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WHAT'S DOWNBLENDING, THE PROCESS AT THE HEART OF TRUMP'S IRAN AGREEMENT?

In the memorandum of understanding, signed by the U.S. and Iran to end the war, Tehran has pledged never to develop a nuclear bomb in return for U.S. sanctions relief and access to a $300 billion development fund. Beyond that commitment, the MoU offers few details on how the U.S. and Iran intend to solve the nuclear dispute.

Iran still possesses hundreds of kilograms of highly enriched uranium and retains the technical capacity to produce more. While the modalities of a final agreement are to be negotiated in the second phase of talks, the MoU states that both sides have agreed to take steps to downblend Iran's uranium stockpile. U.S. President Donald Trump said last week that the U.S. would "go and get" Iran's highly enriched uranium "at some point" and "dilute" (downblend) it either in America or in Iran.

Paragraph 8 of the MoU states: "The Islamic Republic of Iran reaffirms that it shall not procure or develop nuclear weapons... The two parties also agreed to resolve the disposition of stockpiled enriched material pursuant to a mechanism... with the minimum methodology to be down-blending on site under the supervision of the International Atomic Energy Agency."

Downblending is a technology used to make uranium less pure. It is difficult to purify uranium, and highly pure uranium can be used to make nuclear bombs. So downblending removes the amount of uranium-235 available to make a bomb and increases the time required to do so. This duration, called the breakout time, is a cornerstone of modern nuclear non-proliferation.

Thus, the international community's trust in Iran's promise to not pursue a nuclear weapon depends on how well it implements downblending in the coming months, among other factors.

Uranium in nature consists mainly of two isotopes: uranium-238 and uranium-235. Of these, only uranium-235 is fissile, meaning it can sustain a nuclear chain reaction. However, the natural concentration of uranium-235 in uranium is only 0.72%. The remaining 99.28% is uranium-238. Purification means enriching the concentration of uranium-235 to higher levels.

Diluting purity

Downblending is the opposite of enrichment. Here, enriched uranium is mixed with depleted (opposite of enriched) or natural uranium to produce uranium with less than 5% uranium-235. E.g. the 2015 Iran deal allowed Iran to enrich uranium up to 3.67%. Uranium of this purity can be used in some simple reactors to produce electricity but not to make a bomb.

The enriched uranium feedstock is usually stored as the compound uranium hexafluoride (UF_6), which is a solid at room temperature. In the first step, the steel cylinders containing UF_6 are placed in an industrial oven called an autoclave and heated to 80-110°C, turning the compound to gas. Gases are easier to mix than solids.

Second, another source of uranium called the blendstock is prepared. It can have 0.7% uranium-235 (natural uranium), 0.2-0.3% (depleted uranium), 1% uranium-235 (slightly enriched) or a different level. The level is based on need. For instance, downblending 90% enriched uranium to 5% will need a larger quantity of depleted uranium than natural uranium. The blendstock is also gaseous.

The enriched feedstock and the blendstock are pumped into a junction called a blending tee. The main challenge here is mass flow control: to achieve a target enrichment, the ratio of the two gases must be perfect. If too much feedstock gets in, the final gas will be too high in uranium-235.

Engineers use thermal mass flow meters, which determine the masses by measuring the heat transfer characteristics of the flowing gases. Then automated values adjust the flow. To ensure the gases mix, the blending tee uses internal mixers, called baffles, to create turbulence.

When the mixed gas exits the blending tee, it passes through an online enrichment monitor (OLEM). The OLEM uses sodium iodide to sense the amount of gamma rays emitted by the gas. Uranium-235 has an energy signature at 186 keV (around 3 × 10^-14 joules). OLEM tracks the intensity of gamma rays with this signature. If it exceeds an agreed-upon limit, the system will trigger fail-safe valves that shut off the entire flow. This is done to keep the facility from producing more of the non-compliant material.

In fact, the facility is also fit with cameras housed in tamper-proof casings and which record 24/7.

The gas is then solidified by cooling it in a product cylinder.

This is not the last step, however. The downblended uranium still exists as UF6 — which is also the feedstock for the process that enriches uranium. Since the purpose of downblending is to increase the amount of effort needed to make a bomb, the UF6 is finally moved to a reconversion plant, where the gas reacts with steam and hydrogen. The reaction replaces the fluorine atoms with oxygen, producing uranium dioxide (UO2), a dark powder.

UO2 enrichment

The uranium in UO2 cannot be enriched directly. It has to be converted to UF6 first in a conversion plant. The missions from such a plant can be detected by satellites and on ground inspections.

The very last step is IAEA verification. IAEA inspectors collect a small physical sample of the UO2 powder and ship it to their laboratory in Seibersdorf, Austria, where thermal ionisation mass spectrometry is used to confirm the level of uranium-235 to four decimal places. Second, the IAEA applies seals on the cylinders that can't be tampered without leaving back signs.

While the crux of downblending is the physical mixing, downblending the process includes the control systems so that it can provide verifiable proof that the uranium has indeed become less pure. And that in turn is why the U.S.-Iran memorandum will rest as much on diplomatic assurances as on the technical implementation.

CAN INDIA PROTECT ITS SEAFARERS IN GULF?

The story so far:

On June 12, after India summoned U.S. Embassy representative Jason Meeks and lodged its "strong protest" against U.S. missile attacks on merchant vessels carrying Indian crew members, U.S. Secretary of State Marco Rubio told External Affairs Minister S. Jaishankar that violations of the American blockade and "illicit transport of Iranian oil" would not be tolerated. Recalling his discussion with Mr. Rubio, Mr. Jaishankar posted on X: "I reiterated India's strong protest at the attacks by the U.S. Navy in the Gulf that killed three Indian mariners. Such lethal actions against commercial shipping are not justified."

How many Indians are working on merchant vessels globally?

There are an estimated 3.5 lakh Indian seafarers manning ships across the world. The Indian government estimates that more than half of them are in active service, mostly in foreign-flagged ships.

This means one in every six seafarers serving on large merchant ships worldwide is Indian. The International Maritime Organization (IMO) estimates that some 20,000 seafarers of all nationalities are stranded on ships in the Persian Gulf region. The DG Shipping of India estimated at the start of the crisis that some 23,000 Indian seafarers are serving in the broader Gulf region in various capacities and facilities, with the UAE accounting for more than half.

What happened to the three vessels targeted by the U.S.?

On June 8, 10, and 11, the U.S. Navy fired precision munitions — Hellfire missiles — on merchant vessels Marivex, Settebello, and Jalveer. The three were tankers carrying Indian crew. While no one was hurt in the case of Marivex and Jalveer, three Indian seafarers — one chief engineer, one engine fitter, and one deck cadet — died onboard Settebello. While Marivex was attacked off the coast of Duqm, some 400 nautical miles from the Strait of Hormuz, the others were attacked off the coast of Shinas in Oman, which is closer to the strait.

Videos put out by the United States Central Command (Centcom) show the engine rooms of the ships being hit as well as the steering compartments. These attacks damaged the vessels above the waterline, so water didn't rush in to sink them. But their ability to move and manoeuvre on their own was lost.

In its press releases, the U.S. Centcom has said the crew of Settebello and Marivex refused to comply with instructions and all of them violated the blockade by attempting to transport Iranian oil. Marivex attempted to sail to an Iranian port, it claimed.

While the Marivex crew is reported to have informed seafarers' unions that their ship was at anchor while attacked, Settebello's manager, IOS Marine FZE, a firm registered in Ajman, has flatly contradicted the U.S. The company has said Settebello was stationary for nearly 10 days in the region. It said the ship had no communication from the U.S. Navy and had no connection with Iranian oil or ports.

What sanctions were imposed on these ships?

Marivex was sanctioned by the U.S. in December 2025 for Iranian connections. Settebello had been flagged by a U.S. non-profit advocacy organisation, United Against Nuclear Iran, for alleged Iranian links. U.S. sanctions are not binding on any other country besides the U.S., although the U.S. Treasury Department's sanctions make it difficult for the companies associated with the concerned ship to access the financial system and other business transactions. Quite often, sanctioned ships lose insurance cover, without which ports will not accept calls by the ships, and charterers will refuse to handle cargo through them.

There have been reports of non-compliance of these ships with some maritime regulations. Typically, such violations, not uncommon in merchant shipping, relate to safety aspects. And ships are typically given time to remedy them before the consequences of losing insurance cover can kick in.

Does the foreign-flag status of the vessels limit India's options?

They all carried foreign flags of convenience (FOCs) but had deep Indian links, including in ownership and management. In merchant shipping, ships are often registered in little-known nations with no infrastructure to rigorously supervise and monitor ships. Popular FOCs include Panama, Marshall Islands, Liberia, and Guinea-Bissau. Such FOCs are also popular among ships transporting Russian and Iranian oil.

Yes, technically, an Indian flagged ship will provide legal sanction for possible action. The U.S., during the Iran-Iraq war, ordered many ships to change their flag to the U.S. so it could legally escort the ships in and out of the Strait of Hormuz. But the Indian Navy has acted against Houthis and Somalian pirates to help Indian seafarers onboard foreign-flagged ships.

Further, Marivex and Jalveer were often serving Indian ports, facilitating India's enormous oil needs. Soon after the ceasefire was announced in early April, Marivex headed out of the Strait of Hormuz to call on Mangalore. Jalveer is a bitumen carrier — a special type of ship that carries tar-bitumen, popular in laying Indian roads.

Were other options available for the U.S.?

In the last week of April, the U.S. Navy boarded Tifani, a sanctioned very large crude carrier in the Indian Ocean past Sri Lanka. The ship had an Indian crew.

This week, U.K. forces boarded Smyrtos on the English Channel for its alleged links to drug cartels, Russian oil, and so on.

Merchant ships are defenceless. Typically, merchant ships have wireless channels open for communication with nearby vessels and any instructions from governments and Navies and Coast Guard vessels are immediately complied with. Seafarers are trained to protect crew, cargo and the ship.

Somalian pirates coming in small craft and carrying firearms could easily board and seize massive oil tankers. The only evasive action ships have against attackers is a high-pressure water jet they can direct at them.

What can India do to protect Indian seafarers in the region?

India did launch Operation Sankalp to protect merchant ships against Houthi attacks. Indian Navy and Coast Guard intervened to protect four merchant ships in 2024. India did take action against Somalian pirates. But the belligerents in the Persian Gulf are the U.S. and Iran. Therefore, India's options are rather limited.

Does international maritime law adequately protect civilian crews?

The nodal agency for regulating global shipping is the IMO, a United Nations agency. Though the IMO has the means to regulate the technical, commercial, environmental and safety aspects of global shipping through consensus and rulemaking, it has often fallen short in protecting ships and seafarers. Quite often, national governments take unilateral action, and typical of an UN agency, the IMO has been unable to act to prevent or take remedial action.

The law governing the oceans is the United Nations Convention on the Law of the Sea (UNCLOS). Its acts and mandates are extensive and are an outcome of decades of negotiations and consensus-building. UNCLOS is thorough and considers various situations, including transits across straits such as the Hormuz. But many nations have not signed on to it. The U.S. refused to sign it on the grounds that UNCLOS considers the deep seabed as the commons. Iran has signed the convention but has not ratified it. There really is no overarching body for enforcement. Things are often left to the good sense of governments.

INDIA AT THE RECEIVING END OF AMERICAN UNILATERALISM AS TIES TURN TAXING

Countries that partnered with the U.S. over the decades subordinated their strategic autonomy, and even national sovereignty, for the benefits that came with it. In its America First era under Donald J. Trump, partners of the U.S. are being asked to bend according to U.S. priorities, but not necessarily with any accompanying benefits. For India, this approach manifested in two developments in quick succession in recent days: the U.S. extended export controls on AI technologies; and it made clear that it cared little for Indian concerns while waging its arbitrary war on Iran along with Israel.

Countries that signed up at various levels of cooperation with the U.S. got, in return for compromising their strategic autonomy, a security umbrella; access to capital, technology, and global markets; and U.S. protection in international bodies.

Two arguments

There was an ideological and moral argument that the U.S. held in support of its own dominant role in world affairs, that it helped promote a combination of electoral democracy and market economics.

The democracy and free market argument has always been weak, as U.S. alliances with Gulf countries and Pakistan show. The U.S. leadership of the global commons advanced American interests but also created stability in the international order. The moral claims of the market-democracy duet have weakened, and even within the U.S. and all advanced economies, there is a widening gap between what the model promised and what it delivered.

America First formally abandoned that ideological facade and announced to the world that all that mattered to the U.S. was its own supremacy and dominance.

The isolationism associated with America First politics is valid only in its withdrawal from international commitments — for instance in tackling global crises such as pandemics or climate change. Its more consequential manifestation is the assertion of American dominance without hegemony. The statement by Secretary of State Marco Rubio dismissing Indian concerns over the killing of Indian seafarers in the Strait of Hormuz is a stark demonstration of this approach.

Opponents of India's strategic autonomy always pointed to the benefits of coming under the U.S. umbrella, arguing that the gains would justify even a significant surrender of autonomy. America First has removed the fig leaf of such claims and states it upfront: demanding subordination without any commensurate advantage.

Even the fable of the American security umbrella, for countries that counted on it, is now turning not merely useless but counterproductive, as it is for the Gulf countries.

What makes America First distinct from conventional U.S. foreign policy is the formal denunciation of any hegemonic veneer and the unfiltered articulation of dominance — power exercised without the obligation of doing good. The notion of exceptionalism and the willingness to assert its own supremacy at all costs has always been a matter of political consensus in the U.S..

The bitter domestic battle for power masks this consensus, but on questions of using technology, trade, and military means to control the world, Democrats and Republicans, Trumpers and non-Trumpers alike, all seem to agree. What American partners are encountering is a largely bipartisan reality: as the market-democracy compact loses its persuasive power, sheer power takes centre stage in America's global posture.

India is not particularly unique in being at the receiving end of American unilateralism while trying to keep a straight face as its partner. Closer European allies such as Germany have, in recent years, been forced to completely surrender their strategic autonomy to the swinging moods of the U.S. under Joseph Biden and Donald Trump.

The old bargain was friendship with benefits, as the title of Seema Sirohi's book on India-U.S. relations suggests.

What is on offer now is a partnership that is costly to maintain and costly to leave — like a bad marriage. India's strategic autonomy was never mere ideology, as its detractors have argued over the decades. It was a considered assessment of a world where great powers pursue their own interests relentlessly, and often at the cost of their partners.

The case against autonomy has been progressively weakened by the evidence. America First has completed the argument — not by turning U.S. foreign policy on its head, but by removing the filter through which it was previously communicated. India should open its eyes to this reality. Strategic autonomy is not ideology, but a matter of elementary realism.

ITALY'S TOP DIPLOMAT CANCELS U.S. TRIP AS MELONI SLAMS TRUMP'S CLAIM ON PHOTO-OP

Italian Foreign Minister Antonio Tajani abruptly cancelled a planned trip to the United States this weekend, calling Mr. Trump's claims "serious and offensive" toward Ms. Meloni and all of Italy.

Ms. Meloni for her part posted a video calling Mr. Trump's claims "completely fabricated" and expressing astonishment that he would invent such things about an ally. She concluded: "Italy and I do not beg."

Mr. Trump had made the comments in an interview broadcast on Friday morning on the La7 network. The La7 correspondent had asked Mr. Trump about Ukraine, but Mr. Trump raised Ms. Meloni and the conversation turned to their meeting during the just-concluded G7 meeting in Evian-les-Bains, France. Ms. Meloni and Mr. Trump were filmed speaking at several moments. According to La7, Mr. Trump said Ms. Meloni had "begged" him for a photo-op. Mr. Trump said he wasn't obliged to do it but that he felt sorry for her and agreed, La7 said. The broadcaster has a dubbed version of the conversation online, not the original English audio.

In her video, Ms. Meloni said she was responding to Mr. Trump's claims because "certain things deserve an immediate response".

The White House did not return an immediate request for comment on Ms. Meloni's remarks.

WHY WAS TRUMP'S H-1B FEE STRUCK DOWN?

The story so far:

On June 8, in a 42-page ruling with nationwide effect, U.S. District Judge Leo T. Sorokin struck down President Donald Trump's policy imposing a $100,000 fee on H-1B visas for highly skilled foreign workers. Upholding a challenge brought by California and 19 other States (plaintiffs), the court held that the fee amounted to an unlawful tax that the President could not impose without Congressional delegation.

What is an H-1B Visa?

The H-1B visa, created by the Immigration Act of 1990, is the backbone of the United States' high-skilled immigration architecture. Building on the broader framework of the Immigration and Nationality Act of 1952 (INA), which established the "H" category of temporary worker visas, the 1990 law carved out a distinct H-1B classification for highly educated professionals. It permits U.S. employers to hire foreign nationals in "specialty occupations", which require (i) theoretical and practical application of a body of specialised knowledge and (ii) at least a bachelor's degree in a relevant field, typically in sectors such as technology, engineering, healthcare, research, finance, and higher education. Notably, H-1B workers can generally remain in the U.S. for up to six years and often use the visa as a pathway to permanent residency.

To balance employers' demand for skilled talent with protection of the domestic workforce, Congress capped H-1B approvals for most private employers at 65,000 visas annually, with an additional 20,000 visas reserved for holders of advanced degrees. However, universities, affiliated non-profit entities, and governmental or non-profit research organisations are exempt from these numerical limits.

Why did Trump impose a $100,000 fee?

On September 19, 2025, Mr. Trump signed Proclamation 10973, requiring a $100,000 supplemental payment for all H-1B visa petitions — a substantial increase over the pre-existing filing costs of roughly $960 to $7,595. The proclamation reasoned that the H-1B programme had been "deliberately exploited to replace, rather than supplement, American workers" with lower-paid foreign labour, harming U.S. economic and national security interests, particularly in critical STEM sectors. Mr. Trump's proclamation relied on Sections 212(f) and 215(a) of the INA. Section 212(f) empowers the President to restrict or suspend the entry of any class of aliens (non-citizens) when he finds their entry "would be detrimental to the interests of the United States." Additionally, Section 215(a), which also concerns the President's authority to regulate entry into the U.S., allows him to subject alien entry to "such reasonable rules, regulations, and orders, and such limitations and exceptions as the President may prescribe."

While alleging that the proclamation violated the 'separation-of-powers' principle as it "usurps Congress's exclusive constitutional authority to set immigration policy and to levy taxes", the plaintiff States argued before the U.S. District Court that the $100,000 H-1B fee would undermine their ability to recruit and retain essential skilled workers. They argued it would worsen teacher shortages, hamper hiring in higher education, disrupt research, and deepen healthcare staffing gaps — raising costs and straining public systems.

Simultaneously, the measure also carried significant implications for India. Indians account for roughly 70% of H-1B visa approvals, followed by Chinese nationals at about 12%, and are heavily represented in the STEM professions targeted by the proclamation. By raising the cost of an H-1B petition, the policy effectively created a prohibitive barrier for thousands of Indian software engineers, doctors, researchers, and other skilled professionals, many of whom already face years-long green card backlogs.

Did the President have the power to impose the fee?

The threshold issue before the court was whether the $100,000 charge was a 'tax' or a 'penalty', because only Congress possesses the constitutional power to "lay and collect Taxes, Duties, Imposts, and Excises" under Article I, Section 8 of the U.S. Constitution, unless it clearly delegates that authority to the executive.

To answer this question, the judge, an appointee of President Barack Obama, relied on two landmark Supreme Court precedents. In Bailey v. Drexel Furniture Co. (1922), the court invalidated the Child Labour Tax Law, holding that its "heavy exaction" was a 'penalty' rather than a 'tax' because it was designed to prohibit the employment of child labour. By contrast, in National Federation of Independent Business v. Sebelius (2012), the court found that the Affordable Care Act's requirement that individuals pay an additional fee to the Internal Revenue Service for not obtaining health insurance amounted to a 'tax', not a 'penalty', explaining that a penalty ordinarily constitutes "punishment for an unlawful act or omission." Applying this framework, Judge Sorokin concluded that the $100,000 H-1B charge was a 'tax', as hiring workers under the H-1B programme is plainly lawful, and the payment did not operate as punishment for any unlawful conduct.

Further, the court examined whether Congress had delegated taxing authority to the President through Sections 212(f) and 215(a) of the INA. It found no such delegation.

While those provisions empower the President to impose "restrictions", "rules", "regulations", "orders", "limitations", and "exceptions" governing the entry of non-citizens, Judge Sorokin held that their ordinary meaning does not encompass the power over the public purse. The court also found multiple violations of the Administrative Procedure Act. Accordingly, Judge Sorokin ruled that "the Policy implementing the Proclamation is declared unlawful and is vacated in its entirety".

EU PASSES LAW ALLOWING OFFSHORE DEPORTATION CENTRES

On June 17, the European Parliament passed a new law which would allow countries in the European Union (EU) to set up offshore deportation centres or 'return hubs' in non-EU countries through formal alliances. The EU Parliament passed the law, amid scenes of high drama where lawmakers were seen chanting 'Send them back', with 418 members in favour, 218 against and 30 abstentions. It is considered as one of the toughest anti-migration policies from the bloc yet.

What does the law say?

The law, being called the Return Regulation, was proposed by the European Commission last year, and was finalised by lawmakers of the EU on June 1. It has now been ratified in the EU Parliament, and will now need approvals from all individual European governments.

The Regulation essentially approves the deportation of immigrants who have no right to enter or stay in the EU to third-party countries. Individual member states can now form bilateral agreements with non-EU countries and set up deportation centres there. However, the law stresses that such agreements can only be signed with third-party countries which “uphold human rights, international law and the principle of non-refoulement”.

These centres are mainly for immigrants/asylum seekers who have been denied the right to stay in the EU but cannot be deported back to their home countries immediately (for example, when the home country does not accept them back or if their identity cannot be verified). The only exemptions to these rules would be unaccompanied minors. Families with children who fall in the above category would also be deported to such ‘return hubs’.

Further, as per the provisional text of the Return Regulation, non-EU nationals who have been asked to return may be detained if there is a security risk or if there is the threat of absconding.

The maximum legal detention period for irregular migrants waiting to be returned has been raised from six months to two years. It could also be an unlimited duration for persons posing a security risk. Further punitive measures include entry bans, fines and criminal sanctions if migrants were not to cooperate.

The law also allows the search of residences or “relevant premises” of such ‘illegal’ immigrants which some organisations have denounced as being similar to the indiscriminate power allowed to the U.S. Immigration and Customs Enforcement (ICE) officials in recent times.

Why was it ‘needed’?

As per the latest Eurostat data, only around 28% of migrants ordered to leave are effectively returned to their home nations. Nicholas Ioannides, the Deputy Minister for Migration and International Protection said that the new law would “speed up the return process and increase returns of persons who have no legal right to stay in the EU... today’s (June 17) landmark agreement strengthens the credibility of the EU’s migration policy.”

Europe has seen an increase in anti-immigrant sentiment in the past decade or so which has in turn, among other reasons, also fuelled the rise of far-right parties and governments across the EU.

Only last week, on June 14, did Switzerland vote on a referendum to cap the population of the country to 10 million until 2050, which many considered as a move to restrict the entry and stay of immigrants in the country.

The Return Regulation was mainly supported by the bloc’s right-wing and centrist groups. The centre-right European People’s Party (EPP) aligned with the right-wing European Conservatives and Reformists, which includes Italian Prime Minister Giorgia Meloni’s party. It was also supported by the far-right Patriots for Europe — led by Jordan Bardella, president of the far-right National Rally of France — and by the Europe of Sovereign Nations, which includes Germany’s far-right Alternative for Germany (AfD) party.

The EPP includes centrist parties such as the Christian Democratic Union (CDU), which is led by German Chancellor Freidrich Merz. While in domestic matters, centrists such as the CDU have ruled out any sort of alliance with the AfD, at the EU-level, such parties find that it is necessary to align with far-right blocs in order to get the required votes to pass migration and asylum-related legislation.

European Commission President Ursula von der Leyen stated the Regulation was "fair and firm", and that it would deliver "more secure external borders, solidarity between member states and more efficient procedures for asylum and return".

The law must also be seen in light of the EU Pact on Migration and Asylum which was adopted in 2024 and has been in effect from June 12, 2026. The Pact, which consists of 10 binding legislations, aims to streamline migration and asylum-related applications at the EU level, establishing common procedures for all member states so that the pressures of migration will not be felt by just a few countries.

This Pact mainly applies to immigrants illegally crossing an external EU border via the shores or seas of EU countries. Some significant reforms within the Pact include a mandatory screening process at the time of reaching the border, the formation of a full-fledged EU asylum and migration database etc.

The number of first-time asylum applicants has been decreasing year after year. As per the latest Eurostat numbers, in 2025, over six lakh asylum applications came through to EU nations, which is a decrease of 27% compared with 2024.

A familiar model

The United Kingdom, a former EU nation, under the conservative government of Rishi Sunak, had proposed a policy to deport asylum seekers to Rwanda, which has since been abolished by the present Keir Starmer government. However, the Sunak model was different in the sense that the then-U.K. government was proposing the direct transfer of all "illegal" asylum seekers to Rwanda, and then process their claims there. If the claim was approved, they could attain refugee status in Rwanda. None of them will have the right to return to the U.K.

In Italy, Ms. Meloni's government has already set up 'repatriation centres' for asylum seekers, intercepted at sea, in Albania. However, the local courts as well as the European Court of Justice have effectively blocked a number of refugee deportations on the premise that Italy's classification of what entails as a 'safe' country violates EU standards.

Now with the passing of the Return Regulation, EU member states such as Denmark, Germany, the Netherlands and Greece among others are actively looking abroad to strike deals with third-party countries.

The Human Rights Watch said that the new law shows "little regard for people's safety, dignity, and rights, and fails to uphold the EU's fundamental values. Instead of building a fair, functional, and humane return system, member states are advancing an approach that is narrowly punitive."

Most of the socialist and left-wing members of the European Parliament have argued that the new law undermines migrants' human rights. There have also been concerns regarding the well-being of migrants in such 'return hubs'. "This regulation risks normalising legally questionable practices that would have been unthinkable in the EU only a few years ago," said Ana Catarina Mendes, vice-president of the Socialists and Democrats group whose members largely voted against the regulation in the European Parliament.

HOW HERAT DEFIED THE TALIBAN REGIME, CHANTING 'WOMEN, WORK AND FREEDOM'

In June 2026, Herat became the site of Afghanistan's rare public protests against the Taliban, with both women and men marching together chanting "Women, Work and Freedom" — a slogan echoing Iran's 2022 "Woman, Life and Freedom" movement.

How it unfolded: On June 4, Herat's governor met with morality enforcers, reportedly planning a crackdown. The next day, after Friday prayers, Taliban officials announced arrests for dress code violations. Arrests began June 6 across several neighbourhoods, and by June 7, the UN confirmed at least 30 women in custody, with dozens more warned. On June 9, men and women protested together — the Taliban opened fire, killing at least two (reportedly including a child) and injuring over 20. Protesters returned on June 13 despite this.

The Sharia backdrop: Since retaking power in 2021, the Taliban has enforced a strict Deobandi-influenced interpretation of Sharia, departing from Afghanistan's traditionally more flexible Hanafi jurisprudence. Women face bans on secondary/higher education, work restrictions, and mandatory male guardianship for travel. A 2022 decree made the burqa the preferred hijab, later codified in 2024 into the Law on the Propagation of Virtue and Prevention of Vice, empowering morality police to detain and punish women over their appearance. Checkpoints have targeted women for wearing a manto instead of Taliban-approved black chador/burqa.

What made this protest different: Unlike earlier women-led demonstrations (e.g., against beauty salon closures), Herat saw Afghan men join in significant numbers — suggesting the issue is now seen as a burden on entire families, not just women.

Aftermath: Some detained women were released, but conditions inside detention remain unclear. The UN, UN Women, and UNAMA condemned the crackdown and excessive force, calling for detainee releases, though the Taliban shows no sign of changing course. While the protests themselves were small (70–150 people), they signal that discontent with Taliban rule is moving from private conversations into public defiance.

WHY ARE THERE PROTESTS IN POK?

The story so far:

Pakistan-occupied Kashmir (PoK) is again in the throes of civilian unrest as protests for economic justice and equitable political representation rage across the region. The Joint Awami Action Committee (JAAC), which called for the protests, has since been banned by the regional government, for "engaging in terrorism".

What is the JAAC and why did it call for protests?

The JAAC, an umbrella organisation of various civil society groups, trade bodies, students organisations and socio-religious groups based in PoK, was formed in 2023, out of protests against rising electricity tariffs and inflation. They brought out a 38-point Charter of Demands which included access to subsidised wheat flour, fair electricity pricing based on hydropower generation costs from the local Mangla dam, and the abolishment of the reservation of 12 seats for refugees in PoK's Legislative Assembly.

While the JAAC was given assurances regarding electricity tariffs, their "non-fulfillment" led to wider protests. In May 2024, the JAAC called for a march to Muzaffarabad over their demands, which led to the police arresting around 70 members of the organisation. Outrage against the arrests resulted in clashes between civilians and the police, leaving at least four dead and hundreds injured. In the wake of this violence, Pakistan Prime Minister Shehbaz Sharif approved the grant of a $86.25 million subsidy programme.

In October 2025, protests again emerged due to a breakdown of talks between officials and the JAAC. The ensuing violence killed at least 10 people. The government then agreed to some demands which included providing compensation for those killed in the violence, releasing funds for the implementation of health cards, and issuing a grant of PKR 10 billion for the improvement of the electricity system.

