

CURRENT AFFAIRS for UPSC

6TH TO 12TH APRIL 2025
DREAMIAS



INTERNATIONAL

WHY ARE STUDENT VISAS BEING REVOKED IN U.S.?

The story so far:

The Trump administration has cracked down on the visas of anyone suspected of being involved in campus protests or otherwise linked, howsoever loosely, to advocating for human rights in Gaza.

What is the U.S. policy on student visas?

Addressing the student visa revocation issue, U.S. Secretary of State Marco Rubio recently noted that nobody had a right to a U.S. visa, adding, "...We have seen on campuses across the country where students literally cannot go to school... buildings are being taken over, activities going on — this is clearly an organised movement. And if you are in this country on a student visa and are a participant in those movements, we have a right to deny your visa."

Under the aegis of the U.S. Immigration and Nationality Act of 1952, the Secretary of State has the authority to revoke visas of foreigners deemed a threat. According to reports, U.S. immigration officials are now said to be also scrutinising new applications for academic (F), exchange (J), and vocational (M) visas, with the intention of refusing visas to those associated with such protests.

Under the second Trump administration's so-called 'Catch and Revoke' programme, Mr. Rubio noted that by March 27, the State Department had already revoked the visas of more than 300 in-country foreign students. Reports suggest there are Indian students too on the list. There were reportedly 3,31,600 Indian students in the U.S. in the 2023-24 academic year, according to the U.S. State Department numbers. Under the 'Catch and Revoke' programme, linked to President Donald Trump signing an executive order in January to counter "anti-Semitic" movements on university campuses, the State Department is said to be using AI-assisted reviews of social media posts by foreign students to decide who among them might qualify for visa revocation followed by deportation to their country of origin.

In this context, the Trump White House has also signalled its seriousness of intent by tightening the screws in multiple spheres against major U.S. universities, including by cutting hundreds of millions of dollars in annual federal government support to Columbia University, University of Pennsylvania and Johns Hopkins, among others.

How does the govt. monitor such enrolment?

According to the Migration Policy Institute, the number of international students enrolled in U.S. colleges and universities has experienced strong overall growth, soaring from 26,000 international students in 1949-50 to nearly 1.1 million in 2019-20. International students also increased as a share of all students enrolled in U.S. higher education: from 1% to nearly 6% during the same period.

Following the discovery that one of the 9/11 hijackers had entered the U.S. on a student visa but never attended class, the Student and Exchange Visitor Information System (SEVIS) was set up in 2003 to "collect, maintain, and manage information about all foreign students and exchange visitors" in the country. To this date, SEVIS requires all schools to "submit and regularly update student information in a central database that can be accessed by the government; students who



do not appear or who stop attending classes can have their visas revoked and face deportation.” In this context, the list of universities at which foreign students have had their visas revoked is long and growing. Besides the above, it includes Arizona State, Georgetown University, University of Minnesota, Cornell etc.

What are the challenges to the policy?

The question of legal remedies is a complex one in this case given that the present immigration enforcement action is not directed against U.S. citizens but against foreigners.

Nevertheless, last week the American Civil Liberties Union published an open letter asking universities to stand up to federal government pressure including surveillance or threats to international students and faculty. The group of academics noted that the protests were defined as protected free speech and assembly, guaranteed under the U.S. Constitution’s First Amendment. Additionally, the American Association of University Professors and the Middle East Studies Association are reported to have filed lawsuits against the Trump administration, arguing that targeting students based on their views is unconstitutional and detrimental to academic freedom. Despite this, comments by Mr. Rubio suggest that unless challenged in court, the revocation programme could continue for the foreseeable future.

HOME AND ABROAD

The ongoing programme of revoking the visas of foreign students in the U.S., ostensibly for opposing the country’s foreign policy, is a direct outcome of the xenophobic tendency in the Trump administration. The danger is that the ‘Make America Great Again’ movement that propelled Donald Trump into the Presidency may soon permeate deep into campus life too. In any case, the number of Indian students enrolling in U.S. universities has been on a downward trend since last year — even before the drumbeats of hostility started. Indian students are already finding other countries such as Germany attractive for lower costs and greater flexibility to self-fund their education through work. Enrolment figures for September this year will demonstrate how attractive the U.S. still is for Indian students despite the looming cancellation of the Optional Practical Training programme that offered a segue for foreign students to working in the U.S. All this, together with the defunding of research and arm-twisting of universities in a country known to value academic freedom, has indeed lowered, if not upended, the regard that people outside had for the U.S.

Many countries have sought to leverage the decline of the U.S. as a destination for talent. Reports talk about European institutions welcoming disgruntled U.S.-based researchers, ironically noting that scientists and researchers fleeing persecution greatly contributed to American progress in the past. For a while now, Indian returnees have been driven in-part towards a desire to come back home or even serve their motherland. Professional achievement or the opportunity to do high-end research has not always been a big driver towards India attracting back its people. While, outwardly, new vistas have opened, research opportunities have expanded, and the fight for funds is less intense, in part due to the encouragement given to private institutions, much work remains to be done. Loosening up the government’s purse strings and goading private institutions to invest in research more may only be the starting point. What often puts off returnees is the daily struggle in India. The struggle not only characterises everyday social life but also the workplace. Collaboration between institutions or even across departments is a tough sell. The suffocating social norms and hierarchies are a downer. Lastly, the academic freedom that Indians are used to enjoying elsewhere will need to be recreated. That would require a complete overhaul in the



Indian government's attitude to liberal values and towards foreigners, which often borders on the Trumpian.

CAN THE U.S. PRESIDENT SERVE A THIRD TERM?

The story so far:

On March 30, the 78-year-old U.S. President Donald Trump said he's "not joking" about serving a third term in the White House. He further claimed that a legal loophole could make it possible.

Does the U.S. Constitution allow it?

The 22nd Amendment to the U.S. Constitution, ratified on February 27, 1951, limits U.S. Presidents to two elected terms. It was brought in response to Franklin D. Roosevelt's unprecedented 'four-term' Presidency (1933–1945), which broke the 'two-term' unwritten precedent set by the nation's first President, George Washington, who voluntarily declined a third term in 1796.

The Amendment prohibits anyone from being elected President more than twice, and if someone has served as President for more than two years of another's term (for example, a Vice President who became President due to the President's death or resignation), they can only be elected once. Thus, effectively, the maximum U.S. Presidential tenure can be 10 years (two years as a successor plus two full terms). For Mr. Trump, elected in 2016 and 2024, the 22nd Amendment unequivocally bars a third term, due to his two elected tenures (2017–2021 and 2025–2029), regardless of their 'non-consecutive' nature.

What is the 'VP loophole'?

Despite the 22nd Amendment's clarity, Mr. Trump has suggested ways to circumvent it. One idea he proposed involves J.D. Vance running for President in 2028 with Mr. Trump as Vice President (VP). If elected, Mr. Vance would resign, allowing Trump to assume the Presidency. However, the 12th Amendment blocks this strategy, stating: "No person constitutionally ineligible to the office of President shall be eligible to that of Vice-President of the United States." Since the 22nd Amendment bars Mr. Trump from another term, he cannot serve as VP either.

While the VP route is blocked, another theoretical path exists through 'succession', as explained by Professor Bruce G. Peabody in his paper. The 22nd Amendment prohibits a person from being "elected" to the Presidency more than twice but does not bar "serving" beyond two terms. In other words, a twice-elected President could ascend to the Oval Office via the line of succession, such as by becoming Speaker of the House, who is elected by members of the House and need not himself be a member of Congress, if the President and VP become unavailable.

A third pathway — repealing the 22nd Amendment — is highly unlikely. Under Article V, this requires either a two-thirds vote in both the House and the Senate or a 'constitutional convention' — a process never used — called for by two-thirds (34) of State legislatures, followed by ratification by three-fourths (38) of the 50 States. Given the current U.S. political landscape, the likelihood of Mr. Trump securing a constitutional amendment, which has not been done in the past 33 years, is virtually non-existent.

Which world leaders have extended their tenure?

Leaders all over the world have skilfully extended their rule by reshaping constitutional limits. For instance, Vladimir Putin, after two terms as Russia's President (2000-2008), hit the

4TH FLOOR SHATABDI TOWER, SAKCHI, JAMSHEDPUR



'consecutive' two-term limit under Article 81(3) of the 1993 Constitution. To circumvent this limit, he then became Prime Minister (2008–2012) as his ally Dmitry Medvedev took the Presidency and extended the Presidential term from four to six years. Returning as President in 2012 and 2018, Mr. Putin, with a 2020 amendment backed by a loyal Duma and judiciary, reset his term count, potentially holding power until 2036.

Türkiye's Recep Tayyip Erdogan, Prime Minister (2003-2014), turned President, axed term limits via a 2017 referendum, and reshaped Türkiye's system into a Presidential one. Similarly, China's Xi Jinping eliminated the two-term cap in 2018. This change allowed Mr. Xi to rule indefinitely, cementing his hold over the party and the State.

Yet, some leaders thrive without rewriting the rules. In Germany, where chancellors face no 'term limits' but need 'Parliamentary support', Angela Merkel ruled for 16 years. Similarly, Prime Ministers in Canada and Britain, unbound by fixed terms, can lead indefinitely, sustained by 'party confidence'.

Why doesn't India have term limits?

Unlike the U.S. Presidential framework, India's Parliamentary system imposes no term limits on its Prime Minister, as tenure depends on retaining the Lok Sabha's confidence (Article 75(3)). This design ensures 'voter sovereignty', 'democratic flexibility', and 'parliamentary accountability', allowing leaders who sustain public trust to serve extended periods. For instance, current Prime Minister Narendra Modi could serve 15 years by 2029. However, the system also includes checks like the "no-confidence" motion, which has historically ended tenures — such as those of V.P. Singh (1990), H.D. Deve Gowda (1997) and Atal Bihari Vajpayee (1999). Moreover, regular elections, coalition dynamics, floor debates, judicial oversight, and a free press ensure a robust democratic balance.

WHAT IS THE CURRENT POLITICAL SITUATION IN SOUTH KOREA?

The story so far:

On April 4, South Korea's constitutional court upheld the impeachment of former President Yoon Suk Yeol. The Court unanimously (8-0) agreed in favour of the impeachment. Mr. Yoon is the second president to be removed from office in the last eight years. According to the constitution, South Korea will have to elect a new President within 60 days.

What led to his impeachment?

On December 3, 2024, President Yoon announced an emergency and declared martial law to protect South Korea from "anti-state forces" and to eliminate "despicable pro-North Koreans." This was the 17th martial law in the history of independent South Korea. Six hours later, the National Assembly convened and 190 members voted in favour of lifting the martial law under Article 77. On December 14, 2024, in its second motion, the Assembly succeeded in voting President Yoon out of office with 204 votes in favour. Of the 300 seats in the National Assembly, the Democratic Party of Korea (DPK) holds 170, while the People's Power Party (PPP), to which Mr. Yoon belongs, has 108 seats.



What happened after impeachment?

The declaration of martial law and the impeachment motion ignited public protests across South Korea. It polarised society; thousands protested against the impeachment, supporting Mr. Yoon, while 2,00,000 people gathered outside the parliament, supporting his removal. On January 17, the Corruption Investigation Office requested an arrest warrant against Mr. Yoon, which was approved, leading to Yoon supporters attacking the courthouse. The 11th and final hearing on the martial decree took place on February 25. In his last hearing, he stated that his intention was only to warn the public of anti-state forces.

What does the verdict say?

The constitutional court upheld the impeachment of Mr. Yoon and expressed disillusionment with his reasoning. It held that Mr. Yoon did not follow the constitutional mandate, rules, and procedure. While Mr. Yoon argued that he imposed martial law due to the presence of anti-state forces, the verdict contradicted the same and stated that he declared martial law to overcome the National Assembly, which composed mostly of the opposition. The verdict ruled that his actions threatened the military's political neutrality and placed the soldiers serving the nation in direct confrontation with its people.

Furthermore, the verdict argued that the political and economic cost of impeachment is more acceptable than the negative repercussions of a violated constitutional and democratic process. Mr. Yoon's claims of alleged election fraud were also dismissed. Based on all the above, the court upheld the removal of Mr. Yoon and said he "abandoned his duty to uphold the Constitution and gravely betrayed the trust of the sovereign citizens of Korea." Mr. Yoon will now face a series of criminal charges that he was shielded from during his tenure.

What is next for South Korea?

The Presidential elections will be held on June 3. As crowds of supporters and protestors clear off the streets, the interim heads and security forces are on high alert to maintain peace and order.

The PPP is now in disarray, with Mr. Yoon being seen as a wronged leader by many of his supporters. Lee Jae-Myung of the DPK is the most favoured contender for the elections. He had led his party to victory in last year's parliamentary elections. South Korea also faces an external challenge with the U.S. imposing 25% "reciprocal tariffs". Thus, the next President will have to address both political and economic challenges.



NATIONAL

A REGIONAL REVIVAL

Last week's Bay of Bengal Initiative for Multi-Sectoral Technical and Economic Cooperation (BIMSTEC) summit — the sixth — which brought the leaders of seven neighbouring countries to Bangkok at a time of global turbulence, was an opportunity to reignite the regional grouping after years of stasis. Originally cast as a “bridging” mechanism between South Asia's SAARC and South East Asia's ASEAN countries, the grouping has languished due to a lack of purpose or due to political underpinnings. After the collapse of India-Pakistan ties, post-2014, SAARC has made little movement, whereas the micro-grouping of Bangladesh-Bhutan-India-Nepal ran aground after the Bhutanese Parliament rejected the Motor Vehicles Agreement between them, as a result of which New Delhi has invested in BIMSTEC. While the objective of having a summit every two years was derailed by the COVID-19 pandemic, what is important is that the summit was held in spite of a possible derailment after the earthquake in Myanmar and Thailand. But the summit proved useful, given the number of agreements and areas of cooperation. These include a BIMSTEC chamber of commerce and work on the India-Myanmar-Thailand Trilateral Highway that will connect India's North-East region, billed a BIMSTEC “hub”, all the way to the Pacific ocean. The BIMSTEC region is prone to natural disasters and building a joint mechanism for disaster management is critical. Negotiating a free trade agreement (FTA) and Customs agreements are among other plans outlined in a 'Vision 2030' document that was adopted.

Apart from the multilateral outcomes, the summit provided the leaders a rare opportunity for bilateral meetings. Prime Minister Narendra Modi and Bangladesh Chief Adviser Muhammad Yunus put aside months of acrimony and aired their grievances over the treatment of minorities, border killings and former Prime Minister Sheikh Hasina's stay in India. Mr. Modi's advice that “rhetoric” must be avoided between neighbours is important, but must be followed in Dhaka and Delhi. Mr. Modi's meeting with Nepal leader K.P. Sharma Oli came after months of tensions over India's refusal to issue Mr. Oli an invite, and it is hoped that these exchanges will lead to an early visit and the resolution of issues. The inclusion of Myanmar's Prime Minister General Min Aung Hlaing was a special gesture by the BIMSTEC grouping, and it is hoped that Mr. Modi's counsel to Gen. Min and Mr. Yunus on restoring democratic processes in Myanmar and Bangladesh will be heeded. While the summit was productive, many of its initiatives are replicas of agreements once adopted by SAARC, and it is important that member-states focus on the group's cohesion and sustainability so that BIMSTEC is not allowed to atrophy the same way as SAARC did.

