gold to the Bank of England, the Bank of Japan, and later to the Union Bank of Switzerland to avoid defaulting on international debt obligations.

A widening trade deficit

The Prime Minister’s announcement seems to be in response to the delicate situation India is facing in its merchandise trade account. In 2025-26, India’s merchandise trade deficit reached a record \$333 billion, an increase of over 17% as compared to the immediately preceding year. The bulge in trade deficit was caused by imports rising 7% to an all-time high of \$775 billion, while exports remained nearly stagnant at \$442 billion.

Higher crude oil prices in the international market following the U.S.-Israel war against Iran are yet to be reflected in the import figures. According to the International Monetary Fund’s (IMF) crude oil price index, prices have risen by 53% since the war began. When these numbers are



reflected in India's import bill, the situation could be really worrying. This could be the reason for the Prime Minister to press the alarm bell.

India's imports in 2025-26 were driven by four product groups — gold and silver, edible oils, fertilizers, and electronic components. Imports of precious metals, valued at over \$90 billion, accounted for about 12% of the import bill, marking them the third largest product group in the import basket after crude oil and electronics. Overall imports of gems and jewellery increased by almost 25% over the previous year, with most of the increase driven by gold imports, which rose by 24%, and silver imports, which surged by 150%. Exports of gems and jewellery, on the other hand, declined by over 5%, indicating that the increased imports of the precious metals were mostly absorbed domestically.

Import dependence

The unprecedented rise in gold imports has continued into the new financial year, increasing by 82% in April 2026 compared to the year before. This raises the question of whether the Prime Minister's appeal to postpone non-essential gold purchases, along with last week's increase in customs duty on gold and silver imports to 15%, will be enough to arrest this upward trend.

The probability of lower gold imports may seem low, as continued stock market volatility has pushed retail investors into diversifying their portfolios by opting for both physical and gold ETFs. In fact, there are expectations that a higher import duty on physical gold will increase the shift towards ETF gold.

India's dependence on the international market for edible oils has been the most disappointing aspect of the country's agricultural performance. Edible oil imports increased by over 12% in 2025-26 and accelerated to 40% in April 2026 (over April 2025). These numbers are a pointer that import dependence on this critical commodity may have worsened. Imports accounted for over 56% of India's edible oil demand in 2023-24, the most recent year for which official data are available. Since the government has failed to find a way to increase domestic oilseed production, it needs citizens to reduce edible oil consumption to reduce imports, and thus save foreign currency.

Imports have brought bad news for agriculture. Spiralling fertilizer prices in international markets are not only causing the country to lose foreign currency due to its high import dependence, but they are also likely to raise the fertilizer subsidy bill. Globally, fertilizer prices increased by 46% between December 2025 and April 2026, while urea prices doubled during this period.

Over the past five years, fertilizer imports have met between 31% and 37% of India's requirements. However, this share is expected to exceed 50% in 2025-26 as urea imports increased by over 60%. Disruptions caused by the war in West Asia have pushed India's fertilizer import bill up by nearly 80% in 2025-26. As in the case of edible oil, it remains a mystery why domestic production was not ramped up to reduce foreign exchange outgo.

Pressure on the rupee

Though Mr. Modi has urged citizens to "prioritise Made in India products," the Atmanirbhar Bharat Abhiyan, launched in 2020 to reduce dependence on Chinese imports, has not made much headway in several key industries. Even after six years and huge budgetary outlays under the PLI



scheme, India remains significantly dependent on imports of electronic components, which grew by over 20% in the previous fiscal year.

Domestic production of accumulators and batteries was also to be stepped up to reduce the import content of electric vehicles, but in 2025-26, imports of these products increased by 50%. India's transition towards greater technological sophistication is thus coming at the cost of considerable foreign currency outgo.

Finally, a rising trade deficit could create another significant irritant as the already weakened rupee could slide further. Over the past several months, the RBI has been selectively intervening to prevent a free-fall of the currency. However, RBI needs to carefully calibrate its market interventions since foreign currency reserves have fallen by over \$21 billion since the end of February 2026, and a further decline may not be prudent.

WHY IS THE PRIME MINISTER ADVOCATING AUSTERITY?

The story so far:

Over the past week, a series of nudges, policy changes, and public messages have sought to influence the behaviour of Indian consumers, companies, and farmers. At the heart of this push is an effort to reduce India's imports of oil and petroleum products, gold, and fertilizers, and involves everyone from the Prime Minister and his Cabinet colleagues to industry leaders and associations.

What was the Prime Minister's message?

On May 10, during a speech in Secunderabad, Prime Minister Narendra Modi laid out a seven-fold set of suggestions for the Indian public to help the economy and the government's finances weather the storm created by the war in West Asia.

The Prime Minister asked Indians to prioritise working from home; reduce petrol and diesel usage by using public transport and electric vehicles; reduce the use of cooking oil; stop buying gold for at least a year; buy Indian-made products rather than foreign ones; pause foreign travel; and adopt natural fertilizers instead of using imported chemical ones.

The Opposition, along with several other commentators, questioned the timing of his appeals, coming as they did right after the conclusion of Assembly elections in some key States. Neither the political leadership nor the bureaucracy mentioned any impending problems in the run-up to the elections. The critics point out that in fact, the Prime Minister and several of his Cabinet colleagues flew across the country to campaign in Tamil Nadu, Kerala, West Bengal, and Assam, where they also organised several road shows. These questions relate more to the timing of the message than to whether remedial action is needed at all.

Why are these cutbacks needed?

It is now well established that the war in West Asia has created a global energy crisis. One of the aspects of this crisis is that the prices of oil and gas have shot up. A year ago, the price of Brent Crude — one of the benchmarks for oil — stood at \$65 a barrel; it is now around \$110.

India imports 85-90% of its oil requirement. This means that any time the price of oil goes up internationally, the country's import bill increases. Oil alone makes up about 17% of India's total goods import basket. That is why three out of Mr. Modi's seven suggestions were aimed at reducing fuel usage and oil imports.



The war has also led to an increase in the price of gold as investors flock to it as a 'safe haven' asset in times of uncertainty. Indians have a cultural affinity for the yellow metal that defies any price movement. While the price of gold increased by 45-60% over the last year, the volume of India's gold imports fell only about 5% in the same period. The value of these imports increased 24%. In other words, the higher price only impacted the demand for gold at the margins; the bulk of purchases has continued.

A third major trend is the depreciation of the rupee. The currency breached the ₹96-to-a-dollar mark on May 15 before closing a little higher at ₹95.96. A year ago, the currency was trading at about ₹85 to a dollar. Throughout this period, the Reserve Bank of India has been stepping in to stabilise the fall of the rupee and reduce volatility, mainly by selling the dollars in its reserves and absorbing rupees in the market. As a result, the Reserve Bank of India's foreign exchange reserves fell to \$552.4 billion as of May 8, 2026, from \$581.4 billion a year earlier — a decline of about \$29 billion.

Foreign Institutional Investors have been pulling out large sums from Indian markets. When they do this, they sell in rupees and are repatriated in dollars, creating another significant channel of dollar outflows.

Taken together, all this means that India's Current Account Deficit (CAD) — the amount by which its imports of goods and services exceed exports — is set to grow to about 2.5% of the GDP in this financial year from 1.4% as recently as the quarter ended December 2025.

A sustained high CAD has several serious knock-on effects for the economy and has led to several crises for the Indian government since Independence. It is therefore clear why the government is seeking to act now to prevent such an outcome.

Has the government also taken some measures?

Over the last week, the government has taken several measures to support these efforts. Effective from May 13, it doubled the effective tax to be paid on the import of gold and silver to a total of 18.4% from the previous 9.2%. The Directorate General of Foreign Trade has also tightened the conditions under which gems and jewellery exporters can import gold duty-free. On May 16, the government also restricted the import of silver.

The prices of petrol and diesel were hiked on May 15 by ₹3 a litre each, in an attempt to reduce demand. The price of CNG was increased by ₹2 per kg. A rough calculation by The Hindu shows that this would earn oil marketing companies an additional ₹4,400 crore per month. However, this is not much when compared to the loss they are currently bearing, which the government said amounts to about ₹1,000 crore a day on petrol, diesel and LPG. This means further fuel price hikes could be imminent.

Notably, in a rare occurrence, Mr. Modi himself took to social media to deny a news report that the government was considering imposing a temporary cess on foreign travel.

Mr. Modi and several of his Cabinet ministers have also reduced the sizes of their convoys.

Will these steps work?

Several of the measures called for by the Prime Minister and implemented by the government might work at the margins, but some might lead to negative consequences as well. For instance, higher fuel prices may deter unnecessary travel, but unless offices implement a 'work from home'



policy again, employees will have no option but to travel to work and bear the higher cost. Overall, higher fuel costs are inflationary in nature. Further, the diesel and CNG price hike is likely to make public transport costlier.

History has shown that higher gold prices do not necessarily deter purchases and can, in fact, lead to an increase in smuggling, as happened in 2013 when import duties were raised.

Asking farmers to switch to natural fertilizers and hold off on buying chemical ones is a workable medium-term strategy, but would be disruptive in the short term. Agricultural output, already expected to be under strain due to a below-normal monsoon and stronger El Nino this year, will suffer further.

An analysis by The Hindu has also shown that the growth in foreign spending by Indians is not on travel, which is contracting, but on foreign equity, debt, and immovable assets.

Short of draconian measures, there are few short-term measures that will effectively solve the CAD issue. Various governments have struggled to make India more competitive on exports. Unless that changes, and dollar inflows rise substantially, such crises are likely to recur.

SHOULD THE RUPEE BE LEFT TO DEPRECIATE?

Continuous days of sustained losses has seen the rupee close at almost ₹97 to the dollar, with no indication that the slide has been arrested. Rising oil prices and the threat of external inflation will put further pressure on the rupee in the days to come. This has prompted calls for intervention to prevent further falls.

Some writers, like Harvard professor Gita Gopinath, have resisted calls for intervention by the RBI, advocating for letting the rupee find its own level. A weaker rupee would automatically curtail imports and boost exports. Intervention would only obstruct the free flow of market forces.