While it was also decided that a high-powered committee comprising legal and constitutional experts would deliberate on the issue of members of the PoK Assembly, the central question remained unaddressed.

How did the situation escalate?

Elections to the regional government of PoK have been scheduled for July 27. The JAAC announced that they would take out a protest march to Muzaffarabad, calling for an end to the reservation of the 12 refugee seats, on June 9 — the same day on which the filing of nominations for the elections was to begin.

In an effort to nip the march in the bud, the regional authorities banned the JAAC under a 2014 anti-terrorism law and placed a bounty for its most prominent leaders. They said the organisation had acted in a manner "prejudicial to peace and security" of the state. This led to widespread protests in various cities, particularly Mirpur, Rawalakot and Muzaffarabad, with police personnel clashing with civilian protesters.

On June 8, at least 11 people, including four police officers, were killed and dozens injured when regional authorities opened fire on activists and protesters gathered in Rawalakot for the funeral of a local trade activist who had been killed during an earlier protest.

While the proscribed JAAC has called for strikes, leaving life paralysed in the streets of Muzaffarabad, many parts of the region continue to witness violent clashes, with reports indicating that the death toll has crossed 30.

Regional authorities have deployed paramilitary troops in the region to restore law and order and have also issued a strict travel advisory urging visitors to avoid travelling to the region. Reports also say that Internet in the region has been severely restricted.

Why has the reservation of refugees become a flashpoint?

The political question regarding the 12 reserved refugee seats is at the heart of the protests. The regional Assembly of the PoK has a total of 53 seats. Of these, 45 seats are directly elected by the public (33 are elected by the general public while 12 seats are reserved for refugees). The remaining eight seats are reserved (five for women, one for a technocrat, one for a religious scholar and one is a diaspora seat) and are filled via nominations after the general elections.

The 12 reserved seats are for communities who migrated to Pakistan from Jammu and Kashmir during Partition. Over the years, these groups have integrated into Pakistani cities and polity. In fact, most of these 12 seats have often been won by political parties such as the Pakistan Peoples Party or the Pakistan Tehreek-e-Insaf. As the journalist Luv Puri writes, "...the 12 refugee seats account for around 4.36 lakh registered voters, while the remaining 33 directly elected seats in PoK have around 33 lakh voters. In effect, one refugee vote cast from Pakistan carries electoral weight far greater than that of a voter residing in PoK".

Pakistan maintains that PoK, or what it calls 'Azad Jammu and Kashmir', is an independent region with its own polity and that Pakistan supports its right to self-determination. At the same time, candidates who are elected to the regional Parliament have to sign loyalty oaths supporting the "cause of accession of the State of Jammu and Kashmir to Pakistan". This has led to questions regarding the undue influence of Islamabad in the regional politics of PoK.

In a further setback to such regional demands, on June 7, the Supreme Court of PoK observed that the 12 legislative seats reserved for refugees are constitutionally protected and cannot be abolished through administrative or executive measures; only a constitutional amendment can fulfil the demand to abolish refugee representation.

How have the Indian and Pakistani governments reacted?

On June 9, India asked the international community to hold Pakistan responsible for the civilian killings and human rights abuses in PoK. "There are reports of severe police brutality in Pakistan Occupied Kashmir in which several protesters have been killed and many injured. We hope the international community will hold Pakistan accountable for its misdeeds and abuses," said Ministry of External Affairs spokesperson Randhir Jaiswal during a press briefing. National Conference president Farooq Abdullah condemned the violence and demanded a probe by the United Nations into the incidents of atrocities.

Pakistan Foreign Office spokesperson Tahir Andrabi dismissed India's statements "in their entirety" and went on to state that "it is untenable" for a country like India which has "consistently denied the people of Jammu and Kashmir their right to self-determination to claim concerns over the rights of Kashmiris."

The unrest has also generated global outrage. Human rights groups such as Amnesty International stated that the regional administration's sweeping crackdown on protests is a continuation of the "alarming deterioration of human rights in the region".

On June 6, a group of nearly 30 British parliamentarians, in a letter to the U.K. Foreign Office, raised concerns over reports of communication disruptions, arrests, and "escalating tensions" in the PoK. They urged the British government to engage proactively and use diplomatic channels to encourage a peaceful de-escalation in the region.

NATIONAL

WHAT DOES THE INDIA-RUSSIA LOGISTICS AGREEMENT ALLOW?

The story so far:

The India-Russia bilateral Logistics Support Agreement (LSA), termed the Reciprocal Exchange of Logistics Agreement (RELOS), which had been dragging on for several years, was operationalised in January this year. There was a flutter on social media recently with claims that it allows the stationing of 3,000 Russian troops on Indian soil or vice versa, painting it as a military alliance. However, it is like any LSA, the likes of which India has signed with other countries.

What are Logistics Support Agreements?

A logistics agreement is a foundational military cooperation agreement between countries for administrative purposes that enables the reciprocal use of each other's bases and ports for supplies, repair, and fuel. The agreement also stipulates the occasions on which this can be utilised, generally for exercises, joint training, port calls, and Humanitarian Assistance and Disaster Relief situations. As defence cooperation and military-to-military engagement become vital in international relations, the agreement simplifies essential administrative procedures and reduces bureaucracy.

For instance, the agreement with the U.S., Logistics Exchange Memorandum of Agreement (LEMOA) signed in 2016, the first such, provides a framework for reciprocal provision of logistic support, supplies and services for activities such as joint exercises, training, or humanitarian assistance and disaster relief. "It does not provide for the establishment of any bases or basing arrangements," Minister of State for Defence Subhash Bhamre said in a written reply in the Parliament in February 2017.

If the hyperbole is to be believed, India and Russia can station troops on each other's territory, then by convention, it also means that India and the U.S. can do the same under the LEMOA. But that is grossly incorrect, as clarified by the Minister, and is so for any LSA.

What are the existing agreements?

India has signed a series of logistics support agreements since the LEMOA in 2016. Currently, India has similar agreements with nine countries — the U.S., the U.K., France, Vietnam, Japan, Australia, Singapore, and Russia — concluded on similar lines, which provide logistics support and technical aid. The basic template and purpose for all these remain the same. There is also one with Oman covered under the overarching defence cooperation agreement.

What is the agreement with Russia?

Like other agreements, RELOS defines procedures for supporting military formations, port calls of warships, and the use of airspace and airfield facilities by military aircraft of both countries and the organisation of logistics and technical support of military formations of warships, military aircraft, and other equipment.

The agreement was signed in Moscow on February 18, 2025, and Russian President Vladimir Putin signed the federal law ratifying it on December 15, 2025. According to the Kremlin, the purpose of the agreement is to define the procedures for the deployment of military formations, port calls by warships, and the use of airspace and airfield infrastructure by military aircraft of the two countries.

Broadly, RELOS covers joint military exercises, training, HADR missions, port and repair services, medical support, as well as delivery of food and technical resources and reciprocal access to military facilities, including airbases and ports, to support ship and aircraft personnel.

The agreement stipulates a maximum of 3,000 troops, representing a broad upper limit that takes into account the size of contingents and the number of ships or aircraft that may visit during engagements mutually agreed upon by both sides. It is valid for a period of five years, allowing for revisions later to reflect changing circumstances and requirements. The time frame for positioning of assets and personnel would be subject to the visit mutually agreed upon by both parties, one official said.

In fact, the scale of bilateral and multilateral relations between India and other countries is much larger. Indian armed forces exercise with the U.S. now.

Also, the agreement does not confer any provision for permanent basing of assets, and the agreement shall be exercised during joint exercises, port calls, or visits mutually agreed by both nations based on provisions of the agreement, officials clarified. “No permanent or long-term stationing has been agreed upon as part of the Agreement.”

One important aspect is that RELOS gives access to Russian military facilities in the Arctic as both countries expand cooperation there, as new navigation routes open up, a fallout of global warming.

INDIA AND SLOVAKIA EXPAND TIES WITH A SERIES OF MOUS FROM DEFENCE TO EDUCATION

INDIA AND Slovakia elevated their bilateral ties to “comprehensive partnership”, and signed pacts on labour migration, defence, digital technologies, higher education and research, quantum communication and student exchange programme with IIT Delhi after Prime Minister Narendra Modi’s meeting with his Slovak counterpart Robert Fico on Monday.

Key Takeaways:

• The comprehensive partnership aims to take bilateral relations to a new level, strengthen existing cooperation mechanisms and explore new avenues for deepening cooperation, both bilaterally and multilaterally, the joint statement said.

• After meeting PM Fico in Slovakia’s capital Bratislava, Modi said, “India and Slovakia are also moving forward in close coordination on the global stage. We agree that all disputes and tensions should be resolved peacefully. We will continue to work together with all partners in this direction.” This was a reference to the Russia-Ukraine war, which has been ongoing in Slovakia’s neighbourhood for more than four years now.

• The two sides also established a joint working group in counter-terrorism and a consular dialogue. Modi’s visit is the first by an Indian PM to Slovakia since its independence in 1993.

Do You Know:

• PM Modi is on an official visit to Slovakia, becoming the first Indian Prime Minister to visit the country since it became an independent nation following the dissolution of Czechoslovakia in 1993.

• During the visit, India and Slovakia elevated bilateral ties to a "comprehensive partnership" and signed 11 agreements aimed at strengthening cooperation across several sectors, including migration, digital technology and defence. The agreements were finalised following extensive discussions between the two sides on expanding strategic and economic collaboration.

75 YEARS ON, THE FIRST AMENDMENT STILL CASTS A LONG SHADOW

Tripurdaman Singh Writes-The consequences of the First Amendment have been far from benign. It dealt a crushing blow to the nascent forces of Indian liberalism, creating the constitutional plumbing for a vast armoury of repressive and coercive laws, including sedition.

Key Takeaways:

• June 18, 2026, will mark 75 years since Rajendra Prasad gave his reluctant assent to the First Amendment — a "seismic shift" in India's constitutional architecture, the aftermath of which the country's pre-eminent legal scholar Upendra Baxi labelled the "Second Constitution". Few seemed to have recalled the grim events of 1951, but it was a moment that continues to course through the nation's body politic, and one that has had profound and deleterious effects on its democracy and constitutional order.

• On January 26, 1950, the Republic of India, described by the Oxford don Kenneth Wheare as the world's greatest experiment in democratic government, was inaugurated to great acclaim. Many had considered it an impossibility: Clement Attlee had even cautioned Jawaharlal Nehru against it, calling republicanism of the kind India was contemplating an alien import from Europe.

• At the heart of this transition lay the country's new constitution, containing what The New York Times approvingly termed "the most detailed document of fundamental rights found anywhere," widely seen to reflect India turning the page on its colonial past and taking a giant step towards a liberal new future.

• It was a future that failed to materialise as imagined. By early 1951, the Nehru government had pronounced the Constitution to be the chief impediment in the way of its social policy and a stumbling block on the way to progress. The "magnificent Constitution" had, as he declared, been "kidnapped and purloined by lawyers". How had such a situation arisen? Three key legal battles fought around three key fundamental rights — the right to freedom of speech, the right to freedom from discrimination, and the right to property — shaped Nehru's assessment.

• Government attempts to censor the Organiser (a scathing critic of its purported indifference towards the plight of refugees from East Bengal) and Cross Roads (a left-leaning weekly harshly criticising the brutal treatment of communist detainees) had been countermanded by the Supreme Court, which had also found the underlying legislation to be unconstitutional, knocking, to quote Sardar Patel, the bottom out of the laws used to control the press.

• In Madras, where a woman named Champakam Dorairajan had challenged the existing policy of strict caste and community-based quotas, the High Court had found that religion, race, and caste could not be a basis for admissions to educational institutions and that reservation beyond those provided to the Scheduled Castes and Tribes were thus violative of the right to freedom from discrimination.

• The Patna High Court had struck the final blow in March 1951 when it held the Bihar Land Reform Act to be unconstitutional. Interestingly, rather than the right to property (as many had feared), it was the right to equality that proved to be the Act's undoing: The sliding scale of compensation it prescribed, where the rate went down as the size of the land parcel went up, was the culprit.

Do You Know:

• The consequences of the First Amendment have been far from benign. It dealt a crushing blow to the nascent forces of Indian liberalism, creating the constitutional plumbing for a vast armoury of repressive and coercive laws, including sedition. Moreover, it established the terrible precedent of retrospectively amending the Constitution to overcome adverse judicial pronouncements.

• The cavalier disregard for democratic propriety established a pattern for future egregiousness. Political power triumphed over constitutional order, eroding democratic norms even before the ink had dried on the original Constitution.

• Disdain for civil liberties; prioritising the needs of the state; an aversion to public criticism cloaked in the language of "fake news" and "subversive activities"; a brute parliamentary majority riding roughshod over the protestations of the Opposition and civil society; a government agenda and party ideology elevated above fundamental rights; the claim that the wishes of the legislature should enjoy primacy over constitutional principles: The resonances with the contemporary world are more than semantic. Yet, there seems to be little inclination to register its 75th anniversary or revisit the long shadow it has cast on Indian democracy. Neither by its original supporters, now on the receiving end of the legal architecture it helped create, nor its original opponents, its prime targets now ensconced in the ruling establishment.

WHY DID THE SC QUANTIFY LABOUR OF HOMEMAKERS?

The story so far:

The Supreme Court on June 11 held that the unpaid domestic labour performed by homemakers must be assigned an independent economic value while determining compensation in motor accident death cases. It fixed a minimum notional income of ₹30,000 per month for this purpose. Observing that homemakers are "nation builders", a Bench of Justices Sanjay Karol and N. Kotiswar Singh created a distinct head of compensation called "loss of domestic care" in motor accident claims and mandated a 10% increase in this amount every three years.

What was the dispute?

The ruling came in an appeal arising from a motor accident claim in Punjab. Following the death of a woman named Reshma in a road accident in November 2001, her husband and three children approached the Motor Accident Claims Tribunal (MACT) seeking compensation. In December 2003, the Tribunal awarded ₹2.42 lakh in compensation. Dissatisfied, the family moved the Punjab and Haryana High Court. In December 2024, the High Court enhanced the compensation to ₹8.43 lakh, along with interest at 7.5% from the date of filing of the claim petition. It said that if the amount was not paid within three months, the interest rate would be enhanced to 9% per annum, and to 12% per annum if payment was delayed beyond six months. Still aggrieved by the amount awarded, the family approached the apex court.

What directions were issued to expedite compensation claims?

The Supreme Court pointed out that motor accident compensation claims often remain embroiled in litigation for years. It said the average pendency of such cases is around six years before MACTs and eight years before High Courts. It held that compensation appeals should not remain pending in High Courts for more than four years and emphasised that adjournments should be granted only for genuine reasons. Observing that the welfare-oriented objective of the Motor Vehicles Act, 1988, is frustrated when compensation claims remain pending for years, the Court directed the Chief Justices of all High Courts to accord priority to older motor accident compensation appeals and assess the need for additional Benches to expedite their disposal.

How did the Court quantify unpaid domestic labour?

The Court held that in cases involving the death of a homemaker, tribunals and courts should award an additional amount of ₹30,000 per month under the head of "loss of domestic care". The amount, it said, would serve as a minimum benchmark to offset the inherent disadvantage faced by homemakers when compensation is assessed on the basis of a conservatively determined notional income. The Bench clarified that the ₹30,000 figure is to be treated as a "stand-in" monthly income in cases where the homemaker does not have a direct monetary contribution to the household, and directed that it be enhanced by 10%, on a cumulative basis, every three years. Where the homemaker is also part of the workforce, compensation under this head would be awarded in addition to any proven income.

The ruling pointed out that routine household tasks performed by homemakers, such as cooking, cleaning, and caregiving, play a vital role in supporting the paid workforce and enabling economic productivity. Yet, these contributions are rarely accounted for in conventional economic indicators such as GDP. The Bench described homemakers as the architects of India's "human capital", observing that they lay the foundation stones on which the edifices of "high-flying business persons, successful politicians, headlining artists, and sought-after lawyers" are built.

The Court enhanced the compensation payable to the deceased's family to ₹62.78 lakh, holding that the award must reflect not only her contribution to the household but also the loss of maternal care, spousal companionship, and the care and assistance that would have been available to other dependent family members.

What are the implications?

The ruling does not spell out any specific mathematical or empirical basis for arriving at the ₹30,000 figure, though it acknowledges that "strict arithmetic calculation" cannot fully capture the economic, social, and nation-building role of homemakers. While the Court has previously cautioned against treating homemakers' services as having no economic value merely because they do not generate a formal income, this is the first time it has prescribed a concrete minimum benchmark for assessing the loss of domestic care.

STEP FORWARD

The Supreme Court's judgment in Shishupal @Shish Ram vs Surjeet by a Division Bench of Justices Sanjay Karol and N.K. Singh, is likely a landmark. The ruling originated as the Court revised compensation granted by the Motor Accident Claims Tribunal (MACT) for a road accident in 2001. The first MACT awarded the family of Reshma, the accident victim, ₹2.42 lakh, which the Punjab and Haryana High Court revised in 2024 to ₹8.43 lakh. But in its order, the Court revised it to ₹62.78 lakh after attaching a sum of ₹30,000 a month to Ms. Reshma's 'economic value', for the service she rendered as a homemaker. The ruling is not surprising. In Lata Wadhwa (2001), the Court valued a homemaker's services at a modest ₹3,000. In Kirti vs Oriental Insurance (2021), it said the economic value of a homemaker's work cannot be discounted simply because it is unpaid or performed by women. However, the 'official' value attached to that work has suffered from inconsistent quantification. The Bench's value of ₹30,000 a month is itself notional and a floor; it added that the floor must be hiked by 10% every three years and a woman's salary, where applicable, has to be added to the floor, in the context of MACT's claims. The judgment does not create a salary, wage entitlement, pension scheme or employment relationship for homemakers, and applies to compensation calculations in MACT cases only. That said, the now-normalised societal tendency to undervalue women's work means that any advance is valuable and will likely have ripple effects.

The connection between unpaid domestic labour and suppressed female labour force participation is a major theme in contemporary Indian labour economics. Now, for example, homemakers seeking maintenance under the Hindu Marriage Act, say, have judicial reasoning supporting the economic value of their domestic work. Rural women who "assist in sowing, harvesting, and cattle-tending", as the Court noted, can now invoke the Court's reasoning to pitch to have their labour, which is often treated as being incidental to household work, valued higher. The additive rule may encourage litigants to invoke similar reasoning in employment disputes vis-à-vis 'work from home' arrangements and domestic responsibilities. Future litigation may test whether male homemakers can claim equivalent treatment. Motor insurance is already a low-margin segment for many insurers, and a large increase in the average claim size — likely applied retrospectively as well — may force companies to reassess their risk models and render them more inclined to settle claims quickly in Lok Adalats. All said, the Shishupal judgment is a vital corrective to decades of economic erasure.

RIGHT OF WAY

As part of the Supreme Court's expansion of Article 21 since the 1970s, it has declared the right to walk on demarcated footpaths a fundamental right. The Bench of Justices P.S. Narasimha and Atul S. Chandurkar reaffirmed the right in a case seeking higher compensation for a five-year-old boy's death after being struck and killed by a tanker lorry in Karnataka. As motorised transport has become more widespread, the Bench noted with regret that walking has become an inconvenience, with motorists often treating pedestrians as a 'nuisance' to be tolerated or cleared. In the absence of a national law governing pedestrian rights, responsibility for pedestrian safety is split across municipal laws, town-planning statutes, and street design guidelines. As such, pedestrians are considered to be safe if they face no immediate physical harm. Most cities also lack continuous unobstructed footpaths; where footpaths do exist, they are often encroached on by parking, vendors, utilities, and construction debris, and competing pressures such as road widening work.

While a right to walk is desirable, the ideas that pavements belong to pedestrians and that they have right of way should be cultural in order to endure. Rights-based legislation in India that has sought to change public culture has had mixed success. The Street Vendors Act 2014 sought to protect vendors from harassment as under Article 19(1)(g). But in most cities, municipalities still conduct "eviction drives" while implementation has lagged because the Act requires surveys, town vending committees, and the demarcation of vending zones — processes that many urban local bodies have delayed or simply abandoned. Weak implementation has allowed informal rent-seeking by officials to persist in some cases. The new judgment is also likely to set up disputes with the 2014 Act. Second, the Cigarettes and Other Tobacco Products Act 2003 curtailed public smoking over 20 years, but not by "restitutionary remedies", as the Court has suggested for walking, but with consistent social messaging and small, immediate fines. Finally, despite strict laws and 'Swachh Bharat' mandates, the culture of littering remains because the law focuses on citizens' duty to segregate whereas the state has often overlooked its duty to collect segregated waste. Similarly, if the state does not build footpaths, the citizen's right will be meaningless. The Court's constitutional nudge may thus lead to no real change if it remains a legal tool for compensation after a tragedy. A state using it to 'cleanse' streets of informal commercial activity could also gentrify these public spaces and criminalise the survival of the urban poor. The nudge's principal path to success will be by moving the state's funds towards pedestrian infrastructure.

PEACE WITH PEACE

In Chander Pal Singh, a matter involving preventive proceedings, the Allahabad High Court has simultaneously addressed a part of the criminal justice system that often receives less attention than ordinary criminal proceedings and the more overbearing reality of mechanisms designed to avert disturbances having gradually become instruments to deprive people of liberty. The state has the power to intervene before a crime occurs if it is reasonably apprehensive that a person is a threat to public order. However, it has acquired a habit of exercising that power routinely, resulting in detentions without any substantive criminal charge. The High Court's order was based, the Bench said, on a "highly irresponsible" deprivation of personal liberties in Uttar Pradesh, where police officers and executive magistrates were using preventive powers to incarcerate individuals on the basis of arguably minor apprehensions. In Chander Pal Singh as well, the petitioner, a physically challenged Dalit advocate, had been arrested over a petty dispute with a neighbour. The Bench said that between May 2025 and April 2026, around 2,500 people were reportedly subjected to preventive detention proceedings in Ghaziabad, despite a 2021 State policy to guide the exercise of such powers.

The guidelines in response are commendable; if implemented appropriately, they could reduce the use of preventive incarceration in neighbourhood and property disputes; require executive magistrates to justify their decisions; encourage constitutional challenges to unlawful preventive detention; and generate appellate scrutiny of the compensation framework. They may also snap at the heels of magistrates who cite unspecified "communal tensions" to jail protesters and who impose prohibitively unaffordable bonds for release. Further, even if the ruling does not directly impinge on the detention of activist Sonam Wangchuk under the NSA, it critiques the idea of using the excuse of maintaining peace to silence dissent and reminds the state that it still has a responsibility to maintain peace with peace. The ruling may also apply to workers and activists recently detained in New Delhi if held under Sections 126 or 170 of the BNSS without valid grounds. That said, implementing the ruling will be difficult. The Bench said that compensation for unlawful detention can be recovered from the salary of the magistrate concerned and/or police officer following a disciplinary hearing. However, the executive has been historically reluctant to penalise its personnel. Second, executive magistrates are part of the State administration and their careers may depend on maintaining 'peace' as the State defines it. Addressing these barriers could reform preventive proceedings in India.

SERIES OF GAPS

Child sexual abuse in India remains persistently under-reported and the state response to it has shown up trenchant systemic inefficiencies. In over 90% of cases, including the recent Sulur case in Coimbatore in which a charge sheet was filed last week, the threat to a child is from within the family's trusted circles. Public imagination often fixates on predatory strangers, which is not conducive to helping families and communities identify a risk in time. Migrant and working-class communities are especially at risk as they are less integrated in local protective social networks. Second, abandoned industrial sites and poorly maintained common land tend to become crime scenes. But despite the 'Safe City' project and the recognition of child-friendly urban development paradigms, urban redesign still focuses on core areas of major metros. The social safety dimensions of urban wetland restoration, like that of the Noyyal river, are often overlooked as well. Next, while POCSO trials are required to conclude within a year of the special court taking cognisance, POCSO courts face an 89% pendency rate and conviction rates have historically ranged between 3% and 30%, undermining confidence in the police and judiciary. The Sulur case prompted promises of swift action, but this is only one case; systemic reforms to protect vulnerable children remain elusive. In 2024, the NCRB recorded 69,191 POCSO cases involving more than 70,000 child victims.

Public distrust discourages residents from reporting suspicions and encourages families fearing police apathy to search for missing children themselves, potentially allowing the perpetrators to hide evidence or flee. Ultimately, when the state fails to deliver due punishment, the people perceive the police to be a bureaucratic hurdle, leaving children more vulnerable. Repeatedly strengthening penalties merely suppresses reporting in most cases where the offender is familiar. Even the 2018 and 2019 amendments to the POCSO Act reacted to public outrage rather than considered evidence and focused on harsher punishments. Both comprehensive longitudinal data on recidivism and analyses of whether harsher legal penalties are effective deterrents remain scarce. While data collection has improved, the Ministry of Women and Child Development has noted that qualitative analyses of acquittals rarely inform policy changes. Finally, survivors and families face secondary victimisation from insensitive administrative responses and media reports. Together with the lack of policing informed by trauma response and stigma, true safety continues to evade thousands of children leaving them vulnerable to a cycle of unreported and unpunished violence.

DEFECTION AS MERGER

There is something deeply troubling about the wave of defections sweeping India's elected representatives, Members of Parliament chief among them. In the latest episode, six Shiv Sena (UBT) MPs are seeking to join the Eknath Shinde faction of the Sena, which emerged after an earlier split in the parent party. This group constitutes exactly two-thirds of the party's Lok Sabha strength, giving them the escape route that their crossover will constitute a merger under the Tenth Schedule of the Constitution, or the anti-defection law. Under the Tenth Schedule, a member can be disqualified if they voluntarily resign from their party or defy a party whip during a division of votes in the House. In 2003, the law was strengthened by an amendment that removed the earlier "split" provision — which had allowed one-third of a party's members to defect without penalty — and retained only the "merger" exception, under which disqualification does not apply if two-thirds of a party's legislators agree to merge with another party. Engineered splits are now dressed up as mergers, letting groups defect without inviting disqualification. The legal validity of such claims is itself contested, as the Supreme Court of India has, in a past judgment, made clear that a merger cannot be of the legislature party alone, and must involve the parent party as well.

With the Court holding back judgments on several constitutional questions related to this, presiding officers keep waving through such stretched claims — and the practice keeps gathering pace. The Sena splintering follows close on the heels of the TMC rebellion. A rebel group claiming the support of 20 of the TMC's 28 Lok Sabha MPs — led by four-time MP Kakoli Ghosh Dastidar — has aligned itself with the BJP-led NDA, seeking a merger with another party. In April, AAP MPs in the Rajya Sabha had joined the BJP, reducing AAP's Rajya Sabha strength from 10 to three. Now, three TMC members of the Rajya Sabha, Sukhendu Sekhar Ray, Sushmita Dev and Prakash Chik Baraik, have resigned. For all practical purposes, the Tenth Schedule has become redundant and irrelevant, as the Court keeps key decisions pending. The surge in these crossovers, which has the cumulative effect of increasing the strength of the ruling NDA in the Lok Sabha and the Rajya Sabha, raises questions beyond technicalities. At present, the NDA does not have the two-thirds majority in Parliament needed to pass constitutional amendments. The threshold of two-thirds for constitutional amendments is kept high to ensure a wide political consensus. Bypassing that intent through defections — whatever name they go by — is an affront to representative democracy and the spirit of the Constitution.

WHAT DOES TENTH SCHEDULE PROVIDE ON PARTY MERGERS?

The story so far:

As many as 20 rebel Trinamool Congress MPs met the Lok Sabha Speaker and announced their decision to merge with Nationalist Citizens Party of India (NCPI). This has raised issues about the interpretation of Tenth Schedule with respect to merger of political parties.

What is the origin of Tenth Schedule?

The defections of legislators during 1960s and 70s from their parent parties created political instability in many States bringing down elected governments. This prompted the 52nd constitutional amendment to introduce the 'anti-defection' law through the Tenth Schedule in 1985. This Schedule provides that a member of a House of Parliament or State legislature who voluntarily gives up the membership of their 'political party' or votes against the instructions of their party in a House are liable for disqualification from such House. The 'political party' is the entire organisation of a party, while the 'legislature party' is all the members of a political party in a House of Parliament or State legislature.

The Tenth Schedule originally had two exceptions that would not render the members liable for disqualification viz., one-third of members of the 'legislature party' splitting to form a separate group (paragraph 3), or a merger of their 'political party' with another party that is approved by two-thirds of the members of its 'legislature party' (paragraph 4). However, considering the need to strengthen the 'anti-defection' law, paragraph 3 was omitted in 2003.

With the deletion of paragraph 3, there have been instances of two-third members of a legislature party 'practically' defecting but claiming to be the original political party in order to escape disqualification. This happened in the case of Shiv Sena and Nationalist Congress Party in June 2022 and July 2023 respectively.

There have also been instances where more than two-third members of a 'legislature party' in a house have merged themselves with another political party to escape disqualification. This happened in September 2019 (in Rajasthan) when all 6 Bahujan Samajwadi Party MLAs merged themselves with the Congress and in September 2022 (in Goa) when 8 out of the 11 Congress MLAs merged themselves with the BJP. The Bombay High Court upheld the merger of Goa's Congress Legislature Party with the BJP, though an appeal is pending in the apex court. A similar move occurred in April 2026 when 7 of 10 AAP Rajya Sabha MPs merged with the BJP.

What is the present case in Bengal?