DISPELLING CONCERNS

Prime Minister Narendra Modi's visit to Sri Lanka, (April 4-6), his first after 2019, demonstrated, beyond optics, the close ties between the two countries. Colombo, under the Janatha Vimukthi Peramuna (JVP)-led National People's Power (NPP) regime, is serious about improving relations with New Delhi. This was evident from the conferment of its highest honour for foreign leaders on Mr. Modi and a memorandum of understanding (MoU) on defence cooperation, billed as the first of its kind in bilateral ties. The JVP's ascension to power, following Anura Kumara Disسانayake's victory in the presidential poll in September 2024, and the NPP's resounding parliamentary election victory two months later, gave room to the perception that there would be a strictly formal, if not cold, relationship with India, given the JVP's anti-India posture of the past. There was also apprehension that Colombo might not be sensitive to New Delhi's security concerns. However, to be fair to him, Mr. Disسانayake reiterated his country's long-standing



position that Sri Lanka would not permit its territory to be used against India's security and regional stability. Mr. Modi captured the rationale behind the MoU by saying that "the security of both countries is interconnected and co-dependent". Even though the MoU may have formalised certain arrangements in the area of defence, bilaterally, it is up to the NPP regime to establish that Sri Lanka means business in defence cooperation. But still, Sri Lanka is sure to be conscious that an understanding in 1987 not to let Trincomalee or any other Sri Lankan port be used for military purposes by a third country against India has not helped dispel India's concerns.

On the vexatious fishermen's issue — one of importance to Tamil Nadu — it was a good sign that there were detailed discussions. But Mr. Modi's visit should trigger a full-fledged discussion between the fishing communities of the two countries, and one that is overseen by government officials. Recently, fishers on either side of the Palk Bay met and exchanged their views. If this meeting is to have some meaning, it should be followed up with another round of talks. A flexible approach will help create a lasting solution. Another significant outcome of the visit is that Tamil parties, in their meeting with Mr. Modi, conveyed the point that they recognised the significance of the Indo-Lanka Accord of 1987 in pursuit of achieving a political settlement for the Tamils and sought India's "legitimate involvement". There has been criticism even in Sri Lanka that many of the parties had not fully supported the Accord, which paved the way for the establishment of provincial councils as a measure of devolution. New Delhi, which can provide liberal economic aid for the war-torn Northern and Eastern provinces, should play the role of a dispassionate observer and urge every stakeholder to pursue democratic means to arrive at a consensus.

Do You Know:

- The 13th Amendment to Sri Lanka's constitution was made after the signing of the Indo-Sri Lanka Accord between Prime Minister Rajiv Gandhi and President J R Jayewardene, on July 29, 1987, in Colombo. It deals with the devolution of land and police powers to the provinces in Sri Lanka. India has been pressing Sri Lanka to fully implement the 13th Amendment as the answer to the Tamil demand for political autonomy for the Northern and Eastern regions.
- Apart from the devolution of power, the Accord had other clauses, such as Tamil and English being adopted as official languages along with Sinhala. It provided for a system of elected provincial councils across Sri Lanka. Thus, it was not just the Northern-Eastern province that would get a provincial council but provinces in the rest of Sri Lanka too. The Accord also says that "The Government of India will underwrite and guarantee the resolutions, and co-operate in the implementation of these proposals".
- India's Neighbourhood First Policy guides India's relations with countries in its immediate neighbourhood. It focuses on creating mutually beneficial, people-oriented, regional frameworks for stability and prosperity through the building of physical, digital and people-to-people connectivity.

DUBAI'S CROWN PRINCE IN INDIA: TRADE, DEFENCE TIES DISCUSSED

Defence Minister Rajnath Singh stressed increasing defence collaboration and enhancing partnership in manufacturing during his meeting with visiting Crown Prince of Dubai and Deputy Prime Minister and Minister of Defence of UAE Sheikh Hamdan bin Mohammed bin Rashid Al Maktoum at South Block on Tuesday.



- The two sides decided six outcomes — setting up of a campus of IIM, Ahmedabad in Dubai and commencement of first MBA programme in September 2025; setting up of the first overseas campus of Indian Institute of Foreign Trade at the India Pavilion in Expo City Dubai; starting construction work of Bharat Mart and the launch of a 3-D rendering of the Bharat Mart complex; grant of land for UAE-India Friendship Hospital in Dubai; development of ship-repair clusters at Kochi and Vadinar and opening of an India Office of Dubai Chamber of Commerce.
- PM Modi posted on X, “Glad to meet HH Sheikh Hamdan bin Mohammed bin Rashid Al Maktoum, the Crown Prince of Dubai. Dubai has played a key role in advancing the India-UAE Comprehensive Strategic Partnership. This special visit reaffirms our deep-rooted friendship and paves the way for even stronger collaboration in the future.”
- Recalling his visit to the UAE last year, during which he participated in the World Government Summit in Dubai as the Guest of Honour, the PM said Sheikh Hamdan’s visit “signified generational continuity in the strong and historic ties between India and the UAE, emphasising the enduring partnership built on mutual trust and a shared vision for the future”.
- According to a Defence Ministry statement, Rajnath Singh and Sheikh Hamdan “expressed happiness on the current defence cooperation through institutional mechanisms, military exercises, exchange of training programmes”.

Do You Know:

- The Defence Cooperation MoU with the UAE was signed in 2003, and an MoU on Defence Industry Cooperation was signed in 2017.

Earlier in the day, External Affairs Minister Jaishankar welcomed UAE’s Crown Prince on his first official visit to India.

- Upon his arrival in India, Sheikh Hamdan was welcomed with a ceremonial guard of honour and received by the Union Minister of State for Tourism, Petroleum and Natural Gas, Suresh Gopi. This marks his first official visit to India in his capacity as the Crown Prince of Dubai. Dubai has been a hub in India’s commercial and cultural exchanges with the UAE. The strong people-to-people ties are underpinned by the large Indian diaspora in the Emirates — estimated at 4.3 million — with a significant majority residing in Dubai.

NOW, JUSTICE

Seventeen years after the Mumbai 26/11 terror attacks, India is preparing for the trial of Tahawwur Hussain Rana, who was extradited by the United States this week. The extradition of a co-conspirator in the planning of the attacks that left 166 people dead is proof of the success of India’s counter-terror diplomacy with the U.S., and the tenacity of Indian investigators. Mr. Rana was first arrested by the U.S. in 2009, as an accomplice of David Headley, the Lashkar-e-Taiba (LeT) operative tasked by Pakistan to carry out the reconnaissance for targets in Mumbai by LeT terrorists, as well as for being a part of a plan to attack a newspaper office in Copenhagen. As Mr. Headley’s childhood friend and colleague, Mr. Rana, a Canadian-American citizen and a former Pakistan military doctor, helped plan the attacks and facilitate his multiple entries to India, including once after the attacks, according to U.S. prosecutors. While Mr. Rana was not convicted for the Mumbai attacks in the U.S. trial, he was convicted for his LeT terror links and involvement in the Copenhagen conspiracy, and spent some part of a 14-year sentence in U.S. prisons. His extradition will allow Indian prosecutors to put on trial one of the men charge-sheeted in absentia



for the 26/11 attacks; to extract more information on his Pakistan links; and to further the cause of justice after the dastardly attacks that brought the nation to a standstill. Ajmal Kasab, the only one of the 10 LeT gunmen caught alive, was convicted and hanged in 2012.

The prosecutors of the National Investigation Agency, who have followed the 26/11 trail since 2009, will now need to conduct a similar and unimpeachable time-bound trial. The government would also need to investigate certain unanswered questions: including whether Mr. Rana continued to have provable links with the Pakistani military; whether there is more evidence on the extent of Pakistan's official complicity, and why the U.S. chose to enter into a plea bargain with Mr. Headley, giving him immunity from extradition despite a treaty with India. When compared to Mr. Rana, he was clearly the more provably diabolical and culpable agent for the conspiracy. It is also curious that the U.S., that had been tracking Mr. Headley even before the 26/11 attacks, did not alert Indian authorities of his return to India for another reconnaissance operation in early 2009. It is hoped that Mr. Rana's trial will turn the spotlight back on Pakistan, and generate enough pressure on it to cooperate in the prosecution of seven LeT terror commanders, including Hafiz Saeed who planned, trained and equipped the terrorists for the attacks. To that end, Mr. Rana's extradition is a significant step in the quest for justice and closure for the victims of the 26/11 attacks and their families.

LEGAL MILESTONE

The Supreme Court's judgment on the conduct of Tamil Nadu Governor R.N. Ravi is set to have a far-reaching impact on Centre-State relations, underscoring as it does India's federal principles in what are undoubtedly fraught times. The verdict enhances the administrative autonomy of States, and regulates the functioning of constitutional offices, with implications for the entire country. In the case which concerns Mr. Ravi's handling of 10 Bills passed by the State Assembly, the Court has effectively changed how Governors carry out their constitutional responsibilities. The intervention comes at a time when tensions between Governors and governments in States ruled by parties other than the BJP have peaked — especially over issues such as the appointment of Vice-Chancellors (V-Cs) to State-run universities, where Governors serve as Chancellors. It is no coincidence that the Bills at the heart of the case sought to replace the Governor with the State government as the authority for appointing V-Cs. Mr. Ravi had forwarded these Bills to President Droupadi Murmu after they were re-adopted by the State Assembly. The Court held that the Bills were deemed to have received assent. It described the Governor's action of referring the Bills to the President as "not bona fide", and his conduct as "arbitrary, non est, and erroneous in law" — language that resembled a performance appraisal of the gubernatorial office. In normal circumstances, such a severe reprimand would have resulted in the resignation of the person whose conduct was under scrutiny: Mr. Ravi. But these are not normal circumstances, and Mr. Ravi was certainly playing the politically partisan role assigned to him by the government at the Centre, led by the BJP, which is inimically disposed to the DMK that is in power in Tamil Nadu. Hindrance was the strategy.

The significance of the judgment goes beyond the censure of a particular Governor. It lays down definite timelines for Governors to act on Bills. It ensures that Governors can no longer indefinitely delay legislation under the pretext of scrutiny or act whimsically or with impunity. The Court has reaffirmed a constitutional principle that has often been undermined: that Raj Bhavans must function with transparency, and accountability. With the legislation now in force, the Tamil Nadu government has the authority to appoint V-Cs and must act swiftly to fill these vacancies in 12 universities, and are made based on merit, integrity, and competence, given past allegations of



corruption. This judgment is not merely a legal milestone; it is a call for constitutional morality and cooperative federalism, and restoration of dignity to the office of the Governor, who, as the Court pointed out, is expected to act as friend, philosopher, and guide to the State Cabinet, and not as a blunt instrument of the Centre.

Do You Know:

— In a significant decision, a bench of Justices J B Pardiwala and R Mahadevan of the Supreme Court declared the action of Tamil Nadu Governor R N Ravi in reserving 10 Bills for the consideration of the President in November last year after their due reconsideration by the state Assembly as erroneous and illegal.

— While laying down the timeline for Governors to decide on Bills, the Supreme Court referred to Article 200 of the Constitution. Article 200 specifically deals with the issue of granting assent to Bills. When a Bill passed by the legislature of a state is presented to the Governor, the Governor has four options: (1) grant assent to the Bill; (2) withhold assent to the Bills; (3) return the Bills for reconsideration; or (4) reserve the Bill for the consideration of the President.

— The key difference between the governor and the president is in the manner of appointment and removal — whereas the president is elected by the elected representatives of the country, the governor is appointed by the Union government alone. Whereas the president can only be removed by way of impeachment, the governor can be removed from office at the pleasure of the Union government.

INCONCLUSIVE CHAPTER

With President Droupadi Murmu withholding assent for the Tamil Nadu Admission to Undergraduate Medical Degree Courses Bill 2021, the State is bracing for another battle against National Eligibility cum Entrance Test (NEET)-based admissions. State Chief Minister M.K. Stalin has convened a meeting of legislature party leaders on April 9 to strategise the next move. With the admission season approaching, the development is bound to cause uncertainty and make medical aspirants anxious. Exemption from NEET now remains an inconclusive chapter in the State's decade-old policy discourse. No other State effort to legislate against a central mandate has been so protracted and unpredictable. In September 2017, two anti-NEET Bills met with a similar fate in Rashtrapati Bhavan. Four years later, the ruling DMK — having made NEET exemption a central electoral promise — passed the Bill in the Assembly based on the recommendations of the Justice A.K. Rajan Committee. Instead of forwarding it for presidential assent, Governor R.N. Ravi returned it to the House after five months. In a historic first, the Assembly unanimously re-adopted the Bill and sent it back to him; the Governor subsequently forwarded it to the President. Last week, Mr. Stalin informed the Assembly that assent had been denied, without specifying when Rashtrapati Bhavan had communicated the decision.

This delay in the matter attaining finality is concerning as students have been left facing a state of perpetual uncertainty. The State remains firm in its policy of conducting admission for government quota medical seats based on the Class 12 Board examination scores. Early on, the Ministry of Home Affairs had asked “whether the Bill endangered the sovereignty, unity and integrity of the nation” to which the AYUSH Ministry responded affirmatively. The framers of the Constitution had incorporated Article 254 (2) empowering the President to grant assent to Bills repugnant to central laws on Concurrent List matters. NEET has been consistently upheld by the Supreme Court of India too. The President is under no obligation to give assent, although the Bill



reflects the collective will of Tamil Nadu's legislature: it was passed unanimously. True, NEET is neither foolproof nor an absolute measure of academic competency, but Tamil Nadu's legal options are limited. The judiciary is unlikely to settle the issue with any urgency. The State must prepare for a legal struggle, and in the interim, coach students to face NEET with confidence.

RAJ BHAVAN'S BOUNDARIES

Faizan Mustafa Writes: Governors behave in this manner because they have no security of tenure. Let us give them some security of tenure like judges, and they would act more independently.