While intervention does have its challenges, there is danger in letting the process of depreciation continue unabated, especially when much of it is being driven by speculative finance. With foreign interest rates bound to rise, capital will flow out faster, leading to stronger negative pressures on the rupee. In such a scenario, it might take inordinately long for the rupee to 'find its level', and the inflationary dangers of a weak rupee will exert even more stresses on a populace already exposed to hardship as a result of worldwide spikes in energy prices.

Can intervention deepen volatility?

A current account deficit implies more imports than exports, and hence a greater need for foreign currency. If this is adequately met by foreign capital inflow to purchase assets like stocks, the rupee's value relative to the dollar will not change.

If the economy experiences a deficit without sufficient inflow of foreign capital, it faces a problem, with demand for foreign exchange exceeding available supply. Mainstream models dictate that in such a situation, the rupee must depreciate. The weaker rupee makes exports more affordable and imports more expensive, leading to an automatic adjustment of the current account deficit relative to the available inflow of foreign capital.

In such a scenario, intervening to artificially prop up the value of the rupee only delays the inevitable. It inhibits adjustment by ensuring import demand does not fall, because the rupee has



not depreciated enough to naturally shut off higher import demand, the cause of the widening deficit in the first place.

What is the difference between a weak rupee and a falling rupee?

Arguments for non-intervention, however, conflate a falling rupee with a weak rupee. A fall in the rupee value would not automatically increase export demand if the market expects a further fall. Exports might be higher when the rupee is weak, but may not rise when the rupee is falling if foreign buyers expect the price to fall even further and for goods to become cheaper at a later date.

At the same time, if the economy imports essential goods like oil, demand may not automatically reduce sufficiently as the rupee falls. If people expect the rupee to fall further, and for the prices to rise even more tomorrow, they may front-load purchases today and increase import demand in the short run. This can be seen in the rush to buy petrol when prices were raised, as consumers expected further increases in the future.

A falling rupee would see higher import values, but no necessary increase in exports, ensuring that the deficit is not curtailed. The very problem that required a depreciation might just perpetuate itself. One might argue that exports would pick up and imports reduce when the process eventually works itself out. But the adjustment process is rarely painless. Rising import values of essential goods will lead to rising inflation in the domestic economy that has already experienced reverse migration and real wage squeezes.

What is the role of capital flows?

For the sake of argument, one can posit an equilibrium value of the rupee driven by fundamental values, such as export and import demands that exhibits uniform and predictable behaviour as the rupee changes value. The process may be long, but the economy might eventually settle at this value, driven by fundamental changes in the current account. However, this assumption neglects the role of speculative foreign capital.

Much of the fall in the rupee has been driven by speculative outflows of foreign institutional investment that, for whatever reason, does not see Indian assets as being sufficiently remunerative. Perhaps investors think returns on Indian stocks will not be high in the future, that growth is not sustainable, or that interest rates will rise in developed country markets. Whatever the reason, these speculative expectations of foreign investors can lead to capital outflow and depreciation, necessitating current account adjustments based on the sentiments of foreign investors.

In such a situation, the 'actual' value of the rupee is determined not by consumption demand but by speculation. There are no fundamentals or technical values underpinning the pure speculation of financial markets. With indications that foreign Central Banks may soon raise interest rates, the rupee could come under further pressure.

Intervention is one amongst many policies that must be considered, and one that even developed economies have resorted to. As the yen slid against the dollar in April this year, Japanese Finance Minister Satsuki Katayama signalled that the government would take 'decisive action' in financial markets to maintain the yen.

Intervention to stem speculative capital flows is extremely hard to manage, and can lead to negative outcomes if the force of speculation is too great, or if governments do not - or cannot - show enough commitment in markets. However, we must not assume that the rupee can find an



equilibrium value soon, for its fall is being driven by speculation rather than any fundamental economic behaviour. It is time to have a serious conversation regarding the role and place of foreign capital in India's growth story.

DIVERSIFICATION GAINS

India's export performance in April 2026 has been commendable, underscoring the attempts by the government and industry to diversify in times of crisis. Despite the various trade disruptions, merchandise exports grew nearly 14% in April 2026 to \$43.6 billion. Some of this, as even the Commerce Secretary has acknowledged, is due to the overall rise in prices. Another significant factor has been the increase in the number of markets served by Indian exporters. According to government data, at least 20 exporting sectors have added 17 or more new destinations in the last year. For example, handloom products are now exported to 29 more countries than in 2024-25. The additional exports thus generated are still small, but establishing these pathways is vital progress. The data also show that several of India's key export sectors — engineering goods, petroleum products, electronic goods, drugs and pharmaceuticals, and organic and inorganic chemicals — exported more in April 2026 than in the same month last year. This suggests resilience in these supply chains, and the establishment of new ones. Another test of the strength of India's export growth is to remove the effect of petroleum products and their inflated prices from the mix. Here, too, India has performed reasonably well. India's non-oil exports grew 9% in April 2026 to about \$40 billion. Notably, India's merchandise export growth also outpaced the growth of its imports at 9.9%.

That said, the impact of the West Asia crisis is clear. Exports to West Asia fell by 28% in April, following up on an even larger contraction in March. Imports from the region, too, fell about 32%. This is a vital trade link for India and gains in other regions are not yet enough to outweigh the losses here. Imports of the safe-haven asset gold jumped 82% in April, which is perhaps what prompted the Prime Minister to urge Indians to stop buying gold, and the government to hike the import duty. Another highlight of the data is the continued rise in the significance of the services sector. The share of services in total exports has risen to about 49% compared to 39% in 2014. Rather than a reason for complacency, this should make the government take note. Any loss of a competitive edge in IT services, especially, due to the rise of Artificial Intelligence, will be an increasingly costly loss to India. Overall, however, the government's push for diversification of export destinations — including through concerted activity to seal various trade deals — seems to be bearing fruit. Now, if only it could also improve export competitiveness in terms of cost, scale, and quality, India would really become a global contender.

ALARM BELLS

India's economy seems to have begun the financial year 2026-27 on a decidedly tepid note, going by the data released so far for April 2026. The latest of these, the Index of Eight Core Industries (ICI), shows that growth in these key sectors stood at a modest 1.7% in April. It would be easy to attribute this to the ongoing crisis in West Asia, and that is certainly a factor, but the slowdown started well before the war broke out. Growth in the ICI averaged just 2.8% in the entire financial year 2025-26, down from the 4.5% average for 2024-25 and significantly slower than the growth in the previous three years, each of which was above 7%. This suggests a more systemic domestic issue rather than an externally driven transient phase. Of the eight sectors, only three — steel, cement, and electricity — grew at all in April 2026. The rest contracted. The crude oil and natural gas sectors have, in fact, contracted for 16 and 22 consecutive months, respectively. This should



be of particular concern. Energy output cannot be ramped up overnight, but falling output for such long stretches should have raised some policy alarm bells even before the current energy crisis began. Separate data from the Ministry of Petroleum and Natural Gas show that domestic consumption of natural gas fell in April. Had India installed long-term gas storage facilities, as it should have, this fall in consumption would have provided a window to fill those reserves. Since such reserves do not exist, LNG imports in April were cut by 30%, likely in a bid to slow the forex outflow. The volume of both oil imports and domestic production fell in April.

This lower fuel consumption could be a result of government curbs on commercial usage. Nevertheless, the implications for growth are severe and are likely to play out over the next few months. Fertilizer output contracted in April after a brief return to growth in March. The only mitigating factor for lower fertilizer output is that demand is likely to be lower this year as farmers grapple with a below-normal monsoon and above-normal El Niño. This is, however, far from comforting. The resultant dip in output and rural demand is a grave prospect for the Indian economy. Steel and cement are the only sectors to have grown consistently, indicating sustained construction activity likely propelled by government expenditure. It remains to be seen how long this push can last amid the fiscal strain brought on by the current crisis. It is also not just the core sector data that is concerning. PMI data is close to four-year lows and GST collections from domestic sales are growing only slightly faster than inflation. The alarm bells are now difficult to ignore.

ANIMAL SLAUGHTER BAN MISREADS FARM ECONOMY

West Bengal is India's largest meat producer, accounting for roughly 12.5 per cent of the country's estimated output of 10.5 million tonnes (mt) in 2024-25. It is also India's second-biggest fish producer, next to Andhra Pradesh. That makes the state significantly "non-vegetarian" and one of the few — Kerala, Tamil Nadu, Meghalaya, Arunachal Pradesh, Manipur, Nagaland, Mizoram, Sikkim and Assam are the others — to permit consumption of beef and slaughter of cattle. The fact that West Bengal's milk production has increased from 5.6 mt in 2018-19 to nearly 8 mt in 2024-25, alongside a 25 per cent rise in its in-milk cow population during this period, is proof of the meat sector's growth not being at the expense of dairying either.

It is against this background that one must examine the implications of the Suvendu Adhikari-led BJP government's decision to "strictly" enforce the West Bengal Animal Slaughter Control Act. The 1950 law does not allow slaughter of any animal unless it is over 14 years of age and certified as "fit for slaughter" by the head of a municipality or panchayat samiti and a government veterinary surgeon. Given that the normal lifespan of a cow or bull is about 15 years and no farmer rears them beyond 10 years, it practically bans any slaughter. The Act, moreover, only mentions "certain animals" without specifying cattle or buffalo, and male or female. With most farmers having no means to prove the age of their bovines, nor access to veterinarians for issuing fit-for-slaughter certificates, it leaves them with two options. The first is to maintain unproductive animals by diverting scarce fodder, feed and water even if these stop giving enough milk — typically after five-six calvings when they are eight-nine years old — or are incapable of working the fields. The second option is to stop keeping animals and exit dairying.

The Adhikari government can claim that it is merely implementing an existing law. The previous Trinamool and Left Front administrations should, indeed, have done away with the Act's provisions that have no place in today's farming environment. In 1950, India had hardly 5,000 tractors, as against over 12 million now. Bullocks have increasingly yielded to tractors, combines and electric pumpsets for ploughing and irrigating fields and harvesting, threshing and hauling



produce to mandis. With chemical fertilisers and artificial insemination, too, replacing organic manure and natural breeding, farmers have incentive to rear bovines only for milk. Governments, whether of Adhikari or of Yogi Adityanath in UP, should realise that Indian agriculture, like the rest of the economy, is no longer in the age of the bullock cart.