After the recent West Bengal polls, around 60 of the 80 MLAs elected from Trinamool Congress formed a separate faction led by Ritabrata Banerjee, who was recognised as the Leader of Opposition in the State Assembly even after the party expelled him. Meanwhile, 20 of the 28 Lok Sabha MPs have submitted their decision to the Lok Sabha Speaker to merge themselves with the NCPI. Their claim is that they constitute two-thirds of the legislature party and are hence authorised to take this step under the provisions of the Tenth Schedule without attracting disqualification.

What may be way forward?

A plain reading of the Tenth Schedule allows only for merger of a political party with another party that is approved by two-thirds of its legislature party. It does not authorise two-thirds of the legislature party in a house to merge itself with another political party to claim immunity from defection. However, in the recent instance with respect to proposed merger of Trinamool Lok Sabha MPs with NCPI as well as the merger of Rajya Sabha MPs of AAP with the BJP, this is what has happened. It is also subject to interpretation whether a merger of an 'original political party' can happen only with another political party that already has members in the legislative house. Moreover, the authority to decide on the disqualification of members is vested in the Speaker or Chairman. While they are expected to perform this constitutional role impartially, the presiding officers have often favoured the ruling dispensation. The Supreme Court in K. M. Singh case in 2020, recommended that the Parliament amend the Constitution to vest these powers in an independent tribunal headed by judges.

An authoritative Supreme Court judgement in the matters of merger and setting up of an independent tribunal to decide on disqualification may reduce the ambiguities surrounding the Tenth Schedule. However, it may not prevent the ingenious methods adopted by political parties to circumvent the Tenth Schedule. Any such manoeuvres may be viewed as a betrayal of the electorate by the elected representatives. A stricter measure, as recommended by the Law commission in 1999, could be to amend the Tenth Schedule and delete paragraph 4 that provides exemption from disqualification for merger of political parties. Any action by elected members of a legislature party against their political party should lead to disqualification that results in seeking fresh mandate from the people.

POLITICS OVER PEOPLE

In constituting a panel to study demographic changes in India, the Centre was guided by a paranoid mindset that saw devious conspiracies everywhere. The move gave shape and substance to a thought expressed by Home Minister Amit Shah: "unnatural demographic change" is a "very significant challenge to the present and future of any nation". In his Independence Day address in 2025, Prime Minister Narendra Modi announced the proposal, characterising illegal infiltration as a "premeditated conspiracy" to alter India's demography. The committee, chaired by retired Supreme Court judge Justice P.P. Naolekar, is to assess demographic changes, examine patterns of abnormal population shifts among religious and social communities, and recommend a time-bound solution. Mr. Shah linked demographic changes not only to sovereignty but also to national security, law and order, "profound changes in social structure and the preservation of tribal society". According to the government, demographic shifts have affected public service delivery, local governance, resource distribution and social cohesion, and Justice Naolekar has said that the panel will also formulate a system for the custody and deportation of infiltrators.

It is indeed true that the management of population dynamics is a key instrument of governance. On June 14, Switzerland held a referendum and rejected a proposal to cap the country's population at 10 million. Across the world, immigration has become contentious, with unregulated cross-border movement seen as a challenge to sovereignty. Population management, however, is not entirely about illegal infiltration, and securitising demographic trends at the cost of all adjacent factors could do more harm than good. As the recent experience with the SIR of electoral rolls shows, facts about people would be seen as valid only to the extent that these are established through documentation. If this exercise creates a large stateless population with no country willing to accept them, it could result in a demographic deadlock rather than a solution. The fear of communal profiling of Muslims is real, and the Centre should also seriously consider whether the human costs are worth it. India faces major demographic challenges. Rising life expectancy and falling birth rates are changing the composition of India's population. There are concerns of India losing its demographic dividend, as the quality of education and health, and the evolving dynamics of work, remain very challenging. Migration continues to shape India's trajectory. Partition created three sovereign countries out of a geographical and cultural continuum, and its legacy included voluntary and involuntary movement of people. Sensitivity and a long-term view should guide India's demographic governance.

EXAM FAILURES RUN DEEPER THAN TELEGRAM

The government's decision to temporarily block Telegram ahead of the re-conducted National Eligibility Cum Entrance Test (NEET) to medical institutions is an ill-thought-out move. Investigators probing the May 3 exam fiasco believe that the messaging app was used to circulate leaked papers. The National Testing Agency (NTA) — which conducts NEET and other important examinations — has argued that fraudsters were exploiting the platform to spread misinformation. Acting on its recommendation, the government has directed Telegram to disable message-editing features allegedly used to create fake evidence of paper leaks. The NTA's argument may well be valid. Identifying where the illicit papers appeared is important. But the more crucial question is how this subterfuge escaped scrutiny in the first place. As investigations into last month's leak have indicated, the roots of the illegal activity lie in the chain of custody which governs the setting, printing, transportation and distribution of the NEET papers. Proscribing one platform will not eliminate these underlying vulnerabilities.

In the aftermath of last month's exam cancellation, the government has taken some meaningful steps. It has strengthened coordination between the NTA, cybercrime units, and law enforcement agencies. Investigative agencies have widened inquiries into the paper mafia, and law enforcers have clamped down on networks allegedly involved in circulating leaked materials. These targeted actions need to be expanded and given institutional heft. In contrast, the ban on Telegram is a blunt measure that could inconvenience a large section of people. With an estimated 150 million users, the platform is second only to Meta's WhatsApp in reach. The stringent measures against the messaging app, therefore, speak of executive overreach and go against the principles of proportionality.

In the past two decades, repeated instances of malpractice have raised questions over the examination system's integrity. Last month's failure was the second controversy over the medical entrance test in two years. The Radhakrishnan Committee, appointed by the government on the SC's nudge — after the 2024 examinations were roiled by allegations of irregularities — recommended strengthening the NTA's accountability mechanism. The agency's use of private vendors has drawn criticism from parliamentary panels. Experts are unanimous about the importance of sustained vigilance in making the system foolproof. As the Radhakrishnan Committee underlined, safeguarding the sanctity of examinations should be a continuous process. The government's imperative, in other words, should not just be to secure the NEET examination on June 21, but all entrance and job application tests. By picking on Telegram, it appears to be lapsing into a familiar failing — treating the NEET cancellation as an isolated case, and not a symptom of a broken system.

PUNJAB CAN ILL AFFORD A RELIGIOUS FLASHPOINT

The Akal Takht, the highest temporal seat of the Sikhs, added a new dimension to Punjab politics on Monday by declaring Chief Minister Bhagwant Mann a "Guru dokhi" (anti-Guru) and "Khalsa Panth virodhi" (opposed to the Khalsa Panth) over an alleged sacrilege video. It directed "Nanak Naam Leva Sikhs" to refrain from socialising with him. The controversy centres on a video that surfaced earlier this year, which Mann had claimed was fabricated. However, Acting Akal Takht Jathedar Kuldeep Singh Gargaj said that forensic examinations found no evidence of tampering. Mann has rejected the finding and insisted that he is not the person seen in the video. The Punjab CM has accused Shiromani Akali Dal leader Sukhbir Singh Badal of orchestrating a campaign to malign him.

Religious edicts have often intersected with politics in Punjab. In 2024, Badal himself was declared a "tankhaiya" (religious sinner) after a highly publicised proceeding before the Akal Takht. Yet, the timing of the latest directive is significant. It comes days after AAP national convener Arvind Kejriwal projected Mann as the party's CM face for the next Assembly elections. Sacrilege has assumed political overtones in recent times — the emotionally charged issue contributed to the Akali Dal's defeat in 2017 and its subsequent decline. The debate has intensified after the enactment of the Jagat Jot Sri Guru Granth Sahib Satkar (Amendment) Act, 2026, which expands the definition of sacrilege and prescribes stringent penalties. At the same time, AAP has renewed its criticism of the Akali Dal's handling of the 2015 sacrilege cases and the police firing on protesters that resulted in two deaths.

While Mann's supporters may dismiss it, the directive provides his opponents, especially the Akali Dal, with fresh political ammunition against the government. Attention is now focussed on how the CM will respond. Will he appear before the Akal Takht, particularly after Sikh ministers and legislators were summoned on June 29 over the enactment of the anti-sacrilege law without consultation with Sikh religious institutions? Punjab can ill afford a prolonged political-religious confrontation. The border state faces challenges such as drug abuse, rising gangsterism and economic stress. Governance and development should hold centre stage in Punjab's politics, rather than controversies that deepen divisions.

FOR PEOPLE FROM NORTHEAST INDIA, AN UNFINISHED FIGHT AGAINST PREJUDICE

Over 10 years after the Delhi Police established a specialised cell in an effort to crack down on racially motivated crimes against people from Northeast India, the numbers tell a dismal story. As reported in this newspaper, only 33 cases out of the 2,656 FIRs filed between 2014 and 2026 have resulted in convictions. More than half of those accused have remained "untraced". This glacial progress stands in stark contrast to the continuing experience of discrimination faced by people from the Northeast; earlier this year, two women from Assam reported being assaulted and subjected to racist slurs in Nehru Place, and three women from Arunachal Pradesh complained about racist abuse from neighbours in Malviya Nagar.

The persistence of such complaints, combined with the poor rate of progress on reported crimes, point to serious shortfalls in existing mechanisms. Earlier this year, the Union Home Ministry urged cities across the National Capital Region to appoint nodal officers to address racism faced by people from the Northeast. Delhi already has a nodal officer at the rank of joint commissioner who is responsible for coordinating with its 15 police districts. Gurugram, too, has a helpline that is handled by an officer of the deputy commissioner rank. What is missing is awareness, leading to a culture of impunity and a deepening trust deficit between law enforcement and affected communities.

All too often, as youth from the Northeast, like their counterparts from elsewhere in India, move to different parts of the country for education and jobs, they find their experiences being shaped by slurs and suspicion, housing and employment discrimination, even violence. In 2014, the M P Bezbaruah Committee, formed after the killing in Delhi of 19-year-old Nido Taniam from Arunachal Pradesh, warned that only time-bound action against racial crime would keep the prejudice from festering and fuelling the "already strong feeling of alienation" among youth from the Northeast. Yet, it takes a tragedy — like the stabbing of 24-year-old Anjel Chakma from Tripura in Dehradun last year — to acknowledge the cost of ignoring these faultlines. Outrage can serve as a necessary driver of urgency, but it's not a substitute for the granular work of better outreach, sensitisation of police personnel to diversity and greater transparency and accountability.

SOON, POLICE MAY SCAN YOUR FINGERPRINTS ON THE GO

Police and investigating agencies across the country will soon be equipped with portable fingerprint scanners linked to a national database of 1.3 crore criminal suspects and convicts, letting them stop individuals anywhere, even on the streets, to collect thumb impressions and instantly check for any pending criminal records on their smartphones.

Abhigyan, an app developed by the National Crime Records Bureau (NCRB) to implement the procedure, was launched by Home Minister Amit Shah on Friday.

The app links to the National Automated Fingerprint Identification System (NAFIS), which stores fingerprint scans of accused, convicts, and those in prisons.

A demonstration of the app showed that prints can be matched with the NAFIS database in 35 seconds.

"During routine vehicle checks on the streets, biometric scans of any suspicious individual can be conducted to identify persons wanted in connection with crimes. Field officers can get the criminal history of the suspect in few seconds. This will provide protection to the police as they will be alerted of the presence of a hardened criminal," the demo stated.

An NCRB official told The Hindu that the Criminal Procedure Identification Act, 2022 provides the legal basis for such checks. However, Section 3 of the Act seems to limit the mandatory recording of measurements, including fingerprints, to people who have been convicted or arrested, and those ordered to give security for good behaviour or maintaining peace under the Code of Criminal Procedure, 1973.

The Act does not mention the possibility of random testing of individuals without any evidence linking them to a punishable offence.

Current system

At present, the facility to check fingerprints against the NAFIS database is only available through 1,556 workstations deployed at police stations and district headquarters across the country.

The current process involves bringing an individual to the workstation to match his or her fingerprints with the database.

Mr. Shah said that the app enables field police personnel to access a vast repository of criminal records directly on their smartphones. "Secured with two-step authentication, it allows real-time fingerprint identification within seconds, strengthening ground-level policing. Equipped with features such as fast identification, portability, and access to millions of records, 'Abhigyan' is a highly powerful tool," the Minister said.

The NAFIS database includes the records of around 9.91 lakh narcotics offenders, 3.65 lakh human trafficking cases, and extensive prison databases, Mr. Shah said.

NAFIS should not be used merely to identify offenders, he said, noting that its effectiveness depends on continuously enriching the database by uploading fingerprints collected from every crime scene. He noted that a criminal's DNA sample, if properly preserved, can also be used in the investigation of other crimes, adding that this is primarily the responsibility of the States.

The focus should not be limited merely to the arrest of criminals but on time-bound justice, the Home Minister said added.

SOCIAL MEDIA, VIDEO PLATFORMS SURPASS TRADITIONAL OUTLETS AS LEADING NEWS SOURCES: REPORT

Trust in news is at its lowest level globally since 2015, as interest in news dwindles; at the same time, more people around the world are accessing news through third-party platforms, such as social media and video networks, rather than through websites and television channels of established news brands, according to the 15th edition of the Reuters Institute's Digital News Report.

The report, produced in collaboration with the Asian College of Journalism, Chennai, is based on an online survey of nearly one lakh people across 48 markets worldwide.

Consumption patterns have changed, the study found, with audiences' growing disengagement with news; even so, trust in established news brands and support for the idea of impartial news persist.

However, globally, social media and video networks — Facebook, Instagram, TikTok, and YouTube — have overtaken news organisations' own websites and apps as the most widely used means of accessing news.

The proportion of people using social media and video networks as their primary source of news has also risen; while this trend is more evident among younger audiences, it is prevalent across all age groups, the study found.

It also found that the younger generations are unlikely to acquire the news habits of their parents, such as reading a newspaper.

In fact, older audiences are moving towards the consumption habits of younger audiences, the study found.

There has also been a rise in the use of AI chatbots as a means of accessing news, the study found, with 10% of respondents globally now using them. This is especially true among audiences below 35 years of age.

Less trust in news

Paradoxically, while traditional news sources decline amid the emergence of platforms, people are also more concerned about misinformation and put less trust in the news they come across.

There has been a marked rise in the consumption of online news videos. The study found that 77% of its global sample consume online news videos every week.

These people are, however, consuming them not on news websites or apps but on third-party platforms such as YouTube, Instagram, TikTok, and Facebook.

PRIVATE SCHOOLS, PRICEY COACHING, FAMILY BUSINESS, MNC JOBS: THEY ALSO CRACKED EWS LIST IN UPSC EXAM

• There were 104 candidates selected in the Civil Services Examination 2025 under the 10 per cent quota for the Economically Weaker Section (EWS) — those from general category families with an annual income of less than Rs 8 lakh. An investigation by The Indian Express has found a gap between the scheme's stated purpose and the profiles of many it has come to benefit.

• The successful candidates include those whose presence affirms the scheme's effectiveness as a stepping stone for the poor — from the son of a security guard to the daughter of a railway porter and the son of a bus conductor.

• However, there are also those on the list whose presence raises questions on their eligibility and has prompted a debate within sections of the Union Public Service Commission on the need to tighten the rules or ensure more robust due diligence.

• The investigation reveals that a significant number of successful EWS candidates in 2025 attended well-known civil services coaching institutes (64.4 per cent); underwent private schooling (44.4 per cent); had parents who ran businesses (26.9 per cent); and held jobs in the corporate sector (9.6 per cent).

• The EWS quota, introduced in 2019, reserves 10 per cent of seats for candidates from general-category families with a gross annual income below Rs 8 lakh, subject to asset-ownership conditions.

• This newspaper investigated the social media profiles, coaching institute records, and school and college details, of all the 104 candidates who qualified under the EWS quota this time from the list of 958 selected in 2025 — the latest completed cycle of the examination for which the results were declared in March this year.

Do You Know:

• The EWS quota was introduced in 2019 through the 103rd Constitutional Amendment. It provides 10% reservation in education and government jobs for candidates from the "General Category" who are not eligible for reservations under SC, ST, or OBC categories and who meet prescribed income and asset criteria. Today, a family with an annual income below ₹8 lakh, and within specified asset limits, can qualify for EWS benefits.

• The UPSC Civil Services Examination is among the most competitive exams in the world.

—Nearly 10 lakh candidates apply each year.

—Around 5-6 lakh actually appear for the Preliminary Examination.

—Roughly 14,000-15,000 reach the Mains stage.

—Around 2,500-3,000 are interviewed.

—Just 1,000-1,100 candidates are finally selected for the IAS, IPS, IFS and other central services.

• The investigation find that among the 104 EWS candidates selected:

—At least 84 had received formal UPSC coaching.

—At least 67 attended some of India's most prominent coaching institutes, where fees can run into lakhs of rupees.

—At least 46 studied in private schools.

—At least 28 came from business families.

—At least 10 had prior corporate-sector experience.

—At least 14 were IIT graduates, with others coming from NITs, Delhi University and JNU.

QS RANKINGS: IIT-DELHI TOPS INDIA LIST FOR 2ND YR, CLIMBS TO 118 GLOBALLY

For the second consecutive year, IIT-Delhi ranked highest among Indian institutions in the QS World University Rankings 2027, climbing five places to 118th globally — the highest ever for an Indian institution, first achieved by IIT-Bombay in the 2025 rankings.

Key Takeaways:

• IIT-Bombay, which topped the country's list in the past, dropped from 129 to 134. Last year, too, it had dropped 11 ranks. Globally, Massachusetts Institute of Technology (MIT) topped the list for the 15th year, followed by Stanford University, Imperial College, University of Oxford and Harvard University.

• The Indian Institutes of Technology (IITs) continue to dominate the country's top 10 list. Besides IIT-Delhi and IIT-Bombay, IIT-Madras (ranked 170, up from 180 last year) is the only other Indian institution in the top 200 globally.

• The others in the top 10 nationally are IIT-Kharagpur (205), IIT-Kanpur (221), Indian Institute of Science, Bangalore (221), University of Delhi (322), IIT-Roorkee (335) and IIT-Guwahati (349). Among these, IISc and IIT-Guwahati have dropped in the rankings as compared to last year.

• In fact, IISc has seen its rank slip consistently over the past few years — from 155 in 2023, when it was the top ranked Indian institution, to 219 last year and 221 this year. While it has a high score of 99.9 on the citations per faculty indicator, it does not fare as well on employer reputation (48.8), and employment outcomes (22.6), which are the metrics where IIT-Delhi and IIT-Bombay outperform the premier research institute.

• Apart from these, Shoolini University of Biotechnology and Management Sciences, a private institution in Himachal Pradesh, has also made it to India's top 10 list with a rank of 452, up from 503 last year.

Do You Know:

• According to the Wikipedia, the QS World University Rankings is a portfolio of comparative college and university rankings compiled by Quacquarelli Symonds, a higher education analytics firm.

• The latest edition of QS Rankings features 52 Indian universities, down from 54 last year. For the number of institutions on the list overall, India ranked fifth (52) after the US (184), UK (93), China (85) and Germany (60). The number of Indian institutions in the rankings has seen a 271% increase over the past decade — from 11 in 2015 to 52 this year. Globally, over 1,500 institutions made it to the rankings this year.

Beyond the IITs, Vellore Institute of Technology recorded the country's biggest jump, climbing 94 ranks to 597th globally. BITS-Pilani climbed 93 places to 575, and Jamia Millia Islamia climbed over 75 ranks to 686 this time, entering India's top 20.

IAF'S AN-32

— Five personnel of the Indian Air Force, including two officers, were killed on 12th June when a military transport aircraft, the Antonov AN-32, crashed during landing at Jorhat in Assam.

— The AN-32 is a twin-engine turboprop aircraft. It was bought in 1984 from the erstwhile Soviet Union, and have served as a critical workhorse of the IAF.

— The aircraft can carry a maximum weight of 27 tons at a maximum speed of 530 km/h. It can carry up to 6.7 tons of cargo or 50 passengers, making it the preferred choice for transport of men and cargo across different terrain.

— After an AN-32 crashed in 2009, India signed a $400-million contract with Ukrainian manufacturer Antonov to upgrade most of the IAF's 105 AN-32s through the overhaul of its airframes and its turboprop engines.

— The programme, however, stalled after Russia formally annexed the Crimea region in 2014.

— The upgrade had been underway at the IAF's base repair depot (BRD) in Kanpur, with equipment transferred from Ukraine. About half of the planes had been modernised in Ukraine, and 38 have been at the BRD.

— The IAF has been looking to buy new aircraft under the Medium Transport Aircraft (MTA) programme to replace the ageing AN-32 and the Ilyushin Il-76 fleets.

BALLISTIC MISSILE DEFENCE

Why it matters

In a significant development earlier this week, the Defence Research and Development Organisation (DRDO) successfully tested a Multi-layered Ballistic Missile Defence (BMD) capability. These tests have put the country in the elite group of nations having BMD capability to engage up to Intercontinental Ballistic Missiles. In this context, let's know about the BMD and revise the basics.

Core Concept:

— The DRDO, on June 10 and 11, conducted three consecutive flight tests to demonstrate multi-layered defence against long-range ballistic missiles and anti-ship capability at medium range, the Defence Ministry said in a statement.

— The Multi-layered BMD capability was successfully demonstrated during the tests, which were conducted on June 10 and 11. "The interceptors successfully engaged their respective targets. The systems are designed and developed with the latest technologies to address the emerging missile threats," it said.

— Ballistic missile defense systems seek to defend against an attack by launching interceptors that would hit incoming missiles and destroy them on impact.

— Generally, BMD systems employ a multi-layered defence architecture, enabling interception both outside the Earth's atmosphere (exo-atmospheric) and within the atmosphere (endo-atmospheric).

— Intercepting ballistic missiles involves four steps:

i. Detection of the incoming missile (using radar and/or satellites)

ii. Discrimination (distinguishing the missile or warhead from accompanying debris, decoys and other countermeasures)

iii. Fire control (predicting the target location and guiding the interceptor)

iv. Killing (hitting the missile or warhead with the interceptor)

— Ballistic missiles use projectile motion to deliver warheads to a target. They are powered for a relatively brief time, after which they let the laws of physics take them to their target.

— These missiles are categorised based on range. Ballistic missiles can carry either nuclear or conventional warheads. Examples of ballistic missiles are Agni I, Agni II, Prithvi I, Prithvi II and Dhanush missiles.

— Cruise missiles are unmanned vehicles powered by jet engines that can be launched from ground, air, or sea platforms. Examples of cruise missiles are BrahMos, Tomahawk, Kalibr, AGM-86 ALCM and JASSM. The cruise missiles fly at a low distance from the ground while the ballistic missiles follow a parabolic trajectory.

'TRI-COMMISSIONING' OF INS DUNAGIRI, INS SANSHODHAK, AND INS AGRAY

— The Indian Navy will commission three indigenously built frontline platforms — Dunagiri, Sanshodhak, and Agray — in Kolkata on June 21.

— The three vessels — the Brahmos-armed stealth frigate INS Dunagiri, the deep-water survey vessel INS Sanshodhak, and the Anti-Submarine Warfare Shallow Water Craft (ASW SWC) INS Agray — have been built by Garden Reach Shipbuilders & Engineers (GRSE) in Kolkata.

— INS Dunagiri: The largest and most heavily armed of the three is INS Dunagiri. It is a frigate, which, in simple terms, is smaller than a destroyer but large enough to operate far from the coast.

— It is part of the Navy's Project 17A, under which a new generation of stealth guided-missile frigates are being built in India. The 'stealth' here does not mean complete invisibility, but means that it is harder to detect on radar and other sensors

— INS Sanshodhak: This is a Survey Vessel — Large (SVL). Its job is to measure and map the sea: the depth of waters, seabed features, approach channels to ports, navigational routes, and oceanographic data. It is equipped with systems such as autonomous underwater vehicles, remotely operated vehicles and multi-beam echo sounders.

— INS Agray: The third vessel, INS Agray, is the smallest of the three but has a highly specialised role. Put simply, it is a submarine-hunter designed for coastal waters. Agray belongs to the Arnala-class, a class of smaller warships built specifically to detect and attack submarines in shallow waters near the coast, ports, naval bases and important sea approaches.

GRAPES-3: A COSMIC-RAY TRACKER

Researchers from Mumbai, Kochi, and Japan used the GRAPES-3 telescope to track how the earth's upper atmosphere temperature and the sun's magnetic field affect muons — subatomic particles from space. By analysing 22 years of data, they developed a way to use these measurements to monitor changes in the upper atmosphere in real-time with high accuracy. The findings are to be published in the August issue of Astroparticle Physics.

The GRAPES-3 telescope in Ooty, Tamil Nadu does not look at light like a traditional telescope. Instead, it is a muon detector. Muons are created when high-energy cosmic rays from deep space collide with the earth's upper atmosphere. The facility consists of 16 independent modules spread over a large area. Each module contains 232 proportional counters, which are long steel tubes filled with a special mixture of argon and methane, with a thin tungsten wire running through the centre. When a muon passes through a tube, it knocks electrons out of the gas molecules. These electrons are pulled towards the wire, creating an electrical pulse that the telescope records as a hit.

The tubes are arranged in four layers, with each layer positioned at a right angle to the one below. This grid layout allows scientists to track the exact path and angle of the incoming muons. Thick layers of reinforced concrete are placed between the tubes to ensure the telescope only counts high-energy muons that are strong enough to penetrate the concrete. This is how GRAPES-3 is able to produce a high-resolution map of the invisible cosmic forces affecting the earth.

WHY IS THE ZOJILA TUNNEL A GAME CHANGER?

The story so far:

The world's longest high-altitude tunnel, spanning 13.14 kilometres at an altitude of 11,578 feet, achieved a breakthrough on June 9, 2026. Built at a cost of ₹6,800 crore, the Zojila tunnel will provide all-weather connectivity between the Kashmir Valley and Ladakh, traversing a region that was long considered to be formidable in the Himalayas. Union Minister for Road Transport and Highways Nitin Gadkari, who pressed the blast button for the 2.5 metre-long last leg, termed the breakthrough "a historic day for India's infrastructure development and a milestone in India's technical expertise, engineering prowess, and indomitable resolve".

What makes the Zojila tunnel an engineering marvel?

Zojila tunnel is India's first longest single-tube bi-directional tunnel and an engineering marvel for several reasons. The underground works were highly challenging due to the difficult terrain. The western Himalayan range around the Zojila Pass has been daunting for engineers and planners, with the fragile geology, sensitive rock formations, avalanche-prone terrain, and harsh winter conditions all complicating the execution of the project.

The Zojila tunnel connects Sonamarg's Baltal in central Kashmir's Ganderbal district with Meenamarg in Ladakh's Drass district. To ensure safe passage up to the mouth of the Zojila tunnel at Baltal, additional roadways, three bridges, and two tunnels were constructed over a stretch of 31 km in Sonamarg. These were designed to withstand the vagaries of winter, as avalanches and snow slides are often reported in the area.

It is a combined system of tunnels and roadways that forms a comprehensive corridor between the Union Territories of Jammu and Kashmir and Ladakh. The tunnel is equipped with catch dams, protection walls, and deflector dams over a 6-km stretch for protection from snowstorms. It will have automatic and emergency lighting, emergency phone, message signalling, and radio to ensure travellers' safety.

Why is this a memorable project for engineers?

The tunnel was dug in extreme weather conditions, with temperatures dropping to minus 20 degrees Celsius on the Kashmir side and minus 30 degrees Celsius on the Drass side. Official estimates suggested that extreme weather conditions were prevalent for nearly 100 days a year. Then, there were avalanche risks: five major avalanches left two workers dead and over 172 workers stranded and later rescued. Snow accumulation was dealt with by a fleet of small and large snow blowers. Officials said the rock classification also changed 67 times across the 13-km stretch, "shifting constantly between good and poor formations."

Why is the tunnel significant for strategic connectivity?

India has witnessed repeated military confrontations with China and Pakistan since 1947, particularly in the regions of Ladakh and Kashmir, most notably in 1962 and 1999. India's full-scale military response was always hampered by lack of connectivity and poor mobility of men and material in the region, both along the Line of Control in the west and the Line of Actual Control in the east. Officials believe that restricted movement of military vehicles led to delays. The Zojila tunnel is now expected to provide year-long transportation access to the Indian forces stationed in Ladakh, significantly improving mobility, logistics reliability, and strategic access in the border region. This is why Mr. Gadkari described it as "a game changer from a security perspective and the perspective of national integration".

What does it means for locals?

Ladakh has always been cut off from the Kashmir Valley during winters. Heavy snow and landslides would often close the Zojila Pass for 4-6 months. There have also been frequent reports of commuter deaths on the Zojila Pass due to landslides triggered by rains and avalanches occurring during sunny winters. All this resulted in severe hardships for patients and students in the Kargil-Drass range. Stocks would deplete, but the problem could not be attended to because of road closure. Locals relied on sun-dried vegetables and cereals during winters. Now, the is expected to be movement of people and goods and no more weather-related isolation for the region. Additionally, the tunnel will put a spotlight on activities such as adventure tourism and skiing in Drass, which will contribute to the economy.

When will the tunnel open for civilians?

In spite of the breakthrough, the tunnel is likely to take two years to be fully functional. Water seepage, benching, and electronic layouts are still being worked out. However, officials said the tunnel could be thrown open in case of emergencies, especially to security forces.

The tunnel will also help pilgrims on the Amarnath Yatra, whose base camp is in Baltal. Officials said vehicles can travel at a speed of 80 km per hour through the tunnel. Earlier, drivers could not drive more than 30-40 km per hour on the Zojila Pass, because of steep roads and hair-pin curves.

Officials said the project is moving closer to its long-envisioned goal of seamless all-weather connectivity that will spur long-term benefits in terms of mobility, economic integration, and strategic resilience.