- "The good governors should have a broken leg and keep at home," said Miguel de Cervantes. These were the ideals under which the governor was envisioned as having a faint presence, like a full moon on a mid-day. His primary role as a sagacious counsellor was "to be consulted, to warn and to encourage". He has to be above politics. But India's experience with governors has been quite disappointing.
- It seems that governors appointed by the current government have gone far beyond their Congress-nominated counterparts in making elected state governments non-functional. Not only has there been an unfortunate tug of war on the appointment of vice-chancellors, nominations to the state legislative councils and the editing of the customary address by the governor or summoning of the House but also the delay/denial of assent to bills passed by legislative assemblies.
- The relationship between governors and opposition chief ministers has never been so strained, except for a few exceptions when the chief ministers were dismissed, and President's Rule was imposed during the tenure of erstwhile Congress governments.
- Justice J B Pardiwala and R Mahadevan's historic judgment on April 8 is the bold answer to remedy this decline.
- Elected representatives should indeed have more powers than nominated governors. States should be free to legislate on the 66 subjects that are under their exclusive jurisdiction as per the Seventh Schedule. The Supreme Court, invoking its extraordinary powers under Article 142, has laid down strict timelines for assent to bills by governors.
- The Court has scrapped the myth that governors under Article 200 have been given absolute discretion with respect to assenting bills passed by the elected representatives.
- Justice Pardiwala, by laying down time limits for assent, reconsideration or reserving the bill for presidential assent, saved federal democracy from the clutches of unelected governors who, under Article 159, are obliged to preserve, protect and defend the Constitution.
- The Tamil Nadu governor's decision to withhold assent for months and then referring as many as 10 bills passed by the assembly for reconsideration for the President has rightly been found arbitrary and thus unconstitutional.
- In an unprecedented finding, the Court has deemed all bills from the date submitted to the governor as assented. It even found the governor's actions were not bona fide because he only acted after the Supreme Court's observation against the governor withholding assent in a 2023 case from Punjab. Even the presidential action on them has been deemed non est in law.



- Despite our opposition to the office of governor during colonial rule, it was retained to preserve the unity, stability and security of the country. Jawaharlal Nehru favoured the appointment of eminent academicians from outside politics and other outstanding and impartial people from other walks of life as governors.
- Initially, B N Rau, then the constitutional advisor to the constituent assembly, had proposed that the governor be elected by the provincial legislature by secret vote. Sardar Patel, who headed the Provincial Constitution Committee too had recommended that the governor should be elected by the people of the state for a term of four years and could be impeached for “misbehaviour”. Jayaprakash Narayan wanted the governor’s appointment to be made by the President out of a panel of four persons selected by the Assembly and Members of Parliament of the concerned state.
- The central government would always consult chief ministers in appointing governors. T T Krishnamachari said that the chief minister would have veto power in this regard. Even the Sarkaria Commission (1983) recommended the same thing and said the Vice-President and Speaker of Lok Sabha should also be consulted.
- The SC in Raghukul Tilek (1979) held that governors are not employees of the Centre but hold high constitutional office. But governors behave in this partisan manner because they have no security of tenure. They have less protection than a junior civil servant. Let us give them some security of tenure like judges, and they would act more independently.

AN INCOMPLETE SOCIAL JUSTICE

Reservation in private universities and colleges is an idea whose time had come long ago. If there was any doubt about its legality, that dispute too was resolved by the Supreme Court more than a decade ago.

- In 2005, the 93rd Amendment to the Constitution introduced Article 15(5) that allowed the state to make “any special provision” for the advancement of SCs, STs or SEBCs (the legal name for OBCs) which relates to “admission to educational institutions including private educational institutions, whether aided or unaided by the state, other than the minority educational institutions”.
- The enabling provision was used by Parliament to pass the Central Educational Institutions (Reservation in Admission) Act, 2006 to provide for reservation for OBCs, but only in central educational institutions.
- The Supreme Court (Ashok Kumar Thakur vs Union of India, 2008) upheld this reservation for state-run and state-aided institutions, keeping the issue of unaided private institutions open. This remaining issue was also resolved, first by a two-judge bench (IMA vs Union of India, 2011) and then a five-judge bench (Pramati Educational and Cultural Trust vs Union of India, 2014) that upheld reservation in unaided private institutions. So, there is no legal hitch any more.
- The profile of the private HEIs needs no guessing. They do not follow any reservation, except of course the unstated reservation for the rich. The latest All India Survey of Higher Education data for 2021-22 shows that upper-caste Hindus (around 20 per cent of the country’s population) are well over 60 per cent of private university students. Here is the social group-wise breakdown of students in private (state private and deemed private) universities: SCs were just 6.8 per cent (current population share about 17 per cent), STs 3.6 per cent (population around 9 per cent), OBCs 24.9 per cent (population between 45-50 per cent) and Muslims 3.8 per cent (population



around 15 per cent). Needless to say, the picture would be even more skewed in the case of elite private universities and the sought-after courses in these institutions.

- Reservation can make a difference. If we compare the social profile of students in public sector universities that are required to follow reservation, the difference is obvious: 14.6 per cent SCs, 6 per cent STs, and 31.2 per cent for OBCs. There is little difference in the case of Muslims (4.1 per cent) who do not enjoy reservation. For all its limitations, quota-based affirmative action works.

ALLAHABAD HC GRANTED BAIL TO RAPE ACCUSED SAYING 'VICTIM INVITED TROUBLE'

The Allahabad High Court last month granted bail to a rape accused noting that the victim herself invited trouble and was also responsible for the same.

In her FIR, the victim, a postgraduate student, had stated that she had gone to a bar with her friends last September where they all drank alcohol due to which she became intoxicated and needed support.

In the police statement, the woman said that she had agreed to go to the house of the accused to take rest.

She alleged that the accused touched her inappropriately on the way and instead of his house in Noida, he took her to his relative's home in Gurgaon and raped her twice.

The accused, in his bail application, argued that considering the facts of the case as disclosed by the victim, it is not a case of rape but may be a case of consensual relationship between the parties concerned.

Counsel of the accused said that his client has been languishing in jail since December 2024 and has no criminal history. Hence, if he is released on bail, he will not misuse the liberty of bail and will cooperate in the early disposal of the case.

'Knew morality of act'

The Bench of Justice Sanjay Kumar Singh, in his order of March 11, observed that she was competent enough to understand the "morality and significance" of her act as disclosed.

"This Court is of the view that even if the allegation of the victim is accepted as true, then it can also be concluded that she herself invited trouble and was also responsible for the same. A similar stand has been taken by the victim in her statement. In her medical examination, her hymen was found torn, but the doctor did not give any opinion about the sexual assault," the court noted while allowing bail to the accused.

MENSTRUATING T.N. GIRL MADE TO SIT OUTSIDE CLASSROOM TO WRITE EXAM

A private school in Coimbatore district made a Class 8 student write her annual examination outside the classroom on Wednesday, as she was on her menstruation cycle.

A video of the student writing the exam seated on the steps, recorded by her mother, went viral on social media, prompting an inquiry.

The victim is a student of a matriculation school in Senguttaipalayam near Pollachi. As two exams were scheduled this week, her parents requested a separate desk inside the classroom for her



comfort, said sources. However, on Monday, she was asked to sit on the steps outside the classroom to write the exam. When her parents visited the school on Wednesday, they again found her writing an exam on the steps. In a video recorded by the mother, the student is heard saying that the principal had instructed her to sit outside

'Inquiry on'

Director of Matriculation Schools, A. Palanisamy, said, "The Chief Educational Officer is conducting an inquiry. After the report is received, appropriate action will be taken."

Assistant Superintendent of Police Shristi Singh, who conducted a preliminary inquiry on Thursday, told reporters: "The mother of the student called the class teacher on the evening of April 6 around 5:30 p.m. and requested a special seating arrangements. The class teacher reportedly asked the mother to speak to the principal.

She added that no formal complaint had been lodged yet.

Meanwhile, the school correspondent has issued a suspension order to the school principal under Section 17 of the Right of Children to Free and Compulsory Education Act, 2009, which prohibits physical or mental harassment of children.

TRAGEDY OF A COMMONS

While ordering the Wikimedia Foundation to undo changes on the Wikipedia page on Asian News International (ANI), the Delhi High Court said "people at large have a tendency to accept statements made on [Wikipedia's] web pages ... as gospel truth". In the hearing of the defamation suit that ANI had filed in 2024, the court had taken some questionable positions. For example, it sought the identities of the volunteers who edited the ANI page, whose anonymity the platform allows to protect them from retaliation. When the Foundation sought more time, the court observed: "We will close your business transactions here... We will ask the government to block Wikipedia... If you don't like India, please don't work in India." The Foundation had appealed for its right to safe harbour under the Information Technology Act 2000, but the court concluded in favour of the plaintiff because, it observed, "statements on the page pertaining to the plaintiff are all sourced from ... editorials and opinionated pages". Wikipedia is written and maintained by volunteers who are expected to follow the platform's guidelines. Unlike newspapers or scientific journals, the encyclopaedia does not purport to publish new information; volunteers are instead expected to repeat with attribution or reproduce with references, information originally published elsewhere, with a preference for reputable sources. In this light, the court order is problematic.

Elements of truth today are often mistaken to be someone's opinions and vice versa. Politicians and government agencies have punished members of civil society for repeating an allegedly offensive claim rather than address the original claim itself. Opinions are rejected even as data is withheld to deny those who express them opportunities to align them with verifiable facts. In this case, the court had expressed concern for ANI's credibility, whether volunteers who edited the ANI page had followed the platform's guidelines in letter and spirit, and whether the opinion as expressed on the page could be allowed to stand. In the process, it established that the Foundation's ability to maintain the democratic structure that has allowed Wikipedia to become so popular and reliable is limited for India's users: to the extent of public tolerance for certain opinions. Ultimately, the aforementioned "people's tendency" and the state's ability to influence it



put Wikipedia and similar decentralised collaborations at risk. That is a tragedy. These collaborations adopted their designs to sidestep the sort of centralised information control that some countries, including India, have sought. Courts and the state would do well to accommodate these collaborative efforts rather than treat them with contempt — and the people should engage with these efforts and their guidelines as well.

CAN'T ORDER TAKEDOWN ONLY BECAUSE WE DON'T LIKE CONTENT: TOP COURT IN 'ANI VS WIKIMEDIA'

The Supreme Court Wednesday reserved its verdict on Wikimedia Foundation's appeal against the Delhi High Court order to take down a page titled 'Asian News International v. Wikimedia Foundation', while observing that courts cannot order content takedowns just because they don't like the material.

- The Wikipedia page carried details of the High Court hearing on a defamation complaint filed by ANI against Wikipedia, including the comments of the judge.
- Justice A S Oka, presiding over a two-judge bench, said that the High Court has the power to direct content takedowns only if there is a prima facie finding that the material in question is contemptuous.
- Senior Advocate Kapil Sibal, appearing for Wikimedia Foundation, pointed out the allegedly objectionable part to the bench.
- The court said that an expression in the page, "threatened", referring to the observations made by the judge during the hearing, should not have been used.
- Referring to an article on the page about the observations made during the hearing before the HC, Sibal said it was authored by a visiting professor at Harvard, appeared in The Indian Express and was mentioned in a footnote.
- The counsel for ANI said the principal question is about the manner of functioning of Wikipedia. Sibal contended: "You can't say there should be no discussion. We have an open justice system; this has a chilling effect."

Do You Know:

- ANI has argued that Wikipedia is a significant social media intermediary under the meaning of Section 2(1)(w) of the Information Technology Act, 2000: "any person who on behalf of another person receives, stores or transmits that record or provides any service with respect to that record and includes telecom service providers, network service providers, Internet service providers, web-hosting service providers, search engines, online payment sites, online-auction sites, online-market places and cyber cafes".
- The petitioner has also relied on Sections 79(2) and (3) of the Act, which lay down the requirements for the "safe harbour clause" to come into effect.
- Section 79 of the IT Act (Exemption from liability of intermediary in certain cases) states that an intermediary shall not be held legally or otherwise liable for any third-party information, data, or communication link made available or hosted on its platform.



- This protection shall be applicable if the intermediary does not in any way initiate the transmission of the message in question, select the receiver of the transmitted message, or modify any information contained in the transmission, according to Section 79(2)(b).
- Another requirement for safe harbour protection is that the intermediary must adhere to the Intermediary Guidelines and Digital Media Ethics Code, which came into force in 2021. The guidelines mandated setting up a grievance-redressal mechanism, along with a resident grievance officer, a chief compliance officer, and a nodal contact person.
- Section 79(3) states that the protection will not apply if the intermediary, despite being informed by the government or its agencies, does not immediately remove or disable access to the material in question.
- Additionally, the intermediary cannot tamper with any evidence of these messages or content on its platform, failing which it would lose its protection under the Act. Rule 7 of the IT Rules, 2021 states that if “an intermediary fails to observe these rules, the provisions sub-section (1) of section 79 of the Act shall not be applicable”, and “the intermediary shall be liable for punishment under any law for the time being in force”.
- Section 230 of the US Communications Decency Act is analogous to Section 79 of the IT Act. It states that “no provider or user of an interactive computer service shall be treated as the publisher or speaker of any information provided by another information content provider”.

WILL THE WAQF BILL USHER IN TRANSPARENCY?

The story so far:

Parliament passed the contentious Waqf (Amendment) Bill, 2025, on April 4, after a nearly 14-hour debate in the Rajya Sabha. The Bill was cleared with 128 votes in favour and 95 against, and has received the President’s assent as well. The margin was significantly narrower than in the Lok Sabha, which passed it with a 56-vote lead. Originally introduced last year, the Bill was referred to a Joint Parliamentary Committee (JPC) chaired by Bharatiya Janata Party (BJP) MP Jagdambika Pal for scrutiny. The report was laid before both Houses on February 13, 2025.

What does the Bill aim to do?

In Islamic law, waqf refers to property dedicated in the name of god for religious or charitable purposes. Proceeds from such properties are typically used to maintain mosques, fund educational institutions, or support the poor. Once designated as waqf, the property becomes inalienable — it cannot be sold, inherited, or gifted. The Waqf Act, 1995 (1995 Act), and its 2013 amendments under the United Progressive Alliance (UPA) government created the legal framework for managing waqf properties and established State Waqf Boards.

The Bill seeks to amend the 1995 Act, now renamed the Unified Waqf Management, Empowerment, Efficiency and Development Act. It proposes sweeping reforms that significantly expand the government’s role in regulating such properties and adjudicating disputes related to them. While the government justifies these amendments as necessary for transparency, critics and Opposition parties argue that they encroach upon the religious autonomy of the Muslim community.



Who is eligible to make a waqf dedication?

Under the original law, any person, regardless of religion, could dedicate property as waqf. However, the new amendments restrict this right to only those who have practised Islam for at least five years. The Bill now requires individuals to “show or demonstrate” adherence to Islam for this duration to establish a waqf. Dr. Faizan Mustafa, Vice-Chancellor of Chanakya National Law University, Patna, has criticised this requirement as constitutionally suspect. “Once a person embraces Islam, they are entitled to all associated rights, including the right to religious dedication. This provision also violates the right to equality under Article 14 of the Constitution, as it discriminates against recent converts by selectively barring them from endowing property for religious purposes”, he told The Hindu.

What about ‘waqf by user’ properties?

Last year, the government proposed a complete repeal of the doctrine of “waqf by user” — a principle rooted in Islamic legal tradition that recognised properties as religious or charitable endowments based on uninterrupted communal use, even in the absence of formal documentation. However, the JPC report cautioned that dismantling this doctrine could destabilise the legal standing of such properties, many of which have been informally managed by local communities for decades. Accordingly, the new Bill now clarifies that all existing “waqf by user” properties registered on or before the law’s enactment will retain their status unless they are disputed as government land.