IN UTTAR PRADESH, DON'T PAINT WORKERS' PROTEST AS CONSPIRACY

In the aftermath of the workers' protests in Noida and other parts of Uttar Pradesh last month, the state government's response has unfolded in two contradictory ways. Chief Minister Yogi Adityanath urged that workers' dignity be respected, and that "fair wages must be ensured". A high-level committee was set up, and the Noida police announced a dedicated industrial cell to facilitate dialogue between industry, labour unions and workers. The immediate hike in minimum wages showed that the protests were a way to be heard and that the government could listen. Unfortunately, however, the protests have also invited a heavy-handed crackdown by the state.

At least 60 people are in jail for their alleged role in the violence that occurred at some places during the protests. The UP Police have invoked the stringent National Security Act against a 25-year-old former Delhi University student and an ex-journalist for "inciting violence". Of course, violence must be investigated, and the guilty punished. But laws like the NSA — which shift the burden of proof onto the accused and make bail the exception, not the rule, inverting the principle underlined by the Supreme Court — must be used in the rarest of rare cases. The political framing of the protests is also disturbing: CM Adityanath linked them to a "larger conspiracy" to "revive Naxalism", and the police have brought charges of criminal conspiracy against several accused. For many, the long judicial process will become the punishment.

The NSA has been used as a blunt instrument in UP: It has been deployed in cases of alleged cow slaughter, invoked against those allegedly helping students cheat in exams and those accused of selling fake fertiliser. An investigation by this newspaper in 2021 showed how the Allahabad High Court quashed a majority of the detentions under the law, and flagged its overuse by district magistrates. Often, charges under the NSA are framed seemingly to extend custody. Be it for workers, students, or civil society activists, the right to free speech and expression, including the right to protest, is guaranteed by the Constitution. When laws that restrict these rights are used wantonly, without what the Allahabad HC called "application of mind", they have a chilling effect on freedoms. A state government that seeks to promote industrial growth must be mindful of the message it sends to workers.

WHY HAS AIR INDIA CUT INTERNATIONAL FLIGHT OPERATIONS?

The story so far:

Last week, Air India announced sweeping international schedule cuts between June and August, including a nearly 40% reduction in North America operations and significant cuts across SAARC and Southeast Asia.

Which international routes have been affected?

According to airline sources, a total of 145 weekly flights across North America, Europe, Southeast Asia, SAARC, and the Far East have been removed, resulting in an overall 27% reduction in international flight operations.



In North America, Air India's most critical international market, weekly flights will be reduced from 51 to 33, which is a 39% decline. Services on routes such as Delhi-Chicago, Delhi-Newark and Mumbai-New York are being temporarily suspended, although the airline has added four extra Mumbai-Newark flights, taking that route to seven weekly services.

In Europe, schedule changes have been made on routes to Paris, Copenhagen, Milan, Vienna, Zurich, and Rome where altogether 34% of flights have been withdrawn. But services to London, Manchester, and Amsterdam remain unaffected.

The impact of the war in West Asia has extended well beyond westbound routes, with services to Southeast Asia, SAARC, and the Far East seeing the sharpest reductions. About 57% of flights to places including Kathmandu, Dhaka, Colombo, Bangkok, Shanghai, Singapore, Kuala Lumpur, and Ho Chi Minh City have been withdrawn. Services to Singapore have also been cut considerably, with 21 weekly flights connecting Delhi, Mumbai, and Chennai to the country being withdrawn.

Further east, Delhi-Melbourne and Delhi-Sydney flights have reduced from seven to four flights per week.

What are the reasons for these cuts?

The reductions in flight capacity are a direct fallout of the West Asia conflict, which has forced airlines operating between Asia and Europe to avoid the conflict-hit airspace for safety reasons. As a result, Air India has been forced to adopt longer flight paths, increasing travel times to North America by nearly five to six hours. The revised routes now include refuelling stops in Vienna and Copenhagen.

For Indian carriers, the disruption has been compounded by Pakistan's ban on the use of its airspace by Indian airlines since Operation Sindoor in April 2025. This puts them at a clear disadvantage compared to European peers such as Lufthansa.

Have other airlines been affected?

The sharp reduction in international flights is not limited to Air India alone. IndiGo saw a 21% reduction in its international flights in April, while carriers such as SpiceJet, Akasa Air, and Air India Express recorded cuts of more than 50%, albeit on a much smaller international network base. However, Air India has borne the biggest brunt of the disruption as it remains the only Indian carrier operating flights to North America and dominates Indian operations across several European destinations, where IndiGo is still a relatively new entrant.

By April, jet fuel prices had already risen by 130% amid escalating tensions in the Gulf, creating another major challenge for airlines, where fuel accounts for nearly 40% of operating costs. And while airlines have imposed fuel surcharges and raised airfares to offset rising costs, they are increasingly concerned about the point at which higher ticket prices could begin to deter passengers from travelling.

The network rationalisation is therefore an attempt by the Air India Group to stem mounting losses as operational pressures intensify. Air India posted a loss of ₹26,700 crore in FY2025-26 amid multiple headwinds, including the Pakistan airspace ban and travellers avoiding the airline in the aftermath of the crash in Ahmedabad on June 12 last year.



What are the global trends?

The regional conflict has hit the Gulf carriers the worst, with the International Air Transport Association reporting a 61% decline in international passenger traffic carried by them in March. Beyond the Gulf, the Lufthansa Group cancelled 20,000 short-haul flights operated by its subsidiary, Lufthansa CityLine, until October to save jet fuel while also moving to consolidate operations and improve the efficiency of its long-haul connections.

Qantas has announced a 5% reduction in domestic capacity and a 2% cut in international flights in response to soaring jet fuel prices. While it has added capacity on select Europe routes, it has also scaled back elsewhere, including withdrawing its Bengaluru-Sydney service.

HOW STATES ARE MANAGING THE SURGING SUMMER POWER DEMAND

India's electricity demand has surged earlier than expected this year, with peak demand touching an all-time high of 256.1 gigawatts (GW) on April 25. (The country followed up with higher records on May 19 and May 20). Nearly one-third of this peak demand was met through renewable energy (RE) sources. While the national grid held up without any shortage during solar hours, the non-solar hours saw a deficit of 2% (4,243 megawatts) on the same day.

What is peak demand?

Peak demand refers to the highest point of electrical power consumed on a grid over a specific period, typically a 15-minute interval. While peak demand is a single instant, it occurs during 2 to 4 hours of higher-than-average demand or 'peak demand period'. Summer months may cause longer peaks from late afternoon to evening hours and then during the night due to cooling loads (from air conditioners and coolers). Similarly, winter peaks can last longer in the morning (between 6 a.m. and 10 a.m.) and evening (between 6 p.m. and 9 p.m.) due to increased heating and lighting loads during these hours, particularly in the northern States.

Paying heed to the duration of these peaks is important because even though they occur only for a short period, the grid needs to meet the peak load instantly. In fact, the entire power sector infrastructure (generation, transmission, and distribution capacity) needs to be planned to deal with this peak. But this is easier said than done. Building a system to serve the periods of highest load that last only for a few hours is neither resource-efficient nor economical. If enough capacity is built to meet the peak demand, it will remain underutilised during off-peak hours. On the other hand, if enough capacity is not available to meet the peak demand, then the system will face issues like load shedding and grid instability.

How do States manage demand?

States meet demand through two mechanisms: contractual supply and power exchange purchases. Contractual supply comprises the long-term power purchase agreements (PPAs) that State distribution companies (DISCOMs) sign with power generators to ensure power supply over several years. This helps the DISCOMs in meeting the average demand for their consumers. Almost 85%-90% of the demand in India is being met through contractual supply or bilateral contracts between the DISCOMs and generators. In the event of real-time mismatches or when the contractual supply falls short due to sudden spikes in demand or power plant or transmission failures, DISCOMs turn to the second mechanism — buying power from power exchanges. At present, around 10%-15% of the electricity is traded on the power exchanges.



For managing peaks, States often undertake demand-side measures. Most States have relied on advisories urging consumers to reduce usage during peak hours, typically between 6 p.m. and 11 p.m. Delhi has increasingly utilised measures such as time-of-day tariffs (electricity charges that vary based on the time of day) and smart metering to flatten evening peaks that are driven by cooling demand.

What are some challenges faced by States due to rising demand?

A steady growth in household electrification, use of air conditioners, electric vehicle penetration, and agricultural power consumption has been driving the increase in India's electricity demand. In the last 5 years, the country's peak demand has risen by 37% — from 183 GW in December 2020 to over 250 GW in April 2026. This surge has made it tougher for States to fulfil the electricity requirements.

With DISCOMs committed to long-term agreements that are signed at a fixed capacity and price, any shortfall has to be met through power exchanges, which are short-term markets. This exposes the States to price volatility because prices in these markets increase during peak periods. Indian Energy Exchange data shows that electricity prices in the day-ahead market have seen sharp spikes during peak periods, with rates touching the regulatory ceiling of ₹ 10 per kilowatt-hour on several occasions during April and May this year.

Another challenge relates to the inadequacy of the distribution network. Infrastructure expansion and upgrades in India's power distribution segment often lag demand growth, leading to issues with last-mile delivery of power to the end-consumer. Over the last decade, India's generation capacity has increased by 76% (from 303 GW to 532 GW), its transmission lines have expanded by 47% (from 3,41,551 circuit kilometres [ckm] to 5,01,766 ckm), and the transformation capacity has increased by 115% (from 6,58,949 megavolt-amperes [MVA] to 1,41,63,76 MVA). However, a corresponding expansion in the distribution infrastructure has not happened, and distribution networks continue to face major stress. Recent assessments by the Central Electricity Authority indicate that nearly 13 lakh distribution transformers (DTs) fail annually in India. Some States have low DT failure rates of less than 2%, such as Kerala, while some (particularly the northern States) experience DT failure rates as high as 20%. Further, overloading of transformers and feeders, ageing equipment, and inadequate maintenance continue to compromise last-mile power delivery. Many States experience local outages, especially during peak demand periods, highlighting that their distribution networks are operating close to their limits and need upgradation.