ARMY UNVEILS NEW UNIFORM POLICY, PHASES OUT COLONIAL-ERA PRACTICES

In a significant move aimed at modernising military traditions and reinforcing an indigenous identity, the Indian Army has introduced revised dress regulations that progressively remove residual colonial-era practices, terminology, and non-essential accoutrements.

The new policy, elaborated in the Army Uniforms-2026 Pamphlet, reflects the Army's effort to align its dress regulations with contemporary Indian values while maintaining the service's rich traditions and professional standards.

A notable feature of the revised regulations is the introduction of a common Uniform Numbering Scheme for the Army, Navy, and the Air Force. The initiative is intended to improve clarity, interoperability, and synergy among the three services while simplifying references to various dress categories.

The Army has retained four broad categories of uniforms — Ceremonial Dress, Working Dress, Mess Dress, and Combat Dress. Unique dress numbers have been assigned to each uniform for ease of identification and administration.

Reflecting India's evolving national identity and contemporary ethos, the latest edition of the Army Uniforms Pamphlet introduces several key changes aimed at shedding remnants of colonial-era practices. Among the notable reforms are the inclusion of the traditional Bandi Jacket as part of formal civil attire, removal of the pouch belt from Mess Dress Nos. 5 and 6, making sword carriage by the Reviewing Officer optional, and discontinuing outdated terminology such as "Royal".

The Army has announced the phased withdrawal of legacy patterns such as Dress No. 3A, which will be discontinued by June 30, 2029.

NOT BINARY: INDIA CAN SAVE ITS FORESTS BY WINNING THE WAR ON POVERTY

Traditionally, many conservationists and policymakers have seen biodiversity conservation as a choice between protecting nature and meeting human needs. Forests were often seen as places that had to be protected from people, while alleviating poverty and economic development were treated as separate concerns.

A new international study has concluded that this is a harmful view.

In a paper in the journal Nature Sustainability, researchers from the University of Notre Dame, the University of Michigan, Yale University, the University of Colorado Boulder (U.S.), the Swedish University of Agricultural Sciences, the University of Manchester (U.K.), the University of Victoria (Canada), and the Indian School of Business analysed data from community-managed forests in the tropics.

The data came from the International Forestry Resources and Institutions network, and spanned 322 community-managed tropical forests in 15 countries from 1993 to 2017.

The dataset's size allowed the researchers to understand both current patterns in forest biodiversity and how they had changed over time. Principally, they found a significant link between people's livelihoods and forest biodiversity.

Forests, people, livelihoods

Forests with more poor households and communities that depended more on fuelwood were also found to have less diverse tree species. The team also found similar patterns in forests in densely populated areas with higher levels of poverty.

On the other hand, forests where communities had access to alternative livelihoods, such as farming, had more diverse trees.

Tree species diversity refers to the number of tree species in a forest; it is an important measure of biodiversity. Forests with more species tend to support more wildlife, are ecologically more stable, and are often more resilient to environmental change.

Overall, the analysis found that a greater dependence on forest resources was associated with lower tree species diversity.

However, the researchers emphasised that poverty is not responsible for biodiversity loss. They pointed out that when people have fewer livelihood options and depend heavily on forests to survive, the pressure on forest resources automatically increases. The way out is to improve economic opportunities.

The fortress model

The study also focused on human-dominated landscapes, which are common in India. Most forests in the country are owned and managed by State Forest Departments. And for decades, this apparatus has followed the fortress model — where protected areas are managed by minimising human activities and restricting access to resources. While this model has allowed the Departments to recover several iconic species and strengthen protection, it has some severe limitations.

Today, many protected areas are increasingly becoming isolated islands surrounded by human-dominated landscapes.

"The forests in these landscapes are smaller in size and bear a heavy burden of extraction," Ashwini Chhatre, associate professor of Public Policy at the Indian School of Business and one of the study's authors, said.

Around 275 million people depend on these forests to varying degrees for their livelihoods and daily needs.

"But these forests are ecologically important and provide significant ecosystem services," Dr. Chhatre said.

According to him, the new findings can be used to support conservation by prioritising wildlife corridors — patches of forests that form a loose link between protected areas.

"These corridors are used by large mammals to move between protected areas. The improvement of species richness in these corridors will increase forest resilience and support conservation directly," he said.

Helping conservation

To reduce pressure on forests, State Forest Departments across India have introduced initiatives like distributing subsidised LPG connections and efficient cooking stoves and heaters around many tiger reserves and national parks. The measures reduce people's need for fuelwood and to enter forests.

Extending similar support to private landholdings and community forests along wildlife corridors could help conservation.

However, Imran Siddiqui, senior field conservationist at the Centre for Wildlife Studies, who has worked extensively in protected areas and with forest communities in Andhra Pradesh and Telangana, said that while such initiatives are well-intentioned and that communities often welcome them, they face implementation challenges.

"Funding can be inconsistent, participation from local communities may vary, and long-term support is not always guaranteed," he said.

Conservation partners

Today, there is growing recognition among wildlife conservationists and forest managers that conservation can't succeed without the support of local communities.

In addition to fuel alternatives and subsidies, many State Forest Departments also give local community members jobs in tourism, forest protection, and seasonal conservation work.

The late ecologist Madhav Gadgil was a strong advocate of an inclusive approach, believing conservation efforts would be more effective if local communities had rights, incentives, and a meaningful role in managing natural resources. He also emphasised the value of traditional ecological knowledge, and argued people who had lived alongside forests for generations possessed insights that could complement scientific approaches to conservation.

In Ladakh, the Snow Leopard Conservancy has mitigated economic losses of human-wildlife conflict with community-run homestays and livestock insurance programmes. In Maharashtra's Sindhudurg district, village-based Mangrove Co-Management Committees help protect mangrove ecosystems while supporting fisheries, ecotourism, and sustainable aquaculture.

In Arunachal Pradesh, hornbill nest adoption programmes run by the Nature Conservation Foundation have encouraged local communities to protect nesting sites, with former Nyishi tribe hunters now serving as nest protectors and forest patrollers.

There is also tremendous scope to expand these initiatives and to further support community welfare.

As Mr. Siddiqui said, wildlife tourism is a growing multi-million-dollar industry, yet only a small fraction of its revenue reaches the communities living alongside forests and protected areas. He added that a greater share of these benefits should be directed to local communities, creating stronger incentives for conservation.

The findings of the new study highlight the close links between alleviating poverty and conserving biodiversity, and show how socio-economic conditions and conservation goals need not be in conflict with each other. By recognising these connections, both conservationists and policymakers can design more inclusive frameworks to benefit both people and nature.

FIVE SOLUTIONS INDIAN CITIES NEED, TO STOP FIGHTING FOR WATER WEEK AFTER WEEK

Urban India's water emergency is no longer a future risk. It has become the normal of our summers. From high-rises anxiously tracking tanker schedules to informal settlements queuing at a single standpost, every year brings the same mix of dry taps, frayed tempers, and quiet resignation.

This summer, residents in parts of New Delhi have already faced days without piped water supply and large families have had to make do with just one 20-litre water can for a day. The Delhi Jal Board has reportedly planned to deploy more than 1,000 tankers to manage the crisis. Similar scenes have played out in other major cities, including Chennai, Bengaluru, and Hyderabad, over the last few summers.

Unfortunately, India still treats this as a seasonal inconvenience to endure until the clouds arrive.

Most cities source their water from reservoirs, groundwater or a combination of both. The annual summer water shortage however is the result of choices made over years. Cities have grown faster than their systems. Lakes and tanks have been built over. People are consuming groundwater faster than it can be replenished.

Cities often focus on finding new water sources instead of fixing and maintaining existing networks. Choices around development planning and control, enforcement of groundwater regulations, water use and wastewater management, made by all — from every individual to service providers to policymakers — shape the experience each summer.

Many cities have moved from nearby rivers and lakes to distant sources and rapidly depleting groundwater, sinking more borewells and laying longer pipelines. What looks like a sudden shortage is often the result of this slow erosion of local buffers. At the same time, lakes, tanks, ponds and stormwater channels that once softened both floods and droughts have been encroached upon or converted, so a few hours of intense rain can flood streets and, a few weeks later, the same city is again queuing for tankers.

Beyond short-term coping

For many residents, especially in poorer settlements and smaller towns, the crisis is also about quality. Intermittent supply, leaky pipes, and unsafe storage mean that even when water arrives, it may not be safe to drink. The familiar scenes of tankers, angry protests, and frantic borewell drilling are therefore not one-offs. They are symptoms of a chronic condition that shows up in illness, lost workdays and mounting bills.

If we accept this, we will also realise that coping from week to week is no longer enough.

First, every city needs an honest and public emergency water plan. Residents should not have to rely on rumours to know what is happening. A basic plan would identify the most vulnerable wards and critical facilities, set simple rules for how water will be prioritised when supplies are tight such as duration and frequency of supply to enable better tail end distribution, and commit to regular public updates on storage levels and expected supply. Where such information is shared clearly, it manages expectations and reduces grievances; this is less about technology than about treating information as part of the service.

Second, a concerted effort must be made to recover water that is already in the system but never reaches the taps. Instead of announcing distant, expensive new sources, cities can launch a time-bound 'leak hunt' in the worst-affected zones: walk key stretches of the network, fix visible leaks quickly, use simple tools to detect hidden ones, and set a short-term target for cutting losses. In systems where a large share — nearly 30% — of water is lost before it reaches users, even modest reductions in a few high-loss areas is equivalent to creating a new local source without building a new pipeline.

Third, government buildings, big campuses and commercial complexes are among the steadiest consumers of water. And a quick internal audit, basic leak repairs, and simple efficiency measures over the next month can free up meaningful volumes and set an example. Neighbourhoods and resident groups can agree on clear norms for peak months, limiting non-essential uses, tracking weekly consumption and asking tanker suppliers where they draw their water from — while local leaders in low-income areas help authorities see how supply actually reaches their lanes.

Fourth, any emergency response must include water quality: rapid testing in high-risk neighbourhoods and tanker water supply, temporary support for basic treatment where problems are found, and simple communication about safe storage.

Finally, water security cannot be achieved without improving how we manage used-water. Measures to reduce leaks in water pipelines should also be used on sewer networks to identify and stop major sewage exfiltration and prevent contamination.

Not a single solution

Quick, low-cost upgrades to used-water treatment plants such as, optimising aeration, de-weeding, and desludging, can further reduce pollution and help augment available surface- and ground-water resources.

No single measure will pull Indian cities out of their water emergency. Together, however, they can directly address the summer's pain points: unpredictability, waste, inequity, and illness.

BEYOND 'DEPRESSION' AND 'ANXIETY': HOW YOUNG ADIVASIS DESCRIBE DISTRESS

Mental health is gaining ground in our everyday conversations, thanks to increased awareness, battles to beat stigma and a growing number of people with lived experience who are talking about it. The people at the forefront of these conversations, however, remain primarily urban-centric and from privileged socio-economic groups. Young people from Adivasi communities remain missing from most of these conversations.

India has the largest population of indigenous communities in the world. And yet, information about the mental health of these communities is scarce.

Globally, mental health problems affect nearly one in seven adolescents aged 10-19 years, with anxiety, depression, and behavioural disorders among the most common conditions. India has one of the world's largest adolescent populations, but mental health support for young people remains deeply inadequate. The 2015-16 National Mental Health Survey estimated that 7% of adolescents aged 13-17 years, experience mental health problems, though most are unlikely to receive any formal care.

Deep inequities

Evidence from rural and Adivasi communities in mental health research remains remarkably limited despite these communities constituting around 9% of India's population. What makes this lacuna even more concerning is that Adivasi communities continue to face deep social, economic, environmental, and health inequities, with the most affected being young people.

The available research suggests that the burden may be substantial and widely neglected. A survey among Adivasi adolescents in Gujarat, Tamil Nadu, and Meghalaya reported a 16% prevalence of mental disorders, more than double the national estimate for adolescents. Another survey among adolescent girls in rural Adivasi blocks of Jharkhand found that 12% experienced symptoms of emotional or behavioural distress.

These numbers, however, reveal only part of the story.

Poverty and mental health

For many young Adivasi people, family responsibilities begin at an early age. Financial insecurity is the norm rather than the exception. The most basic of needs including clothing and school costs are difficult to meet, a reality that Adivasi children understand from a very young age. But this premature awareness frequently comes at the cost of adolescence itself, quietly compressing what should be a carefree period with constant worry, restraint, and emotional burdens they are inadequately prepared for. When this is compounded by the loss of one or both parents, it often places adolescents under intense emotional and psychological stress.

What appears in these children externally as "maturity" is often chronic anxiety and emotional exhaustion. These experiences rarely enter formal mental health statistics and go unrecognised by the system, but they shape the emotional worlds of Adivasi adolescents every day.

Migration intensifies this burden. Seasonal migration has long existed among Adivasi communities as a response to chronic poverty and land insecurity. What often remains invisible are the emotional costs of this transition: loneliness, uncertainty, grief, interrupted education, substance use, fractured social ties, and a growing sense of disconnection from both village and city life.

Yet distress is not always expressed in ways recognised by formal mental health systems.

In recent work with Adivasi adolescents in rural Jharkhand, researchers found that young people, caregivers, teachers, and community health workers often described distress through local idioms, bodily complaints, silence, irritability, social withdrawal, or changes in behaviour rather than psychiatric labels such as "depression" or "anxiety".

This has important implications.

Expression of distress

Mental health systems frequently assume that emotional suffering will present itself in clinically recognisable forms. But in many Adivasi communities, distress may be communicated through stories, metaphors, behaviour, or withdrawal from social life. When professionals fail to understand the expressions, communities themselves begin to appear 'silent'.

The problem, therefore, is not merely that Adivasi youth do not seek help. It is also that systems often do not know how to hear them.

There is another quiet transformation taking place in villages: the erosion of intergenerational spaces. Ajay, a young community facilitator in one village from Jharkhand, reflected recently that earlier, evenings were spent sitting with elders, listening to stories and experiences. "That was our learning space," he said. "Now most young people spend time outside villages on their smartphones ."

This reflects the weakening of informal spaces where emotions, identity, memory, and belonging were once shared collectively.

What is needed

India's response to mental health among Adivasi youth cannot be limited to expanding psychiatric services into rural areas, though accessible care remains essential. A more meaningful response requires strengthening community spaces, reducing social and economic precarity, listening to local languages of distress, and creating systems where they can speak without fear or shame.

Mental health among Adivasi youth is not only a medical concern. It is also a question of dignity, justice, cultural continuity, and whether young people are allowed to imagine a future beyond survival.

NFHS-6 REVEALS PROGRESS AMID NUTRITION CHALLENGES

The recently released National Family Health Survey (NFHS)-6 report presents a mixed progress card for India, offering reasons to cheer while also sending clear signals to pause and reflect. On the bright side, stunting levels (for children under five), which indicate long periods of sub-optimal food intake with other deprivations, have declined from 35.5% to 29.3%. Though a modest decline, any gain is welcome given the complexity of the task that involves strengthening women's access to knowledge and resources, improved water and sanitation, and ensuring access to healthy affordable diets. Wasting levels that indicate whether children have adequate weight for their height, show no change, except for severe forms of wasting. The pattern across indicators makes one thing clear: gains in child nutrition are due to better health-care access, immunisation coverage, maternal education and improvements in housing, water and sanitation, while feeding practices and access to quality diets remain weak and continue to limit progress.

Institutional births have reached 90%, with public health facilities accounting for 58% of births; 91% of deliveries were attended by skilled medical personnel and 95% of mothers were visited at least once by health personnel during the antenatal period.

Equally gratifying is vaccination coverage for children — 87% of children between 12 and 23 months of age are now fully vaccinated. Since private facilities account for only about 3% of vaccinations, the high coverage reflects the strong outreach efforts of frontline workers — Accredited Social Health Activists (ASHA), Anganwadi workers (AWW), and Auxiliary Nurse Midwives (ANM). These national averages hide regional disparities, but access to health services has improved across States.

Poor feeding practices

Despite the high rate of institutional births, only about 50% of newborns are breastfed within the first hour of life, indicating that the health system must intensify efforts to support early initiation of breastfeeding. About 60% of children between the ages of six to eight months, receive solid/semi-solid food, while only 15% between six to 23 months receive an adequate diet. Improving the timely initiation of complementary feeding and ensuring that all children receive an adequate diet are key to reducing undernutrition. In India, complementary feeding is closely linked to the annaprasana ritual, typically performed between six and 12 months — any delay will result in growth faltering.

A growing and under-explored determinant of child nutrition in India is maternal time poverty. Women perform multiple roles within and outside the home. NFHS-6 reports that about 30% of women engaged in paid work during the past 12 months, but this significantly underestimates their overall work burden. A large proportion of women in informal economies engage in unpaid family labour, in farming/fisheries, livestock care, and domestic chores. There are no clear estimates of the percentage of young mothers with children between six-23 months who are in the work force and there is very little documentation on how women manage child feeding with their other work roles. In many rural areas, in the absence of crèches, women leave their infants and young children with older family members or the child's older sibling (usually a girl), impacting both breastfeeding and complementary feeding, when they are out in the fields.

The processed food trap

Recent consumer expenditure survey results show that households are spending less on cereals and more on dairy, processed foods and beverages, with the latter two forming a large part of the expenditure. This creates an impression of diversity which is not the same as nutritional adequacy. A nutritionally adequate diet would have to follow the ICMR-National Institute of Nutrition (NIN) food-based dietary guidelines. Unfortunately, for a sizeable section of the population, a nutritious diet consisting of pulses, millets, fruits and vegetables, animal foods and nuts is unaffordable. Processed foods, in contrast, are easily available, ready to eat and packaged in affordable packs.

The first 1,000 days — from pregnancy to a child's second birthday — form the most critical window for healthy physical and cognitive development (most brain growth occurs in the first five years). We need disaggregated data for the 0-2 age group, currently unavailable, as stunting typically peaks during the second year of life and growth faltering often begins much earlier. The Prime Minister's Overarching Scheme for Holistic Nourishment (POSHAN) Abhiyaan programme currently focuses on identification and rehabilitation of severely malnourished children. Prevention of growth faltering must receive greater priority. Early identification of stagnation in weight or length, with timely counselling and support to mothers, is central to prevention.

Empowering frontline nutrition workers

Monthly anthropometric data for young children is collected by AWWs. Strengthening their skills in data collection would improve data quality. The huge volume of collected data should be analysed locally and feedback provided to the ASHAs and AWWs for timely action.

For this task, recruitment of a nutritionist and a data analyst at the district level is needed. Where possible, digital tools can be used to supplement in person counselling, by providing both workers and mothers practical information on how, when and what to feed young children at different ages, based on locally available healthy foods.

Behaviour change communication efforts should be culturally grounded, integrating practices such as annaprasana to reinforce timely and appropriate complementary feeding. Joint capacity building of AWWs, ASHAs, and ANMs in assessing feeding practices and advising families with effective communication materials on improving diets using locally available, affordable foods would enhance the quality of counselling and reduce the risk of undernutrition.

Multisectoral convergence is critical to addressing child malnutrition, yet it remains weak. Child nutrition should be a standing agenda item in Gram Sabha and Panchayat discussions. Local planning must prioritise improvements in Anganwadi infrastructure, safe drinking water, and sanitation facilities, as these foundational services directly influence child growth and health.

Engaging men in childcare, promoting shared domestic responsibilities, and strengthening support to mothers can significantly enhance feeding and caregiving behaviours. Many non-governmental organisations in India have developed crèche models that combine childcare, nutrition and early learning, and can be run by trained local women. From a gender perspective, crèches are not only child development interventions; they are social infrastructure that enables women's economic participation and reduces unpaid care burdens. With coordinated action across sectors and communities, meaningful and sustained progress in child nutrition is entirely achievable.

HOW INDIA CUT CHILD DEATHS FASTER THAN THE WORLD

India's emergence as a global leader in reducing child mortality is among the most significant public health achievements of the past decade. According to the United Nations Inter-Agency Group for Child Mortality Estimation (UN IGME) 2025 Report, released in March 2026, India recorded a 41 per cent decline in under-five mortality and a 37 per cent decline in neonatal mortality between 2014 and 2024, substantially higher than the global reductions of 18 per cent and 15 per cent respectively.

Key Takeaways:

• The UN SDG (Sustainable Development Goal) targets for Under-five Mortality Rate (U5MR) and Neonatal Mortality Rate (NMR) are 25 and 12, per 1000 livebirths, respectively. With U5MR of 28 and NMR of 18 already in 2024 (as per Sample Registration System), India is poised to attain these targets before the 2030 timeline.

• Delivering equitable health services across remote tribal belts, difficult terrains, densely populated urban settlements and socio-economically vulnerable communities remains one of the most complex public health challenges globally. Yet India has demonstrated that large-scale improvements in child survival are achievable when services are systematically organised around the needs of mothers and children, supported by strong public systems, digital accountability and frontline health workers. Targeted attention to aspirational districts and blocks has further helped reduce inequities and accelerate progress in historically underserved regions.

• At the core of this transformation lies a deliberate shift from episodic interventions to a structured life-cycle approach anchored in the Reproductive, Maternal, Newborn, Child and Adolescent Health plus Nutrition (RMNCAH+N) strategy. Over the past decade, India has operationalised this framework by progressively aligning maternal health, newborn care, immunisation, nutrition and early childhood development into a single continuum of care.

Do You Know:

• The journey begins with maternal health. Healthy pregnancies form the foundation of child survival. India has strengthened antenatal care, maternal nutrition, early risk detection and referral systems to ensure timely and preventive care during pregnancy. As per the NFHS-6 (2023–24) report released recently, 76.2 per cent of mothers received antenatal care in the first trimester. Institutional deliveries increased from 88.6 per cent in NFHS-5 (2019–21) to 90.6 per cent in NFHS-6 (2023–24), while births attended by skilled health personnel rose from 89.4 per cent to 91.3 per cent during the same period. These improvements reflect strengthened access to skilled care at critical stages of childbirth.

• The most vulnerable period for survival begins immediately after birth. India has responded by building one of the world's largest facility-based newborn care systems. More than 1,100 special newborn care units and neonatal intensive care units, supported by 2,868 newborn stabilisation units, now provide specialised care to over 15 lakh sick and small newborns annually. Mother-newborn care units (MNCUs) are enabling zero separation of mothers and infants, strengthening breastfeeding practices, and promoting kangaroo mother care, thereby improving survival among low-birth-weight babies.

SERUM'S HPV VACCINE TO BE INCLUDED IN IMMUNISATION PROGRAMME AFTER 2027

The HPV vaccine developed by the Serum Institute of India, with support from the Department of Biotechnology, is likely to be included in the national vaccination drive after 2027 — once the results of the trial to see the efficacy of its single dose become available.

Key Takeaways:

• Dr Rajesh Gokhale, secretary of department of biotechnology, said, "Cervavac is a two dose vaccine because of which it was not initially launched. The single-dose will come in (to the national programme) after it has been clinically tested." The study is currently underway with the results expected next year, he added.

• While the cost of Cervavac for the government is not known, it costs around Rs 2,000 in the market.

• The Health Ministry rolled out the HPV vaccination campaign for 14-year-old girls earlier this year using MSD's (Merck Sharp & Dohme's) Gardasil, which already has data to show that a single dose is as efficacious as two doses in this age group. "A retrospective study can also be conducted (a study where people, who have missed one dose of vaccination, are selected from the population and their outcomes compared to those who have received the complete two doses) but the current study will take about a year," said Dr Gokhale.

• Union Minister of Science and Technology Dr Jitendra Singh said that the current study to test the effectiveness of one dose of the SII vaccine against one dose of MSD vaccine is a better way to do it "for more credibility, especially when it comes to human lives."

• There is an ongoing study — undertaken by the Indian Council of Medical Research (ICMR) in three of its institutes — that will follow 504 girls who have received one dose of either Serum's Cervavac or MSD's Gardasil for a period of two years. The two vaccines will be compared by testing the levels of antibodies that persist against the two most common strains of HPV (16 and 18) in girls given both the vaccines. If the levels are similar, Cervavac will be considered to be equally efficacious.

Do You Know:

• Persistent HPV infection is known to cause nearly 85% of all cervical cancers, the second most common cancer among women, affecting nearly 1.25 lakh women and killing 75,000 each year. HPV vaccination against the four most common strains known to cause cervical cancer has been shown to prevent most infections and thereby cancers.

• With an estimated 1.15 crore girls turning 14 each year, the country has enough vaccines for the campaign at present. The GAVI (Global Alliance for Vaccines and Immunisation) has provided around 2.6 crore doses to India, which should be enough for the current as well as next year, after which Serum's Cervavac may be inducted.

• The National Technical Advisory Group on Immunisation (NTAGI) — a body of experts that suggests the government about inclusion of various vaccines into national programmes — had recommended HPV vaccination in 2017 and 2022. The body had recommended the inclusion of the indigenously-developed vaccine as a two-dose regimen, to tide over studies on the one-dose vaccine.

LOPSIDED SOLUTION

As part of an overarching attempt to restore confidence in India's pharmaceutical supply chain after a series of deaths damaged the country's reputation as a drug exporter, the government has required a doctor's prescription for individuals to purchase syrup-based medicines. However, while it seems like a credible measure, it is also defensive rather than reformist. The Union Health Ministry has removed the term "syrup" from Schedule K of the Drugs Rules 1945, a change it had signalled when it issued the draft notification in December 2025, thus requiring cough syrups to be sold only with a prescription, through licensed pharmacies. These products were singled out after ethylene glycol (EG) and diethylene glycol (DEG) contamination in India-made cough syrups killed over 300 children across several countries since 2022. The WHO's warnings in 2022 and 2023 also undermined assumptions that India's export quality controls were effective and functioning independently. But beyond contamination, doctors have long raised concerns about how cough syrups are formulated and used. Many over-the-counter (OTC) cough syrups are 'cocktails' of bronchodilators, antihistamines, and decongestants, which can cause tremors and heart palpitations, extreme sedation or paradoxical agitation in infants, and blood pressure effects. The American Academy of Pediatrics has said that cough suppressants are quite ineffective for children under six years and may even be dangerous, as they can mask underlying conditions such as pneumonia or asthma. Yet, India's entrenched OTC culture makes pharmacists de facto primary care providers in many rural and semi-urban areas.

Most importantly, however, the contamination was the result of failures in manufacturing quality control, testing of raw materials, and regulatory oversight rather than consumer access. Even now, requiring a prescription may reduce inappropriate use and push patients away from self-medication, but it could never prevent contaminated products from reaching the market in the first place. The fundamental issue is that the government continues to tolerate the pharmaceutical lobby's argument that high-end testing requirements — for stronger quality control and ultimately better drugs — will bankrupt smaller manufacturers. Second, while the Indian Pharmacopoeia and the Pharmacopoeia Internationalis updated their analytical methods to detect EG/DEG following the deaths, failures in batch testing and enforcement persist. As a result, while India has around three dozen State drug controllers, they are chronically understaffed — so without a large increase in the inspectorate, the notification is likely to be ignored sans consequence in rural areas. In a globalised economy, subpar enforcement for medicines in even one country is dangerous; that is infinitely more so in a country aspiring to remain the world's pharmacy.

VIRULENT BACTERIUM

Stained, and viewed under a microscope, Shigella is a captivating sight. The rod-shaped bacteria resemble fat, furry cartoon caterpillars. In reality, however, this gram-negative, contagious bacterium, which causes shigellosis, can be remarkably dangerous. Shigella is back in the news, after an outbreak in Kerala that was first detected in late March 2026 and has continued into June. According to the Kerala health department, 132 confirmed cases and about 75 probable cases of shigellosis had been reported till June 12. Three deaths have been linked to the disease this year, two of which were children under five.

Shigellosis is a diarrhoeal disease marked by fever, abdominal cramps, and bloody diarrhoea (dysentery). It was bacteriologist Kiyoshi Shiga, who isolated the shigella dysenteriae, in 1897, after Japan experienced a severe dysentery epidemic. The genus eventually took his name.

Transmission is mostly through the faeco-oral route, when people ingest tiny amounts of faecal matter through contaminated food, water or hands. As low as 10-100 bacteria can cause the infection, and even an outbreak. It is estimated that globally, shigella causes 80-165 million infections annually and about 6,00,000 deaths, particularly among children under five in sub-Saharan Africa and South Asia.

In an article in the Indian Journal of Medical Research, Neelam Taneja and Abhishek Mewara write about the epidemiology of shigella in India. "Though humans and primates are the primary reservoir of shigella, it has been isolated from various sources — aquatic bodies (rivers, surface waters as well as coastal waters), free living amoebae, insects, birds and wild animals."

Taneja and Mewara explain that several aquatic bodies in India have been found to show the presence of shigella. So a potential source of infection could be fish if it is harvested from sewage-contaminated water. Even ingesting small amounts of contaminated water while swimming or bathing, or the consumption of crops cultivated in soil/water contaminated by shigella can cause severe infection. The paper argues that while no individual can be considered immune to shigellosis, "certain individuals are at increased risk. Globally, the incidence of shigellosis is highest among children under five. The incidence of shigellosis has been reported to increase steadily after the age of 40."

Outbreak in Kerala

In late March 2026, Kerala reported a shigellosis outbreak in Kuttikkattoor, Kozhikode, where a three-year-old girl died and over 60 residents (mostly children) fell ill. Soon, clusters came up in Wayanad, Malappuram and Kannur. A major cluster emerged at a Wayanad school where over 300 children were hospitalised. So far, experts have traced the infections to contaminated water and food sources, alongside poor hygiene practices in communal environments such as schools.