Will government oversight intensify?

The 2024 Bill reallocated the responsibility of surveying waqf properties from dedicated survey commissioners to District Collectors. It also repealed Section 40 of the 1995 Act, which had empowered the Waqf Boards to initiate suo motu inquiries to determine whether a property qualified as waqf, even without official documentation. However, the JPC recommended that such surveys be conducted by senior State officials. Accordingly, the revised Bill now mandates that “an officer above the rank of Collector” survey properties where government ownership is disputed.

“The claim that there was no government oversight is a myth. The existing law already allows the government to issue directions to Waqf Boards, nominate members, and even supersede them. Replacing trained survey commissioners with District Magistrates who are already overburdened undermines institutional capacity,” Dr. Mustafa pointed out.

Is there non-Muslim representation?

One of the Bill’s most contentious provisions is the inclusion of non-Muslims in key waqf institutions. It mandates that both the Central Waqf Council and State Waqf Boards must have at least two non-Muslim members. It also removes the requirement that the Chief Executive Officer of a Waqf Board should be a Muslim. In line with a JPC recommendation, the Bill stipulates that the State government’s representative on the Waqf Board must be a joint secretary-level officer specifically overseeing waqf affairs.

Opposition parties argue that these changes infringe upon the community’s constitutionally guaranteed right to manage its religious affairs. However, welcoming the reforms, Dr. Mustafa said, “The diversity of the nation must be reflected in all its institutions, including Waqf Boards, which are statutory bodies. The inclusion of women, non-Muslims, and members of Other



Backward Classes (OBCs) is a positive step. The real question is whether similar reforms will be introduced in temple boards as well.”

What about financial accountability?

To enhance financial oversight, the Bill introduces a centralised registration system for waqf properties. Muttawalis (custodians of waqfs) will be required to upload property details within six months of the law’s enactment, and all future registrations must be routed exclusively through this portal to the respective Waqf Boards.

The Bill also seeks to repeal Section 107 of the 1995 Act, which had exempted waqf properties from the applicability of the Limitation Act, 1963. This provision allowed Waqf Boards to recover encroached land without being constrained by the Act’s standard limitation period of 12 years. However, critics argue that its removal would permit encroachers to claim ownership through adverse possession, legitimising illegal occupations of waqf land.

What lies ahead?

Congress MP Mohammed Jawed, All India Majlis-e-Ittehadul Muslimeen (AIMIM) chief Asaduddin Owaisi, Delhi legislator Amanatullah Khan, and the NGO Association for Protection of Civil Rights have filed separate petitions before the Supreme Court, contending that the proposed legislation infringes upon constitutionally guaranteed rights to religious freedom and property. “When the constitutionality of a law is challenged, courts begin with a presumption in favour of its validity. Therefore, the burden lies heavily on the petitioner to demonstrate that the law violates fundamental rights,” said Dr. Mustafa.

THE MISSING MIDDLE

The Budget session of Parliament was notable for reasons both good and bad. The sittings of the two Houses stretched beyond midnight to clear the Waqf (Amendment) Bill 2025. The debates reflected the significant divergence of opinion on the management of Waqf properties, but were held in a convivial atmosphere. The Chairs of both Houses were elated to preside over a productive session and the ruling BJP was content to find allies strongly on its side, particularly on the Waqf law amendment. Parliament also approved President’s Rule in Manipur, following debates held past midnight. The Opposition was buoyant that it got to have its say. It had its constituents holding together, and it even attracted some fence-sitters on select issues during the session. The BJP not only managed to steer the legislative agenda but also played to the gallery to please its political constituency. It was, however, not all good news. Off the floor of Parliament, business advisory committee meetings of the two Houses saw sharp exchanges, in one instance prompting Rajya Sabha Chairman Jagdeep Dhankhar to walk out. The stand-off between the Congress and Lok Sabha Speaker Om Birla, on the Lok Sabha Leader of the Opposition, Rahul Gandhi, not being given adequate opportunities to speak, remained unresolved.

The vote on the Waqf Bill exposed the differences within the Biju Janata Dal (BJD) as well as the divergence between prospective allies, the BJP and the AIADMK. The BJD’s decision not to issue a whip riled many within the party, more so considering BJD patriarch Naveen Patnaik’s clear stance against the Waqf Bill. One of the reasons for the AIADMK-BJP split in 2023, was the regional party’s fear of losing its minority voter base. The AIADMK voted against the Waqf Bill, underscoring its reservations about the BJP’s agenda. While the YSRCP, the AIADMK and the BJD showed an eagerness to keep a distance from the BJP, the JD(U) and the TDP ended up in an



embrace of their dominant ally. The merits of the Waqf amendments may be debatable but the government's refusal to take the Muslim community into confidence on an important piece of legislation is a classic sign of majoritarianism. Barring a nominated member in the upper House, no Muslim MP supported the amendments. The Waqf debate also highlighted the fact that the ruling alliance does not have a single elected member from the community in Parliament. Beyond the veneer of efficient outcomes, the session sharpened political and communal polarisation. Discussions should ideally expand the common ground, but this session failed on that count.

ORGANISER WITHDRAWS ARTICLE AFTER CONG. QUESTIONS ITS 'MOTIVE'

The English magazine *Organiser*, linked to the Rashtriya Swayamsevak Sangh (RSS), has pulled down an article on the comparison of the land owned by the Catholic Church and the Waqf Board. The withdrawal happened after the Leader of the Opposition in the Lok Sabha, Rahul Gandhi, alleged that after Muslims, the Bharatiya Janata Party was set to go after Christians.

This came at a time when the Narendra Modi government has just managed a successful passage of the Waqf (Amendment) Bill, 2025. The Opposition MPs, during the debate on the Bill in the Lok Sabha and Rajya Sabha, had contended that with this legislation, the government was targeting the Waqf properties and would soon enough shift the focus towards other communities, including Christians. The Waqf Bill was supported by the Kerala Catholic Bishops' Council.

The article, headlined "Who has more land in India? The Catholic Churches vs Waqf Board debate", said that by owning more than seven crore hectares, the Catholic Church was "the largest non-governmental land owner".

Slamming the 'motive' of the article, Mr. Gandhi said on X: "I had said that the Waqf Bill attacks Muslims now, but sets a precedent to target other communities in the future. It didn't take long for the RSS to turn its attention to Christians. The Constitution is the only shield that protects our people from such attacks — and it is our collective duty to defend it."

Prafulla Ketkar, Editor of the magazine, said the article was "an old story", revived after the Waqf Bill. "To unable to address the Christian exodus from the Congress owing to the stand on the Waqf Bill and facing Muslim wrath on Priyanka not voting on the Bill, the Congress is trying to play around a fear-mongering by the media," he added.

DEMOCRACY AND FEDERALISM IN THE DELIMITATION DEBATE

In the ongoing debate on delimitation, a conflict between a principle of democracy and one of federalism has become apparent. 'One person, one vote, one value' is a principle of India's electoral system. What this should mean in practice, at a minimum, is that all Lok Sabha constituencies should have roughly the same number of electors. The Indian republic is constituted as a "union of States". States are the constituent units, and they have their individual identity and power. The delimitation debate, therefore, has to take into account the relative weights of individual electors and individual States. It has to be about federal democracy.

A two-step process

Article 81(2) of the Constitution takes into account federalism and democracy by providing for apportionment of Lok Sabha seats in a two-step process. The first step is to divide them among the States. It is in the second step that they are divided into constituencies within the States. Article 81(2) (a) provides allotment to each State in "such manner that the ratio between that number

4TH FLOOR SHATABDI TOWER, SAKCHI, JAMSHEDPUR



and the population of the State is, so far as practicable, the same for all States.” In Article 81(2) (b), it is provided that “each State shall be divided into territorial constituencies in such manner that the ratio between the population of each constituency and the number of seats allotted to it is, so far as practicable, the same throughout the State.” The qualifier “so far as practicable” in both clauses allows for deviations, and delimitation acts go more into specifics.

The 84th amendment to the Constitution in 2001 and the 87th amendment in 2003 combined (when Atal Bihari Vajpayee was Prime Minister) separated this two-step process in more definitive terms, by basing them on two separate population counts. The apportionment among States was linked to the 1971 Census; and the apportionment within States was based on the 2001 Census. In the current text of the Constitution, Clause 3 of Article 81 defines the reference to “population” in Clause 2 in two ways, as follows: “for the purposes of sub-clause (a) of clause (2) and the proviso to that clause, as a reference to the 1971 Census” and “for the purposes of sub-clause (b) of clause (2) as a reference to the 2001 Census.” The Delimitation Commission appointed in 2002 followed this criteria and its recommendations were implemented in 2008 when Manmohan Singh was Prime Minister. The next inter-State redistribution of constituencies was barred until “the first Census taken after the year 2026 has been published,” by the 84th amendment.

Distribution of representation

Now, compare this distribution of representation to the distribution of land wealth in a joint family which has several constituent familial units. India is akin to a joint family and States, its constituent familial units. Each unit was given its share of land according to the size of its membership — the more the members, the higher the share. Each unit further divided their share among their individual members. Over time, some units added more members, and this caused a decline in the share for their individual members; some others ended up with fewer members, resulting in an increase in per person holding. That is what has happened to the value of votes across States. In 1967, every member in the Lok Sabha represented roughly 4.2 lakh-5.3 lakh electors across all major States. But in 2024, one MP from Kerala represented around 13.9 lakh electors, while in Uttar Pradesh and Bihar, it was 19.3 lakh each (all post bifurcation), and in Rajasthan, 21.4 lakh.

This means vote values of electors across States are not equal any more. To understand this better, let's pick a middle point, called the national median, which is the population per MP of India. We assign this median a vote value of 1. Then, we calculate the value of vote in each State by comparing it to this median. For example, if a State's MP represents twice as many people as the median, its vote value is 0.5 — because one MP is doing the job of two. If another State's MP represents half as many people, its vote value is 2 — meaning its people get twice the representation compared to the average.

Chart 1 and 2 illustrate the vote value of 18 major States in 1967 and 2024. In 1967, the variation in vote value across these States was relatively modest. By 2024, the gap from the median had widened significantly, with some States seeing a sharp rise in vote value and others a noticeable decline. Kerala's vote value was 30% higher than the national median, followed by Tamil Nadu (13%), Odisha (12%), and Punjab (9%). On the other hand, Rajasthan's vote value was 16% lower than the median, and Uttar Pradesh's and Bihar's was 7% each below the median. When the relative size of the population within each unit increases, the value of each vote declines — as it happens with the landholding that gets divided, and vice-versa.



If Lok Sabha constituencies are delimited based on current population, and regardless of State boundaries — i.e., when all votes across India are given the same value — the apportionment between States will undergo major changes. For instance, Rajasthan, which today has 4.6% of Lok Sabha members, could get 5.5%, while Kerala, which has 3.7%, will see its share shrink to 2.8%.

This data captures this conflict of two principles in India's federal democracy — the relative representation of States, and individual voters.

A CASE FOR A FAIR SEAT ALLOCATION

The issue of readjustment of Lok Sabha seats in the context of the new Census is being hotly debated in the country. In fact, it is being wrongly referred to as delimitation in all public debates.

Delimitation is the act of fixing or refixing the boundaries of constituencies. This is done by the Delimitation Commission only after the Census is taken. Under Article 82 of the Constitution, on the completion of each Census, the seats in the Lok Sabha are required to be readjusted so as to reflect the increased population in the number of seats. The present strength of the Lok Sabha was fixed on the basis of the decennial Census figures of 1971. The total population of India in 1971 was around 54.79 crore which is estimated to have gone up to 141 crore as of March 2025. Thus, during the past 50 years there has been a phenomenal increase in India's population. This has not reflected in the strength of the Lok Sabha, as the number of seats have been frozen at the population level of 1971 till 2026, through an amendment of the Constitution.

Various formulae

The most important point to remember is that much of the increase in the population of the country was due to the failure of some of the major States in the north, such as Uttar Pradesh and Bihar, in implementing the national policy on population control. The result is an abnormal increase in the population of these States. For example, the population of Uttar Pradesh in 1971, was a little over 8.38 crore which is estimated to have gone up to 24.1 crore in 2025. Similarly, the population of Bihar was 4.21 crore in 1971, which has probably reached 13.1 crore in 2025. The idea behind not raising the strength of the Lok Sabha till 2026 was to give time to the States, which were registering huge increases in population, to stabilise it so that the readjustment of seats would not create a serious imbalance between States in southern and northern India.

The southern States could implement the population program successfully and arrest the growth in population. In 1971, the ratio between the number of Lok Sabha seats allotted to a State and its population was almost the same for all the States. Thus, in all major States the population base was 10 lakh for a Lok Sabha constituency. However, the picture has now changed drastically. If the formula contained in Article 81 is followed now, it will create a huge divergence in the number of seats between the northern States and southern States. For example, for a population of 24 crore, Uttar Pradesh will be entitled to 240 seats which will be a threefold increase from the present 80 seats. Whereas a State like Kerala, will only get 36 seats in place of the 20 seats at present as its population is estimated to have increased by only 68% over the past 50 years. If on the other hand, the population to seat ratio is changed to 15 lakh per constituency, Uttar Pradesh will get 160 seats in place of 80, whereas Kerala may get only a few seats more than the present 20 seats. Incidentally, Kerala is being cited as an example because it has registered the lowest growth in population among all major States.



There is another calculation which produces interesting results. The population of the country in 1952, was 372 million (37.2 crore) and the total number of Lok Sabha seats was 489. This works out to an average of 7.6 lakh people in a parliamentary constituency. In 1971, the population was 54.8 crore and the total number of Lok Sabha seats was raised to 543 which works out to one million (10 lakh) people in a constituency. The readjustment of seats was done as per the mandate of Article 82 of the Constitution which will have to be repeated after 2026. Assuming that the strength of the Lok Sabha is going to be raised from the present 543 to 800 (the capacity of the Lok Sabha chamber in the new Parliament is reported to be above 800), the average population of a parliamentary constituency will be nearly 18 lakh. If this figure is taken as the population base of a constituency for readjustment, then Kerala may retain the same number of seats, Tamil Nadu will gain a mere four seats where as Uttar Pradesh will gain as much as 54 seats.

Rewarding incompetence

There are serious apprehensions in the south on the question of readjustment of seats in the Lok Sabha. Although the Union Government has remained silent on it so far, unofficial discussions on certain formula are reportedly being held in some quarters. The State of Tamil Nadu, under the leadership of Chief Minister M.K. Stalin, has powerfully articulated the fears of the States in the southern region about losing political importance in the event of a readjustment of seats in the Lok Sabha. The recent conclave of southern Chief Ministers and other political leaders, including the Chief Minister of Punjab, held in Chennai is a pointer to the possibility of this issue becoming a major rallying point for southern States. Therefore, there is an urgent need to devise a rational formula for the readjustment of seats in Lok Sabha.