The challenge posed by demand surges becomes acute for financially stressed States because they are neither able to procure costly short-term power nor invest in distribution network upgrades. States like Uttar Pradesh and Bihar continue to grapple with high losses, ageing distribution infrastructure, and overloaded transformers.

How does RE help?

RE has become central to the management of rising electricity demand, particularly during summer peak periods. Since solar and wind power plants have low operating costs, higher RE penetration can also reduce overall power purchase costs for DISCOMs.

States with high RE capacity, such as Gujarat and Karnataka, are able to meet daytime peak comfortably as the solar power generation aligns reasonably well with daytime commercial and agricultural demand. But these States face steep evening peaks after sunset, for which they need



to increasingly depend on energy storage technologies such as pumped hydro storage (PHS) and battery energy storage systems (BESS). Similarly, Tamil Nadu, with a high wind capacity, benefits significantly from wind generation during the monsoon months, reducing dependence on thermal power. But the State has to resort to market purchases during periods of low wind output to meet the high evening urban demand.

However, Punjab, which has a meagre RE capacity and a dominant agricultural load during the paddy-sowing season that coincides with the summer peak, has to rely heavily on hydro imports and short-term market purchases.

What needs to be done?

Despite its growing contribution, RE cannot help in ensuring a reliable round-the-clock power supply because of its variable nature. Also, electricity demand and RE power generation do not always align. Solar power generation falls sharply after sunset, though electricity demand often remains high during evening hours. Similarly, wind generation is seasonal and highly dependent on monsoon conditions. Because of this, States now face the challenge of managing variability and steep evening demand.

This is where energy storage technologies like BESS and PHS that enhance flexibility become critical for India's power system, as they help to balance the grid when the output (power) generated by RE changes suddenly. PHS is already emerging as a key solution in States like Maharashtra, Andhra Pradesh, Tamil Nadu, and Karnataka. At the same time, the grid itself needs to become smarter and more flexible through stronger transmission networks, upgraded distribution systems, and energy efficiency initiatives.

With Indian States witnessing more peak demand periods, the challenge is shifting from simply generating more electricity to building a system capable of managing power efficiently across regions and time periods. This calls for substantial investments in storage solutions, along with adopting more demand-side measures like ToD tariffs and agricultural load scheduling.

STRENGTHENING DOMESTIC ENERGY SECURITY THROUGH DECENTRALISED BIOENERGY SYSTEMS

Global energy supply chains continue to face uncertainty and fuel prices remain vulnerable to international disruptions. The importance of strengthening domestic energy security has become more urgent for countries like India.

Interestingly, while the country continues to search for scalable and sustainable energy alternatives, one of its largest untapped resources already exists within its own waste streams. Every year, enormous volumes of agricultural residue, food waste, sewage sludge, and organic municipal waste are generated, much of which remains underutilised or poorly managed.

This creates an important intersection between two major national challenges: energy security and waste management. What is often treated purely as a disposal problem can also become a valuable energy resource when supported by the right technology and infrastructure ecosystem. The real question, therefore, is not whether India has the resource base. It is whether the country can build efficient systems capable of converting waste into reliable and commercially viable energy solutions at scale.



Between waste and energy

India produces nearly 750 million tonnes of agricultural biomass a year, of which around 230 million metric tonnes is estimated to be surplus biomass. If collected and processed efficiently, this mass alone has the potential to offset a meaningful share of India's fossil fuel dependence, with some estimates suggesting it could replace nearly one-third of fuel imports. However, converting biomass into usable energy is complex.

Unlike conventional fuels, biomass is highly inconsistent in nature. Moisture levels vary, density differs across feedstocks, and ash content can fluctuate significantly. This affects combustion efficiency, transport economics, emissions performance, and industrial reliability. Most energy systems require stable and predictable fuel inputs, which raw biomass often can't provide on its own.

As a result, the focus is increasingly on technologies that can convert waste into cleaner, more manageable, and energy-efficient forms. This is where solutions like gasification and anaerobic digestion are becoming important.

In many ways, these technologies are the bridge between raw waste and usable energy infrastructure. Instead of treating waste as a low-value byproduct, they help convert it into commercially viable fuels and energy carriers that can integrate into existing industrial and energy systems.

Versatile syngas

Gasification is particularly effective for dry biomass such as crop residue, husk, woody waste, and other solid organic materials. Inside a gasifier, the feedstock is dried, pyrolysed (broken down by heat), partially oxidised, and then reduced. In this process, biomass breaks down into gases, biochar, and tars. A limited amount of oxygen is introduced — not enough for complete combustion but enough to sustain reactions between carbon, steam, and carbon dioxide at 800-1,000 °C. The outcome is syngas, which is made of carbon monoxide, hydrogen, carbon dioxide, and smaller amounts of methane and other gases.

Syngas is valuable because it is versatile. It can be used directly to generate heat or power or can be upgraded into renewable methane, methanol, ethanol, and even hydrogen depending on downstream applications. This flexibility makes gasification one of the more promising pathways within advanced bioenergy systems and explains why it is increasingly becoming central to future-ready clean fuel ecosystems.

Beyond generating energy, the process also produces biochar, a carbon-rich material that can improve soil quality and help sequester carbon. It also creates opportunities within emerging carbon credit markets. As a result, the value created extends beyond energy alone, contributing to broader environmental and agricultural sustainability outcomes.

Anaerobic digestion

While gasification is more suitable for dry biomass, wet organic waste requires a different treatment pathway. This is where anaerobic digestion is highly relevant. The technology is particularly suited for sewage, food waste, animal manure, and industrial organic waste streams. In this process, microorganisms break down waste in the absence of oxygen to produce biogas, which consists mainly of methane and carbon dioxide. The process also produces nutrient-rich digestate that can be used as a soil amendment if managed effectively.



This is why anaerobic digestion is relevant across urban waste systems, sewage networks, dairy clusters, food processing units, industrial campuses, and even large-scale canteens, where wet waste is generated consistently. At smaller scales, it can support rural and semi-urban communities.

However, unlike thermal systems, anaerobic digestion depends on a continuous biological process. This means feedstock should be available in sufficient quantities to ensure long-term operational efficiency and reliable round-the-clock output.

Decentralised energy

This is also why the larger opportunity for India may not lie in choosing one technology over another but in integrating them intelligently. Gasifiers are designed for dry waste while anaerobic digestion works best with wet waste. Together, they create a more complete solution aligned with the diversity of India's waste landscape.

Matching the right feedstock with the right technology and right outcome is also essential because forcing wet waste into gasifiers or dry biomass into digesters reduces efficiency and increases operational challenges.

Such an approach also strengthens the case for decentralised energy systems. India does not only need large centralised plants. It also requires smaller distributed systems that can support rural industries, agro-processing clusters, MSMEs, and waste-heavy regions where transporting biomass over long distances is economically inefficient. Localised energy systems can convert local waste into local energy, lowering fuel costs while improving energy access and waste management outcomes.

For this ecosystem to scale effectively, policy support is crucial. Segregating waste at source, decentralised infrastructure development, stronger carbon markets, and long-term regulatory clarity will all influence the pace of adoption. Without proper segregation, neither gasification nor anaerobic digestion can achieve their full potential. Similarly, without policy certainty, investors and operators often hesitate to commit capital at scale.

Not a single technology

Initiatives such as the Government of India's Sustainable Alternative Towards Affordable Transportation (SATAT) scheme have already demonstrated how biomass can be converted into biogas and upgraded into compressed biogas, a renewable methane alternative increasingly replacing natural gas across applications. At the same time, where the objective is to produce ethanol, methanol or hydrogen, syngas is emerging as a critical pathway.

In many ways, bioenergy is not a single technology trying to solve every challenge. It is a broader umbrella of technologies, each serving different end uses based on feedstock type and energy needs.

Ultimately, India's energy future cannot rely only on imported fuels and conventional energy systems. The country already possesses a large and underutilised resource base in the form of waste. The challenge now lies in building the right technologies, infrastructure, and policy ecosystems.



LIFE AND SCIENCES

ZWAN-WOLF EFFECT: STREAM DIVERTER

The solar wind is a stream of charged particles flowing outwards from the sun. As the solar wind nears the magnetic field of a planet, it becomes compressed near the magnetic boundaries. This creates a difference in pressure, or pressure gradient, that squeezes the charged particles along the magnetic field, away from the stream. As a result, closer to the stream is an area with a lower density of charged particles. This is called the Zwan-Wolf effect.

In a new study published in Nature Communications, researchers from France, the U.K., and the U.S. used the NASA MAVEN spacecraft to find evidence of the Zwan-Wolf effect at Mars. The finding is important because Mars does not have a strong, global magnetic field like the earth. The researchers did say in their paper that the Zwan-Wolf effect is likely continuously active at Mars but that it might be too weak most of the time to be detectable by other scientific instruments.

MAVEN had recorded the data containing the effect in December 2023, when a powerful solar storm called a coronal mass ejection struck Mars. The event created intense magnetic structures in Mars's magnetic field that moved downwards into the planet's ionosphere. These structures squeezed the charged particles in the ionosphere towards the planet's unlit side, reducing the local density of the particles by around 50%.

According to the researchers, the findings indicate that even "unmagnetised" planets like Mars can experience complex magnetic phenomena like the Zwan-Wolf effect.

MOON'S UPPER SURFACE HAS TWO DISTINCT LAYERS WITHIN CENTIMETRES, REVEALS CHANDRAYAAN-3 'HOP' EXPERIMENT

THE FAMOUS 'hop' experiment performed by the Chandrayaan-3 lander on the Moon was not just about demonstrating Indian space agency ISRO's ability to launch from the lunar surface.

Key Takeaways:

- Scientists have now revealed new details about the upper surface of the Moon at the landing site using data collected during that 'hop' manoeuvre performed towards the end of planned active mission life of Chandrayaan-3.
- Scientists have reported that the Moon's upper surface, the regolith as it is called, is not uniform, and its physical and thermal properties show sharp changes at just a few centimetres of depth. The loose porous layer at the top very quickly gives way to a denser compact layer just 2 to 6 cm below.
- More importantly, the paper, which is based on analysis of data produced by the ChaSTE (Chandra's Surface Thermophysical Experiment), suggests that the 'hop' experiment disturbed the upper loose layer enough to expose the subsequent layers to the instruments onboard the lander.
- On September 4, 2023, just before it went into hibernation to survive the lunar night, the Chandrayaan-3 lander, which had made a historic soft-landing 10 days earlier, was made to perform a small jump. The lander fired its engines, lifted itself up about 40 cm from the surface, and landed again 30-40 cm away.