This is not Kerala's first brush with shigellosis. In 2009, over 300 people reportedly contracted a food-borne shigella infection across the State. In December 2020, an outbreak, again in Kozhikode, killed an 11-year-old and infected 40 others; in May 2022, shigella was said to be behind a mass food poisoning incident, in Kasargod, where 30 people were hospitalised and a 16-year old girl died. While mild shigella infections typically clear on their own with hydration, severe cases require antibiotics to shorten the duration of the illness, reduce the severity and prevent complications, according to the U.S. Centers for Disease Control. However, some antibiotics are not effective against certain types of shigella. Healthcare providers must order laboratory tests to determine which antibiotics are likely to work.

Taneja and Mewara point out in their article that "there is a nationwide presence of multi-drug resistant shigella developing rapid resistance to most antibiotics available. Thus, judicious use of antibiotics is among the most essential measures to combat shigellosis." This calls for a continuous and strong surveillance of antibiotic resistance across the country for periodic updates of the local antibiograms, in order to allow doctors to effectively identify the right antimicrobial drug to use.

PRIMED TO TREAT

The emergence of a case of the Nipah virus in Kerala and the subsequent control in the State is indicative of two things: first, Kerala's own mix of ecological factors and anthropogenic activity that makes it vulnerable every monsoon season to the possibility of Nipah spreading, the hosts being fruit bats. Second, the fact that there has been just a single case so far is testament to the robustness of the health systems in place in Kerala. The World Health Organization (WHO) has classified Nipah a priority pathogen, accounting for its lethality, potential to cause outbreaks, even a pandemic. It is just one of several pathogens that WHO has flagged for Kerala — including avian influenza and Kyasanur Forest Disease. Kerala has, at the moment, one active case of 43-year-old man from Ramanattukara in Kozhikode. He remains on ventilator support at the Kozhikode Government Hospital. No fresh cases have come up since then, after intensive contact tracing and screening. The 2018 Nipah outbreak, immortalised in film and art, which caused 17 deaths, and affected 23 people (18 lab confirmed), spread primarily on person-to-person contact, with the index patient reportedly transmitting the virus to 15 others, including health-care workers. Since then it has had cases/outbreaks in 2019, 2021, 2023, 2024, and 2025. Historically in India, a devastating outbreak was noted in 2001 in West Bengal, and later, a few cases were detected again, in 2007. Earlier this year, on January 26, 2026, two laboratory-confirmed cases of Nipah virus infection were reported from West Bengal, both health-care workers. This was also contained and no further cases were reported.

It is clear that human activity on the fringes of forest zones, encroaching into traditional habitats of the fruit bats, has a central role to play in the transmission of the virus; in time, this originally zoonotic infection jumped to humans. Repeatedly, the source of infection has been traced to consuming contaminated fruits, or contact with water sources contaminated by bats. This also indicates that the overall approach should be from a One Health perspective, considering environmental and animal interplays with humans, and not a mere health-care angle. The State's history of Nipah outbreaks and its learnings have enabled it to prime its health system to meet such health emergencies, at the primary and secondary hospitals itself. This is the other lesson from Kerala for pandemic preparedness. Its system has become adept at maintaining a high index of suspicion for cases of acute encephalitis; watching out for clusters, and with clinical efficiency, deploying protocols to control further spread and reach all those who need medical assistance.

WHAT IS KERALA'S RISK PROFILE FOR NIPAH?

The story so far:

Kerala's first encounter with Nipah virus (NiV) was in 2018, which identified 23 cases (including 18 lab-confirmed ones). The case fatality rate was 91% and there were two survivors. Since then, Kerala has recorded numerous spillovers of NiV.

In 2019, a lone case was identified in Ernakulam and the person survived the infection. In 2021, a 12 -year-old boy was detected with the infection in Malappuram. In 2023, Nipah resulted in a cluster of six cases in Kozhikode. Two single cases each were reported from separate spillover events from Malappuram, in July and September in 2024. In 2025, four cases of Nipah were reported from two districts, Malappuram and Palakkad and epidemiological investigations reported that none of these cases appeared to be linked to each other, suggesting independent spillover events from the natural reservoir. NiV has resurfaced again in Kozhikode now and a 43-year-old, who tested positive for the virus, is battling for life at Kozhikode Medical College.

Why is Nipah recurring in Kerala?

Research has consistently identified the Indian flying fox bat (Pteropus medius) or the fruit bat as the natural reservoir of Nipah virus in Kerala. Serological studies and viral detection in bats have shown that the virus is circulating in bat colonies in the State, particularly in northern districts.

In the 2018 Kerala outbreak, about 25% of the sampled bats were found to be positive for Nipah viral RNA and in subsequent events too, bat samples had revealed the presence of NiV.

The Pteropus species are found across the State and very near human settlements. A mapping study of bat-roosting sites by Kerala Forest Research Institute's Department of Wildlife Biology had found that almost all of the roosts were near human habitats, increasing the risk of zoonotic exposure.

Why is Nipah spillover risk highest in Kerala between April and September?

The recurrent NiV spillovers in Kerala with fair regularity suggest that the virus has established itself in the environment. The peak Nipah virus spillover risk in the State is from April to September, when the abundance of seasonal fruit-laden trees, increased bat foraging activity, bat breeding season and viral shedding dynamics coincide, increasing the risk of human exposure. This pattern has not changed in Kerala since the very first outbreak.

Because of the perennial natural virus reservoir in the State, it might not be possible to prevent recurrent NiV spillover events in Kerala.

What makes Kerala particularly vulnerable to zoonotic diseases?

It is the convergence of ecological, demographic, climatic factors and increased human-wildlife interface that makes Kerala a special lab for zoonotic diseases.

The Western Ghats, which stretches along the State's eastern flank, is one of the world's richest biodiversity spots and the tropical rainforest climate sustains several hundred species of birds, reptiles and mammals. But only about 1,60,000 sq. km of this rich biosphere is formally protected. The high population density in Kerala and the increased presence of human settlements, plantations, and agricultural lands immediately adjacent to and along the forest fringes increases the opportunities for human-wildlife interactions and facilitates exposure to novel pathogens.

Scientific literature links emerging zoonoses to deforestation, habitat fragmentation, urbanisation and agricultural intensification. When wildlife habitats are disturbed, the animals are forced into closer contact with human settlements and cultivated food sources. Scientists also warn that climate-related ecological disruptions could be important contributors to future spillover risk in the case of Nipah.

Nipah is just one among Kerala's broader zoonotic risk profile, which includes other pathogenic diseases like Kyasanur Forest Disease (KFD), leptospirosis, scrub typhus, Japanese encephalitis, West Nile fever, rabies and avian influenza.

The World Health Organisation (WHO) has warned Kerala to be on the vigil about some high threat pathogens (HTPs) — Nipah, Avian Influenza (H5N1) and KFD — which have a high mortality profile and high transmissibility with pandemic potential. Nipah has been classified by the WHO as a priority pathogen because of its lethality, unpredictability and its alarming potential to cause widespread outbreaks or even the next pandemic.

How is Kerala responding to the recurrent threat of zoonotic events like Nipah?

The recurrent spillover incidents in Kerala has primed the health system about the importance of sharp and coordinated disease surveillance, rapid pathogen identification and containment efforts to ensure that human-to-human transmissions do not occur, resulting in a wide outbreak.

The 2018 brush with Nipah took the health system by surprise. Of the 23 cases identified in the outbreak, only the index case had contracted the infection in the community. All the remaining cases were due to nosocomial transmission (the spread of pathogens within healthcare facilities) in three different hospitals.

Kerala used the 2018 experience as an opportunity to develop a clinical algorithm for all emerging viral infections at tertiary care levels, strengthen diagnostic and research capacities and augment standard infection control practices in hospitals. Clinicians in the State have become adept at maintaining a high index of suspicion when they encounter unusual cases of acute encephalitis syndrome and to watch for clustering of cases.

The State now has a stringent system for monitoring all acute encephalitis cases of unknown etiology, screening of severe respiratory infections as well as early lab confirmation and detection of pathogens through its expanded Virus Research and Diagnostic Laboratory (VRDL) networks and intensive health emergency management measures.

In all its Nipah outbreaks, the health system's public health response has demonstrated that it can rapidly identify the index case and swiftly contain the event. After the initial event, human-to-human transmission has occurred only once in 2023.

How is Kerala strengthening its preparedness against recurring

Nipah outbreaks?

The recurrence of Nipah in Kerala and the State's swift public health response every time has been a demonstration of the resilience of the State's health system. With the State harbouring a natural reservoir of Nipah virus and a perennial risk of virus spillovers, the Health department's focus has been on creating community awareness about the situation so that the bat-human interface is reduced.

As part of its 'One Health' strategies, it has developed a massive community-based surveillance network supported by over 2.5 lakh trained volunteers at the grassroots, who track and report unusual disease trends, including unusual animal or bird deaths, to enable early detection of zoonotic outbreaks such as Nipah and Mpox.

In 2023, the State set up the One Health Centre for Nipah Research and Resilience at Kozhikode, which has been focusing on building community awareness, resilience and capacity to minimise spillover events and to mount a swift response to any such events.

It has documented every single outbreak in Kerala and prioritised Nipah research for the future, focusing on disease epidemiology, sero surveillance studies and host factors research.

The State government, along with National Institute of Virology (NIV), is also involved in a project to develop indigenous monoclonal antibodies against Nipah, specific to the Bangladesh strain of NiV circulating in Kerala.

BRAIN-EATING AMOEBA (NAEGLERIA FOWLERI)

Why it matters

With 133 positive cases and 33 deaths in the first five months of 2026 in Kerala, amoebic meningoencephalitis is drawing attention. While earlier cases were mostly Primary Amoebic

Meningoencephalitis (PAM) caused by Naegleria fowleri, also known as the "brain-eating amoeba." Recent infections are predominantly granulomatous amoebic encephalitis (GAE). In this context, let's take a closer look at brain-eating amoeba'.

Core Concept:

— Naegleria is an amoeba, a single-celled organism, and only one of its species, called Naegleria fowleri, can infect humans, according to the US Centers for Disease Control and Prevention (CDC). It is a free-living amoeba and was first discovered in Australia in 1965.

— Naegleria fowleri lives in warm fresh water, such as lakes and rivers, swimming pools, splash pads, surf parks, or other recreational venues that are poorly maintained or minimally chlorinated.

— The amoeba infects people when it enters the body through the nose, usually when people are swimming. It then travels up to the brain, where it destroys the brain tissue and causes a primary amebic meningoencephalitis.

— Interestingly, people cannot get infected with Naegleria fowleri from drinking water contaminated with the amoeba. Scientists haven't found any evidence of the spreading of Naegleria fowleri through water vapour or aerosol droplets.

— According to the CDC, with the rising global temperatures, the chances of getting Naegleria fowleri infection will go up as the amoeba mainly thrives in warm freshwater bodies. The organism best grows in high temperatures up to 46°C and sometimes can survive at even higher temperatures.

— Various recent studies have also found that excess atmospheric carbon dioxide has led to an increase in the temperature of lakes and rivers. According to the CDC website, "These conditions provide a more favourable environment for the amoeba to grow. Heat waves, when air and water temperatures may be higher than usual, may also allow the amoeba to thrive,".

PAM vs GAE

— A major chunk of the cases, according to the health department, are granulomatous amoebic encephalitis (GAE), caused by Acanthamoeba, a free-living amoeba found mainly in contaminated water. Whereas Primary Amoebic Meningoencephalitis (PAM) is caused by Naegleria fowleri.

— PAM has a global fatality rate of 97 per cent but GAE has a better survival rate.

MAKE WAY FOR THE 'QUEEN': TRIPURA EYES GLOBAL STATUS FOR STATE FRUIT

For generations, the family of this farmer in Tripura's Killa region has been growing pineapples. As the state gears up to organise the Tripura Global Pineapple Festival at New Delhi later this month, it has given farmers like him the hope that the GI-tagged fruit of their labour will finally get its global moment under the sun.

Key Takeaways:

• As the fruit seeks to make its presence officially felt in the national capital, the government of the second-smallest northeast Indian state says it has already decided on the next big steps in its bid to make 'Tripura Pineapple' a global brand.

Do You Know:

• The queen pineapple was declared the state fruit of Tripura in 2018, four years after it attained the GI tag in 2014 for its golden-yellow hue and a distinct aroma besides its juicy flesh laden with vitamins, calcium, magnesium, potassium and iron.

• The fruit is at the core of the three-year-long 'Mission Queen Pineapple of Tripura', one such Centrally-funded farm-to-plate programme worth Rs 236 crore launched on May 27. The state is currently witnessing execution of a slew of developmental projects assisted by various Central bodies, including the Jyotiraditya Scindia-led Ministry of Development of North Eastern Region (MDoNER).

• Pineapple is cultivated in more than half of the landlocked state's eight districts and especially by its significant tribal population which constitutes over 30% of Tripura.

Besides the fruit, its ancillary products such as thread derived from its leaves, besides chocolates, jams and jellies will also make their debut at the three-day festival which will kick off at Major Dhyan Chand National Stadium on June 27 – the International Pineapple Day.

• Pineapple is cultivated in more than half of the landlocked state's eight districts and especially by its significant tribal population which constitutes over 30% of Tripura.

SCENTED BY TRADITION

The temperate climate and fertile soil of Kashmir provides an ideal environment for floriculture, particularly for the cultivation of the highly aromatic Damask rose.

Rose farming is a seasonal labour of love and requires the harvest of petals in spring and early summer when the blossoms yield their highest concentration of complex fragrance and essential oils.

Once harvested, these pristine petals are immediately channelled into two traditional products of rose water — Ark-e-Gulab and Gulkand.

Rose water is prepared using traditional steam distillation. Petals are simmered in large copper stills, and the condensed vapour creates a pure, therapeutic hydrosol used widely in culinary dishes, cosmetics, and religious rituals.

Gulkand is a rich, sweet preserve made by layering fresh rose petals with sugar in airtight glass jars.

The mixture is slow-cured under the natural warmth of the sun for several weeks. This gentle sun-cooking process allows the natural juices to ferment softly with the sugar, transforming the petals into a thick, cooling jam celebrated in Ayurvedic traditions for its digestive benefits.

Local entrepreneurs like Shireen Manhas are instrumental in bridging the gap between these age-old agricultural traditions and modern, premium markets. By establishing structured agro-ventures, Ms. Manhas and fellow innovators empower local farmers, particularly women, through sustainable employment.

Their enterprises focus on maintaining absolute purity — avoiding synthetic additives — while utilising contemporary packaging and supply chains.

This modern entrepreneurial approach not only preserves Kashmir's delicate horticultural heritage but also elevates its organic rose water and Gulkand to a competitive luxury status globally.

A STRAY TIGRESS MAKES A NEW HOME, GIVING A STRUGGLING, CHHATTISGARH RESERVE HOPE OF REVIVAL

A four-year-old tigress that wandered into Chhattisgarh's Udanti-Sitanadi Tiger Reserve (USTR) earlier this year and stayed through the scorching summer months has kindled fresh hopes for a reserve that has watched its tiger population vanish over the past three decades.

Key Takeaways:

— For forest officials, the tigress's decision to remain in the reserve through the harshest season of the year, when water and prey become scarce, is being seen as a sign that the habitat may once again be capable of sustaining a breeding tiger population.

— The optimism stems partly from a success story elsewhere in Chhattisgarh. At Achanakmar Tiger Reserve, a tigress named Jhumri played a key role in reviving the big cat population after years of decline. Its arrival and subsequent breeding helped boost tiger numbers in the reserve, offering conservationists a rare example of natural recovery in the state. Udanti-Sitanadi, however, has had a far more troubled trajectory.

— In 1998, the then Udanti Wildlife Sanctuary was home to 18 tigers. By 2006, that number had fallen to just three. During the same period, the population of wild buffaloes — Chhattisgarh's state animal — crashed from around 80 to seven. Today, only one wild buffalo survives in the reserve.

— The decline was not limited to tigers and buffalo. Populations of panthers, gaur, sambar, nilgai, spotted deer and wild boar also dwindled over the years.

— In 2009, the state government merged the Udanti and Sitanadi sanctuaries, spread across 1,842.54 sq km, and notified them as a tiger reserve. Tiger numbers briefly rose to eight, but the gains proved short-lived. By 2023, no resident tiger remained in the reserve, which had effectively become a transit landscape for dispersing big cats.

— Against this backdrop, the arrival of the tigress in January has emerged as a rare bright spot. Because the animal does not match any tiger officially recorded in India by the Wildlife Institute of India (WII), forest officials have named it "Paheli" (riddle).

— The reserve is also undergoing habitat improvement works in anticipation of future tiger translocations. More than 500 hectares of grassland are being developed, and water bodies are being created to improve water availability for wildlife.

— After receiving approval from the National Tiger Conservation Authority (NTCA) to translocate one male and two female tigers from neighbouring Madhya Pradesh, forest officials have focused on improving prey availability — a key condition flagged by the NTCA for the reserve's revival.

— Alongside efforts to restore tiger numbers, authorities are also attempting to revive the wild buffalo population. Three female wild buffaloes have been brought from Assam and are expected to be released into the reserve soon.

Do You Know:

— A tiger reserve in India is a designated area established under the Project Tiger initiative to ensure the conservation of tigers and their habitats. These reserves are part of the government's efforts to protect the tiger population, maintain biodiversity, and restore ecological balance.

— The National Tiger Conservation Authority (NTCA) is a statutory body under the Ministry of Environment, Forests and Climate Change constituted under enabling provisions of the Wildlife (Protection) Act, 1972, for strengthening tiger conservation, as per powers and functions assigned to it under the said Act.

— The IUCN status of the tiger is endangered, and it is protected under Schedule I of the Wildlife Protection Act, 1972.

INDIA, CHINA IN TALKS OVER JOINT UNESCO NOMINATION FOR XUANZANG'S WORK

To speed up the process of safeguarding heritage, the BRICS countries are deliberating on filing joint nominations for various UNESCO lists. In this line, India and China are in advanced stages of discussions over a joint nomination for 'The Great Tang Records on the Western Regions', a narrative of Chinese Buddhist monk and scholar Xuanzang's travels through medieval India in the 7th century.

Key Takeaways:

• The proposal, led by China and to be supported by India, is presently under consideration with the Ministry of External Affairs, as per sources. China had earlier reached out through diplomatic channels to convey an interest in pursuing a joint nomination for an inscription in UNESCO's Intangible Cultural Heritage List.

• The accounts of Xuanzang, also known as Hiuen Tsang, who spent 19 years travelling through India, remain a source for the study of early medieval India. He studied at the Nalanda University and captured the political, social and religious practices of the time in his accounts.

• India also aims at securing a place for Panchtantra on the UNESCO list along with Iran as the fables have been a staple of Persian literature and folklore for over 1,500 years; as also for the philosophy of Satyagraha along with South Africa, official sources told The Indian Express.

• This has come out of deliberations at the recent BRICS Culture Working Group meeting under India's chair, which was attended by delegations from Brazil, China, South Africa, the UAE, Indonesia and Iran, with representatives from Russia, Ethiopia, and Egypt joining in hybrid mode.

• The second meeting of the BRICS Culture Working Group was held in Varanasi earlier this month. At the inaugural session, Union Culture Secretary, Vivek Aggarwal, highlighted that BRICS countries are home to some of the world's oldest civilisations while also representing vibrant and evolving contemporary cultural landscapes.

• The recommendations from the Second Culture Working Group meeting will be sent to the BRICS Cultural Track ministerial meeting in August in Bhopal, so that they could be reflected in the joint statement by BRICS Culture Ministers.

• At a panel discussion on "Collaborative Approaches for Safeguarding Shared Heritage: Joint Nominations under the UNESCO World Heritage Convention, Intangible Cultural Heritage, and the

Memory of the World Programme", held during the meeting, delegates explored opportunities for collaborative nominations among BRICS countries.

• The idea is to skip the queue since each country is allowed only two dossiers during the two-year cycle of UNESCO heritage lists, and most BRICS nations have a lot of heritage that needs safeguarding. As per officials, there is no limit on nations filing joint nominations, with the dossier led by one country, backed by others.

Do You Know:

• UNESCO's Intangible Cultural Heritage (ICH) lists preserve living expressions and traditions, such as oral traditions, performing arts, and festivals. India currently has 16 officially inscribed elements on this prestigious register.

• The Chinese traveller kept a journal of his travels between 627 AD and 643 AD, a large part of which were in India. Hiuen Tsang is supposed to have visited the court of Harshavardhana of Kannauj, who ruled from 606 AD to 647 AD as the last great emperor of north India before the establishment of the Delhi Sultanate in the 13th century.

• In Si-Yu-Ki, or 'The Buddhist Records of the Western World', (the first English translation of which was published in 1884 by the Orientalist scholar Samuel Beal) the Chinese traveller Hiuen Tsang (also transcribed as Hsuan Tsang and Xuan Zhuang) wrote about India.

BRICS Culture Working Group meeting

The second meeting of the BRICS Culture Working Group was held in Varanasi earlier this month. The joint nomination for Safeguarding Shared Heritage under the UNESCO World Heritage Convention, Intangible Cultural Heritage, and the Memory of the World Programme is part of collaborative approaches under BRICS.

The idea is to skip the queue by filing joint nominations since each country is allowed only two dossiers during the two-year cycle of UNESCO heritage lists with most BRICS nations having a lot of heritage and civilisational agenda that needs to be safeguarded.

As per officials, there is no limit on countries filing joint nominations, with the dossier led by one country, and supported by others.

In 2016, India hosted the 1st BRICS Culture Ministers' Meeting in Goa. India will host the BRICS Cultural Festival at Bhopal and BRICS Theatre Festival at New Delhi.

DANCING GIRL, MEET MODEST IMAGINATION

What does the Dancing Girl of Mohenjo-daro — the 4,500-year-old bronze artefact on display at Delhi's National Museum — denote? The refinement of the Harappan civilisation, of course; its sophisticated knowledge of metallurgy. But also, the NCERT now seems to insist, immodesty. The inaugural Class IX art education textbook features an image of the figurine with its bare torso covered with a sheath, ostensibly to make it age-appropriate. The Dancing Girl has featured in NCERT's history textbooks for over 25 years before this. The move is remarkable not just for its prudishness but for what it reveals about pedagogical philosophy: That students must be protected from complexity, ambiguity, and the full texture of their own civilisation.

In recent years, through successive revisions, textbooks have been streamlined, historical emphases reordered and contentious subjects pared back. NCERT has cited a need for rationalisation of syllabi, and what its director D P Saklani said in 2024, justifying the deletion of the Gujarat riots and the violence after the Babri Masjid demolition from the Class XII Political Science textbook: "To create positive citizens, not violent and depressed individuals." The altered Dancing Girl belongs to the same sensibility. Instead of trusting students to understand context — that artistic nudity in an archaeological artefact is neither scandalous nor unusual — it removes the possibility of the encounter altogether. This sits uneasily with the NEP's ambition of fostering critical thinking: Education that aspires to cultivate independence of thought must make room for knowledge and context, not smoothen out every faultline, conflict and contradiction.

The impulse is also striking for what it communicates about women and their place in public life. At a time when more women than ever before are entering universities, workplaces, politics, and other public institutions, wearing their individuality in thought and attire, claiming spaces that often remain unequal or unwelcoming, the decision to cover up one of the most celebrated examples of ancient South Asian art sends an unfortunate message. The Dancing Girl has been significant not because it conforms to a blindfolded standard of modesty but because it embodies poise, confidence and unmistakable presence. If the task of education is to equip young people to engage with the world as it is, then NCERT would do better to trust both students, and women — both contemporary and millennia old — with a little more agency.

HOW A MOHENJO-DARO FIGURINE BECAME A 'DANCER' — AND A CHALLENGE TO 'MODESTY

A Class 9 textbook shaded over the nude torso of the iconic "Dancing Girl" of Mohenjo-daro before the NCERT (National Council of Educational Research and Training) decided to restore its original image.

Key Takeaways:

— This was not the first time an attempt had been made to cover up the Harappan-era bronze figurine. In 2023, a fully clothed "contemporized version" of the 'Dancing Girl' was unveiled as the mascot of the International Museum Expo.

— The story of "vulgarity" being attached to the bronze statue found at Mohenjo-daro, however, dates back several decades. It is largely associated with archaeologist John Marshall choosing to interpret it as the image of a "nautch girl" or "dancing girl" — an act some scholars believe was done without compelling evidence.

— The government of Pakistan also had similar reservations when it was trying to acquire Harappan artefacts from India in the 1950s, arguing that Mohenjo-daro and Harappa were both in Pakistan. India, however, contended that the legacy of the Harappan civilisation belonged to South Asia and not Pakistan alone.

— Finally, India and Pakistan agreed to a 50:50 division of the Harappan artifacts "found at Mohenjodaro and Chanhu-daro with the help of Mortimer Wheeler".

— While Pakistan wanted both the "Dancing Girl" and the "Priest King", India was willing to hand over just one of the two.

— "The Pakistani officials chose the priest king to avoid any backlash at home that a figure of a naked teenager could have invoked from religious quarters," Kumar writes.

— Significantly, even the identification of the statue as that of a dancing girl by John Marshall is contested.

— However, Gregory L Possehl, in his book The Indus Civilisation, expressed doubt whether the statue represents a female dancer. Historian Upinder Singh also said in A History of Ancient and Early Medieval India: "The dancing girl may not have been dancing at all, and even if she was, she may not represent a professional dancer."

— Significantly, while many nude terracotta representations of the female body were found from Harappan sites, these were identified as a marker of the Mother Goddess cult, while the bronze statue was identified as a nautch girl.

Do You Know:

— The announcement of the discovery of Indus Valley civilization was made by Sir John Marshall, the English archaeologist and director-general of the Archaeological Survey of India (ASI), on 20 September 1924.

— He wrote in The Illustrated London News "Not often has it been to archaeologists…to light upon the remains of a long forgotten civilisation,". "It looks, however, at this moment, as if we were on the threshold of such a discovery in the plains of Indus."

— However, in the decades preceding Marshall's announcement in The Illustrated London News, several Indus sites apart from Harappa had already been explored. In 1921-22, Harappa came to be excavated by Daya Ram Sahni, while Mohenjodaro was dug up by Rakhal Das Banerji in 1922-23.

— Both Sahni and Banerji discovered seals of the kind found by Cunningham decades earlier. But given that they were excavating two very different-looking places far away from each other, they were both unaware of the other's find.

— In June 1924, Marshall called for a special conference at the headquarters of the ASI in Simla, where the archaeologists of Harappa and Mohenjodaro assembled all the artifacts found by them in these two places. It was soon evident that both these sites belonged to the same culture and civilisation, and Marshall announced his dramatic discovery to the world.

— The Dancing Girl belongs to the Harappan civilisation, which dates back to approximately circa 2600-1900 BCE. Discovered in 1926 inside a small house at the Harappan site of Mohenjo-daro (in present-day Pakistan), the figurine represents a 10.8 cm-high bronze figure of a woman, with her head tilted backwards and slightly bent knees.

HISTORICAL REALITY OF PRE-COLONIAL LEARNING IN INDIA

Dharampal's book, The Beautiful Tree: Indigenous Indian Education in the Eighteenth Century (1983), is a groundbreaking historical work that used official British colonial archives to challenge the narrative that pre-colonial India was uneducated.

It sought to prove that 18th-century India possessed a widespread, highly inclusive, and decentralised indigenous education system before British policies systematically dismantled it. However, this claim was highly exaggerated.

British administrators, such as William Adam and Thomas Munro, did observe the existence of many village schools, temple schools, gurukuls, maktabs, madrasas, and merchant training centers across India. However, these educational institutions were in spirit very different from the modern education system we know today.

Nature of India's pre-colonial education system

Yet, it is important to recognise that pre-colonial India did possess many forms of education. India had traditions of learning in grammar, philosophy, mathematics, astronomy, medicine, poetry, commerce, and ritual studies. Temples, monasteries, courts, merchant communities, and village teachers all played a role in preserving and transmitting knowledge. In many places, children learned arithmetic, accounting, and practical skills needed for agriculture and trade.

The modern social media version of this argument often exaggerates the nature of this educational system. The existence of many schools does not automatically mean there was universal education in the modern sense. Most institutions were small, local, and dependent on patronage. Many schools taught only basic literacy or occupational skills to a limited number of students.

Pre-modern Indian society was organised through caste and hereditary occupations rather than through the modern idea of equal citizenship. Knowledge was distributed according to social roles. Brahmins specialised in ritual and textual learning. Merchants trained children in commerce and bookkeeping. Artisans transmitted technical skills through families and apprenticeships. Agricultural knowledge was passed through household labour. Much education, therefore, happened outside formal schools.

Social media discussions often confuse hereditary skill transmission with mass public education. A blacksmith teaching metallurgy to his son or a priest teaching memorisation to disciples represented an important knowledge system, but it was not the same as a universal schooling system open equally to all people.

Castes, occupation determine access to learning

Access to education was unequal. Colonial surveys themselves showed that students often came mainly from dominant castes, merchant communities, scribal groups, and Brahmins. Some lower caste communities did attend village schools, especially in commercially active regions, but access remained uneven. Women's education was also limited in most regions, though there were exceptions.

Colonial writers themselves misunderstood Indian education because they looked mainly for centralised institutions similar to European state schools. Since Indian learning was decentralised and embedded within caste and occupational networks, colonial observers often underestimated its complexity and spread.