Articles 81 and 82 clearly show that readjustment of seats is done solely on the basis of population. So, a solution to this vexed problem can be found on the basis of what population base can be accepted for readjusting seats. The problem has arisen because of the huge increase of population in a large number of States due to the non-implementation of family planning programs. Equity demands that States which failed to implement population control programs not be rewarded with an increase of seats which give them great political advantage.

Ideal solution

In these circumstances, a fair formula for readjustment of seats would be to take the State which has registered the lowest increase in population as the template. Figures show that Kerala is the State in the south which has registered the lowest growth in population since 1971. The population of Kerala was 2.14 crore in 1971, which is estimated to have gone up to 3.6 crore in 2025 which is an increase of 68%. This can be considered a reasonable growth in population for the last 50 years. So a 68% step-up in the number of seats in all States can be a reasonable basis for readjustment. This will, on the one hand, maintain the present equation among the States in terms of seats and on the other obviate the need to abnormally raise the number of seats in the States which are remiss in controlling the population. So, under this formula, Uttar Pradesh will get 134 seats, Kerala 34 and Tamil Nadu around 66 seats. This way the present equation among States in terms of seats will remain unchanged. A 68% step-up in seats will raise the total number of seats in the Lok Sabha to 912.

Of course, this formula will make Article 81(2)(a), which says that the ratio between the number of seats and the population of a State shall be the same for all the States, irrelevant. In fact, it had become irrelevant long back — a formula that was laid down in 1950 will cause serious injustice in 2026. The allocation of seats in the Lok Sabha is not a political issue — it needs to be done on



the basis of the constitutional principle of equity. It is bound with the bargaining power of the federating units or groups of such units situated in various geographical regions. A sensitive approach is necessary to deal with this issue. Article 1 of the Constitution proclaims that India shall be a Union of States. The term Union implies that the arrangement of the component units should be on the basis of equity in terms of its share in Parliament. We should try to live up to the implications of this constitutional scheme.

EXPRESS VIEW ON ASSAULT ON WOMEN IN THANE FOR NOT SPEAKING MARATHI: MNS IS OUT OF TOUCH WITH REALITY

The news of two women, one of them pregnant, allegedly being heckled and assaulted for not speaking in Marathi, in Maharashtra's Thane, is deeply troubling. It comes in the wake of Maharashtra Navnirman Sena (MNS) supremo Raj Thackeray's exhortations to his party workers to not "hesitate and slap those refusing to speak Marathi in the state". Thackeray had withdrawn his Mi Marathi campaign following a backlash from various quarters, insisting that it is not a "compromise". But even as his reversal signals the MNS's waning relevance, incidents such as the one in Thane highlight, yet again, the pernicious fallouts of a narrow identity politics, rooted in regional and linguistic chauvinism.

A glance at the trajectory of the MNS reveals the flaws in its foundation — and more crucially, in Thackeray's vision. In 2006, when he launched the MNS, Thackeray sought to channel the Maratha pride embodied by his uncle, the late Bal Thackeray, by voicing the concerns of its youth against migrants, especially from north India. Bal Thackeray's diatribes, too, were chauvinistic. But the Shiv Sena supremo combined them with grassroots initiatives that garnered support from a cross-section of Marathi society. In contrast, the MNS's rhetoric about the Marathi manhood stokes fear and resentment, while the party has failed to offer solutions to the state's many problems, including in education, healthcare, housing and employment. Thackeray's ideological vacillations — repeatedly changing his stance on Hindutva, Prime Minister Narendra Modi and the BJP-led Mahayuti — and the rise of his cousin Uddhav Thackeray's Shiv Sena (UBT) have further eroded his credibility. The MNS's disconnect with the grassroots became apparent in the 2024 assembly elections, where the party drew a blank. Even the attempt to launch his son Amit as the heir apparent failed to take off.

While Maharashtra is no stranger to the politics of parochialism, it also recognises the importance of political pragmatism. The Mahayuti government, which came to power in November with a huge mandate and on promises of addressing economic distress across the state, has repeatedly iterated its vision of making Maharashtra the country's first trillion-dollar economy by 2030, with Mumbai as the country's fintech capital. Such an ambition is conditional on a conducive ecosystem that nurtures talent, offers ease of doing business and opens up opportunities. For a party that professes to speak for its youth, aligning with this broader vision would appear to be practical. The limitation of Thackeray's political imagination, however, has rendered MNS a party out of touch with the state's aspirations, increasingly irrelevant in the face of Maharashtra's pressing need for progress.

WHY WERE STUDENTS PROTESTING OVER KANCHA GACHIBOWLI?

The story so far:

The students of the University of Hyderabad at Gachibowli have been protesting ever since the news of the auction of a 400-acre land parcel known as Kancha Gachibowli within campus

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premises broke. The battle has now reached the Supreme Court, which has acknowledged the destruction of greenery and the existence of wildlife in the area, before taking it up suo motu. Three PILs have already been filed in the Telangana High Court against the auction.

Why were there protests?

Students state that the land is part of the university, a claim which has been vehemently denied by the government.

The land was part of the 2,324 acres granted to the University of Hyderabad at the time of its establishment in 1974, as part of the six-point formula proposed by the then Congress government to assuage regional sentiments stoked by the Telangana movement of 1969. However, the land allocation was not formalised through title transfer. Subsequently, large tracts of land, unused by the university, were taken up by the government for various purposes including establishing the Indian Institute of Information Technology, the Tata Institute of Fundamental Research, and the Sports Authority of Andhra Pradesh to name a few. By 2010, more than 800 acres of land was taken away in 22 such instances.

What do documents say?

The 400 acres of land which is now under conflict was part of such diversions in 2004, under the then Telugu Desam Party (TDP) government. An MoU was signed with the University of Hyderabad, for the transfer of 534 acres, in lieu of 396 acres allocated at another location. The land formed part of 850 acres allocated to IMG Academies Bharata for developing sports facilities. A sale deed was subsequently signed, just before Legislative Assembly elections in which the TDP was routed by the Congress. After winning the elections, the then Chief Minister cancelled the land transfer, leading to a long drawn out legal battle. The top court dismissed the Special Leave Petition, allowing the present government under Chief Minister A. Revanth Reddy to take up the land.

What are environmentalists saying?

Undisturbed for more than 20 years, the land has become home to a rich variety of native flora and fauna. Several migratory birds also visit the area. A recent compendium of biodiversity collated from the campus mentions 233 bird species, which is higher than the avian numbers in the KBR National Park and the Mrugavani National Park. It also cited *Murrcia hyderabadensis*, a unique spider, which is endemic to the Kancha Gachibowli forest, and found nowhere else. The document also lists at least three reptiles, and 27 bird species which are mentioned in Schedule-I of the Wildlife Protection Act, 1972, indicating their vulnerability and need for highest protection, besides 72 species of tree diversity.

Why did the govt. decide to auction?

The Congress government in the joint State of Andhra Pradesh under the leadership of Y. S. Rajashekhar Reddy was the first to begin the monetisation of government lands through open auctions, which was decried and denounced by many concerned citizens and political parties. However, such auctions have become the unstated State policy of all subsequent governments in Telangana, irrespective of the party in power.

The Congress party, which won the 2023 assembly elections inherited a State debt of nearly ₹4 lakh crore, which is set to cross ₹5 lakh crore by the end of FY 2025-26. Mr. Reddy's recent admission that he had no funds for capital expenditure reflects the true state of State coffers. The



judgment about the ownership Kancha Gachibowli came just in time as a respite for the government, which decided to garner funds for welfare measures through auctioning the land.

HUMAN RIGHTS AND WRONGS

Prakash Singh Writes: India must enact a law against torture, ratify the UN Convention, and take effective steps to insulate the police from external pressures as mandated by the Supreme Court

Key Takeaways:

Prakash Singh Writes:

- Common Cause, a reputed NGO, in collaboration with the Lokniti Programme of the Centre for the Study of Developing Societies (CSDS), released a comprehensive report on police torture and (un)accountability on March 26.
- It explores the nature, causes and factors that contribute to the perpetuation of police violence and torture in India. The study is based on interactions with 8,276 police personnel of different ranks across 17 states and union territories. The findings of the study bring out some very disturbing features. There are, however, some redeeming features as well.
- An encouraging part of the report is where the researchers found that an overwhelming 79 per cent of police personnel favour training in human rights, 71 per cent recommended prevention of torture and 79 per cent supported evidence-based interrogation techniques.
- The report says that there was consensus among lawyers and judges that confessions to the police should never be made inadmissible. It is worthwhile placing on the record that the Malimath Committee had suggested that confessions made before a senior police officer of the rank of Superintendent or above should be admissible in evidence with safeguards to prevent coercion. The Law Commission of India had also, in its 69th Report (1977), proposed introducing Section 26A in the Indian Evidence Act to make confessions before senior police officers admissible.
- A serious lacuna in the report is that it has not made any observations on the factors that contribute to the use of torture in the Indian context. Very briefly, these are: A continuation of the colonial police culture, for which there is no justification, the near absence of accountability, pressure from the political masters and even senior officers for quick results, inadequate training, and public support for short-cut solutions because of the failure of the criminal justice system to deliver within a time-frame.
- Torture is, sadly, practised by police forces across the world. The most sophisticated and brutal techniques are used by the police in the US. Guantanamo Bay gained worldwide notoriety for its inhuman treatment of detainees. Iraq's Abu Ghraib prison highlighted the brutal methods used in the interrogation of terror suspects. About Russia, China and Pakistan, the less said, the better.
- This is, however, not to justify the use of torture under any circumstances. India must enact a law against torture, ratify the UN Convention, and take effective steps to insulate the police from external pressures as mandated by the Supreme Court. Such measures will lead to police becoming humane and professional, upholding the rule of law, respecting human rights and winning over the trust and confidence of the people.



Do You Know:

Prakash Singh Writes:

- Torture has been defined in the UN Convention (1984) as “any act by which severe pain or suffering, whether physical or mental, is intentionally inflicted on a person for such purposes as obtaining from him or a third person information or a confession, punishing him for an act he or a third person has committed or is suspected of having committed, or intimidating or coercing him or a third person, or for any reason based on discrimination of any kind when such pain or suffering is inflicted by or at the instigation of or with the consent or acquiescence of a public official or other person acting in an official capacity.”
- India signed the UN Convention against Torture (UNCAT) in 1997 but has not ratified it, which means it is legally not binding on India.
- The report brings out that 20 per cent of the police personnel feel that it is “very important” for the police to use “tough methods” to create fear amongst the public and another 35 per cent think it is “somewhat important.”
- In other words, 55 per cent of police personnel favour tough methods to some degree. Significantly, they have not talked of torture. What these tough methods are and at what stage they assume the dimensions of torture have not been clarified in the report.
- In cases involving sexual harassment and child lifting, one in four police personnel justify mob violence, implying that they do not mind mobs acting as the judge, jury and executioner in such cases.
- Another disturbing finding is that 22 per cent of police personnel believe that killing “dangerous criminals” is better than giving them a legal trial. But, it is also a fact that 74 per cent police personnel are of the view that “no matter how dangerous a criminal is, the police should try to catch them and try to follow proper legal procedures.”
- In matters of arrest, although 41 per cent police personnel said that the procedures are “always” adhered to, 24 per cent said that they are “rarely or never” adhered to. Kerala, where 94 per cent said “always”, reported the highest compliance.
- On the use of third-degree methods, 30 per cent of police personnel said that these are justified towards the accused in serious criminal cases. Surprisingly, 9 per cent justified these methods even in petty offences. The victims of torture are, unfortunately, mostly from poor and marginalised communities. The groups generally targeted are Adivasis, Dalits and Muslims, people who cannot read and write, and slum dwellers.
- Custodial deaths showed discrepancies in figures furnished by different agencies. Thus, in the year 2020, the National Crime Records Bureau (NCRB) reported 76 cases, while the National Human Rights Commission reported 70 cases. The National Campaign Against Torture (NCAT), a civil society initiative, documented 111 cases. It was a shocking revelation that during 2018-22 there were zero convictions for deaths in police custody.

WHY UGC WILL ISSUE EQUIVALENCE CERTIFICATES FOR FOREIGN DEGREES

The University Grants Commission (Recognition and Grant of Equivalence to Qualifications Obtained from Foreign Educational Institutions) Regulations 2025 were notified on Friday.

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- These regulations specify the procedure for obtaining equivalence certificates, which are documents certifying that a qualification obtained in an educational institution abroad (like a degree or diploma) is equivalent to a comparable qualification in India. The UGC made a draft of these regulations public in 2023. The regulations have now been notified after considering the feedback.

- A qualification — a certificate, diploma, or degree — from a foreign institution can be recognised for grant of an equivalence certificate if:

—It was awarded by a foreign institution that is recognised under the laws in its home country;

—The entry-level requirements (like minimum credit requirements, or requirements of a thesis or internship) for admission to the programme are similar to a programme of that sort offered in India; and

—If the student has pursued the programme as per the norms and standards specified by the foreign institution.

- Qualifications obtained from off-shore campuses of foreign institutions can also be granted an equivalence certificate, provided that the academic programme complies with requirements in the country where the campus is located and in the country of origin of the institution.

- The regulations will apply to school qualifications obtained by a student from abroad, in case they want to apply for admission to an undergraduate programme in India. For this, the student needs to have completed at least 12 years of school education.

Do You Know:

- With some exceptions, the equivalence certificates will be valid for all academic institutions under the UGC, for higher education and research, and for employment in cases where a qualification recognised by the UGC is essential.

- Disciplines like medicine, pharmacy, nursing, law, and architecture, and “other qualifications regulated by the norms of respective Statutory Councils in India” will not be covered under the regulations.

- They will, however, be applicable for qualifications obtained via distance or online learning modes, contrary to what the draft regulations said. This change was made due to feedback received, UGC chairman M Jagadesh Kumar told The Indian Express.

Equivalence certificates will not be required for qualifications obtained from foreign institutions that have collaborations with Indian institutions under UGC regulations for twinning/joint/dual degree programmes, or for setting up foreign institutions in India.

A DEEP-TECH REVOLUTION IS ON WAY

- Commerce Minister Piyush Goyal’s recent statements on the shortage of deep-tech startups should be seen in this light. It’s tough love — a bugle call to action, not unlike Eisenhower’s.

- Deep tech is not just a buzzword; it’s rooted in scientific and technological breakthroughs. It’s the backbone of transformative industries. It is what leads to achievements such as a rocket booster being caught mid-air by mechanical chopsticks; or a seemingly simple chatbot that can



produce code, poems, and a complete business proposal; or a miraculous drug that can tackle everything from obesity to depression.

- This is a field that's currently being led by the US and China. According to a recent analysis by the World Intellectual Property Organisation, China filed over 38,000 generative AI patents between 2014 and 2023 — six times more than the US. A study by the Australian Strategic Policy Institute (ASPI) shows China leads globally in 57 out of 64 critical technologies.
- Annually, the US, the UK, Germany and Japan spend over 3 per cent of their GDP on R&D. China allocates just over 2.68 per cent; India spends under 1 per cent. But it isn't all bad. Advancements in deep tech are decadal projects, and India is stepping up — albeit belatedly.