4TH FLOOR SHATABDI TOWER, SAKCHI, JAMSHEDPUR



— The new findings have put a more precise measurement for the distance travelled by lander during the ‘hop’ experiment — about 50 cm, instead of the earlier estimate of 30-40 cm. The paper says that the rocket plume generated during the ‘hop’ was enough to blow away about 3 cm of the top layer of the surface, and allow the ChaSTE to have a look at the newly exposed layer beneath.

— A rod-shaped probe with a sharp tip and fitted with temperature sensors, ChaSTE was able to do a thermal profile of the new site post ‘hop’. It was deployed for 57 minutes during lunar twilight, which lasts for a few hours unlike the Earth twilight that lasts for a few minutes before sunset. The analysis revealed that even at depths of 6 to 9 cm, the lunar surface was composed of two distinct layers.

— The paper represents a first-of-its-kind thermal profile, density and layering structure of the Moon’s surface at the lunar twilight time, just ahead of sunset on this part of the Moon. The information could be useful at the time of planning future moon walks or for building lunar bases, PRL scientists said.

— Specifically, the amount of displacement caused by rocket plumes at the time of the ‘hop’ experiment is very useful information for space agencies planning return missions. It helps them to understand what to expect when a rocket engine is fired so close to the surface.

Do You Know:

— The Moon is thought to have been formed after a large asteroid collided with Earth some 4.5 billion years ago. Scientists hypothesise that in its early life, the Moon’s surface was made up entirely of an ocean of magma. As this ocean cooled over millions of years, heavier silicon- and magnesium-rich minerals such as olivine and pyroxene sank to the lower levels of the lunar crust and its upper mantle (which is generally the largest layer inside a planetary body, bounded by the planet’s core on the inside and the crust on the outside). Lighter minerals, composed of calcium- and sodium-based compounds, floated to the top and formed the upper crust.

TOUGH TO PLAN FOR THIS TRIP

Q: What is the best way to get to the moon from the earth?

A: There is no one ‘best’ way to reach the moon because space travel always trades off between time, fuel, and payload mass.

If a mission carries a human crew, mission designers will prioritise speed to minimise the astronauts’ exposure to space radiation, at the expense of burning more fuel. Conversely, a robotic cargo mission can take a longer, more winding path to save fuel and carry more mass. Missions have different goals and budgets, so the ‘best route’ depends on what the spacecraft is carrying and how quickly it needs to travel.

A recent study by researchers from Brazil, France, and Portugal, published in *Astrodynamics*, has reported a new ‘best’ route while reducing fuel use. Using a mathematical tool called theory of functional connections (TFC), they used the L1 Lagrangian point — a strategic point located between the earth and the moon — as the route’s midpoint.

Then they designed a trajectory where a spacecraft would flyby the moon to reach an orbit around the L1 point, before making a final descent to the moon’s surface. To move the spacecraft, the team took advantage of invariant manifolds, which are like natural gravitational currents in space.



Using TFC, the team was able to evaluate tens of millions of potential paths to find the most efficient one.

According to the team's results, the new route can reduce fuel use by at least 58.8 m/s compared to previous options. On the other hand, it takes nearly 32 days to get to the moon.

HOW DOES THE GAGANYAAN'S LIFE-SUPPORT SYSTEM OPERATE?

What are the systems designed to support astronauts aboard the spacecraft while in orbit?

The Environmental Control and Life Support System (ECLSS) replicates the earth's atmosphere in earth orbit by managing air, water, temperature, and waste. In short-term space missions, all supplies are carried from the earth and waste is stored for disposal later. Long-duration missions recycle the waste back into useful resources like breathable air and clean water.

What is air revitalisation?

Carbon dioxide is removed from the earth's atmosphere by photosynthesis and by dissolving in the oceans. In Gaganyaan (the Indian Space Research Organisation mission to place a small crew of Indian astronauts in a 400 km orbit around the earth), astronauts' exhalation will increase the cabin's carbon dioxide content and has to be artificially removed. Elevated levels of carbon dioxide can lead to hypercapnia, causing symptoms such as headaches, dizziness, and impaired cognitive function.

A healthy adult normally exhales around 1 kg of carbon dioxide per day, though this amount increases significantly with physical exertion. The air revitalisation system (ARS) provides fresh air, removes carbon dioxide, and filters trace contaminants or odours that would otherwise accumulate in the cabin. For short missions, oxygen is supplied from high-pressure gas bottles. According to standards, a healthy crew member needs 0.84 kg of oxygen per day to support metabolic functions.

Carbon dioxide is removed using lithium hydroxide canisters. Each canister has activated charcoal that absorbs any odours in the cabin air. A spent canister is replaced by the crew with a fresh one typically every 20-24 hours. In a microgravity environment lacking natural convection, small fans in the ECLSS are the circulatory system that prevents lethal carbon dioxide and hazardous oxygen pockets from lingering.

How are pressure, temperature and humidity controlled?

The Gaganyaan crew module is designed to maintain a comfortable environment with a temperature of 20-26°C and relative humidity between 30% and 70% to ensure crew comfort and equipment safety. The moisture released through the crews' breath and sweat are the main sources of humidity in the cabin.

Low humidity in the crew cabin can lead to dry skin, irritated eyes, and higher risk of static electricity discharge that could damage electronics. High humidity promotes microbial growth and causes condensation that may lead to short-circuits or corrosion.

Heat in the crew module is primarily generated by the metabolic body heat of the astronauts (100 to 150 W per crew) and continuously operating onboard electronics and avionics. An active cooling system is used to regulate temperature. Heat is removed by circulating the air through



heat exchangers, which will expel the heat into space. The humidity is managed by condensing units that collect water to prevent fogging and short-circuits.

The pressure is held at 101.3 kPa. To mimic the earth's sea-level conditions, the pressure control system uses electronic sensors and safety valves to balance the air and oxygen levels.

Where does water come from?

The primary challenge in space is water doesn't 'pour' but forms floating globules that can cause short-circuits in electronics or pose a hazard if inhaled accidentally. So water must be mechanically forced from storage using pressurised bladders to avoid gas-liquid mixing. In Gaganyaan, the crew relies on supply of potable water stored in specially designed pouches. They can be pressed to force water directly into the mouth.

How is waste managed?

In microgravity, liquid and solid waste do not "fall", requiring suction-based airflow systems to pull waste away from the body and prevent it from floating around. These systems must also separate and stabilise waste to avoid microbial contamination and the buildup of toxic gases like ammonia. In Gaganyaan, specialised faecal collection bags will be used and urine will be sucked through funnels. All waste will be chemically treated to neutralise odours and inhibit bacterial growth, then stored in sealed containers for disposal after return.

How are fires suppressed?

The lack of gravity allows fires to expand into a sphere that is harder to reach with traditional suppressants. In Gaganyaan, smoke detectors will sound an alarm to alert the crew. Fire extinguishers that create fine water mists can be used to put the fire out. A water mist effectively cools the fire and also scrubs toxic smoke particles.

Russia's Soyuz has the option to depressurise the cabin as a last resort to extinguish the fire after the crew has worn a pressure suit.

CLOUDS OF ASH

How do volcanoes affect the earth's atmosphere?

Volcanoes change the earth's atmosphere by releasing gases and particles in large quantities. When a volcano erupts, it blasts sulphur dioxide high into the sky. Since aerosols scatter sunlight, a powerful eruption can end up cooling the earth's surface for many years. Large eruptions also spew clouds of ash and dust that block sunlight around the eruption site, while most of the ash falls back down in a few weeks.

Eruptions also release carbon dioxide. While modern human activity produces much more carbon dioxide than volcanoes, eruptions throughout history have helped drive long-term warming trends. They also emit compounds that can create acid rain or damage the protective ozone layer. Taken together, volcanic eruptions have influenced the earth's climate.

Recently, researchers used satellites to study the 2022 Hunga Tonga-Hunga Ha'apai eruption. They found the volcano released quantities of methane into the stratosphere, where volcanic ash triggered chemical reactions that turned the methane into formaldehyde.



IIT-M, IISC TEAM MAKES CARBON-FREE VERSION OF FERROCENE SANDWICH

A compound called ferrocene has been a landmark of chemistry for over seven decades. It consists of an iron atom sandwiched between two flat carbon rings. Its discovery launched the field of organometallic chemistry, with numerous applications in materials science and medicine. Since then, chemists have been trying to create a version of this sandwich that contains no carbon atoms.

In a new study in *Science*, researchers from IIT-Madras and the Indian Institute of Science, Bengaluru, announced they had finally achieved this goal: a stable, carbon-free analogue of ferrocene using boron rings and osmium.

“Just as ferrocene started a new era in organometallics, these results will start a new era in inorganometallics and will be a part of textbooks of inorganic chemistry,” study co-author and IIT-Madras professor Sundargopal Ghosh said. “Our efforts are on to study the reactions of these new compounds.”

Boron is next to carbon on the periodic table and can form similar ring structures. While scientists had created sandwiches containing both carbon and boron, a purely inorganic version has been elusive.

The team turned to computer modelling to predict which metal would best stabilise a boron sandwich, and zeroed in on osmium. To create the complex, the team reacted a polymeric osmium-bromine precursor compound with an excess of a borane-dimethyl sulphide reagent. Then they heated the mixture to 100 °C for eight hours and isolated the product as a colourless solid. Finally, they used X-ray diffraction and nuclear magnetic resonance spectroscopy to check the atoms' arrangement.

The X-ray analysis revealed a perfect sandwich, with a single osmium atom between two parallel, five-membered boron rings. But unlike the flat carbon rings in ferrocene, the boron rings used bridging hydrogen atoms between the boron atoms.

These bridges redirected the ring's electron orbitals towards the metal, creating a bond even stronger than the one in ferrocene. This could pave the way for new catalysts that are stable at much higher temperatures.

According to the paper, the discovery establishes that the sandwich architecture is not exclusive to carbon-based organic chemistry.