Nationalist writers later reacted against colonial stereotypes and tried to show that India had a rich educational tradition before British rule. This correction was important because colonial narratives often portrayed Indians as ignorant or uncivilised. However, some nationalist arguments went too far in presenting pre-colonial India as having a nearly universal and egalitarian school system.

Between colonial stereotypes and modern claims

British rule did weaken many older institutions. Revenue policies disrupted temple economies and local patronage networks that supported teachers and scholars. Persian education declined after English became dominant in administration. Colonial education created new elites trained in English law and bureaucracy. In this sense, many indigenous systems lost support and prestige under colonial rule.

The British also introduced a different model of education based on centralised administration, examinations, certification, and the modern idea of mass literacy. This system had its own inequalities, but it differed fundamentally from older caste-based systems of knowledge transmission.

The historical reality lies between two extremes. Colonial stereotypes that India lacked education were incorrect. But modern social media claims that India had a universal public school system before the British are also misleading. Pre-colonial India had a dense and sophisticated ecosystem of learning traditions, but these traditions were deeply shaped by caste hierarchy, occupation, gender, and local patronage rather than by the modern ideal of equal public education for all.

SHORT NEWS

G7 SUMMIT

— The G7 or 'Group of Seven' are Canada, France, Germany, Italy, Japan, the United Kingdom, and the United States. It is an intergovernmental organisation that was formed in 1975 by the top economies of the time as an informal forum to discuss pressing world issues.

— This year the G7 Summit was held in Évian, France. The presidency of G7 meetings is held by each of the seven countries in turn, each year. The country holding the presidency is responsible for organising and hosting the meeting.

— Usually, G7 host countries invite some countries as guest countries or outreach partners. India was invited by France as an outreach participant.

— The G7 summit provides a forum for member countries to discuss shared values and concerns. While it initially focused on international economic policy, in the 1980s, the G7 extended its mandate to include issues related to foreign policy and security as well.

— Over the years, the G7 has evolved from an economic forum to a platform that aims to address a range of global challenges. Concluding with a communiqué outlining political commitments, the annual summit influences global governance, agenda-setting and decision-making processes.

STATE OF THE CLIMATE IN ASIA 2025 REPORT

— According to the World Meteorological Organization (WMO)'s State of the Climate in Asia 2025 report, released on 17th June, Asia's warming rate during 1991-2025 was nearly twice as high as during 1961-1990, with 2025 emerging as one of the region's warmest years on record and witnessing unprecedented ocean heat that triggered widespread marine heatwaves.

— The temperatures over the Asian landmass in 2025 were 0.96 degree Celsius above the 1991-2020 average and about 1.9 degree Celsius higher than the 1961-1990 baseline.

— This pattern is consistent with findings from the Intergovernmental Panel on Climate Change (IPCC) Sixth Assessment Report, which also notes that temperatures over land increase faster than those over the ocean.

— One of the report's key findings was the record-high ocean heat content across Asia in 2025, the highest since observations began in 1960.

— Ocean heat is a critical climate indicator because nearly 90 per cent of the excess energy trapped by greenhouse gases is absorbed by the oceans, altering temperatures at different depths and contributing to sea-level rise and changes in ocean circulation patterns.

INDIA'S SECOND PROGRESS REPORT ON THE BONN CHALLENGE

— India has restored 21.7 million hectares of degraded and deforested land between 2011 and 2020, according to the country's second progress report on the Bonn Challenge released by the Ministry of Environment, Forest and Climate Change and International Union for Conservation of Nature (IUCN) on 17th June, 2026.

— The Bonn Challenge is a global initiative launched in 2011, with the efforts of the Government of Germany and the International Union for Conservation of Nature (IUCN). IUCN acts as the Secretariat of the Bonn Challenge.

— The Bonn Challenge makes a commitment to restoring 150 million hectares of degraded and deforested landscapes by 2020, and an additional target of 350 million hectares by 2030.

— It promotes Forest Landscape Restoration (FLR), which prioritises both biodiversity conservation and human livelihoods. IUCN and the World Wide Fund for Nature (WWF) coined the term forest landscape restoration in 2000 as a framework for managing landscapes, complementing both forest conservation and sustainable management.

— India had pledged to restore 13 million hectares with an additional eight million hectares by 2030. This was revised to 26 million hectares by 2030 as announced by Prime Minister Narendra Modi at the 14th United Nations Convention to Combat Desertification held in 2019 in India.

HEATWAVES LEADING TO INCREASED CONCENTRATIONS OF GROUND-LEVEL OZONE

— According to the recent study, heatwaves are not just a direct threat to human health; they also drive up concentrations of ground-level ozone that sharply aggravate mortality risks.

— In 2024 alone, more than 830 deaths in India could be attributed to increased ozone concentrations caused by extreme heat, according to the study.

— Ozone is naturally produced, and found, in the middle atmosphere, at an altitude between 15 km and 50 km from the Earth's surface.

— This ozone protects the Earth from the harmful ultraviolet rays in the sunlight. It absorbs these rays, acting as a natural sunscreen for the Earth. But ozone close to the ground is an air pollutant.

— Surface-level ozone is not naturally produced, but is a by-product of chemical reactions between other common air pollutants like nitrogen oxides (NOx) and volatile organic compounds (VOCs) in the presence of sunlight. Heat has the effect of accelerating these reactions.

— Exposure to ozone affects lungs and heart, and can lead to Chronic Obstructive Pulmonary Disease (COPD) and Ischemic Heart Disease (IHD), apart from cancer and diabetes.

— A large number of deaths, in tens of thousands every year, is already associated with ozone exposure.

— The increased levels of ozone caused by heatwaves persists for about three to four days on an average after the end of the heatwave, the study said based on their analysis of data over the last 21 years.

SHRIMP ECONOMY

— Months after the US tariff shock, shrimp farmers in Andhra Pradesh are facing renewed financial pressure from a hike in aqua feed prices, significantly increasing production costs and prompting threats of protests.

— According to industry estimates, feed maker companies have increased prices by Rs 12-16 per kg with effect from June 13. The hike comes at a time when shrimp farmers are still recovering from the disruptions and losses caused by the US tariffs.

— India exports approximately 8 lakh tonnes of shrimp a year, with Andhra Pradesh accounting for over 60 percent of production. The state accounts for 80 percent of the country's shrimp exports and 34 percent of marine exports, valued at around Rs 21,246 crore annually.

— Shrimp farming is an aquaculture-based activity in marine or freshwater environments to produce shrimp for human consumption.

BULLET TRAIN TUNNEL HOOD

— The tunnels in the Mumbai-Ahmedabad High Speed Rail (MAHSR), India's first bullet train project, will incorporate a unique feature being introduced in Indian Railways: tunnel hoods.

— The 508-km project has seven mountain tunnels in Maharashtra and one mountain tunnel in Gujarat. Each tunnel will have tunnel hoods or entrance hoods at both ends.

— Tunnel hoods are cylindrical-shaped structures that have pressure-relief vents or windows and are built at the entrance and exit of the main tunnel. It is a common feature on high-speed rail systems in countries operating bullet trains, where trains travel at speeds exceeding 300 km per hour.

— On the requirement of tunnel hoods, a senior NHSRCL official said that when a high-speed train enters a tunnel, it pushes a large volume of air ahead of it, similar to a piston moving inside a cylinder.

— "This sudden compression of air generates pressure waves that travel through the tunnel. If not properly managed, these pressure waves can create booming noise, similar to the explosion, when a train exits the tunnel," the official said.

— "Tunnel hoods act as a transition zone between the open environment and the confined tunnel space. By allowing air to enter and exit more gradually, they help control pressure changes and improve the overall aerodynamic performance of the system," the official added.

GREAT NICOBAR PROJECT: ZOOLOGICAL SURVEY TO SOON SEEK NOD FOR TRANSLOCATING CORALS

— The Zoological Survey of India (ZSI) will soon seek a nod from the Department of Environment and Forest, Andaman and Nicobar Islands, for the translocation of over 16,000 coral colonies that will be impacted around the Galathea Bay transhipment port site under the Great Nicobar Island (GNI) project, senior officials told The Indian Express.

— Translocation of coral colonies to mitigate potential impacts of port construction activities, such as capital dredging, is one of the key conditions laid down in the environmental clearance granted for the Rs 81,000 crore mega project. Capital dredging is undertaken to create deep, navigable channels for large vessels and alters marine ecology.

— Coral colonies, made up of many individual coral animals called polyps, need light to remain healthy, and a rise in sediment load from dredging activities can increase turbidity (cloudiness) and coral smothering, leading to their death.

'LIKE REAL LIFE, KIDS NEED RULES FOR SOCIAL MEDIA USE'

— Six months after Australia banned social media for those under 16, the UK became the latest country to tighten online safety for children. On June 15, UK Prime Minister Keir Starmer announced that under-16s would be banned from social media by spring 2027.

— The Indian Express spoke to Ravi Iyer, Managing Director of the University of Southern California's Marshall Neely Center, and a social psychologist who has worked on the societal impacts of technology and social media. During his earlier stint at Meta (then Facebook), Iyer led data science, research and product teams and worked on issues ranging from algorithms and comment ranking to bullying and harassment on social media.

LT GEN DHIRAJ SETH NEXT ARMY CHIEF, FIRST FROM ARMOURED CORPS IN 30 YRS

— Lieutenant General Dhiraj Seth will be the next Chief of the Army Staff, the Ministry of Defence announced Saturday.

— An Armoured Corps officer, Lt Gen Seth is currently serving as the Army's Vice Chief. He will take over as the COAS on June 30 when current Army chief, General Upendra Dwivedi, retires from service.

— Lt Gen Seth will be the third Army chief from the 2nd Lancers, one of the oldest armoured regiments in the country, and the first Armoured Corps officer to be appointed Army chief in the last 30 years after General Shankar Roy Chowdhury (1994-97).

SOLE MCO PLAN GETS PUSHBACK FROM GRID INDIA, IEX

— Supporting the rollout of a market coupling mechanism in India — that seeks to discover uniform electricity price across exchanges — Grid Controller of India (Grid India) has called for establishment of a steering committee comprising key stakeholders to act as Market Coupling Operator (MCO).

— In its draft CERC (Power Market) (Second Amendment) Regulations, 2026, issued in April, the Central Electricity Regulatory Commission (CERC) had proposed designating Grid India as the sole MCO, responsible for the operation and management of market coupling.

— While Power Exchange India Ltd (PXIL) and Hindustan Power Exchange Ltd (HPX) have supported designation of Grid India as MCO, Indian Energy Exchange (IEX) — the country's biggest power trading bourse — opposed the draft regulations' proposal.

— India currently has three power exchanges regulated by CERC, where generators, distribution companies, traders and large consumers buy and sell electricity. IEX dominates the market with over 90% share, while PXIL and HPX account for the remainder.

INSIDE TWO OF INDIA'S OLDEST LEGISLATURES, A LEGACY OF REFORMS

— Modern legislative institutions in India can trace their beginnings to the presidency towns of Bombay, Calcutta and Madras. It was in these cities that the East India Company's trade, administration, and law-making were carried out by a small council of the company's officers, meeting in council rooms/houses. Over time, the British Parliament began to take an interest in India.

— Calcutta became the seat of British administration, with the Governor General at the helm of affairs. He was advised by a four-member council, and later, a law member joined this group. The British government also set up provincial councils, but it was not until the 1919 reforms that modern national and provincial legislatures were created. Then, in 1921, the Duke of Connaught came to hunt tigers and to inaugurate the legislatures being set up under these reforms. He inaugurated the provincial legislatures in Madras and Calcutta, and finally the national legislature in Delhi.

— Legislative institutions are defined by the passionate debates of legislators and identified by the buildings where these debates take place. In Madras, the Tamil Nadu Legislature meets in a building located inside Fort St George. The location is unique because both the legislature and the executive are within the same compound.

— The Bengal assembly has a British-style ceremonial mace that signifies the authority of the House. It is still in use, kept in front of the Speaker when the assembly is in session. A painting in the building depicts a pre-Independence scene, showing barefoot, liveried Indian men carrying the mace ahead of British officers wearing shoes. (The Tripura legislature also has a mace, and in 2019, an MLA ran off with it as a sign of protest.)

— The Bengal assembly was always at the forefront of technological innovation. Shortly after Independence, it began recording the audio of its debates. It was also the first to introduce machine voting in its proceedings. The success of machine voting in the Bengal legislature (albeit with a few hiccups) led to the technology's adoption in the Parliament of India. The assembly also became the first to implement a comprehensive system of subject committees to ensure government accountability — a mechanism later adopted by the national parliament.

BUSINESS AND ECONOMY

ELON MUSK'S WEALTH DEFIES GRAVITY — AND REALITY

Six years ago, a study by a financial services company predicted that the world would have its first trillionaire by 2026. Based on the fact that his net worth had grown 34 per cent in the previous five years, it predicted that the title would go to Amazon founder Jeff Bezos. Last week proved the study right on one count and wrong on the other. The world did, indeed, get its first trillionaire this year. It was not, however, Bezos but former Trump BFF Elon Musk, who crossed that threshold thanks to the blockbuster IPO of his aerospace and AI company, SpaceX.

What does it mean to have the kind of money where the only entities that are richer than oneself are 21 countries and a dozen corporations? A trillion dollars in the abstract is hard to picture. In 2020, when Bezos was still the world's richest man, a viral TikTok sought to explain the scope of his wealth in grains of rice: If one grain of rice represented $100,000, Bezos — then valued at $200 billion — was worth 2,000,000 grains of rice (about 54 kg). Musk's current net worth would thus amount to 10 million grains.

What else could a trillion dollars buy? Maybe 666 Burj Khalifas or 10,000 Gulfstream G700 jets or 200 Buckingham Palaces. Of course, Musk's wealth has fluctuated in the past; he lost over $100 billion in 2023 when Tesla stocks slumped. But when one's personal fortune is linked to the business of defying gravity, even the loss of $100 billion seems but a minor glitch.

MAKING SENSE OF THE BIGGEST IPO IN HISTORY

Technopreneur Elon Musk, who was already the planet's richest person, became the world's first trillionaire with his company SpaceX's stock market debut on June 12, 2026. The company saw the biggest-ever initial public offering (IPO) in history.

However, SpaceX's entry has also raised concerns over the company's valuation; the relaxation of rules that enables the company to enter indices like the Nasdaq-100; and the increasing concentration of wealth among a few. New York City's mayor Zohran Mamdani, in a cryptic reaction on X said, "Reason #1,000,000,000,000 why we should tax the rich".

SpaceX's market capitalisation, now estimated over $2 trillion is less than the Gross Domestic Product of only 11 countries in the world, an indication of the unequal distribution of wealth (Chart 1). Additionally, Mr. Musk had merged his companies Starlink and xAI (which includes X) with SpaceX before he planned the IPO. As of Friday, SpaceX was the sixth largest company in terms of market capitalisation. However, as the table shows, it is the only loss-making company in the list.

Among the three companies that are part of SpaceX, Starlink is the only company that has reported profits last year, leading many to express concerns that Mr. Musk has managed to sell the potential of his company, which includes building data centres, instead of its actual track record.

If one were to place SpaceX's IPO in Indian terms, the initial offering of all the top 100 IPOs in India would not match the $75 billion raised by the U.S. giant on Friday.

AMID WEST ASIA CONFLICT, BITUMEN WOES HIT INDIA'S ROAD INFRASTRUCTURE PUSH

The ongoing conflict in West Asia has hit India's push to expand road infrastructure. Bitumen, crucial for road construction, was also caught in the crossfire just like oil and gas, with an import dependency ranging between 30 to 40%.

Key Takeaways:

• India was not always as dependent on imports. The change has been driven by the mega road projects undertaken within the last decade, through schemes like Bharatmala (for enhancing road connectivity via expressways and economic corridors) and PMGSY.

• National Highways have grown from 91,287 km in 2014 to 1.47 lakh km currently (a 61% increase), while the length of expressways increased from 93 km to 3,052 km. However, domestic bitumen production has not kept pace. Imports have more than doubled, and consumption increased by almost 50%. According to data available with the Petroleum Planning and Analysis Cell of MoPNG, bitumen imports began in 2001-02, at around 9,000 tonnes. A significant increase was recorded in 2013-14, when 2.46 lakh tonnes were imported — more than double the previous year's import volume.

Do You Know:

• Bitumen is a mixture of organic liquids that are highly viscous, black, sticky, entirely soluble in Carbon Disulfide, and composed primarily of highly condensed Polycyclic Aromatic Hydrocarbons. Bitumen, derived from crude oil, is mainly used as a binder in road construction where it holds together materials like sand, gravel, and crushed stone, to form asphalt. Waterproof, adhesive, and flexible, it helps roads withstand traffic load and various weather conditions. Thus, it is known as black gold in the pavement industry.

• Almost 85% of the paved roads in India are of flexible type and hence the research in the area of bitumen is soaring sky high.

• The government has a target of building 10,000-km of highways in the ongoing financial year 2026-27. Additionally, 17,365 km of roads remain to be constructed under Pradhan Mantri Gram Sadak Yojana (PMGSY) Phase-III, a flagship scheme for rural infrastructure.

• Bitumen imports have taken a hit after the war, with road construction companies and contractors raising concerns over low supplies and increasing prices with the National Highway Authority of India (NHAI) and state road agencies.

• According to the Ministry of Petroleum and Natural Gas (MoPNG) data, India imported 2.36 lakh tonnes of bitumen in April 2026, compared to 2.97 lakh tonnes imported in April 2025 and 2.74 lakh tonnes imported in April 2024.

ROAD MINISTRY PLANS E-PASSES FOR RESIDENTS IN 20-KM RADIUS OF TOLL PLAZAS BY NEXT MONTH

In a push for barrier-less tolling system under which commuters do not have to stop to pay the toll fee, the Union Ministry of Road Transport and Highways will issue new digital monthly and annual passes by next month for residents in the 20-km radius of toll plazas, said an official with knowledge of the development.

Key Takeaways:

— The amount to be paid to acquire the passes, which will be linked to FASTag, however, is under discussion, the official said. Under the new system, the vehicle owners who live in the 20-km radius of the toll plazas will be verified through their Aadhaar numbers, the official said.

— MLFF is currently operational at two toll plazas of the country — Choryasi in Gujarat and Mundka-Bakkarwala toll plaza on Urban Extension Road (UER)-II in New Delhi.

— Locals around the 20-km radius of a toll plaza constitute a significant share of unpaid user fee violations recorded so far, said the official.

— The movement of armed forces is another issue that has been flagged in the MLFF tolling system. Sources said the Ministry is deliberating the matter with the department of Military affairs to issue a FASTag exempt from toll charges.

— The toll exemptions and discounts on National Highways are governed by the National Highways Fee (Determination of Rates and Collection) Rules, 2008.

— Currently, defence personnel get the exemption after identification of their vehicle or production of the pass as specified in the Indian Toll (Army and Air Force) Rules, 1942.

— The boom barrier-less toll plazas have very minimum human intervention and it immediately issues an e-notice against the vehicle or vehicle owner, if the passage is recorded and user fee is not paid.

— In MLFF, high-performance Radio Frequency Identification (RFID) readers and Automatic Number Plate Recognition (ANPR) cameras read the FASTag and Vehicle Registration Number (VRN) to deduct the toll amount.

— Indian Highways Management Company Ltd (IHMCL) — NHAI's tolling implementation agency — has awarded the MLFF contract for more toll plazas.

Do You Know:

— The National Highway Authority of India (NHAI) on May 1 operationalised India's first MLFF barrier-less tolling system at the Choryasi toll plaza on the Surat–Bharuch section of NH-48 in Gujarat.

— The MLFF system removes the need for boom barriers and vehicles to stop for toll collection. Instead, high-performance Radio Frequency Identification (RFID) readers and Automatic Number Plate Recognition (ANPR) cameras read the FASTag and Vehicle Registration Number (VRN).

— According to the Economic Survey 2025-26, the MLFF is projected to be implemented across all four-lane and above national highways and expressways by March 2029.

— FASTag is an electronic toll collection system managed by the National Payments Corporation of India (NPCI) and the National Highways Authority of India (NHAI).

— FASTag sticker is usually pasted on the windscreen of a car. It was launched in 2014 as a pilot project and made mandatory at every toll plaza in the country in 2021.

— It uses Radio Frequency Identification (RFID) technology to communicate with scanners installed at toll plazas. Once the car crosses a toll plaza, the requisite toll amount is automatically deducted from a bank account or a prepaid wallet linked to the FASTag.

INDIA-UK FTA TO COME INTO FORCE ON JULY 15

The India-UK trade deal is set to come into effect on July 15 after both countries, during last-minute talks in London this week, resolved differences over the terms of steel trade, which had delayed the implementation of the trade deal. The UK had announced fresh steel curbs in March this year, much after India and the UK had concluded the negotiations last year in July, which added a layer of complexity in trade ties.

Key Takeaways:

• Prime Minister Narendra Modi said the agreement will significantly boost our bilateral trade and investment and will unlock numerous opportunities for Indian farmers, workers and MSMEs. Commerce Minister Piyush Goyal said the deal leverages the country's manufacturing prowess, service capabilities, and grassroots production directly into one of the world's premier consumer markets.

• On the logjam over steel, the Commerce and Industry Ministry said India and the UK have reached a "consensus" to safeguard steel trade and that India's steel and steel product exports would be protected through a carveout under three categories — country-specific quota (CSQ), residual quota and Authorised Use Scheme (AUS).

• This arrangement means that steel shipments would be allowed in three buckets: one where a dedicated quota would be given to India, under which Indian steel products will not be competing with other countries, a second where goods will face competition and a third where certain specialised steel items required by the UK get quicker access.

• The resolution over the UK's steel curbs assumes significance as the steel industry has told the government that Indian steel exports would decline despite the free trade agreement (FTA). Indian officials had said they would move to restrict UK whiskey exports if Indian interests were hurt due to the curbs. Indian negotiators were in London for steel related negotiations this week, Commerce Secretary Rajesh Agrawal.

Do You Know:

• India's exports of iron and steel and their products to the UK stood at $893.4 million in 2025-26, accounting for a significant share of $13.4 billion in total merchandise exports to the UK.

• Industrial exports to the UK were facing two major regulatory impediments, even after concluding the trade negotiations. Officials said the immediate worry is the steel quota because it comes into effect on July 1. It will be followed by the UK's Carbon Border Adjustment Mechanism (CBAM), set to come into effect on January 1, 2027.

• The UK steel sector only accounted for 0.1% of UK economic output in 2024 but supported 37,000 jobs, many in the heartlands of the governing Labour Party, which grew from a trade union movement deeply rooted in Britain's industrial heritage, as per Reuters. Fresh political challenges have been brewing for Prime Minister Keir Starmer after his Labour Party suffered steep losses in local elections across the country.

BEHIND RBI'S RETURN TO 'TERRIBLE' 2013 IDEA TO LIFT FOREIGN INFLOWS

Last deployed in 2013, the Foreign Currency Non-Resident (Bank) deposit swap scheme was widely seen as being too expensive for RBI to announce this time around. But the logic is the same: the costs seem to be worth the benefits.

Key Takeaways:

• Speaking in August 2016, just before his term as Governor of the Reserve Bank of India (RBI) was to end, Raghuram Rajan said there were multiple ideas the authorities were considering to attract foreign money in August-September 2013 amid the market volatility caused by the speculation around tightening of monetary policy by the US Federal Reserve. "However, there was one that I found completely idiotic. I thought this was a terrible, terrible thing to do."

• That idea was the swap scheme for banks' Foreign Currency Non-Resident (Bank) deposits, or FCNR(B) deposits: these are fixed-term deposits designed for Non-Resident Indians, Persons of Indian Origin, and Overseas Citizens of India. Such deposits allow account holders to park their earnings abroad in freely convertible foreign currencies without having to convert them into rupees.

• Banks would get a 3.5% subsidy on the foreign funds they raised through these deposits, allowing them to offer attractive interest rates to those abroad. The facility ended up being wildly successful, resulting in an inflow of $26 billion and helping turn around investor confidence in the rupee and India.

• But it was not always clear it would do the job. In fact, not only did Rajan think it was "idiotic" and "terrible", but a clever suggestion from bankers to get the RBI to pay for the exchange rate risk these deposits entailed. Such were his misgivings that he even asked the outgoing Governor, D Subbarao, to announce the swap scheme before his exit on September 4, 2013.

Do You Know:

• Now, nearly 13 years later, the FCNR(B) swap scheme is back. And while the removal of the capital gains tax on Foreign Institutional Investors' (FIIs) investments in government bonds (meaning tax levied when FIIs earn profits upon selling or redeeming such financial assets) as well the withholding tax (similar to a tax deducted at source on interest income) has captured much of the imagination, it is this swap scheme that will do much of the heavy lifting when it comes to bringing in foreign inflows.

• The FCNR(B) swap scheme is even more potent this time around. In 2013, the RBI provided a 3.5% subsidy to banks. Now, it will fully bear the exchange rate risk on new three- to five-year deposits mobilised until September 30.

• Interest rates on three-year FCNR(B) deposits are currently around 3.35%, while domestic deposits of the same tenure offer 6.5% interest. Meanwhile, three-year US government bonds are trading just above 4% yield. As such, banks can offer "attractive" interest rates of 5.5% and above on FCNR(B) deposits, according to Soumya Kanti Ghosh, Group Chief Economic Adviser at State Bank of India. Ghosh added in a report on Friday that taking an annual currency hedging cost of around 2.5%, the total cost for the RBI ends up being around 12.5% for a five-year deposit, "implying $125 million cost embedded per billion (dollars) raised".

• It is this estimated $125 million cost (this time around) that changed Rajan and the RBI's thinking back in 2013. The cost of hedging for the RBI is high only if a lot of money comes in – but if a lot of money does come in, the rupee would appreciate. And a stronger rupee would not only reduce the hedging cost for the RBI but also reduce India's import bill.

• The savings from a stronger rupee would be much greater now, considering India's import bill in 2025-26 was $775 billion. The government and the RBI have blown the steps taken in 2013 out of the water and delivered a "Balance of Payments (BoP) package" that has exceeded market expectations; so much so that economists now expect India to have a surplus or near-zero BoP from earlier expectations of a deficit of around $60 billion and even higher in some cases.

THE RBI AND ITS GROWING FISCAL ROLE

Central banks occupy a peculiar position in modern democracies. Governments spend, tax, and borrow. Central banks manage inflation, preserve confidence in the currency, and safeguard financial stability. Their credibility rests on maintaining a degree of distance from the fiscal compulsions of the governments they serve.

Recent developments surrounding the Reserve Bank of India (RBI) invite a closer examination of that relationship.

Much of the recent discussion has focused on the RBI's management of foreign exchange reserves, interventions with respect to managing the rupee, including instances of reserve-rebalancing through gold sales, and increased foreign-currency holdings.

Yet, the more consequential story surrounding this is the extent to which the institution may be seen to be becoming more executive or fiscalised in its role to support the government.

In May, the RBI approved a record surplus transfer of ₹2.87 lakh crore to the Union government for FY26. While fully consistent with the Economic Capital Framework, its scale raises questions about the evolving role of the central bank within India's fiscal architecture.

A structural shift

Surplus transfers have been around the ₹30,000 crore to ₹65,000 crore level for the past few years. The tipping point was reached in 2019 after the implementation of the revised Economic Capital Framework.

The transfer is now at a record high of ₹2.87 lakh crore for FY26.

This move coincides with the phenomenal growth of the RBI's balance sheet. It increased by 20.6% in one year to ₹91.97 lakh crore by March 2026. Gross income increased by over 26% during the same period.

Traditionally, governments fund expenditure through taxation, borrowing, and revenue growth. Political consent is needed for taxation. Borrowing is disciplined by markets and future repayment obligations. Economic growth requires real growth in productive capacity.

Central-bank transfers are different. They generate fiscal space without new taxes, new borrowing, or commensurate growth in economic production. The latest transfer alone is bigger than the annual budgets of several Indian States.

This is not a bad practice to make such transfers. However, it does pose an interesting question. When does a stabilising institution start to act as a fiscal instrument?

The evolution of the RBI's reserve management is a good example.

The RBI may have sold almost $12 billion worth of gold and bought foreign-currency assets by about $7.5 billion in the face of rupee pressures, according to recent reports.

These are standard reserve-management decisions when looked at superficially. Central banks are constantly adjusting their portfolios based on market conditions. Gold is a strategic reserve asset. Foreign-currency assets are the source of liquidity for intervening in exchange-rate markets.

However, the management of reserves has become a financial issue.

The recent surplus transfer included a significant portion of gains from foreign assets, foreign exchange transactions, and interest earned on securities holdings. The activities are mainly being carried out to ensure monetary and financial stability, but are also producing increasingly significant fiscal revenues for the sovereign.

This is where the discussion transcends accounting. The RBI's balance sheet is now at ₹92 lakh crore. The composition of reserves, intervention in the exchange rate, and asset allocation decisions now impact not just monetary stability, but also the economy's overall health. They are becoming more and more important for fiscal results as well.

The experience of India is different from that of the advanced economies, where central banks became entangled with fiscal policy by engaging in quantitative easing and buying a large number of bonds. In this case, the link has come about because of the increasing significance of the fiscal value of central-bank earnings.

The federal blind spot

The least talked about part of this debate is fiscal federalism.

The total amount of ₹2.87 lakh crore transfer is non-tax revenue and hence it is a Union government gain. It is not part of the divisible pool of income tax collections or GST revenues which are subject to Finance Commission formulas. There is no automatic share to the States.

States still have significant spending obligations. Concurrently, they have restrictions on borrowing under Article 293 and have much less fiscal flexibility than the Union government.