Do You Know:

- Commerce Minister Piyush Goyal's comments on the start-up ecosystems in India and China and how Indian companies focus on sectors like online deliveries and betting apps while businesses in China address electric mobility and artificial intelligence (AI) have helped turn the light on a crucial issue that has seldom been debated: how India's start-up ecosystem is the third largest in the world after the United States and China but is marked by fundamental differences.
- Speaking at a start-up event earlier this week, Goyal showed a slide comparing start-ups in India and China, and said that Indian startups are busy making "food delivery apps, fancy ice cream & cookies, instant grocery delivery, betting & fantasy sport apps and reels & influencer economy." On the other hand, the start-ups in China are working on "EV & battery tech, semiconductors and AI, robotics and automation, global logistics & trade and deep tech & infrastructure."
- Goyal's remarks strike many an echo. In private, government officials have often emphasised the importance of building Indian-owned intellectual property (IP), which is currently severely restricted in terms of making much commercial sense. Very few Indian companies hold important IP in cutting edge sectors, unlike their Chinese counterparts. Some government schemes like the design linked incentives for chips are trying to change that. The gap, though, is widening.
- China is considered to be the biggest frontier in electric mobility, with its companies like BYD and Li Auto, having considerable advantage over even some American and European rivals like Tesla and Volkswagen. India lags far behind the Chinese in terms of battery technology, and is largely a consumer of innovation that took place in China. In fact, many believe that India will likely be the final frontier for internal combustion engines.
- In AI, while American companies — including start-ups like OpenAI and Anthropic — have so far dominated, China has managed to create a global sensation with Deepseek, which showed the world that a good AI model can be created at a fraction of the cost than what the world believed earlier. Meanwhile, in India, there is yet a global standard model to be launched, with the government of India currently evaluating some proposals.
- In e-commerce (including quick commerce and food delivery), India has managed to create giant companies like Flipkart, Zomato, Swiggy, Myntra, Blinkit and Zepto. These companies, some of which are also publicly listed, have capitalised on growing access to the Internet that several Indians enjoy today, with a particular focus on urban areas, where people have some leeway for discretionary spending. However, these start-ups are predominantly domestic facing, with a majority of their business coming from India.



- In contrast, China has managed to build global-level businesses in the online services and consumer Internet space, with companies like Bytedance's TikTok and e-retailers Shein and Alibaba servicing users across the world. In manufacturing, China has cemented itself as the factory of the world, especially in tech manufacturing.

AIIMS RESEARCHERS DEVELOP BLOOD TEST TO MONITOR CERVICAL CANCER TREATMENT

- They found fragments of the DNA of human papillomavirus (HPV) — the virus responsible for the vast majority of cervical cancer cases — circulating in the blood, with their levels correlating with the size of the tumour. As patients began treatment, these levels dropped, indicating how the cancer cells were responding to treatment.
- The findings have been published in the Nature group journal, Scientific Reports.
- This could be a game-changer as cervical cancer is the second most common cancer among women in India with more than 95 per cent cases linked to persistent infection with certain high-risk strains of HPV. As normal screening and follow-ups are cumbersome and costly, a blood test could be a cheaper alternative.
- Doctors used a very sensitive molecular test to detect trace amounts of DNA of the two most common high-risk HPV strains — HPV16 and HPV18. They selected 60 cervical cancer patients who had not started their treatment. They also collected samples from 10 healthy women to compare the results with.

Do You Know:

- The average level of circulating viral DNA in the cancer patients was 9.35 ng/μL (a measure of concentration) while it was 6.95 ng/μL among healthy women. The doctors were also able to show that after three months of treatment, the level of circulating DNA reduced to 7 ng/μL.
- Once proven in a larger cohort, the test may be used for initial diagnosis as well as early detection because 90% of patients who reached the hospital were already in the second or third stages of the disease. The likelihood of survival reduces with cancers detected in later stages.
- As of now, the most common test for cervical cancer screening is pap smear, where the cells collected from the surface of the cervix on a swab are studied under the microscope to detect changes. The other commonly used test, especially in resource-scarce areas, is visual inspection with acetic acid. A solution with 3-5% concentration of acetic acid is applied on the cervix, which reacts with pre-cancerous or cancerous cells to give a whitened appearance.
- For the final diagnosis and staging of the cancer, patients have to undergo a biopsy. This is also where the blood test may come in handy.
- There were 1.27 lakh cervical cancer cases and 79,979 deaths in 2022 in India, according to data from the World Health Organisation's Global Cancer Observatory. The overall survival rate of cervical cancer in India is around 46 per cent, according to the study.
- The good thing is cervical cancer is one of the only vaccine-preventable cancers. The government is considering cervical cancer vaccination in girls between the ages of nine and 14.



WHY IS ACTIVE MOBILITY NECESSARY IN INDIA?

The story so far:

Sporadic reports of accidental deaths and injuries of pedestrians, cyclists, street-hawkers, and others in the metro cities of India are on the rise. While urban development in various metro cities include patches of dedicated service lanes for pedestrians and cyclists, motor vehicles tend to ply on them as well. As a result, the risk of accidents are as high on these pathways as on the main roads with vehicular traffic. In such a grim situation, active mobility is the need of the hour.

What is active mobility?

Active mobility refers to modes of transportation that use human power instead of a motorised form of mobility. Active modes of transport include walking, cycling, skateboarding, and other non-motorised modes that are used for travel and not recreational activities.

Active mobility in India has gained attention due to increasing traffic congestion, pollution, health concerns, and rising pedestrian deaths. This is accompanied by the growing importance of sustainable transport in national policies like the National Transit Oriented Development (NTOD) policy and the Smart Cities Mission (SCM), along with international efforts such as the Paris Agreement which emphasises reducing carbon emissions and promoting eco-friendly mobility.

Bengaluru's first Bicycle Mayor, Sathya Sankaran, has been a key advocate for cycling and pedestrian-friendly infrastructure since 2018. His efforts contributed to the drafting of the Karnataka Active Mobility Bill, 2022. In 2020, Karnataka recorded the highest number of pedestrian deaths in the country at 13%. Therefore, the Bill aims to promote urban mobility through the protection of the rights of pedestrians and cyclists. The inherent goal of this bill is to provide a legal structure protecting and promoting active mobility, and ensuring equal access to public space. Several other States are also giving attention to active mobility. Delhi is expanding cycling tracks and pedestrian-friendly streets under its Delhi EV policy. Pune has implemented a Comprehensive Bicycle Plan and developed over 300 km of cycling lanes. Chennai is redesigning roads under the SCM to improve pedestrian safety, while Kochi has introduced a Public Bicycle Sharing (PBS) system to enhance last-mile connectivity.

What is its significance?

As stated by the World Health Organization (WHO), active mobility in all its forms has economic, social, environmental, and health benefits. The economic benefits include reduced household expenditure on fuel and transportation and lower healthcare costs due to enhanced public health. It also boosts local businesses since pedestrian-friendly infrastructure attracts higher foot traffic.

Walking and cycling are sustainable modes of transport as compared to motorised vehicles due to their marginal carbon emissions. They enhance energy security and significantly reduce India's 12% carbon emissions from road transportation. Cities with well-developed infrastructure for active transport report cleaner air and reduced traffic congestion. Moreover, active modes of transport are known to reduce the risk of chronic diseases, improve cardiovascular health, promote mental well-being, and enhance public health among citizens. It is a mode of transportation that makes cities more vibrant and climate-conscious.



What are the barriers?

Active mobility remains severely underutilised because urban infrastructure actively discourages it. The lack of adequate pedestrian and cyclist-friendly infrastructure hinders active mobility as a primary mode of transport. As of 2021, more than 85% of roads do not meet the minimum safety requirements for walking and cycling. This is also accompanied by the availability of low-cost, alternative modes of motorised transport. Additionally, extreme weather conditions and long distances of travel discourage people from adopting active modes of transport.

Moreover, social perceptions act as significant barriers. In many regions, cars and bikes are associated with a higher social status. India has a burgeoning number of privately owned motor vehicles plying on the road. According to the Society of Indian Automobile Manufacturers, over 12,000 cars are sold every day in India. High traffic congestion, along with weak enforcement of traffic regulations, makes walking and cycling unsafe.

How have other countries fared?

With more than 35,000 km of dedicated cycling lanes, The Netherlands is a global leader in promoting active mobility through cycling. The European Union's Mobility and Transport department prioritises promoting walking and cycling as a means of transport to enable more sustainable mobility. This is accompanied by Vision Zero, which aims to mitigate the number of incidents between pedestrians, cyclists, and motor vehicles. Germany's Berlin Mobility Act mandates wider sidewalks and dedicated cycling lanes, reduced speed limits for motorised vehicles within city limits, and prioritises pedestrians/cyclists in urban planning.

HOW CONSTRUCTION DEFECTS IN NATIONAL HIGHWAYS KEEP INDIA'S ROAD ACCIDENT NUMBERS HIGH

On January 14, 2025, a 28-year-old woman died and her husband suffered critical injuries after the SUV crashed into a divider on the newly-constructed Delhi-Meerut Expressway (DME). The police officials said that both were wearing seatbelts and the car suddenly flipped over when the driver applied the brakes and the vehicle hit the divider.

- From the fractures or fissures that develop in the concrete slabs used for pavement construction, surface undulations or deformations, potholes from water stagnation and uneven riding surface — a series of significant defects identified in various National Highway (NH) projects across India from 2019-20 to 2023-24 have a direct bearing on the creation of 'black spots' or hazardous points on the NH, where accidents take place repetitively.

- On March 6, in a conference on road safety, Gadkari said that engineers and consultants involved in roadbuilding and the "substandard" detailed project reports (DPRs) produced by them were responsible for continuing road accidents, where India has among the highest numbers in the world.

- According to the minister's reply in Parliament, the defects are of mainly four categories, namely, pavement issues, retaining wall issues, bridge and structure defects, and other construction & maintenance deficiencies.

- Settlements in highways mean displacement of the pavement surface or the underlying soil, which results in an uneven or depressed surface.

**Do You Know:**

- No fresh projects will now be taken up under the Centre's flagship Bharatmala Pariyojana, the Ministry of Road Transport and Highways (MoRTH) said in its latest annual report.
- The Project, Bharatmala Pariyojana Phase-1, which received Cabinet approval in October 2017, entails a total length of 34,800 km in 31 States and Union Territories, and covers over 550 districts. However, a total of 26,425 km or 76 per cent of the total approved length has been awarded for construction to develop it as economic corridors, which along with Golden Quadrilateral (GQ) and North-South and East-West (NS-EW) corridors, are expected to carry the majority of the freight traffic on road.
- The project is also marred by many delays and cost overruns, which analysts said could be one of the reasons for fresh projects not being taken up under the scheme. The length of 10,000 km under the National Highways Development Project (NHDP) was also subsumed in this major highway infrastructure initiative.

WHAT IS THE PROTOCOL FOR DEFENCE EXPORTS?**The story so far:**

India's robust legal and regulatory framework on strategic trade continues to guide overseas commercial ventures by its companies, the Ministry of External Affairs said last week. It was responding to a U.S. media report it termed "factually incorrect and misleading", which claimed that Defence Public Sector Undertaking (DPSU) Hindustan Aeronautics Limited (HAL) supplied items sourced from a British firm to Russia.

What did the MEA say?

The MEA said the Indian entity mentioned in the report has scrupulously followed all its international obligations on strategic trade controls and end-user commitments. It observed that the report had tried to "frame issues and distort facts" to suit a "political narrative". This is not the first time such an allegation has been made. There have been similar allegations in the last couple of years, since the beginning of the Ukraine war in 2022.

Why is the regulation important?

The primary objective of strategic trade controls/export controls is to prevent the proliferation of Weapons of Mass Destruction (WMD) and their delivery systems, as well as the uncontrolled transfer of conventional arms/military items, states the Handbook on India's Strategic Trade Control Systems released by the Directorate General of Foreign Trade (DGFT), under the Ministry of Commerce and Industry. "Accordingly, India maintains a harmonised list on export control of dual-use and military items, including software and technologies, having potential civilian/industrial applications as well as military and WMD use. It is restricted/permitted under an export authorisation or licence (unless specifically exempted), except for certain items that are prohibited," it states.

Effective export controls are critical as India looks to significantly expand its defence exports with a current target of reaching ₹50,000 crore by 2029. On April 1, the Defence Ministry announced that defence exports have hit a new high of ₹23,622 crore for FY 2024-25, a growth of ₹2,539 crore



or 12.04% over the previous financial year. The government, in the last few years, has taken a series of steps to boost exports by simplifying licensing requirements. As reported by The Hindu, defence sources had stressed that in the initial days of the Gaza offensive, Israel had requested artillery shells but India took a policy decision not to supply them; it similarly decided to stay neutral between Russia and Ukraine and took a stand to not supply “kinetic equipment” to either of them.

How does the licensing system work?

India is a member-signatory to international conventions on disarmament and non-proliferation such as the Chemical Weapons Convention (CWC) and Biological Weapons Convention (BWC). India is also a member of major multilateral export control regimes — the Missile Technology Control Regime (MTCR), the Wassenaar Arrangement on munitions and military items; and the Australia Group on biological and chemical items. In line with this, India maintains a list of items controlled for export under the Special Chemicals, Organisms, Materials, Equipment and Technologies (SCOMET) list. There are eight categories under the SCOMET list and the Department of Defence Production (DDP) issues authorisation for export of Munitions List items covered in Category 6.

According to a December 2024 report, the Defence Secretary informed the Parliamentary standing committee, “I will tell you very briefly that we are exporting to more than 100 countries and most of them are done by our PSUs. But now the private sector is also coming forward. The major platforms we have done are Dornier 228 aircraft, 155 mm advanced towed artillery gun, Brahmos missile, Akash missiles, radar simulators, Pinaka rockets etc. There are many things, but most of the exports are PSU-driven.”

What are the steps taken to boost exports?

Various policy measures have been adopted to ease the approval/certifications for Indian firms for defence production while maintaining effective controls. The Defence Products list requiring industrial licences has been rationalised and the manufacture of most of the parts or components does not require an industrial licence. A Defence Production and Export Promotion Policy has also been formulated. The DDP issues the authorisation for export of items on the Munitions List. In a written reply to Parliament in February 2023, the Defence Ministry stated that, “These equipment are exported to different countries all over the world. Names of the countries with whom contracts have been signed and negotiations held cannot be divulged due to strategic reasons.”

The Defence Ministry further informed the standing committee that the standard operating procedures for export have been streamlined, an Export Promotion Cell has been set up and DPSUs have been assigned geographical areas for marketing. A Defence Export Promotion Scheme was launched in 2018 to promote Make in India products. A complete end-to-end online portal for receiving and processing export authorisation permission has been developed. The applications submitted on this portal are digitally signed and the authorisation is also issued digitally, improving the pace, according to the Defence Ministry. “The requirement of government signed End User Certification in cases of providing engineering services (transfer of technology) related to Munitions List to Wassenaar Arrangement (WA) countries has been dispensed with,” the Defence Ministry said.