“With the renaissance in the 2D chemistry of boron during the last decade, the possibility of metal sandwiched/intercalated bilayers and multilayers will be a reality soon,” Eluvathingal D. Jemmis, IISc chemistry professor and one of the corresponding authors, said.

DECODING THE MUSK VS. ALTMAN VERDICT

OpenAI was founded as a nonprofit aiming to build ethical, open-source artificial general intelligence. Years later, Elon Musk filed a lawsuit accusing CEO Sam Altman, OpenAI president Greg Brockman, and Microsoft of manipulating him into donating to a public-interest organisation which later created a for-profit subsidiary.



In 2015, a small group of researchers and technology entrepreneurs gathered in San Francisco to create what they described as a gift to humanity, eventually to turn into enemies defining the future of artificial intelligence (AI) in a courtroom.

OpenAI was founded on the premise that if artificial general intelligence (AGI) was coming regardless, it was better to have safety and ethics-conscious researchers build it. AGI is the kind of AI that can match or surpass human cognition. The group decided to create the initiative as a nonprofit and if the technology ever arrived, it would belong to everyone, as open source. OpenAI's CEO Sam Altman even went as far as to design the company's board such that it could fire him too if he ever came in the way of its core mission. That founding promise, to build ethical AGI, years later brought Elon Musk and Mr. Altman to a federal courthouse in California.

Mr. Musk brought forward the lawsuit against Mr. Altman, accusing him, OpenAI president Greg Brockman, and Microsoft, of manipulating him into donating to a public-interest organisation only for it to later attach a for-profit subsidiary and accept billions from Microsoft.

On May 18, a nine-person jury took less than two hours to throw out Mr. Musk's case against Mr. Altman. The verdict did not settle the question of whether OpenAI broke faith with its founding mission but instead, it was settled on a procedural issue - that Mr. Musk had waited too long to sue. In the American legal system, civil claims must be filed within a fixed window of time, crossing which the claim becomes invalid. The jury said Mr. Musk's claim fell outside the statute of limitations. The judge concurred, but Mr. Musk's lawyers have signalled that they might appeal. The merits of the case were never discussed.

The nonprofit debate

Trial testimony and evidence showed OpenAI's leadership had anxiously tracked Google's acquisition of another AI research giant DeepMind in 2014.

OpenAI's executives argued that the nonprofit structure was not sufficient to compete with bigshots like Google.

Mr. Musk was the company's biggest early donor, contributing around \$38 million. But, the economics of building AGI turned out to be brutal. Training large models requires computing infrastructure that costs billions of dollars. By 2019, a year after Mr. Musk's departure from the OpenAI board, the company decided it could not remain competitive as a pure nonprofit. It attached a for-profit subsidiary to the existing organisation, with the nonprofit retaining oversight and a capped return structure for investors.

Microsoft came in with an initial investment that year, and kept coming, eventually investing more than \$135 billion and holding a significant share in OpenAI. This is the transformation Mr. Musk's lawsuit sought to attack, from nonprofit to a commercially driven AI laboratory he had set out to oppose.

Claims that did not make it to trial

The bit that went to trial eventually was a much smaller subset of the original claims Mr. Musk had filed in 2024. Several of his claims were dropped or narrowed before the trial even began.

Mr. Musk claimed that Microsoft's investment in OpenAI had aided it to breach its charitable mission. But, despite a Microsoft executive testifying that the company had invested billions in OpenAI, the jury dismissed the claim.



Mr. Musk also filed an antitrust claim against OpenAI and Microsoft, alleging that the two companies were colluding to dominate the AI market. This claim has not reached the jury yet. Judge Gonzalez Rogers heard arguments and signalled she was sceptical, noting the aggressive competition already playing out across the AI industry. OpenAI on its part filed a countersuit accusing Mr. Musk of running a years-long harassment campaign against the company. That case is separate and still ongoing.

Key takeaways from the proceedings

The legal question the jury resolved was procedural. But the three weeks of testimony preceding the verdict were pure Silicon Valley tech theatre.

Mr. Musk's lawyers assembled a long roster of witnesses who testified that Mr. Altman is not trustworthy. Mira Murati, who served as OpenAI's chief technology officer, told the court that Mr. Altman had lied about a safety review in the past. Ilya Sutskever, one of the company's founding researchers, had spent more than a year building a case for Mr. Altman's removal from the company, assembling a 52-page memo that described a pattern of dishonesty and internal manipulation.

In November 2023, OpenAI's board briefly fired Mr. Altman and reversed course within days. Mr. Altman returned and Mr. Sutskever eventually left the company.

OpenAI's lawyers demonstrated that while still on the board in 2017, Mr. Musk himself had pushed to restructure OpenAI as a for-profit entity, including an attempt to fold it into Tesla under his control.

Mr. Musk's argument that he had always opposed commercialisation now sat awkwardly alongside evidence that he had sought to commercialise the company himself, especially on the condition that he be in charge.

The immediate winner from the latest verdict is OpenAI. The lawsuit had cast a shadow over the company's plans for its upcoming IPO that could value it at close to a trillion dollars. There is a larger question the verdict leaves entirely unanswered. The trial showed how OpenAI's founding principles were abandoned in pursuit of competition. The nonprofit structure still exists, and the OpenAI nonprofit now controls assets of more than \$200 billion. But what that oversight means in practice was not explored in court.

THE PREDICTABILITY PANDEMIC: HOW YOUR KEYBOARD IS STEALING THE SOUL OF LANGUAGE

Type "I feel..." on your phone. Before you finish the sentence, three suggestions may appear: happy, sad, tired. Your keyboard is already guessing how the sentence might end. Predictive keyboards today do far more than correct spelling. Systems like Gboard or Microsoft SwiftKey are trained on massive language data, looking at patterns across billions of sentences to suggest the most likely next word. In a way, your phone is not just fixing your sentence; it is completing it.

At first, this feels harmless, even helpful. You type faster, and conversations flow easily. But if you pause, an uncomfortable question emerges: Are these tools just helping us communicate, or are they slowly shaping how we think as well? The relationship is not one-sided. While we train these systems with our words, by using them every day, we might also be letting them train us back.



Humans have always been looking to outsource thinking, a concept psychologists call cognitive offloading. We shift mental effort to tools around us like calculators for math, GPS for routes, and search engines for facts.

Consequently, instead of remembering everything, we remember where to find it. A study by Betsy Sparrow, a psychology professor at Columbia University, in 2011 showed that when people knew information would be saved, they were less likely to remember the information itself, focusing instead on its location. This became known as the “Google Effect.”

Now, apply this to language. Forming a sentence involves searching your memory, choosing words, and arranging them carefully to convey what we intended. It is an active, constructive process. Increasingly now, we just look at suggestions on a phone screen and let them complete our thoughts and sentences. The effort has shifted from creating to selecting.

This might seem like a small change, but the brain does not treat repetition as small. Through neuroplasticity, the brain physically changes based on what it repeatedly does. A famous study by Neuroscientist Eleanor Maguire looked at London taxi drivers who had to memorise complex street maps. Over time, the part of their brain linked to spatial memory actually grew larger, meaning their daily practice reshaped their physical biology.

The same pattern appears everywhere, from musicians to mathematicians. What you practice, your brain strengthens. If we slowly practice selecting words instead of constructing them, we must wonder what kind of brain patterns we are strengthening. These systems do not understand meaning; they work on probability. They analyse datasets to learn which words usually follow others, suggesting what is most common, expected, and average.

This is where something subtle begins to happen. Common phrases appear more often, while unusual or creative ones appear less. If millions of people keep selecting the same suggestions, language starts moving toward those patterns, not because we are forced to, but because it is easier and faster. Humans have always picked up language from their surroundings, borrowing phrases from books or memes. However, there is a difference here. While we debate how AI is trained on our data, we often ignore how we are being trained in return.

Every time we accept a suggestion, we are exposed to specific patterns and sentence flows. Over time, these patterns settle into how we naturally write. This could explain why human-written text is increasingly flagged as AI-generated. It’s not always that the tool is wrong but that human writing is starting to resemble the machine’s statistical averages. The gap between how machines write and how humans write is shrinking.

This matters because language is not just for communication. It shapes how we think and understand the world. Take emotions, for example. Research by psychologist Lisa Feldman Barrett shows that people who can distinguish between specific emotions like feeling “overwhelmed” versus just “sad” are better at regulating them. This is called emotional granularity. More words mean more clarity. Yet, predictive systems suggest simpler, high-probability phrases like “I’m fine” or “I’m okay.” If we choose these more often because they are right there, our emotional vocabulary may shrink. And when vocabulary shrinks, our thinking shrinks with it.

Words are tools for thought. If you only have a few words, you can only make a few distinctions. Subtle differences blur together, and complex feelings become harder to explain, even to yourself. This also affects our outward communication. When everyone uses similar words and structures,



conversations may become smoother, but they also become flatter. Nuance is reduced, and it becomes harder to express unique disagreement because language becomes more general and less precise.

Writing has always been a way for people to leave a signature of themselves. You could tell who wrote something just by the rhythm of their prose. But if suggestions nudge us toward the same patterns, those unique edges soften. There is also a cultural layer to consider. Language carries identity, slang, regional phrases, and personal quirks reflecting where we come from. Systems trained on global datasets favour what is most common across the majority. Less common expressions appear less often, and local diversity in language might become less visible in everyday life.

None of this happens overnight. It is slow and almost invisible, which makes it easy to ignore. It is also important to stay balanced; language has always evolved with technology. The printing press standardised spelling, and the typewriter shaped sentence structure. Predictive AI may just be the next step in this evolution. However, the scale is different. For the first time, billions of people are in a constant, daily conversation with systems that learn from them and instantly suggest language back.

This brings us to a technical warning known as “Model Collapse.” As more AI-generated text fills the internet, future models are trained on that synthetic, average data. If humans also start writing like the models to save time, we enter a loop of diminishing returns where the diversity of the dataset shrinks. If we optimise entirely for speed, we might accidentally delete the unpredictability that makes human communication valuable.

Language is how we think, remember, and feel. Predictive systems make life easier, but they also create a feedback loop where we train the machine and the machine shapes us back.