However, one of the biggest transfers of resources from the public sector in recent years is still not part of fiscal devolution.

The point isn't whether States have a legal claim to RBI profits. They do not. The question is whether a central institution acting on behalf of the monetary union as a whole should indirectly support fiscal centralisation, without any mention of accountability, transparency or federal balance.

Dividend transfers, cesses, surcharges and borrowing restrictions are all considered to be individual policy instruments when viewed individually. Together, they show a progressive shift in the fiscal landscape of India towards the centre.

An evolving institution

The debate over the RBI's record surplus transfer is therefore not ultimately about the dividend itself. It is about how modern states finance themselves.

The central bank has evolved from being primarily a guardian of monetary stability into an increasingly important source of fiscal capacity. The latest transfer may have eased borrowing pressures and strengthened the government's fiscal position, but it also underscores how closely monetary institutions and fiscal outcomes have become intertwined.

The RBI continues to operate within a well-defined framework and retains substantial operational autonomy. Yet central bank independence is not merely a matter of legal design. It is also a question of institutional distance.

As surplus transfers become larger and fiscal pressures intensify, preserving that distance may become more difficult. It may also become more important.

ESSENTIAL UPGRADES

The government has, in recent months, implemented several long-overdue but welcome upgrades to India's statistical databases. Wide-ranging, they cover the way the country measures Gross Domestic Product (GDP), industrial production, and price changes at the retail, wholesale, and producer levels. These updates have not only made India's key economic statistics more representative of reality, but have also brought them in line with international best practices. The most basic change across all indices has been the updating of base years. Until recently, the base years for GDP, the Consumer Price Index (CPI), Wholesale Price Index (WPI), and Index of Industrial Production (IIP) were either 2011 or 2012. As such, these measures were significantly outdated and less reflective of reality with each passing year. In February, the Ministry of Statistics and Programme Implementation (MoSPI) released the new series of national accounts data, including GDP, with a base year of 2022-23. The new series incorporates methodological improvements and new data sources, making it more granular and robust. Some of these, such as the double-deflator approach, have long been demanded by statisticians and international bodies, including the IMF.

Similarly, MoSPI had in February also released the new series of the CPI with an updated base year of 2024, a more inclusive basket of items measured, and more accurate weightages. This has enabled a more realistic reading of retail inflation, a key metric in interest-rate decisions. In early June, MoSPI then released the new series of the IIP as well. The base year was updated to 2022-23 and the index's data collection was strengthened. This, too, eventually feeds into more accurate GDP data. The other factor to be highlighted is that the data upgrades have not been limited to just MoSPI. The Ministry of Commerce and Industry also updated its WPI, releasing the new series on Monday. A more accurate WPI and CPI yield a more accurate GDP deflator, which strengthens the way that statisticians derive real GDP growth after having adjusted for inflation. The Commerce Ministry also released a new Producer Price Index (PPI), which is to replace the WPI in five years. A PPI is the standard among developed economies and provides more information about both goods and service price levels at the producer stage. With all these, the IMF is sure to improve the recurring 'C' grade it has given India's national accounts data. These, it is hoped, will also be capped off by a time-bound release of the new Census with no further delays.

NEW SERIES OF WHOLESALE PRICE INDEX

Why it matters

The Office of Economic Adviser is releasing the revised series of WPI with the base year 2022-23. It will replace the existing series of WPI with the base year 2011-12. The revised index will be released for five years from the date of its release, along with the Producer Price Index (PPI) and will be discontinued thereafter. The new WPI series as well as the release of an output PPI continues the government's overhaul of India's official statistics. In this context, let's know about the WPI and recent changes introduced in it.

Core Concept:

— The WPI measures the price changes in the wholesale market. Say, for example, the price of a commodity (such as onions) would vary depending on the fact that it is bought from the wholesale market or retail market.

— While inflation based on the Consumer Price Index (CPI) is the most widely considered measure of price increases in the country for households and used by the Reserve Bank of India (RBI) to decide interest rates, the WPI is crucial too and used in price escalation clauses in the supply of raw materials, machinery, and construction work.

— For example, in long-term sales and purchase contracts, WPI inflation is used by companies as an indexing tool to adjust terms to account for changes in prices in the future.

— Major changes in the new WPI series (Base Year 2022-23)

1. Increased number of Items: In the new WPI series, the total number of items have increased from 697 to 957.
2. Inclusion of new sources of energy under Electricity: New sources of energy, such as Solar and Wind, have been added under 'Electricity' Group. Nuclear Electricity also has been included in the basket.
3. Restructuring for tracking Energy Prices: Crude petroleum and natural gas have been shifted from 'Primary Articles' to the 'Fuel and Power' major group, which already includes other major fuels, such as coal, electricity, and petroleum products.
4. Improved methodology: Gross Value of Output (GVO) has been used for preparing weights for WPI 2022-23 series, compared to Net Traded Value i.e. GVO + Imports – Exports, used in WPI 2011-12 series.

Do you know?

Earlier this year, the Ministry of Statistics and Programme Implementation (MoSPI) not only updated the base years for CPI and GDP data but also improved the methods used to calculate these key economic indicators. On June 2, MoSPI also released its revised Index of Industrial Production (IIP) series, with 2022-23 as the base year. MoSPI is also working on the services sector counterpart of the IIP.

INDIA'S NEW CPI SERIES

— The CPI measures the price changes in the retail market (maximum retail prices{MRP}, inclusive of taxes). A key difference that must not be missed is that the WPI does not take into account the change in prices of services — say a haircut or a banking transaction. But CPI does.

— The MoSPI has also released the new Consumer Price Index (CPI) with the updated base year 2024. The newest CPI reconstitutes the consumption basket based on the results of the 2023-24 Household Consumption Expenditure Survey (HCES), so that prices are measured as per the latest consumption patterns and not the 2011-12 survey.

— CPI 2024 uses the latest classification system developed by the United Nations Statistics Division.

— The 2024 series has replaced the earlier structure comprising six broad groups—Food and beverages, Pan, tobacco and intoxicants, Clothing and footwear, Housing, Fuel and light, and Miscellaneous (services such as education, health care etc.).

— In CPI 2024, a basket of 358 goods and services is there which is more than 59 goods and services of the erstwhile basket. The expenditure is classified into 12 divisions at the first level, 43 groups, 92 classes, 162 subclasses, enabling, and 358 items at the last level of hierarchy. It has included rural house rent for the first time to improve coverage of rural housing consumption.

FULLER EXPRESSION

India's May retail inflation at 3.93%, the highest in the current CPI series and roughly a 15-month high if compared with the previous series, has begun to reflect the pass-through effects of surging food and fuel costs more clearly than in previous months. However, last month's wholesale inflation numbers, the first under the new WPI series and due later this month alongside India's first Producer Price Index (PPI), should reveal how much of the price shock producers and wholesalers continue to absorb. May's food inflation rose at a faster clip to 4.78% from 4.20% in April. While transport inflation rose by 1.75% after a marginal contraction in April, a subdivision within the sector — transport services for goods — surged by 7.63%, signalling growing price pass-through. This was largely driven by the four tranches of petrol and diesel price increases beginning in mid-May. Significantly, the sharp rise in commercial LPG prices — by about ₹1,300 per 19-kg cylinder, representing an increase of over 75% since February — appears to be reflected in inflation in the restaurants and accommodation services category, which stood at 5.75%, the second-highest division after personal care and miscellaneous goods and services. Inflation in the latter category reached 18.46%, reflecting soaring precious metals prices. Domestic LPG's second price revision by ₹29 earlier this month will likely find a fuller expression in June's consumer food price inflation.

Although May's inflation remains below the RBI's 4% target and within its 2%-6% tolerance band, the RBI retained its neutral stance at its latest monetary policy review, signalling concern over the possibility of further price pressures. Its intervention in the foreign exchange market through dollar sales has meanwhile helped shore up the rupee, Asia's worst-performing currency since the U.S.-Israeli conflict with Iran escalated. The currency, which briefly approached ₹97 to the dollar in May, is now trading closer to ₹95-₹96. The Centre may nevertheless draw some comfort from the fact that core inflation, which excludes food and fuel, remained relatively contained at around 3.8%-3.9% in May, largely unchanged from recent months. This coincides with signs of a U.S.-Iran rapprochement and uninterrupted shipping through the Hormuz. Yet, uncertainty persists over whether Iran may impose fees or restrictions on transit through the waterway, which could keep fuel prices elevated for energy-importing nations such as India. Even if crude prices soften, oil marketing companies are unlikely to immediately reverse retail price increases as they seek to recover losses. LPG prices, too, may remain sticky. Thus, while the prospects for a durable peace may have improved, a rapid decline in inflation appears unlikely.

INDIA'S PUSH BEYOND E20 FUEL: REASONS, AND PITFALLS

The Union government Wednesday exempted higher ethanol-petrol blends (22%-30% ethanol) from central excise duty, putting their tax treatment on a par with the 20% ethanol blend (E20) that's currently the standard at pumps.

Key Takeaways:

• The government has also proposed amendments to recognise 85% ethanol-blended fuel and 100% ethanol fuel under the Central Motor Vehicles Rules.

• Both measures signal the government's intent to prepare the country's vehicular and fuel ecosystems for the next stage of ethanol adoption. But they also have differing implications.

• The first measure — the transition from E20 fuel to higher blends — is aimed at most petrol cars. The second move — the draft amendment to recognise E85 and higher fuel — targets an entirely new category called flex fuel vehicles. Such vehicles are designed to operate on varying blends of petrol and ethanol but are still some way away from being widely introduced to the Indian market.

• For now, it is the first proposal that has caused concern among carmakers and motorists — especially considering their experience with the initial transition to the E20 ethanol blend from E10.

Do You Know:

• Last year, India achieved 20% ethanol blending in petrol, five years before target.

E20 fuel, denoting 80 parts petrol to 20 parts of ethanol, is now the standard petrol variant nationwide. For people with E10 certified vehicles or older ones, the transition to E20 came in just three years, with little warning of the pitfalls. The experience left motorists, especially those owning older cars and two-wheelers, feeling short changed. There are multiple problems with using a higher ethanol blend in petrol for engines not designed for these blends.

—Engine damage: Ethanol has a higher content of water, which is corrosive. So, E20 or higher ethanol blends could damage the parts of the internal combustion engine. This is especially true for older engines and the ones used on two-wheelers, where high-grade aluminium or steel casts are not used for the engine block.

—Mileage: Many customers had flagged a drop in mileage after the E10 to E20 shift. The drop could be between 5-12%, depending on when the car was manufactured. The Petroleum Ministry, however, has said that the drop in mileage would be "marginal".

—The only option: Vehicle owners in India currently do not have an option to choose different fuels at the petrol pump, unlike their counterparts in Brazil — a country that has successfully and structurally integrated ethanol with its automobile ecosystem. Brazilian law, unlike India, also provides for a discount for higher ethanol blends.

—Ignition issue: Regular ICE cars running on higher ethanol blends are hard to start on winter mornings because ethanol burns at a higher temperature than petrol.

—Exponentially worse performance: While a fuel with 10% ethanol (E10) makes little difference to a car's performance, anything above that level is said to cause problems in engines that aren't specifically built for it. And this performance worsens exponentially as the blending levels increase. The impact could be higher in the transition from E20 to E25 than from E10 to E20. E25 is what the government is now targeting as the base fuel, up from the current E20.

• The E25 transition will require additional engineering and validation work around engine calibration, fuel-system durability, corrosion resistance and material compatibility. All this, just months after the E20 transition. Vehicle costs will increase and likely fall on the consumer.

WHY AN ASSAM-NAGALAND PACT RAISES HOPES OF HIGHER OIL & GAS OUTPUT FROM NORTHEAST

The Union government, Assam and Nagaland Thursday signed a memorandum of understanding (MoU) that paves the way for the resumption of oil and gas exploration along the resource-rich and contested boundary of the two states after three decades.

Key Takeaways:

— The Northeast is considered the birthplace of India's oil and gas industry and Assam is among India's major oil and gas producing states.

— India depends on imports to meet over 88% of its crude oil needs and about half of its natural gas requirement, and the government has been pushing for more domestic exploration and production activities to reduce the heavy reliance on energy imports. This agreement is part of that effort, and comes as a time when the country is grappling with high prices of imported oil and gas, as well as supply constraints, owing to the effective closure of the Strait of Hormuz amid the West Asia war.

— High hydrocarbon imports have left the Indian economy vulnerable to international price and supply shocks. They also have a bearing on the country's trade deficit, foreign exchange reserves, the rupee's exchange rate and inflation, among other metrics. The government has implemented several policy reforms to encourage investments in India's oil and gas exploration and production sector.

— Although these "upstream" activities have long gestation periods, the agreement could augment the country's domestic oil and gas production in the medium to long term.

— According to officials aware of the matter, the MoU specifically targets the disputed area belt, or DAB, along the Assam-Nagaland border. With the MoU in place, oil and gas exploration and production are expected to gather pace across more than 1,000 sq km along the Assam-Nagaland border.

— Oil, gas, and mineral exploration activities have remained suspended in the DAB for three decades owing to law and order issues amid boundary disputes between the two states. The DAB is expected to contain promising hydrocarbon prospects.

— According to the Ministry of Home Affairs (MHA), the MoU establishes a coordinated framework for facilitating mineral oil operations in the area, ensuring operational continuity, safety and security of personnel and assets, and effective coordination among all stakeholders.

— The framework is expected to support exploration and production activities, encourage investment in the upstream petroleum sector and contribute towards the country's energy security objectives, it said.

— According to the MHA release, Shah said that the MoU could potentially help increase oil production capacity from the Northeast from the current capacity of 1,000–1,500 barrels per day by more than tenfold, adding that the region also possesses "and immense wealth of minerals".

THE HIDDEN, RISING COST OF CLIMATE CHANGE ON EVERYDAY LIFE IN INDIA

Climate change is often framed as a problem for 2070, the year by which many countries have pledged to reach net-zero emissions. Yet even as its impacts are felt more sharply around the world, the rising everyday costs it creates receive far less attention. In India, climate change is already a problem for the end of the month, in both the summer heat and the monsoon season. From food and electricity to water and health care, a warming world is quietly making everyday life more expensive, especially for those who can least afford it.

When a heatwave hits north India now, it shows up as higher vegetable prices, erratic power cuts, hospital bills going up, and a spike in electricity bills as fans and ACs run longer.

Inflation warning

Economists are already warning that this year's combination of intense heat and a weaker monsoon could push inflation above 5%, largely through food and energy costs. Even as the government revises the inflation basket, food and beverages still carries the heaviest weight in India's consumer price index, about 45.86% in the current series, so any climate shock to crops reflects quickly into what people pay at the Kirana store.

We know this is not a one-off. The World Bank has warned that rising temperatures and changing monsoon patterns could shave up to 2.8% off India's GDP by 2050 and depress living standards for nearly half the population. Behind that there is a simple reality that climate change is eroding incomes and pushing up essential costs at the same time.

Central and northern states such as Chhattisgarh, Madhya Pradesh, Rajasthan, Uttar Pradesh and Maharashtra are projected to be among the worst hotspots where living standards fall the most. These hotspots of climate vulnerability are also hotspots of agrarian distress, where low and volatile farm incomes, high indebtedness and persistent farmer suicides have become structural features of rural life.

Take food as an example. A weaker or delayed monsoon can reduce harvests and disrupt planting, while extreme heat can damage yields even when the rains arrive on time. In 2023, a below-normal monsoon with about a 6% rainfall deficit reduced sown area for pulses and oilseeds, and farmers across several states reported crop losses; retail prices of rice, wheat and pulses were higher by 6-15% year-on-year by early October . Studies also show that repeated climate shocks from heatwaves to erratic rainfall and floods, are reshaping food price dynamics in India and driving more persistent food inflation. Each shock creates a chain reaction, lower yields, supply bottlenecks, hoarding and speculation, that ends with higher prices on the plate.

Energy costs as well tells a similar story. As temperatures increase, households that can afford to pay or can rely more on cooling, which pushes up power demand and strains the grid. During the May 2026 heatwave, power demand in India has repeatedly hit a record 270.8 gigawatts, driven by millions of fans and AC units trying to keep homes and workplaces liveable. When utilities scramble to meet this demand, often with expensive coal and imported fuels, the costs are eventually passed on through higher tariffs or surcharges. For middle-class homes, a jump in the electricity bill is an irritation; for informal workers and low-income families, it means cutting back on other essentials including food and education.

Water is another hidden driver of the climate cost-of-living crisis. In many parts of rural India, erratic rainfall and groundwater depletion are making wells run dry more often, forcing households to spend more time and money securing water. In cities, this has already produced a parallel "tanker economy," where those without reliable municipal supply pay private vendors for basic drinking and domestic water. For Dalit, Adivasi and other marginalized communities who are living in the informal settlements and slums, who already start from a position of economic and social disadvantage, these extra costs compound existing inequalities.

Health impacts add another layer. Heat stress, poor air quality and the spread of climate-sensitive diseases increase out-of-pocket health spending, which is already high in India. A source on climate and health in India shows that rural women, for example, are bearing disproportionate burdens as they walk longer distances for water, work in hotter fields and care for sick family members. Every extra day lost to illness is a day of wages gone, and every clinic visit draws from already thin household budgets. All of this plays out in a country where most people still live close to the poverty line. A review of climate-related risks in India from Indian Institute of Human Settlements notes that, despite impressive growth in median incomes over the last three decades, a large share of Indians remain highly vulnerable to even small economic shocks. Climate change turns those "small" shocks into something more constant and structural. It is not just about one bad year of rain but about a pattern of repeated, overlapping disruptions that steadily raise the floor price of survival.

The burden is also sharply unequal. Studies of farmers' access to climate adaptive technologies in India find that marginalised castes and tribes are less likely to adopt and sustain irrigation and other coping strategies, even as climate pressures mount. In other words, those with more land, more capital and better social status can protect themselves from climate volatility, while those at the bottom are left to absorb higher costs through debt, distress migration or cutting back on food and education. Climate change acts like a regressive tax, taking the most from those who contributed the least to the problem.

Policy responses so far have mostly focused on firefighting, export bans when onion prices spike, ad hoc relief after floods or droughts, short-term power subsidies when heatwaves hit. These may be politically necessary, but they do not address the structural ways in which climate change is squeezing household budgets. Indian think tanks have started to estimate the long-run economic costs of climate impacts for India, including future GDP losses, but the everyday reality of higher bills and thinner paychecks rarely makes it into climate debates.

Recognising climate change as a cost-of-living issue, not just an environmental or diplomatic concern, would change the political conversation.

It would push governments to invest more aggressively in climate-resilient agriculture like Andhra Pradesh Community Natural Farming (APCNF), urban heat planning, affordable public transport, and universal basic services like water and health. It would also force a reckoning with who pays, whether these rising costs are allowed to continue falling on the rural poor, small and marginal farmers, informal workers and marginalised castes, or whether India chooses to redistribute the risks and build a more equal form of climate resilience.

BEYOND THE 270 GW PEAK POWER DEMAND THERE IS A NEED FOR PRIORITISING QUALITY AND RELIABILITY

The recent achievement of record-breaking peak demand exceeding 270 GW marks a historic moment for the Indian power sector. The national grid demonstrated a level of resilience by efficiently managing this massive load without a shortage, which would have been inconceivable a decade ago. This milestone effectively shatters all previous records and is more than 10% as compared to last year's peak. The ability to synchronise a diverse generation portfolio comprising thermal, hydro, nuclear, and a rapidly expanding variable renewable base under such intense pressure highlights the technical maturity of India's national grid.

From the pre-independence era of privately owned decentralised electricity systems to post-independence focus on 'pumpset energisation' and basic lighting through "kutir Jyoti" scheme, the sector has evolved significantly, particularly after the passage of the Electricity Act in 2003. Through massive infrastructure initiatives like the Deen Dayal Upadhyay Gram Jyoti Scheme (DDUGJY) and the SAUBHAGYA scheme, the physical framework for last-mile connectivity has covered nearly 100% households. However, as the nation moves toward its 2047 target of approximately 4,000 kWh of per capita electricity consumption, a significant leap from the current level of 1,600 kWh, the definition of success must be rewritten beyond access and availability to include the reliability and quality of every kilowatt-hour delivered.

Power quality vital

Power quality is becoming the new frontier for a modern, digital-first economy. For a consumer base that now includes lighting load to advanced semiconductor manufacturing to cold storage facilities and productive use of electricity to public infrastructure like smart classrooms and medical clinics, the supply of electricity is no longer sufficient. Power quality, characterised by precise voltage stability, frequency control and the absence of waveform distortion, is a necessity. Even a short fluctuation in power supply can stop machines, damage electronic equipment, and disrupt industrial operations.

Furthermore, despite the overarching national success in generation and transmission, a persistent disparity remains in the distribution sector, particularly between urban centres and rural landscapes. While urban supply has become increasingly stable, rural areas, which house approximately two-thirds of the population, still account for about one-third of total electricity consumption. The challenge here is not just one of connectivity but of economic empowerment.

While the average supply hours in rural areas have reached an impressive 22 hours in most states, the lack of predictability is a significant hurdle. For a small-scale productive enterprise or a rural startup, an unexpected outage during a critical production cycle can be financially devastating, often forcing them to rely on costly and polluting diesel generators as a backup. Bridging this rural-urban divide is therefore not just a technical need but a developmental necessity.

Ageing infrastructure

While the generation and transmission segments have progressively moved toward greater market-driven efficiency, several state-owned DISCOMs continue to struggle with ageing network infrastructure, inadequate transformer capacity, and persistently high Aggregate Technical and Commercial (AT&C) losses, which still exceed 20% in many states. These constraints restrict ability to invest in critical system upgrades such as automated monitoring, predictive maintenance and timely transformer replacement, thereby perpetuating poor service delivery and weak financial performance.

Better electron delivery and customer service itself can enhance consumer trust, increase demand, improve revenue and ultimately strengthen the financial health of DISCOMs.

To address the above issues, the Government of India launched the Revamped Distribution Sector Scheme (RDSS) in 2021 for a period of five years. Under the scheme, around 54% of the total sanctioned amount has been allocated for loss reduction infrastructure works, and 46% earmarked for smart metering. However, the gains in terms of billing and collection efficiency remain modest at around 4% in 4 years considering the scale of investment for metering. The core challenge continues to be operational inefficiencies at the DISCOMs and ageing electricity distribution infrastructure. A larger percentage of funds in rural areas should have been for improving distribution infra including transformer replacement and devices to monitor health of the network than merely installing smart meters in homes. Once the infrastructure is strengthened, DISCOMs could invest in smart meters to derive the full benefit of revenue augmentation by delivering electrons reliably and customer services effectively.

Customer-centric vision

The power sector must adopt a customer-centric approach that values the quality and reliability of electricity supply as much as achievements in accessibility and availability of clean energy. The Draft National Electricity Policy 2026 emphasises setting benchmarks for supply quality through reliability indices such as SAIDI, SAIFI, and CAIDI, along with regular reporting and public disclosure to ensure transparency and accountability. However, these indices are currently monitored only at the sub-transmission level.

They should be extended to the transformer and low-tension network level for more accurate assessment of consumer experience. Accordingly, investments must prioritise equipment and reliability monitoring systems, reflecting a broader shift from mere accounting to measuring actual service quality outcomes.

At the same time, moving from an administrative to a mode of 'enterprisation' in decision making and management, customer-focused decentralised distribution management model, better asset and inventory practices and introduction of MIS and SCADA systems at distribution level are essential to improve service quality and customer experiences.

Concerns over private participation focusing only on profitable urban areas can be addressed through well-designed public-private or private models that ensure balanced rural–urban coverage and enforcement of strict regulatory performance standards.

Experience from developed countries demonstrates that reliable electricity is a fundamental enabler of economic and social development. Electricity supports industrial growth, modern agriculture, digital services, healthcare, education, and employment generation, making it central to improving productivity and quality of life. The growth of rural India is dependent on strengthened electricity infrastructure and power supply reliability will be critical to achieving inclusive and sustainable development.

By addressing the underlying issues of distribution sector, power quality, and rural-urban parity, India can ensure its power sector does more than just meet peak demand. The path to Viksit Bharat needs a shift in perspective where electricity is viewed not merely as a commodity but as a productive input and transformative force for innovation and equity.

WHAT IS DROP SHIPPING, AND WHAT ARE THE RISKS FOR ONLINE SHOPPERS?

While scrolling through Instagram Reels, you naturally pause when an attractive product catches your eye: a sleek laptop bag for travel, a cheap set of popular novels, an ultra-fast wireless charger on sale, beautifully embroidered linen shirts, or leather-bound notebooks with custom gold foil inscriptions. Before you know it, you are entering your credit card number or UPI PIN.

Caught up in your shopping spree, you may not have checked the true origin of the product or other customers' reviews of the seller. What's more, you may not even realise that the "company" you paid is just a decorated webpage created with AI and owned by a person who does not hold a single product.

This is the economy of drop shipping: the business practice that allows almost anyone with an internet connection to sell products that come from others.

Here is what you should know as a customer.

What is drop shipping?

This is a business practice where an online individual or agent — who does not hold any product — takes orders from customers and passes them on to another maker/seller who actually holds the product. The product is then delivered to the customers, either by the original maker/seller or a third-party delivery service. To put it simply, the drop shipper inserts itself into the transaction as a middleman. One or even multiple drop shippers might stand between buyers and the original makers of the product they want.

The success of Amazon, the largest e-commerce retailer in the world, can be credited at least in part to drop shipping practices. In its earliest days, Amazon did not commandeer giant international warehouses packed with products; rather, the company was a web-based middleman that fulfilled many customers' orders by sourcing the books they wanted.

Though Amazon's product delivery model has drastically evolved, the company allows drop shipping to take place via its platform. Other channels, such as Shopify, also enable drop shipping and help users manage the logistics. Alternatively, drop shipping might take place through channels such as WhatsApp, Instagram, Facebook, and lesser-known websites.

In essence, if you have ever bought any product online, there's a chance that you placed your order through a drop shipper rather than the original seller.

How does drop shipping work?

Drop shippers can work with both domestic and international manufacturers and customers. Some try to fill an existing gap in their local market (such as affordable school textbooks), some capitalise on market trends (such as the popularity of iPhone cases), and others build hype around rarer products (such as foreign luxury fashion). Most importantly, the drop shipper does not need to buy or store any of the products they are selling.

Drop shipping has become a popular source of income for both public-facing Instagram creators monetising their virality as well as private marketers looking for discreet revenue streams. What's more, with AI automating many customer services and harvesting business insights, drop shipping feels like something that almost anyone with an internet connection can try out.

In addition to promoting products and setting up online storefronts, drop shippers may also buy/sell courses that reveal current market trends, customer interests, trusted wholesalers, and useful AI tools, in order to generate further profits.

Drop shipping might look illogical at first, but it is in vogue for a number of reasons.

Buyers trying to independently source foreign products from a wholesaler might be forced to order more than they need, or contend with complicated customs regulations and fees. They also may not know if the original seller is legitimate, or might be unable to communicate with them due to a language barrier.

However, placing orders through a vetted drop shipper with a user-friendly web page eases some of these worries. What's more, legitimate drop shippers regularly carry out quality assurance tests of their own, and should ideally become a customer support layer of sorts in order to resolve any complaints.

Is drop shipping legal?

Drop shipping is legal in most jurisdictions, as long as the participants involved ensure transparency and comply with their region's tax laws.

Instagram's commerce eligibility requirements state that the users' Facebook Pages or Instagram professional accounts must contain product listings that are available for direct purchase from the user's website. In case buyers are being directed to another website, the user must provide the domain through which they sell, and their channels must represent the shop associated with the domain.

But now that it is possible to create entire shopfronts and e-commerce websites in minutes with just some cheap domains and a few AI coding prompts, Instagram drop shippers can easily present themselves as original sellers and offload customer orders to other sellers. Videos of workers sorting through wrapped packages, or Reels of founders happily holding up stacks of paper that they claim are customer orders, can mislead social media shoppers into thinking they are dealing directly with a trusted seller.

Ultimately, the line separating influencers, marketers, and sellers can blur quickly on social media. Some drop shippers also ask customers to contact them via WhatsApp, to take their communication off the app. Buyers may not know where their products are actually coming from or how their data privacy rights are being eroded. And as supply chain transparency is lost, drop shipping operations can quickly slide into a legal grey area or end up in criminal violations.

LIFE AND SCIENCES

SPINNING DISCS, GLOWING ORBS, AND A POTATO-LIKE OBJECT IN NEW UFO FILES

One was a rotating disc that sent out beams of light. Another was a shining red orb of a hue the observer had never seen before. Then there was the one compared to a potato, and also a bean, but with a coat of shimmering, fish-like scales.

Those were some of the UFOs described in documents released Friday by the Pentagon, the third release since U.S. President Donald Trump directed his administration to give the public full disclosure around what it knows about alien life and mysterious objects in the sky.

The 72 files released on Friday don't include the kind of blockbuster revelation that Mr. Trump has teased. There's no conclusive evidence of alien life or government cover-ups. But the files reveal new details about some recent sightings, along with the government's efforts to explain what many find inexplicable.

So far, the Trump administration's transparency campaign has led to the release of about 300 files dating to the 1940s, some brand-new to the public and some adding detail on previously known cases.

AI FALLS SHORT ON EXTREME WEATHER FORECASTING

In the last two years, artificial intelligence (AI) has moved from science fiction to the frontlines of computer science, mathematics, and engineering, among others. Its consequences have been particularly pronounced in the domain of weather forecasting, where models from companies like Google and Huawei have proved faster and often more accurate than the large supercomputers we have relied on for decades.