**NAVY ENSURES NO NATION IN IOR CAN SUPPRESS ANOTHER: RAJNATH SINGH**

Defence Minister Rajnath Singh Saturday said the Indian Navy ensures that no nation can use its “overwhelming economy and military power” to suppress another country in the Indian Ocean Region (IOR).

- Singh was speaking at the flag-off ceremony of Indian Navy Offshore Patrol Vessel Sunayna, which has been designated as Indian Ocean Ship SAGAR (Security and Growth for All in the Region) in Karwar, for a month-long deployment in the IOR.
- Singh said the IOR is significant not just from a security perspective, but also for trade, economy, tourism and culture.
- On India’s presence in the IOR, he said it is not just related to India’s security and national interests, but it also points towards equality of rights and duties of our friendly nations in the region.
- Singh said the launch of IOS SAGAR is a reflection of India’s commitment to peace, prosperity, and collective security in the maritime domain.
- Praising the Navy for emerging as “the first responder” during incidents of hijacking of ships and pirates’ attacks in Indian Ocean, Singh said the Navy ensures the security of not just Indian ships, but also foreign ones.
- Singh inaugurated modern operational, repair and logistic facilities constructed under Project Seabird worth over `2,000 crore. He also reviewed the maritime security situation, operational readiness of the Navy, and the future outlook during inaugural phase of the first Naval Commanders’ Conference of 2025 in Karwar.

Do You Know:

- India’s emerging strategic posture in the Indian Ocean Region (IOR) has become central to its foreign policy, particularly in light of growing geopolitical rivalries and maritime security concerns.
- The doctrine of MAHASAGAR (Mutual and Holistic Advancement for Security and Growth Across Regions) builds on SAGAR and indicates a broadened scope of India’s maritime engagement. This perceptibly includes not only the immediate neighbourhood but also extends to the broader Indo-Pacific space and connects with India’s strategic collaboration with QUAD members—the United States, Japan, and Australia.
- The Indian Ocean has emerged as a major theatre of 21st-century geopolitics, hosting vital sea lanes that facilitate over 80% of global trade by volume and serve as routes for energy transportation. The region’s growing importance comes not only from its commercial utility but also from intensifying strategic competition — especially between India and China, the two principal Asian powers seeking to expand their footprint.
- India’s counter-strategy to China’s “string of pearls” is often described as the “Necklace of Diamonds”, involving strategic partnerships with regional littorals, investments in port infrastructure, and presence through naval diplomacy.



MIGHT OVER THE SEA

Aircraft carriers project power like no other military platform. Despite the rapid proliferation of long-range missiles and asymmetric technological platforms such as drones, making large military platforms vulnerable, there is renewed global interest in fielding carriers, especially in the Indo-Pacific.

While the U.S. continues its dominance with its nuclear-powered super-carriers, China, which commissioned its first carrier Liaoning in 2012, is building its fourth one now, likely nuclear powered and a super-carrier.

The Indian Navy has a long history of operating carriers since 1961 with the erstwhile 19,500-tonne Vikrant purchased from the U.K. Today, it operates two medium-sized carriers displacing over 40,000 tonnes, INS Vikramaditya, refurbished and acquired from Russia, and INS Vikrant, the country's first carrier to be indigenously designed and developed and was commissioned in September 2022.

Both launch jets with a ski-jump and recover them with a landing hook and arrestor wire. On March 5, 2023 the two carriers showcased "twin carrier operations" with MiG-29K fighter jets taking off simultaneously from both and landing cross deck as Defence Minister Rajnath Singh looked on, showcasing that INS Vikrant was fully operationalised.

This year, from March 19 to 22, INS Vikrant joined French Navy's nuclear powered carrier Charles de Gaulle (CDG) in the Arabian Sea off Goa for Exercise Varuna. The CDG has been on deployment in the Indian Ocean Region since November 2024 as part of the Clemenceau-25. The CDG operates Rafale-fighters jets, and India is all set to conclude a deal for 26 of the jets to operate from both its carriers.

CCS APPROVES `64,000-CRORE DEAL TO PROCURE 26 RAFALE-M JETS FOR NAVY

The Cabinet Committee on Security (CCS), chaired by Prime Minister Narendra Modi, on Wednesday cleared a proposal to procure 26 naval variants of Rafale fighter jets from France at a cost of around `64,000 crore for deployment on board aircraft carrier INS Vikrant, sources in the defence establishment said.

- The delivery of the jets will begin around five years after the signing of the contract under an inter-governmental framework between India and France.
- In July 2023, the defence ministry accorded the initial approval for the mega acquisition following a series of deliberations and evaluation tests of the platform.
- Under the deal, the Indian Navy will also get associated ancillary equipment including weapon systems and spares from Dassault Aviation, the manufacturer of Rafale (Marine) jets.
- The Indian Air Force bought 36 Rafale fighter aircraft in fly-away condition. There is a thinking in the IAF that it should go for at least two more squadrons of Rafale jets.
- The defence and strategic ties between India and France have been on an upswing in the last few years.



- In July 2023, India and France announced a raft of ground-breaking defence cooperation projects including the joint development of jet and helicopter engines. The two strategic partners also had expressed commitment to cooperate in the co-development and co-production of advanced defence technologies, including for the benefit of third countries.
- The Defence Ministry also approved a proposal nearly two years back to procure three Scorpene submarines to further crank up India's naval prowess.
- However, the CCS is yet to approve it. Under Navy's Project 75, six Scorpene submarines have already been constructed in India by Mazagon Dock Ltd in cooperation with Naval Group of France.

Do You Know:

- Once the Union Cabinet is sworn in and ministerial portfolios are allocated, the next step would be the formation of the high-profile Cabinet committees. The Prime Minister sets up these committees with selected members of the Cabinet and assigns specific functions to these committees. The Prime Minister may change the numbers of committees, and modify the functions assigned to them.
- The membership of each committee varies from three to eight. Usually, only Cabinet ministers are members of these committees. However, it is not unheard of for non-Cabinet ministers to be members or special invitees to committees. If the Prime Minister himself is a member of any such committee, he acts as the head of that committee.
- The committees resolve issues and formulate proposals for the consideration of the Cabinet and take decisions on matters assigned to them. The Cabinet is empowered to review such decisions.
- There are eight Cabinet committees at present — the Appointments Committee of the Cabinet, Cabinet Committee on Economic Affairs, Cabinet Committee on Political Affairs, Cabinet Committee on Investment and Growth, Cabinet Committee on Security, Cabinet Committee on Parliamentary Affairs, Cabinet Committee on Employment & Skill Development, and Cabinet Committee on Accommodation.
- The committees on investment and employment were innovations introduced by the Modi government in 2019. All committees except the Cabinet Committee on Accommodation and Cabinet Committee on Parliamentary Affairs are headed by the PM.

REBUILDING THE BRIDGE TO RAMESWARAM

The swanky new sea bridge at Pamban glistens in the summer sun. Dubbed as an engineering marvel, this imposing lifting-span structure facilitates better train operations in the Palk Strait, connecting Ramanathapuram with the Rameswaram island.

The British-era old Pamban Rail Bridge, comprising two cantilever bridges, had to be replaced because its highly corroded centre span made the structure vulnerable. All trains had to slow down while passing through the bridge. When Southern Railway decided to spruce things up, it wanted the new lift span as a single piece, between two sub-structures.

The new bridge of 2.08 kilometres only has a single rail track. But the 72.5-metre-long centre span has been provided with double broad-gauge lines. "Whenever the Madurai-Rameswaram section gets the second line, the new bridge will also get double lines; the sub-structure has a provision



for the second line,” a railway engineer said. A provision for electrification has also been readied on the bridge. The vertical lift span alone weighs 654 metric tonnes. To lift the centre span for ship movement, two huge steel towers, 34 metres high, have been erected on both sides. The towers alone have been built with 1,470 tonnes of steel, including 620 tonnes of counter-weights (310 tonnes in each tower).

Electromechanical system

While the old bridge was lifted manually, an electromechanical system has been installed in the new bridge for lifting the centre span. The centre span has been connected to the two counter-weights with six steel-wire ropes each on four sides of the two towers. When the electromechanical system is operated, the motor would operate two sheaves (similar to a pulley) on the top of the towers.

With the difference between the weight of the centre span and the counter-weights being only 34 tonnes, the motors have to exert pressure to lift 34 tonnes alone. “With this provision, 95% of the weight of the vertical lift span is lifted by the counterweights, while only 5% of the work is done by the electric motors,” the engineer explained. While it took over 40 minutes to manually lift the Scherzer span up and at least 15 minutes to bring it down, the electromechanical system in the new bridge does the same work in 5.3 minutes each for upward and downward movement.

Bridge level increased

Since the girder and rails of the old bridge were laid over shorter piers, the water used to splash on them whenever the sea was rough. This was also contributing to the corrosion of the railway assets. Hence, engineers of the Rail Vikas Nigam Limited (RVNL) have raised the rail level of the new bridge by three metres, RVNL consultant S. Anbalagan said.

Do You Know:

- The new Pamban bridge will replace the British-era bridge of 1914 whose operation was stopped in December 2022. Built parallel to the old bridge at a cost of over Rs 700 crore, the new bridge is 2.08 km in length and features a 72.5-metre vertical lift span that rises up to a height of 17 metres, allowing smooth movement of ships while ensuring seamless train operations.
- The new bridge will replace the century-old original Pamban Bridge and is considered an engineering marvel with the tag of becoming India's First Vertical Lift Railway Sea Bridge. Built with stainless steel reinforcements and Polysiloxane Paint, the bridge is designed to withstand harsh marine conditions. Its expected lifespan is up to 58 years. It has an automated electro-mechanical lift system, which will help the bridge rise to 17 meters, allowing smooth ship passage.
- With its genesis in the Indo-Ceylon (now Sri Lanka) trade during the British Era, the old bridge stood firm even during the horrific 1964 tsunami when a train full of passengers was washed away. According to railway officials, the new bridge is a testament to the railways' engineering prowess and has elevated the benchmark of India's infrastructure.
- On the night of December 23, 1964, a fierce tidal wave or tsunami hit Pamban Island very badly. The six coaches of the 653 Pamban-Dhanushkodi Passenger train crossed the bridge at around 11 pm and were en route to Dhanushkodi from Rameswaram.
- Dhanushkodi was the railhead for Indo-Ceylon traffic from where steamer service run by the Southern Railway to Talaimannar in Ceylon was available. It is the extreme point on Rameswaram

4TH FLOOR SHATABDI TOWER, SAKCHI, JAMSHEDPUR



Island. The island is approached from Mandapam, crossing the sea by the Pamban Bridge, beyond which Pamban Junction is situated. The line here branches off into two directions- one going to Rameswaram to the North-east and the other towards Dhanushkodi to the East. To its south is the Gulf of Mannar.

However, the train could not reach the destination, and it was completely washed away to sea, so much so that only the engine of the train was visible in the morning

- Before he became famous for the Delhi Metro, India's legendary engineer, also called Metro Man of India, the restoration of the Pamban Bridge was one of the earliest major works of E. Sreedharan.

WHY CHANGE TRACK TO HYDROGEN?

Indian Railways, one of the world's largest rail networks, is on the verge of a historic milestone: near 100% electrification of its vast track system. This ambitious transition underscores a strategic commitment to modernisation and decarbonisation. However, in this electrified landscape, does investing in hydrogen-powered locomotives align with rational decision-making?

A closer examination suggests otherwise.

Pros of electrification

The electrification of Indian Railways is a multi-year, multi-billion-dollar endeavour, aimed at reducing carbon emissions and fossil-fuel dependence. Today, electric trains dominate the network, supported by a grid that is increasingly powered by renewable sources like solar and wind. The government cites this as a cornerstone of its climate strategy, projecting substantial cuts in greenhouse gas emissions.

More importantly, the electrification has delivered tangible economic benefits. It has significantly lowered traction costs, compared with diesel-powered operations, improving efficiency while reducing operational expenses. Given this progress, the shift to hydrogen — a technology still in its infancy — raises serious economic and technical concerns.

Unviable alternative

While some European nations, including Germany and France, have piloted hydrogen-powered trains, the experiments have yielded mixed results, particularly in terms of commercial viability. These trains have primarily been deployed on low-traffic branch lines where electrification is not feasible. In contrast, Indian Railways has prioritised full electrification, leaving little room for hydrogen traction to add value.

Significant challenges

Storage and transportation complexity — Hydrogen must be stored at extremely high pressure (above 350 bar) or in liquid form at ultra-low temperature (-253 degree C). Both need costly and complex infrastructure, raising operational risks and expenses.

Inefficiency in energy conversion — "Green hydrogen" production requires substantial electricity. Given that nearly 70% of India's power generation still comes from coal-fired plants, using this energy to produce hydrogen, rather than feeding it into the grid for electric trains, results in avoidable energy losses.



High cost of distribution — Establishing a hydrogen ecosystem for railways would necessitate a vast investment in production, compression, transportation, and refuelling infrastructure; this money would be better spent on expanding electrification and renewable energy capacity.

Safety concerns — Hydrogen's high flammability demands rigorous safety measures, adding another layer of complexity and cost. Transporting and handling hydrogen at scale would require extensive regulatory frameworks and risk mitigation strategies.

Railways must choose between reinforcing success in electrification or diverting resources to an untested hydrogen future. Given the existing infrastructure, proven cost advantages and ongoing renewable energy integration, the logical choice is clear: electrification stay the most efficient, economically viable, and sustainable path forward.

KERALA AND T.N. TO CONDUCT JOINT NILGIRI TAHR CENSUS FROM APRIL 24

Kerala and Tamil Nadu will jointly carry out a Nilgiri tahr census from April 24 to 27. The survey will span 89 census blocks in Kerala and 176 blocks in Tamil Nadu over the four-day period.

Forest Minister A.K. Saseendran, who announced the initiative recently, said the synchronised survey of the mountain ungulate is being conducted to commemorate the 50th anniversary of the establishment of the Eravikulam National Park. The Kerala and Tamil Nadu's Forest departments have begun preparations to conduct the census across the contiguous Nilgiri tahr habitats, covering areas both inside and outside protected forest zones.

According to Chief Wildlife Warden Pramod G. Krishnan, camera traps would be deployed and pellet samples would be collected from selected blocks for scientific analysis, including studies on genetic variation.

In Kerala, the 89 census blocks are located across 20 forest divisions, stretching from Thiruvananthapuram to Wayanad, regions known for their tahr populations.

Around 1,300 census team members will participate in the survey.

The data collected will be analysed using the 'bounded count' method to estimate the population in each block.