We should treat predictive text like a “suggested route” rather than a mandatory path. We need to maintain a critical “scientific temper,” as suggested by the principles of staying curious and analytical about the tools we use. Science communication isn’t just about making things simple, it’s about making them clear without losing the complexity of the human experience.

If we let our language converge to the point of total predictability, we aren’t just making writing faster; we’re blurring the line between who is teaching whom. Are we training the AI to be more human, or is the AI training us to be more like a model? In that blur, the most important thing we can hold onto is the “low-probability” word, the one the keyboard didn’t see coming. That is where the soul of communication lives.

REVEALED: HOW HUMANS EVOLVED IN THE PAST 10,000 YEARS ALONE

People who lived and died thousands of years ago have left behind their skeletal remains as a legacy. In recent years, scientists have isolated and sequenced the DNA from more and more of these remains.

A team of researchers led by scientists at the Harvard Medical School in the U.S. has compared 15,836 ancient DNA sequences from across Western Eurasia with the sequences of 6,438 modern people from the same countries. (Western Eurasia includes Europe, Russia, Central Asia, the Middle East and Iran.)



The comparison revealed evidence that for many genes for which two sequence variants have been known, one variant had undergone a sustained increase or decrease in frequency relative to the other over the past eight to 10 millennia.

Using new statistical methods coupled with computer simulations, the team found that these changes in frequency can be attributed in many cases to natural selection rather than to processes like genetic drift and population migration. The findings were reported on April 15 in *Nature*.

The oldest remains examined were dated to 18,000 years ago — yet the scientists were able to obtain enough genetic material to meaningfully calculate gene frequencies for the last 10 millennia alone. The study is, in fact, the largest survey of ancient human genomes to date.

Carbon dating

Scientists figure out how ancient a skeleton is by measuring the relative amount of carbon-14, also known as radioactive carbon, in its bones and teeth. Carbon-14 is a carbon isotope generated when cosmic rays collide with nitrogen atoms in the earth's upper atmosphere. Its chemical properties are identical to that of the non-radioactive isotopes carbon-12 and carbon-13.

When an individual is alive, the fraction of carbon-14 in the body is the same as that in the carbon dioxide in the atmosphere, and in the plants and animals consumed as food. This level begins to drop after death. Radioactive decay turns carbon-14 back into nitrogen and there is no way to replenish its level.

Carbon-14 decays with a half-life of 5,730 years. That is, the fraction of radioactive carbon relative to non-radioactive carbon halves every 5,730 years. So after 50,000 years, the fraction of radioactive carbon 14 remaining in the bones and teeth is only two-thousandth that at the time of death.

An instrument called a mass spectrometer is used to measure the relative amounts of each carbon isotope, then estimate the age of its source.

Blood types, gluten, colours

The human body has two copies of a gene called ABO. Each copy comes in three variants, called A, B, and O. Which combination of variants we have determines our blood type. These blood types appeared very early in evolution and we share them with other great apes.

The researchers found that over the last 6,000 years, the B variant has been occurring more commonly among the West Eurasians, with a concomitant decrease in the A variant. The A and B variants are associated with opposite effects with respect to many traits. Therefore, it may be that a population benefits by maintaining an optimal balance to respond to changing pathogenic exposures.

Similarly, a variant of the HLA-DQB1 gene makes people susceptible to coeliac disease. In individuals with two copies of this variant, the gluten in wheat, barley, and rye triggers the immune system to attack the small intestine, leading to diarrhoea, vomiting, and abdominal pain.

In the past 4,000 years, the frequency of occurrence of the disease-causing variant has increased from 0% to 20%. Since agriculture also began 10,000 years ago, the researchers have clarified that the increase was “not a phenomenon only or largely of the rise of agriculture” even as they admit what could have driven the increase remains unknown.



Also around 8,000 years ago, humans began to select for gene variants in several genes that produce lighter skin tones and pigmented hair. The researchers have suggested this was an adaptation in response to having to synthesise more vitamin D in regions with low sunlight, especially among farmers whose diets supplied little of it.

Ancient genes, modern traits

Possessing two copies of the 32 variant of the CCR5 gene makes an individual completely resistant to HIV-1 infection. The frequency of this variant among Western Eurasians increased from 2% to about 8% between 6,000 and 2,000 years ago. This predated the origin of HIV, however, which happened only in the early 20th century. Put another way, other unknown ancient pathogens must have driven this increase, as scientists have previously hypothesised.

Perhaps the most interesting signals of ancient selection were found in the gene combinations today associated with 'modern' traits such as performance on intelligence tests, household income, years of schooling, and healthy lifestyle (e.g. faster walking pace). Smoking was unknown to Eurasia until Christopher Columbus introduced tobacco from the Americas less than 600 years ago. The study found that the gene variants associated today with smoking were selected against even in those ancient times. However, it is not clear what traits governed the selection in that time.

As the researchers wrote: "it will be of interest to apply similar approaches to ancient DNA time series over longer times and to other world regions. This would allow more generalizable insights by identifying which patterns of selection are shared and which are distinctive to Holocene West Eurasia."

South Asians have genetic contributions from ancestors from Iranian Neolithic Farmers and western steppe herders; from indigenous Eastern Eurasian ancestors, including ancient ancestral South Indians; and East and Southeast Asian and Australasian ancestors. A comparable ancient DNA study of our ancestors is likely to be just as fascinating. But we need to first start assembling our own legacy: the remains of our ancestors from thousands of years ago.

TOGETHER AND APART, ANIMALS IN A HUMAN WORLD

When the humans are away, the wolves, moose and bobcats will play. This much became clear during the Covid pandemic when lockdown measures across the world ensured Homo sapiens-free landscapes for other species to saunter through. Not only was the air cleaner and every outdoor space quieter, wild boars reportedly strolled through the boulevards of Barcelona in Spain. Nature, as the popular pandemic-era meme went, was healing.

A new study published in Science has now demonstrated just how much nature — or rather, wildlife — shapes itself around the presence (or absence) of humans. Using GPS tracking data from 37 species of wild birds and mammals along with cellphone location data across the US, a group of researchers has found that how these species use geographic spaces often depends on human activity in those same areas. The findings show a remarkable diversity of responses. For example, the areas covered by coyotes and wild turkeys shrank in response to human proximity while among grey wolves, the presence of people had the opposite effect of expanding their ranges — in all likelihood to put a greater distance between themselves and humans.

For ecologists, findings like this are invaluable, helping craft a more granular approach to complex questions of conservation and minimising animal-human conflicts. They're a warning too, against the simplistic "we are the virus" takes — suggesting that eliminating humans will save the planet



— that also, not coincidentally, surged in popularity during the pandemic. Healing nature and protecting biodiversity is long-haul work built on the painstaking accumulation of knowledge — not glib formulations.

AT UNGA, INCOMPLETE CLIMATE JUSTICE

In July last year, the International Court of Justice (ICJ) ruled that countries are “obliged” to “prevent harm from climate change”. The verdict has now received the imprimatur of the UN General Assembly. More than two-thirds of UN members, 141, voted in favour of the resolution on Wednesday; eight nations, including the US, said no and 28, including India, abstained. The resolution could change the tenor of the international climate debate — it strengthens the idea that mitigation measures cannot be founded on the principle of voluntarism. It gives vulnerable nations, particularly small island states — among the sponsors of the move — stronger diplomatic and legal grounds to demand action from major emitters.

That said, the resolution does not fully reflect the concerns of developing countries like India, which have always argued that countries with a longer history of industrialisation, accompanied by extractive colonialism, bear greater responsibility for addressing the climate crisis. Transition to green energy systems must take into account the need for economic and social development in countries outside the developed world. The resolution does not adequately recognise this imperative, especially since it is silent on climate finance. Opening the global-warming mitigation plans of countries to legal scrutiny without similar audits of the financial commitments of industrialised countries further undermines one of the already-embattled principles of climate negotiations — common but differentiated responsibilities.

India’s abstention should, however, not be seen as a vote against the concerns of the small island states. New Delhi’s initiatives such as SAGAR, and projects like the International Solar Alliance, have been sensitive to the anxieties of the countries most threatened by the rising seas. India has also made appreciable progress towards the attainment of its Paris Pact commitments. At the same time, it must remain alert to the growing sentiment among the most climate-vulnerable countries that emerging economies need to do more to reduce their fossil-fuel dependence — debates at the UNFCCC and now the passing of the UN General Assembly resolution show that this stance has the support of several countries in the West. Even as India pushes its justified position in international climate fora, it must stay the course on its green-transition targets. Doing so will be in the interests of the well-being of its people and the competitiveness of its industry.

BEER WINS OVER WINE, SNOBBERY IS STILL ON TOP

What happens when the land where wine snobbery is supposed to have originated suddenly finds itself to be a nation of beer drinkers? According to the International Organisation of Vine and Wine, France is for the first time consuming more beer than wine — 10 million litres more, to be precise. For the land of Burgundy, Merlot and Bordeaux, that is sobering news indeed.

Part of the reason could well be generational. Gen Z’s aversion to drinking has been reported from across the US and Europe, where alcohol sales have fallen by about 20 per cent. When they do drink, beer is the tippable of choice, thanks to the rising cost of living and the decline of the “hang-out” culture in favour of digital socialisation (or isolation): Not only is beer cheaper, it is also considered a more “casual” drink. In France, in particular, wine — still associated with the daily ceremony of sit-down meals — is considered too stuffy by a generation that prefers to eat on the go.



Yet, those celebrating the end of what they see as elitist circus around wine should perhaps hold off on ordering another round. The bowineom in France's craft beer industry, with brewers and consumers bringing their appreciation for "terroir" and other wine-related concepts to "bierologie", indicates that the affectations have merely been displaced onto a new subject. In other words, what was once prized in wine, is now sought in beer: Le snobbery est mort, vive le snobbery.

CONSTANT MECHANICAL FORCE MAY BE WHY HEART CANCER IS SO RARE

The human heart beats more than 1 lakh times a day, pushing blood through the body. Every second, it encounters circulating cells, including cancer cells that travel through the bloodstream. Yet tumours of the heart are strikingly rare.

For decades, explanations based on genetics, immune surveillance, and the biology of heart cells have not cracked this puzzle. New research in Science has now suggested that the force of each heartbeat may itself limit the growth of cancer cells in the organ.