However, a new study published in Science Advances suggests that when it comes to the most dangerous weather events, AI still has a lot to learn.

In the study, researchers from Germany and Switzerland compared several leading AI weather models, including GraphCast, Pangu-Weather, and Fuxi, against the world's gold standard for traditional forecasting: the high-resolution (HRES) model of the European Centre for Medium-Range Weather Forecasts.

They found that while the AI models excelled at predicting 'normal' weather and even moderate extremes, they consistently failed to accurately predict events that would shatter records.

Traditional models are based on physics, and use complex mathematical equations to describe how air and heat move, how moisture turns into rain, and so on. Because they rely literally on the laws of nature, they can anticipate a scenario even if it has never happened before. However, AI models are data-driven. They are trained to look for patterns based on 40 years of historical weather data (1979-2017), so when the weather does something completely unprecedented — like a record-setting heatwave — the AI models have no basis to anticipate it.

This is called an extrapolation problem: that is, AI is great at interpolating, or predicting things within the range of what it has seen, but it struggles to predict things far outside of its training data.

The researchers also tested the models on record-breaking heat, cold, and wind events from 2018 and 2020 and found that the AI models systematically underestimated both the frequency and the intensity of these events.

For example, during an extreme heatwave, the AI models tended to predict temperatures that were significantly lower than what actually occurred. Specifically, they responded as if there was an invisible 'cap' on how high the temperature could go. And the more a record was broken by, the larger the AI models' error became.

If a study or a policy is based on AI models that predict a severe heatwave but the actual temperature is even higher, the disaster response could be inadequate. Early warning systems for heatwaves, floods, and storms still require the highest possible accuracy during extreme weather to save lives.

"Given the remarkably fast evolution of AI models in recent years, there are promising ways to further improve these models even for forecasting record-breaking extremes," the authors wrote. "Nevertheless, the current generation still underperforms HRES exactly during the potentially most impactful weather events, including record-breaking heat and cold events.".

WHY US HAS BARRED FOREIGNERS FROM ACCESSING ANTHROPIC'S LATEST AI MODELS

Anthropic has suspended all foreign access to its most advanced artificial intelligence (AI) models — Fable 5 and Mythos 5 — after the US government issued an export control order citing national security concerns.

Key Takeaways:

— Export controls are typically used to restrict the supply of physical goods to other countries, such as advanced US graphics chips to China.

— But the latest order goes beyond physical goods to dictate how software can be launched and distributed. This marks a new chapter in the complicated relationship between the US government and Anthropic and, more importantly, raises questions about the limits of AI if a government order simply cut off access to it.

— Anthropic said that it received the US government's order early on June 13, but the communication did not provide specific details of the administration's national security concerns. According to the company, the government possibly believes that it has become aware of a method of bypassing, or "jailbreaking" Fable 5.

— In a blog post, the company said that the order would block all access to Fable 5 and Mythos 5 by any foreign national, whether inside or outside the United States, including foreign national Anthropic employees.

— Fable 5 and Mythos 5, launched earlier this week, are Anthropic's most advanced publicly available AI models. They are built on the underlying "Mythos-class" architecture – the company's other AI model named Mythos Preview which it has not released publicly over fears of misuse.

— Anthropic had previously claimed that Mythos Preview was able to find severe vulnerabilities in "every major operating system and web browser", including one that had gone undetected for nearly three decades — spooking regulators around the world for its potential impact on critical infrastructure.

— The company had started giving exclusive access to a select few organisations under its Project Glasswing. In India, Anthropic was discussing sharing Mythos Preview with a handful of entities, but was yet to share the model.

— Since the company was not able to publicly release Mythos Preview, it announced earlier this week that it would launch Fable 5 and Mythos 5 instead, which are both based on the same underlying model, but have additional safeguards baked in. In particular, requests related to sensitive cybersecurity or biological domains are filtered.

— When the system detects a potentially high-risk query, it automatically routes the user to a less capable model rather than allowing the request to be handled by the full Mythos-level system.

DID META'S OWN AI SUPPORT BOT HELP HACK INSTAGRAM ACCOUNTS?

The story so far:

In May, a number of Instagram users were locked out of their accounts by hackers. Many of the affected users took to other social media platforms like Reddit and X (formerly Twitter) to post their complaints. Screen recordings later circulated online suggested that their Instagram accounts were hacked with the help of Meta's own AI support chatbot. Adding to the users' worries was the lack of transparency from Meta's side about the security lapse, fuelling fears of an AI-enabled hack.

How were users' Instagram accounts hacked?

Meta rolled out its AI support assistant chatbot on Facebook and Instagram in March. The feature is different from the company's better known Meta AI. The AI support assistant can take action for users when it comes to requests such as reporting content, understanding content takedowns, managing privacy settings, resetting passwords, and updating profile settings.

Several widely-circulated recordings and images of the hack revealed hackers purportedly instructing the Meta AI support assistant to use an email ID that was different from the one associated with users' Instagram accounts. After the switch was made, hackers were able to access the verification code sent to the new email ID. They used this to reset the account password and hijack the user's Instagram account.

Many affected users claimed they were logged out of their accounts and that trying to contact Meta for help led them to another AI chatbot. Some noted they had been unfairly penalised after being hacked.

Multiple high-profile accounts were also hacked around this time period, such as the White House Instagram account of former U.S. President Barack Obama (@obamawhitehouse), which last posted in 2017. At the time of writing this story, Meta did not confirm whether this specific security breach is linked to hackers who used the Meta AI support chatbot.

According to TechCrunch, the attacks on users' accounts continued even after Meta addressed the issue.

What was Meta's response?

While the company did not issue a formal statement about the hack, Meta spokesperson Andy Stone replied to users on the X platform about the cyber-attack. "This issue has been resolved and we are securing impacted accounts," Mr. Stone told one user, without offering further confirmation or denial.

Mr. Stone told another X user that Instagram was trying to restore access to affected individuals, which meant that some users could see password reset notifications or security question verification while logging in. This, in turn, triggered alarm and suspicion amongst some users who worried they were being targeted by additional phishing attacks.

The Hindu reached out to Meta multiple times in order to clarify the details of the exploit and learn how many users were affected, but did not receive an official response.

Are such AI-enabled attacks common?

While malicious actors have adopted Generative AI and agentic AI technologies to launch phishing attacks or social engineering attacks at scale, Meta's case is unique. Here, the shared evidence points to the company's own AI customer support chatbot helping hackers commit cyber crimes. Unlike other cyber-attacks that use third-party AI tools, this incident breaks the trust that a customer places in a company's supposedly vetted AI chatbot.

As experts have stressed in the past, multiple layers of security — two-factor authentication (2FA) and multi-factor authentication (MFA) — help to safeguard accounts.

This is especially crucial for celebrities, business users, official bodies, influencers, or those working in sensitive fields who might end up losing their reputation and livelihood due to hacks.

But after an unprecedented AI-enabled hack impacting one of the world's most valuable tech companies, Instagram users want to see Meta taking responsibility with more than just a few tweets.

THE HOUSE OF CARDS

The Federation Internationale de Football Association, known worldwide by its acronym FIFA, is the most powerful sports body outside the International Olympic Committee. It is the global custodian of football — popularly called 'the beautiful game' — and conducts the World Cup, the most prestigious single-sport competition in the universe.

What started in 1930 as a 13-team tournament has now grown into a behemoth. The ongoing edition in the U.S., Canada and Mexico is the 23rd World Cup, and features a record 48 teams and 104 matches.

Founded in 1904 in Paris, FIFA started with seven members — France, Belgium, Denmark, the Netherlands, Sweden, Switzerland, and Spain. Its original mandate was to bring structure to the international game, organise fixtures, and agree on a common set of rules.

The British associations in England, Scotland, Wales, and Ireland, which predated FIFA and had already set in place organised football in their territories, joined FIFA starting in 1905. Though the equation was stormy in the initial decades — with the First World War and disputes over monetary compensation for amateur players competing at the Olympics leading to the British associations' withdrawal on multiple occasions — it stabilised after the Second World War and has remained so until now.

After Jules Rimet took over as president in 1921, FIFA was in charge of football at the Olympics for the first time at Paris 1924. The success of that, and of the event four years later in Amsterdam, prompted FIFA to think of a tournament of its own.

The inaugural World Cup was born in 1930 and was held in Uruguay, the nation which won the Olympic golds in 1924 and 1928. The in-form team, unsurprisingly, also became the first world champion. Since then, such has FIFA's growth been that it now has 211 members, more than the UN. At its core, it is a non-profit organisation that "oversees and promotes the development of football at every level". But it is also among the richest bodies. At the end of 2025, FIFA's reserves, according to its own financial report, amounted to $2.69 billion. Cape Verde, which is competing in North America this summer and is the third-smallest nation ever to qualify (population less than six lakhs), has reserves of $0.78 bn (data from 2024).

Generous powers

Understandably, the FIFA president, who sits atop this edifice, wields enormous power, and with a generous term limit of three four-year periods (consecutive or otherwise), he or she can take decisions that can have lasting consequences. Prior to 2016, term limits weren't enforced. In fact, for 41 years from 1974 to 2015, FIFA just had three presidents — Englishman Stanley Rous for more than 12 years, Brazil's Joao Havelange for a little over 24, and Swiss Sepp Blatter for more than 17.

Before that, Frenchman Rimet — whose name the World Cup trophy carried from 1950 to 1970 — was at the helm for 33 years (from March 1921 to June 1954). Current president Gianni Infantino has been the leading man since early 2016. It is this structure, which allows a FIFA president to turn the organisation into a personal fiefdom, that has given rise to most controversies. The bosses have never shied away from striking friendships with problematic political figures and authoritarian regimes in search of big capital.

FIFA, by virtue of being a non-profit, is duty-bound to redistribute its revenues to member nations. Prima facie, it's a democratic move, and even noble, considering that the money ensures the sport's survival and development in many countries. But this dole has often been weaponised in return for votes to keep the head in power for perpetuity. Every FIFA member, big or small, has a vote, and is directly involved in electing the president.

The 1934 World Cup was held in Benito Mussolini's Italy. The 1978 edition was conducted in Argentina, under dictator Gen. Jorge Rafael Videla's rule and Havelange's blessings. Rous was unwavering in his support for Apartheid South Africa while Blatter dangled the monetary carrot to the developing world to keep his throne for as long as he did.

It is ironic that Infantino would preside over a FIFA which has remained unchanged. He vaulted to power promising reforms after serious corruption charges related to the allotment of the 2018 and 2022 World Cups to Russia and Qatar, respectively, brought down Blatter's house of cards.

But he has since cultivated relationships with Russian President Vladimir Putin and U.S. President Donald Trump, and attracted a deal worth $1 billion from Saudi Arabia, the country which will host the 2034 World Cup. In 2019, he accepted the Russian Order of Friendship medal from Mr. Putin. Last December, his FIFA created the first-ever Peace Prize — literally out of nowhere — and awarded it to Mr. Trump.

Infantino has also moved to extend his term beyond the 12-year ceiling that was brought in at the Extraordinary FIFA Congress in early 2016 in the aftermath of the corruption scandal. The 56-year-old has said his first three years in office (2016-19) were from Blatter's unfinished term and hence would not stop him from being re-elected in 2027.

At the ongoing World Cup, FIFA has been heavily criticised for its cavalier attitude regarding American immigration authorities' arbitrary actions in denying entry to fans, match-officials and team personnel alike. Most notable was the rejection meted out to Somalian referee Omar Artan, the best men's referee from Africa in 2025.

Limits of influence

Infantino has defended FIFA by saying there are limits to how much the governing body can influence an individual country's immigration policies. But a decade ago, when Mr. Trump had signed an executive order banning immigration from six Muslim-majority countries, Infantino had declared that "there is no World Cup" if supporters and officials do not have access.

While increasing the number of teams in the World Cup to 48 will help enlarge the game's footprint, the FIFA Club World Cup bloating to a 32-team affair starting 2025 from a modest seven outfits earlier further entrenches FIFA's power. The competition, which has replaced the Confederations Cup as a World Cup preparatory event, ran for a month in the U.S. last summer, a slot otherwise reserved for players' rest and recuperation.

Reportedly, there is an urge to make it biennial, and the $85 million Chelsea received as prize money for winning in 2025 is a big enough perk for the participants to agree.

All of this highlights a fundamental conflict at the heart of FIFA's functioning. On the one hand, it is the guardian of the sport, defines laws, puts in place the rules and is expected to act impartially in disputes between its members. At the same time, it has tournaments to sell and a partially self-imposed obligation to generate revenue, forcing it to turn a blind eye when those like the U.S. err.

Can such a system, where the referee is also a player, stay true to the cause?

PATTERN OF WALKS

Do people have a tendency to walk in particular directions?

The answer to this strange question is a stranger 'yes'. When people walk freely in an open space, they often begin to move in a counter-clockwise circle. While scientists believed people were simply following those in front of them or reacting to boundaries, a new study in Nature Communications has found a biological bias to turn in that direction.

The researchers conducted experiments in Spain and Japan, observing groups of adults, teenagers, and nursery school children. They found that the tendency to move counter-clockwise exists even when a person is walking alone in an empty arena and social norms, such as whether a country drives on the right or the left, didn't change the pattern. The preference also didn't depend on whether one was left- or right-handed and whether they had a 'dominant' eye.

The children displayed the preference in the most pronounced manner, which suggested the preference could be an intrinsic part of human locomotion.

THE GIANT WORLD OF FUNGI

A new study published in Science has reported the first global map of the earth's vast underground network of arbuscular mycorrhizal (AM) fungi.

These fungi have sustained plant life for millions of years but their scale and distribution has been largely invisible until now.

Using machine learning and data from more than 16,000 soil cores, an international research team has revealed that topsoils around the world contain some 110 quadrillion km of fungal hyphae — a distance equal to nearly a billion trips from the earth to the sun.

The AM networks also weigh around 300 million tonnes of carbon, which is four- to six-times the weight of the entire human population.

By forming symbiotic relationships with 70% of plant species, trading nutrients for carbon, the AM networks sequester an estimated 4 billion tonnes of CO2-equivalent a year, or roughly 11% of all human-related carbon emissions.

The study also identified biodiversity hotspots and threats to them. Grassland ecosystems like those in South Sudan, the Tibetan plateau, and India's Banni grasslands house 40% of the world's AM fungal networks. However, the study warned that cropland typically has a 50% lower fungal density relative to wild ecosystems, and because grasslands are being converted to farms four-times faster than forests, these ecosystems are at extreme risk.

By quantifying the extent of this "living infrastructure", as the Society for the Protection of Underground Networks put it, the work hopes to move fungi from the periphery of environmental policy to the centre of climate action.

VAST STRETCHES OF CORAL REEFS COULD RESIST CLIMATE CHANGE, FINDS A NEW STUDY

In the crystalline waters off Kenya's coast, coral reefs are thriving — evidence of a rare good news story in the battle to protect oceans from the ravages of climate change.

A new study presented at the Our Ocean Conference in Mombasa on Tuesday finds that 1,66,000 square kilometres of the world's coral reefs – around a third of the total – are particularly "climate-resilient", meaning they have the potential to survive through major ocean warming events.

The study by the Wildlife Conservation Society (WCS) and Macquarie University in Australia challenges the findings of the IPCC, the global authority on climate change, which has stated 70% to 90% of coral reefs could die with global warming of 1.5 degrees Celsius above pre-industrial levels, and 99% at 2 degrees Celsius.

"Our models are showing a much more hopeful future for coral reefs. We predict that there are many climate resilient reefs around the world that will persist over time," Stacy Jupiter, executive director for marine conservation at WCS, told AFP.

Action is still needed since only 28% of those resilient reefs are being actively protected.

Down the coast from Mombasa, on Kenya's paradisical Wasini-Mkwiro island, villagers are showing the way.

As local fishermen bring in their catch from the beach, it is weighed, measured, and logged by local data collectors in the village.

Other members of the "beach management unit" patrol the waters to make sure no one is over-fishing or using destructive equipment. Others plant seaweed and mangroves, and scoop out rubbish.

Thanks to their efforts, the park became the first in Kenya to earn a Gold-Level Blue Park Award from the U.S.-based Marine Conservation Institute in 2021.

'Living seed-banks'

Coral "bleaching" occurs when water temperatures rise by a degree or two, stressing the coral's animal tissues and making them expel algae, turning them white.

But the new study finds many reefs are resilient, either because they exist in cool spots, or because they have evolved to withstand heat, or recover more quickly than most.

The last major bleaching event in 2024 led to coral cover in the zone falling from 44% to 27%, according to WCS data. But within a year, it had recovered to 40%.

More than half are concentrated in Australia, the Bahamas, Cuba, Indonesia, and the Philippines.

DEATHS IN BRAZIL RAISE CONCERNS ABOUT INDIA'S DENGUE VACCINE, DENGIALL

The recent deaths of two people in Brazil during its dengue vaccination campaign, leading to the shot's suspension on June 8, is a crucial wake-up call for India. This is because the dengue vaccine in Brazil, Butantan-DV, is pretty similar, if not identical, to India's upcoming dengue vaccine, DengiAll.

Both vaccines were several years in the making. Both have live but weakened (attenuated) versions of the dengue viruses (DENVs). And both vaccines are said to be tetravalent because each vaccine is a physical mixture of four live, weakened DENVs.

DENVs come in four versions called serotypes: DENV-1, -2, -3 and -4. All four serotypes are known to be prevalent in Brazil and India. Each DENV serotype has an outer shell adorned with specialised envelope proteins, called E proteins — akin to the spike protein of coronaviruses. Even though the four DENV serotypes are very similar, their E proteins are different enough to warrant immunisation against each of the four serotypes.

When weakened DENV is used in a vaccine, it will prompt two broad types of antibodies: type-specific antibodies and cross-reactive antibodies. Type-specific antibodies are often made in small amounts and recognise only one particular serotype (based on its E proteins) and excel at blocking infections by that serotype alone.

On the other hand, the cross-reactive antibodies are made usually in large amounts and can recognise any of the four serotypes and block an infection — provided they are present at adequate levels. When their levels drop, the cross-reactive antibodies don't just fail to block a new DENV infection: they enhance it, leading to a severe and potentially fatal form of dengue. This phenomenon is called antibody-dependent enhancement (ADE).

The risk of ADE during dengue vaccination is considered a serious adverse event. If untreated, it can lead to death.

In Brazil's dengue vaccination campaign, of 42 vaccine recipients who displayed serious side-effects, two people died and one had to receive intensive care. These side-effects included severe abdominal pain, persistent vomiting, and bleeding, none of which the phase 3 clinical trials revealed. These signs are reminiscent of the symptoms of severe dengue. Medical researchers should look into whether this could be due to ADE. They should also clarify if DengiAll will manifest a similar risk when it is rolled out in India.

Butantan-DV and DengiAll are both based on a technology developed at the U.S. National Institutes of Health (NIH). Over many years, scientists weakened each DENV serotype to make monovalent vaccines, assessed each one for its capacity to induce an immune response without causing disease, and finally mixed all four monovalent vaccine viruses to generate tetravalent vaccines. Two of them, called TV003 and TV005, and the monovalent vaccine viruses were licensed to Instituto Butantan in Brazil and Panacea Biotec in India, among others, for further development.

Butantan-DV is not the first dengue vaccine to be linked to such events. A little over a decade ago, Sanofi Pasteur developed the first tetravalent dengue vaccine to be licensed. It differed from the NIH's vaccines because the four weakened serotypes were hybrid viruses, each covered on its surface with the E protein of one of the DENV serotypes (plus another protein).

This shot, called Dengvaxia, was given to more than 8 lakh children in the Phillipines, a dengue-endemic country like Brazil and India. Severe adverse events occurred three years after vaccination.

Further study revealed Dengvaxia worked like a monovalent vaccine, provoking antibodies to only DENV-4. That is, mixing four live yet weakened viruses didn't automatically ensure tetravalent immunity. There is no clear answer why.

The severe adverse events linked to Butantan-DV thus raise many questions. Is Butantan-DV really functionally tetravalent? Is there a possibility of viral interference compromising its functionality? Could ADE be responsible for the deaths?

There was also a lacuna in the vaccine efficacy data collected in the phase 3 trials. Reports in January 2024, November 2024, and March 2026 indicated that Butantan-DV's efficacy against DENV-3 and DENV-4 is unknown as these serotypes were not prevalent in Brazil at the time of the trials.

Panacea Biotec's DengiAll phase 3 trials, together with the Indian Council of Medical Research, completed its enrollment target of 10,335 healthy volunteers in January this year. The trial began in August 2024; its participants will be followed for two years post-vaccination. Once all the data have been analysed, the company will approach the drug regulator for market approval.

There is no solid reason to deny that DengiAll may not face the potentially fatal issues that have come up with Butantan-DV. However, India can take some proactive actions ahead of DengiAll's rollout. First, Panacea must analyse a representative subset of sera from vaccinated volunteers for type-specific antibodies against all four serotypes. And the regulator must ensure such data are available and rules out the risk of ADE.

Next, once DengiAll is launched, the regulator must implement a robust pharmacovigilance programme for an extended duration. Vaccine recipients must be clinically monitored periodically and their blood must be collected at regular intervals to check for viruses, antibodies, and other parameters to implement remedial measures quickly. Continuous real-world monitoring is key to identifying rare or long-term adverse events.

The ADE concerns also apply to another tetravalent dengue vaccine, Qdenga, which is also a physical mix of four weakened versions of the DENV serotypes. Japan-based Takeda markets it and its India approval is imminent.

Brazilian authorities have stressed that the 42 cases of severe adverse events out of half-a-million vaccinated represent only 0.008%. There is no doubt it is a small risk at the population level. At the individual level, however, even one life lost to a severe adverse event is one too many.

CHILDREN WITH VITILIGO DESERVE FREEDOM FROM STIGMA AND THE BURDEN OF MISINFORMATION

When a child walks into a classroom, their biggest worry should not be whispers, stares or insensitive jokes about their skin. Yet, for thousands of children living with vitiligo – a chronic condition where patches of skin tend to lose pigment – this is a reality.

Vitiligo is a medically harmless, non-contagious condition. Misunderstandings and stigma about it, however, persist. While children may have completely normal health even with the condition, what is often overlooked, is the impact it has on their mental well-being.

Self-esteem dents

Childhood is a period of development, where self-esteem is developed, confidence is built and a social identity is created. Children suffering from vitiligo tend to be very conscious of their appearance at an early age.

Unlike adults, children may not fully understand the condition themselves, and therefore are less equipped to navigate the curiosity it invokes, or dispel misconceptions and the social scrutiny that comes with it.

Many children tend to feel 'different' from their friends and peers. Sometimes this can lead to non-participation in school events and a preference for clothing that covers their entire body, even in the hot weather, to avoid drawing attention and unwanted questions.

Bullying and name-calling is one of the significant concerns faced by children with vitiligo, followed by exclusion from peer groups, and repeated questioning or comments, even they are harmless. This takes a psychological toll and the result could be that the child withdraws socially.

This heightened awareness about their appearance may lead to chronic stress as well as anxiety, causing the child to experience loneliness, mood changes, and to exhibit symptoms of depression. Adolescents are significantly more vulnerable as during their teenage years, they are more susceptible to concerns of appearances, belonging and acceptance.

What needs to change

Widespread awareness in the community is what matters most when it comes to vitiligo, since the greatest challenge faced by children with the condition is misinformation.

The condition is often assumed to be caused by poor hygiene or believed to be contagious: neither fact is true.

Simple initiatives inside the classroom can make a difference, as when children understand that vitiligo is an autoimmune disease and poses no health risk to others, the stigma and fear related to it will reduce substantially.

Teachers and parents play an important role here in identifying signs of emotional distress, declining academic performances or reluctance to attend school. It is very important to provide children with emotional support and to demonstrate that vitiligo must not define a person's ability, future or worth.

The true burden of vitiligo is rarely found in the skin itself: it is found in the silent stigma that children face. Our collective goal must be that no child feels different, or less worthy, due to the skin they live in.

AI IS HELPING PATIENTS UNDERSTAND CANCER BUT MISUNDERSTAND DOCTORS

I am an oncologist. I have watched large language models (LLMs) do something I have been trying to do for years: make cancer comprehensible.

A patient sits across from me with newly diagnosed cancer. I used to explain the PDL1 status and the role of neoadjuvant therapy, where patients get immunotherapy first followed by surgery — terms that meant nothing. Their eyes would often glaze but they would nod and leave confused, forced to google terms that would lead them to worst-case scenarios or fraudulent clinics.

Now, they come in having asked ChatGPT or Claude to explain their pathology report. "So PDL1-positive means my cancer may respond well to specific treatment and have higher cure rates?" they ask. Overnight, we are having an intelligent conversation instead of me trying to translate oncology into English.

That is extraordinary and has been genuinely useful for cancer care.

The real excitement

What thrills me most is clinical trial access. I have patients who understand why a phase II trial for immunotherapy might be appropriate for their metastatic melanoma. They have read ChatGPT's explanation of what a trial protocol means, what endpoints are being measured, what side effects to watch for. Informed consent is now informed in a way that would not have been remotely possible five years ago.

A man with advanced salivary gland cancer asked me about the open clinical trials that I hadn't even mentioned yet. He had asked ChatGPT about maintenance therapy options and the algorithm had directed him to trial data. He understood why novel therapies made sense in his situation. He wasn't just following my recommendation; he understood the science behind it. This represents patients becoming medically literate enough to participate in their own care.

The guidelines themselves are now being simplified by LLMs into language that does not require an oncology degree to understand. A patient with cancer can ask ChatGPT to explain the staging system, treatment options, and surveillance protocols. They arrive at appointments educated and aware.

This democratisation of cancer knowledge is important, especially in India, where accessing oncologists is itself challenging for many. A patient in a tier-2 city can understand what treatment options exist even before traveling to see a specialist.

Known and unknown unknowns

However, just removing the information asymmetry does not change the fact that information is not judgment. And judgment is what is hardest for us to convey.

A patient comes in with stage II oral cancer. ChatGPT has explained that stage II is "intermediate risk". My recommendation is surgery followed by radiotherapy. The patient asks: "But why can't I just do surgery and skip radiotherapy? ChatGPT said radiotherapy has significant side effects." The LLM gave her valid information and even explained that some stage II oral cancers don't need radiotherapy. But it couldn't tell her that her specific tumour with its specific characteristics had a 30% recurrence risk without radiotherapy and 10% with it. That difference is life-years. Making that judgement requires knowing her values, her tolerance for toxicity, and her specific cancer biology. An LLM cannot do that.

According to one JAMA study on diagnostic accuracy, when LLMs encounter complex cases requiring contextual reasoning, their accuracy drops significantly, well below the level of an experienced physician.

What troubles me most is something we are witnessing in real time: the widening trust gap between doctor and patient.

I tell a patient with stage IV cancer that chemotherapy is unlikely to be curative but might extend life by months and improve quality of life. The patient pulls up what ChatGPT said: "Chemotherapy can cause severe nausea, hair loss, infections, and heart damage. Many people pursue alternative medicine instead."

Both statements are true — but they are not equivalent.

The LLM has presented information without medical judgment. It has essentially validated scepticism about chemotherapy without context about whether, in this specific situation, the risk-benefit ratio favours treatment. The patient now does not trust my recommendation. They think I am pushing toxic drugs for profit while the LLM is being more honest.

Mental health studies have found that a sizeable proportion of people using LLMs for mental health questions reported worsening outcomes. But more alarming: some even avoid professional help because the LLM made them feel understood. In oncology, delay is often catastrophic. I have seen patients postpone cancer evaluation because they felt the LLM had validated their "wait and see" approach.

Judging what is right

A 52-year-old asked ChatGPT about a lung nodule found incidentally on a CT scan. The LLM explained that most lung nodules are benign. The patient was reassured and did not follow up. Eighteen months later, he has stage III lung cancer that was likely stage I when he first noticed it. The LLM provided accurate population-level statistics without context about what his nodule required.

Another patient with breast cancer asked an LLM about stopping hormone therapy after three years. The algorithm discussed “natural approaches” and how some women manage without medication. She stopped and soon relapsed. When asked why she stopped, she said the LLM made it sound optional. But it was not optional for her.

These are stories of real patients harmed by a tool we have unleashed without fully understanding how to control it.

Further, I am not convinced these tools will ever be able to do what actually matters in medicine: judging what is right for the individual sitting in front of us, not what is statistically true for most populations.

I am not worried that LLMs will replace oncologists. Our knowledge can be packaged and replicated. Our judgment, forged in uncertainty, built on seeing what happens when you are wrong, tempered by real consequences, cannot be. That is the gap algorithms cannot close.

Biased tools

What worries me is the middle ground we have reached. Patients are increasingly informed but often misinformed. They have information without context. They trust algorithms that sound intelligent but lack accountability. They are sceptical of doctors who try to add nuance because the algorithm validated their simpler interpretation. And we are doing this with almost no tracking of outcomes.

Peer-reviewed research has warned that LLMs chatbots designed for engagement can inadvertently validate harmful behaviour, posing risks to vulnerable users. In oncology, are patients making different treatment decisions? Are outcomes changing? We do not know.

I still believe LLMs can be valuable tools in cancer care. They are already breaking down barriers to democratising knowledge. But we need to stop pretending they are neutral. They are sycophantic by design, trained to be agreeable rather than challenging. They cannot examine a patient or order a biopsy or follow someone over time. And we need to rebuild something I see eroding: patients understanding that a doctor who disagrees with them might not be defensive or greedy. They might be using judgment informed by years of seeing how these decisions play out.