The researchers introduced cancer-causing mutations across multiple organs in mice, expecting tumours throughout the body. Tumours formed in several tissues but not in the heart. Then, the team surgically implanted a second heart into another part of the body and connected it to blood vessels so it remained alive and beating, but no longer pumped blood through its left ventricle under normal mechanical load. This allowed it to receive blood without experiencing the forces generated by each heartbeat. In these 'unloaded' hearts, cancer cells that had struggled to grow began to expand rapidly, in some cases occupying large portions of the tissue.

They used lab-grown heart tissues made from living cells arranged into small, beating strips. These could be constrained to either contract or remain relaxed. Again, reducing mechanical activity allowed cancer cells to proliferate more easily, reinforcing the pattern.

With every contraction, heart muscles generate compressive forces that cells must withstand. This could create a hostile environment for cancer cells that limits their ability to multiply. That is, the heart's constant motion of circulating blood incidentally also creates physical conditions unfavourable for cancer to grow.

FOCUSED ULTRASOUND OFFERS NEW WAYS TO TREAT EYE DISEASE

A normal human hears sound in the frequency range 20 hertz (Hz) to 20 kilohertz, and the normal loudness, measured in decibels (dB), is between 30 and 70 db. Higher volumes, e.g. 85 dB and above, can lead to hearing damage. Ultrasound is defined as sound frequencies far beyond the audible range, and is expressed in kilohertz (kHz) or megahertz (MHz).

Regardless of its intensity, ultrasound is inaudible to the human ear. Ultrasound's very short wavelength allows it to travel through biological tissues. It is also propagated as a mechanical wave, where one molecule pushes against the next, and therefore it travels at a faster speed in stiff and incompressible tissues such as bone, but is slower in tissues such as fat. This property is used to generate ultrasound 'images' of human foetuses. (Ultrasound is much safer than X-rays, whose ionising effects can damage DNA.)

At a low intensity, low frequency ultrasound (200-700 kHz) allows the modulation of neural activities in mouse brains. W.J. Tyler et al. of Arizona State University showed this in 2008. Similarly, M. Menz et al. pointed out in 2013 that neural stimulation in the retina of a test



amphibian (salamander) occurred when ultrasound of 43 MHz was applied (Journal of Neuroscience, 33, 4550). At such a high frequency, constant pressure is applied on the surface of the retinal tissue, which results in the activation of the retinal ganglion cells that send signals to the brain.

This phenomenon recently sparked interest in the potential of ultrasound stimulation and sonogenetics to restore vision (Jie Ji et al.; Neural Regen. Res. 20: 3501). Sonogenetics makes use of the non-invasive nature of ultrasound to modulate the activity of small groups of neurons in living organisms. Genetic engineering is first used to deliver a gene that makes a mechanosensitive protein in a neuron's cell membrane. The neurons can then be activated on demand by ultrasound waves.

The eye, in particular, is easily accessible to ultrasound and the lens, cornea, retina, and the vitreous humour are easily studied using ultrasound. Of particular interest are attempts to restore vision when the optic nerve is impaired. This happens in degenerative conditions such as glaucoma and the ensuing optic neuropathy, and infectious diseases that affect the brain (e.g. meningitis). In these conditions, ultrasound stimulation of the visual cortex in the brain can lead to some restoration of vision (Chen Gong et al., Bioengineering 10:577, 2023).

High-intensity focused ultrasound waves have other therapeutic uses, too. For example, in cancer treatment, precision focusing on a tumour can cause the temperature in these cells to rise rapidly to 65-85 °C, effectively killing these cells while leaving the surrounding tissue unharmed.

All these studies have used animals as models. Has anyone actually used sound waves to treat retinal disorders in human patients? The answer is yes. In 2025, Wang et al. from Chongqing Medical University in China did so with 16 glaucoma patients, using ultrasound, and with success. Further, an agency called Focused Ultrasound Foundation from Charlottesville, Virginia, in the U.S., has also developed a device called 'Eye Tech Care' that the Foundation has claimed can focus ultrasound on the ciliary body, decreasing the intraocular pressure and thus treating glaucoma. This technology, however, needs to be cleared by the U.S. National Health Agency.

WHY HAS THE WHO DECLARED A PHEIC OVER EBOLA OUTBREAK?

The story so far :

On May 16, the World Health Organization (WHO) declared the Ebola outbreak in the Democratic Republic of the Congo (DRC) and Uganda a 'public health emergency of international concern (PHEIC). Just ahead of that, the Ministry of Public Health, Hygiene and Social Welfare, DRC, and the Uganda Ministry of Health declared an Ebola outbreak.

What is a PHEIC?

A PHEIC is the WHO's highest level of global health alert, formally declared under the International Health Regulations, whenever the health event is 'serious, sudden, unexpected, or unusual, and poses a public health risk to other countries through spread'. The declaration of the PHEIC also calls for a coordinated global response to tackle the current outbreak.

A new Ebola outbreak was notified in eastern DRC and Uganda, reportedly driven by the Bundibugyo ebolavirus strain. According to the WHO report, as of May 16, eight laboratory-confirmed cases, 246 suspected cases, and 80 suspected deaths have been reported in Ituri Province of the DRC. In addition, two laboratory-confirmed cases (including one death) with no



apparent link to each other have been reported in Kampala, Uganda, within 24 hours of each other, among two individuals travelling from the DRC.

What is Ebola?

Ebola virus disease is a zoonotic disease that can be severe and often fatal in humans. It is caused by the eponymic Ebola virus, and has spilled over to humans from wild animals, including fruit bats and non-human primates, but is now capable of spreading between humans whenever there is direct contact with blood, secretion, bodily fluids of those infected, and even contaminated surfaces. According to the WHO, three different viruses are known to cause large Ebola disease outbreaks: Ebola virus, Sudan virus, and Bundibugyo virus. This current epidemic involves the last variant.

Ebola has been known since 1976, with most early outbreaks occurring in remote villages of Central Africa. However, things changed dramatically with the worst Ebola outbreak in history, which occurred in West Africa from 2014 to 2016, sweeping across Guinea, Liberia, and Sierra Leone, resulting in over 28,600 reported cases and 11,325 deaths.

But this outbreak served as a milestone turning point for the way in which the world treated Ebola; it catalysed unprecedented global support for research and development into vaccines for Ebola. As a result, there are two vaccines in the market that have been approved for Ebola, in a single and double dose regimen. Both are being used for targeted “ring vaccination” for all contacts and frontline workers dealing with the cases, as post-exposure prophylaxis. There are monoclonal-antibody treatments in the market that reportedly improve survival when given early to patients.

What measures are in place now?

The WHO-led response now focuses on several aspects including rapid isolation of a patient and immediate provision of intensive supportive care (rehydration, symptom management) to reduce mortality. But what will be crucial in actually containing this outbreak is to initiate rapid case tracing, contact tracing, ensuring safe burials, and establishing strict infection-control measures in all health facilities where people are being treated. The WHO’s plan also includes deploying approved vaccines and monoclonal antibodies to at-risk groups wherever feasible. An essential part of the strategy, according to the global agency, is to launch social mobilisation campaigns to build trust, reduce stigma, and encourage early care-seeking among the people in the affected zones.

According to the WHO, “outbreak control relies on a package of interventions including intensive supportive care of patients, infection prevention and control, disease surveillance and contact tracing, laboratory services, safe and dignified burials, vaccination if relevant, and social mobilisation.”

Do You Know:

- Ebola is a zoonotic infection caused by the Orthoebolavirus family that can be extremely fatal in humans. It can spread from humans to humans through direct contact with infected fluids such as blood, saliva, sweat, tears, vomit, faeces, and breast milk among others. It can also be transmitted by touching contaminated surfaces and contact with dead bodies of those who have died of the infection. While most of the symptoms of the disease are like flu — fever, headache, muscle and



joint pains — unexplained internal and external bleeding is one of the distinct features of the disease.

- The first Ebola outbreak was identified in 1976 after two successive outbreaks caused by the Sudan strain in what is now South Sudan and DRC. Since then, major outbreaks have occurred in Uganda (2000-01), West Africa (2013-16), DRC and Uganda (2018-20), and most recently in Uganda (2025).
- The one in West Africa (caused by the Zaire strain) remains the deadliest outbreak, which recorded over 28,000 cases and more than 11,000 deaths as it spread widely in Guinea, Liberia, Sierra Leone, and their neighbouring countries. Some cases were also reported in the US and Europe, which was linked to travellers and health workers travelling from Africa. According to WHO, the average fatality rate for Ebola is around 50%. This has varied from 25% to 90% in past outbreaks.
- The Bundibugyo ebolavirus causes the current outbreak; a rarer strain of Ebola first identified in Uganda in 2007. Unlike the more common Zaire strain, there are currently no approved vaccines or targeted treatments specifically designed for Bundibugyo Ebola.
- Health experts say the absence of vaccines and the spread into densely populated areas such as Kampala and Goma have heightened fears of wider regional transmission.

EXPERTS CLARIFY THE LINK BETWEEN SCREEN TIME, AUTISM

Autism spectrum disorder (ASD) is increasingly being discussed on social media, often alongside claims linking excessive screen time to autism in children. However, neurologists and developmental experts say the science is far more complex. Autism cannot be reduced to one trigger alone. “Autism is still an enigma. There are strong genetic influences, environmental factors and epigenetic mechanisms all interacting together,” she said.

Multiple causes

Experts say autism begins very early in brain development and has a strong hereditary basis. Dr. Gulati noted that studies show concordance rates of 60% to 90% in identical twins, indicating a major genetic contribution. Autism is also associated with several genetic conditions including Fragile X syndrome, Down syndrome, tuberous sclerosis and neurofibromatosis. Environmental associations being studied include air pollution, pesticide exposure, parental age and certain medications taken during pregnancy. Recent research has shown children living with autism began using screens earlier than neurotypical children, with significantly higher problematic media-use scores. However, experts stress that these behavioural effects are different from autism itself.

Experts also cautioned parents against extreme reactions such as suddenly eliminating all screen exposure overnight. They said screen habits should instead be reduced gradually while increasing human interaction, play and communication, especially at a time when technology is increasingly being integrated into healthcare, education and developmental therapies for children.