PHULE: A CONSTANT GARDENER OF SOCIAL REVOLUTION

Jyotiba Phule was born on April 11, 1827, in the Mali caste, a community traditionally occupied with gardening and floristry. In 1848, Phule was invited to attend a wedding of one of his Brahmin friends. The relatives of the groom insulted and abused him while referring to his 'lower' caste. Phule left the procession, having made up his mind to defy the prevailing social system and its incumbent caste oppression. He visited a girls' school in Ahmednagar run by missionary Cynthia Farrar, and also came into contact with Thomas Paine's Age of Reason, which had criticised Christian orthodoxy much in the same way as Phule would come to contend with its Hindu counterpart.

The very same year, Phule and his wife Savitribai cofounded the first school for girls in India. Phule was only 21 years old at the time; the couple opened 18 more schools in the next three years. By 1855, Phule had also opened night schools in Pune, intended as a centre of learning for workers,



farmers, and working women who were busy during the day. Phule's rapid success in this emancipatory revolution was opposed by the orthodoxy.

In his later years, Phule had vociferously opposed first Vishnu Shashtri Chiplunkar, and then his protege Bal Gangadhar Tilak. Phule preferred to work with the British government to improve the lot of the untouchables and the depressed castes and the emancipation of women, while Tilak and other orthodox nationalists saw the British government as an occupying force intent on changing what they felt was the fundamental character of the Hindu religion. Nonetheless, Phule had the discernment to aid the deliverance of an opponent when he bailed out an imprisoned Tilak and Gopal Ganesh Agarkar from Mumbai's Dongri Jail.

Phule also founded the Satyashodhak Samaj (Society of Truth-Seekers) in September 1873. The body was intended as an alternative to the largely upper-caste dominated reform movements that had been surging in India. These included the Brahmo Samaj, the Prarthana Samaj, as well as the Arya Samaj movements.

Breaking the chain

Revolution is a vehicle for change — social, economic, and political. The Bombay Times and Journal of Commerce had in 1857 called the sepoy revolt 'a deadly national rebellion'. However, Phule could not come to affiliate with the sepoy revolt, seeing it as a retrogression towards the ascendant theocracy of the Peshwa rule. He could not see a way to reconcile his social revolution with the tempest of 1857. Phule felt that the obstinacy of the orthodox upper-caste Hindus would consign the Dalits back into a state of depredation.

Writing in Gulamgiri (Slavery), Phule says, "This system of slavery, to which the Brahmins reduced the lower classes, is in no respects inferior to that which obtained a few years ago in America. In the days of rigid Brahmin dominancy, so lately as that of the time of the Peshwa, my Sudra brethren had even greater hardships and oppression practised upon them than what even the slaves in America had to suffer. To this system of selfish superstition and bigotry, we are to attribute the stagnation and all the evils under which India has been groaning for many centuries past."

"Only slaves can understand what it is to be a slave and what joy it is to be delivered from the chains of slavery. Now the only difference between them and the slaves in America is that whereas the blacks were captured and sold as slaves, the shudras and atishudras were conquered and enslaved by the bhats and brahmans," he states.

But Phule was also able to see that economic strengthening of the working poor among the lower castes could be a key to overthrowing the social imbalances. In his 'A Statement for the information of the Education Commission', Phule writes, "In villages also most of the cultivating classes hold aloof, owing to extreme poverty, and also because they require their children to tend cattle and look after their fields. Besides an increase in the number of schools, special inducements in the shape of scholarships and half-yearly or annual prizes, to encourage them to send their children to school and thus create in them a taste for learning, is most essential. I think primary education of the masses should be made compulsory up to a certain age, say at least 12 years."

In his Satsar (The Essence of Truth), Phule defended the right of Pandita Ramabai to convert to Christianity, the only non-Christian defence of its sort. The text is imagined as a dialogue between a Brahman and a Shudra.



“Brahman: But Tatya (younger brother), which religion do you belong to?

Shudra: Forget God and serve the brahmans! Do you think this ought to be our religion? We shall adopt Christianity or Islam whenever we feel like for our convenience. Or perhaps we shall ask for a religion for us from our Creator. You do not have to worry about us.”

A constructive approach

In his *Shetkaryanche Asud* (Farmer’s Whip), Phule argues for a constructive approach on the part of the administration.

Many of his ideas therein provide a secular alternative to resolving the extant questions of cow slaughter, the increase in crop production, and the development of civil infrastructure.

“The benevolent government should educate all the farmers, and until they become mature enough to use machines to do the usual things on the farms like European farmers, all the white people and the Mussalmans should slaughter goats and sheep instead of slaughtering cows and oxen; or they should import cattle and slaughter and eat them here, because otherwise there will not be sufficient supply of cattle for the farms, and there will not be enough compost and other fertiliser as well, and so neither the farmer, nor the government will benefit,” Phule writes.

Arguing for the involvement of military administration in the work of civil construction, Phule says, “...construct small dams and bunds in such a way that this water would seep into the ground, and only later go and meet streams and rivers. This would make the land very fertile, and the soldiers in general, having got used to working in open air, will also improve their health and become strong. Even if they labour to the value of one anna every day, this will mean an increase in the government’s earnings to the tune of twenty-five lakh per year, because our careful government has, including the police department, at least two lakh sepoys.”

“... the government should allow the farmer to collect all the silt and other things extracted from rivers and lakes, as in the olden times, and it should also return all the cow pastures to the villages, which it has included in its ‘forest’; it should, however, make sure that no firewood is collected, or land tilled in the areas that belong to it, and it should also forbid the cutting of wood for selling as wood for construction and destroy the oppressive the Forest Department,” Phule contends.

The flowering of a true faith

Phule shared a complex and evolving relationship with both doctrinal religion and the idea of God. In his early years, he credits his childhood Muslim friends for revealing to him the fallacy of the Brahminical faith, and later still the work of the Christian missionaries likewise provides him with a robust critique of Hindu orthodoxy. Phule even wrote an abhang titled *Manav Mahamand* (Muhammad the man), which extolls the prophet of Islam as having liberated his people from the yoke of superstition and orthodoxy of his age. But Phule was also inspired by Paine’s *Age of Reason*, and in his later years drew on the deistic strain of humanistic faith therein.

An echo of this rationalist tendency is most evident in his *Sarvajanik Satya Dharma Pustak*, a sort of last testament of his beliefs and convictions. In it, Phule responds to a query regarding the existence or lack thereof of a true scripture in this manner. “All the religious and revelatory books that man has produced on our planet, one and all, do not contain a consistent universal truth. This is so because in every such book are to be seen passages interpolated into those texts by certain groups of individuals as the situation in their view warranted and as their dogmatism and mulishness dictates. Consequently, those religions or faiths did not in the final analysis work



towards the good of all. This in turn resulted in sects and sectarianism. Small wonder that these sects hated and turned against each other.”

Rejecting sectarianism and supremacism, Phule reminds the reader that, “In sum, this solar system and naturally the planet earth which we inhabit are created by one Creator. Why is it then that the human beings living in different States and nations hate each other? How and why are the foolish passions of religions and national hatreds generated? There are any number of rivers on our planet. All of them eventually meet the sea. How and why, then can only one of those rivers be sacred? Does that sacred river ever hesitate to carry dogs’ excreta to the sea?”

Denying any fundamental sacredness of some human beings over others, Phule stipulates that this is “clearly untenable”. “All human beings on our planet are equipped with similar physical and intellectual facilities. How can some of them be ‘sacred’ generation after generation? Are they not born and do they not die like everyone else, and do they not have qualities good and bad like everyone else?” he writes.

Writing against the unevenness of polygamy, Phule presents a polyandrous argument to offset his counterposition. “Some lustful men who marry more than once, maintain almost a harem; justify their action with reference to some senseless religious text written by equally mulish men. How would they take it if some women were to marry more than one man to satisfy their lust? Would not these men think of right and wrong and be critical of their behaviour?” Phule contends therein.

Phule reminds the reader that the pernicious practice of caste is a human invention. Of it he opines, “Animals, birds, etc., all differ from each other anatomically. Likewise, two-legged human beings are different from four-legged animals. It is said that the Arya Brahma has created the four castes. He would have done so for the animals as well. Can you tell me then who are the brahmans among the donkeys, crows, etc.?”

Phule’s life and times continue to be a source of inspiration to many progressives to date. His struggles, sometimes at risk to his own life and limb, and his tenacious pursuit of the ideal of a society liberated of its orthodox shell, are something worth learning from for our own age.

SHORT NEWS

GLOBAL ELECTRICITY REVIEW

— According to the sixth edition of global energy think tank Ember’s Global Electricity Review, India became the world’s third-largest producer of electricity from wind and solar energy in 2024, overtaking Germany.

— The low-carbon sources, including renewables and nuclear power, together provided 40.9 per cent of the world’s electricity in 2024. This is the first time the 40 per cent mark has been crossed since the 1940s.

— As part of its climate commitments or Nationally Determined Contributions (NDCs) submitted to the UNFCCC in 2022, India aims to achieve 50 per cent of its installed electric power capacity from non-fossil fuel sources by 2030.

— In 2021, the country also announced a goal of achieving 500 GW of non-fossil fuel capacity by 2030.



DIGITAL THREAT REPORT 2024

- The Digital Threat Report 2024 was published by CERT-In, CSIRT-Fin, and global cybersecurity company SISA on April 7. The report is aimed at mapping the landscape of cyber threats in 2024, particularly in the Banking, Financial Services, and Insurance (BFSI) sector.
- Cryptocurrency has been flagged as a new frontier for cyber threats by the report. The report also identified deepfakes and AI-generated content as “potent tools for intrusion, particularly in social engineering attacks.”
- The report highlighted that Jailbreaking attempts have been successful against OpenAI’s ChatGPT in the past through a technique known as the ‘grandma exploit’.
- In cybersecurity, jailbreaking refers to the process of removing restrictions or security measures imposed on a device or system to gain root access or bypass security features, potentially leading to vulnerabilities and security risks.
- Beyond jailbreaking, the report noted that malicious LLMs such as WormGPT and FraudGPT are capable of writing convincing phishing emails, coding highly effective malware programmes, and automating the development of exploits.

MODERNIZATION OF COMMAND AREA DEVELOPMENT AND WATER MANAGEMENT (M-CADWM)

- The Union Cabinet approved the Modernization of Command Area Development and Water Management (M-CADWM) as a sub-scheme of the PM Krishi Sinchayee Yojana (PMKSY) for the 2025-26 period on with an initial outlay of ₹1,600 crore.
- The scheme aims for modernisation of the irrigation water supply network to supply irrigation water from existing canals or other sources in a designated cluster.
- Supervisory Control and Data Acquisition (SCADA) and Internet of Things technology will be used for water accounting and management, the statement added.

KAVACH 5.0 SYSTEM

- In a major step to upgrade Mumbai’s suburban train travel, Union Minister for Railways announced that Kavach 5.0 will be implemented to increase the number of trains by 30 percent.
- Kavach is India’s very own advanced Automatic Train Protection (ATP) system developed by the Research Design and Standards Organisation in collaboration with the Indian industry to prevent train collisions by automatically activating the braking system of the train.
- This technology features an electronic device linked with radio frequency identification systems positioned at stations, trains and tracks. If a loco pilot inadvertently skips a red signal, Kavach automatically activates and controls the train’s braking systems. Additionally, the system detects any trains approaching the same tracks, taking necessary actions to avert collisions and alerting the loco pilot.



DELHI'S PM 10 LEVELS IN FY25 IS HIGHEST AMONG CITIES UNDER CLEAN AIR PROGRAMME, SAYS NEW ANALYSIS

- The abbreviation PM stands for particulate matter, and the number to the right indicates the particle size. So, PM10 refers to small particles of solid or liquid with an aerodynamic diameter smaller than 10 μm .
- PM10 can originate from a variety of sources, both indoor and outdoor. The three main source categories are primary human emissions, secondary atmospheric reactions, and natural sources.
- The key differentiator between these two particle types is size. PM10 contains particles 10 μm in aerodynamic diameter or small, while PM2.5 only includes particles of aerodynamic diameter smaller than 2.5 μm .

PISTOL SHRIMP

- The pistol shrimp, also known as the snapping shrimp, has an oversized claw that can “fire” underwater bullets made of bubbles. These aren’t ordinary bubbles — they’re created through a process called sonoluminescence
- In sonoluminescence, water is energised with specific vibrations, causing emission of light through bubbles. The resulting temperatures can reach an astounding 4,400°C — nearly as hot as the sun’s surface.
- The sound reaches an incredible 218 decibels — louder than a gunshot, typically around 140-175 decibels. In fact, these tiny creatures “compete with larger sperm whales and beluga whales for the title of the loudest animal in the oceans.”

ATMOSPHERIC RIVER

- Earlier this month, a large part of the United States witnessed heavy rain, strong winds and severe thunderstorms due to a type of storm known as an atmospheric river.
- Atmospheric rivers are a narrow, fast-moving band of moisture and wind — like rivers in the sky — that transport large amounts of water vapour. While they are an essential source of rainfall, they can lead to flooding, trigger mudslides and result in loss of life and property damage.
- One of the most well-known and strongest atmospheric rivers is the Pineapple Express, with moisture transported from the tropical Pacific around Hawaii to the US and Canadian West Coasts.

BIOMASS MISSION

- The European Space Agency’s (ESA’s) Biomass Mission, which will map the world’s forests, will launch on April 29. It will be placed in a sun-synchronous orbit (SSO) — a type of orbit in which satellites are in sync with the Sun — at an altitude of around 666 km.
- It will provide information about the state of the planet’s forests and how they are changing, which will help expand the knowledge about the role forests play in the carbon cycle.
- It is ESA’s seventh Earth Explorer mission. Under the Earth Explorer programme, the space agency has launched satellites to observe different aspects of the planet’s system.



Interesting fact (Value addition for your Mains): Scientists estimate that forests absorb around 16 billion metric tonnes of carbon dioxide (CO₂) per year, and currently hold 861 gigatonnes of carbon in their branches, leaves, roots, and soils.

— The mission will use a synthetic aperture radar (SAR). It will operate in the long-wave P-band frequency range, with a wavelength of 70 cm. Therefore, unlike other shorter-wave SAR sensors, the P-band SAR will be able to peer down through forest canopies to assess how much carbon is stored on the floor and branches of the trees in the world's forests and to assess how levels are changing. The sensor will also estimate the amount of forest biomass.

— Notably, Biomass is the first satellite in the world to host a P-band SAR. The satellite is fitted with a huge 12 m antenna which will be deployed as it begins its sweep over the Earth.

RAMAPPA TEMPLE

— Telangana tourism to showcase the Kakatiya dynasty and the UNESCO World Heritage Site Ramappa Temple to Miss World contestants on May 14. Miss World 2025, the 72nd edition of the pageant, will be held in Hyderabad on May 31. This is going to be the third time India will host this event.

— Rudreswara Temple, also known as Ramappa temple, located at Palampet, Mulugu district, near Warangal in the state of Telangana. It was declared a UNESCO site in 2021.

— The temple complex was built by Recherla Rudra Reddy during the period of the Kakatiya ruler Ganapati Deva. It was built using sandstone and its construction, which began in 1213 CE, is believed to have continued for over four decades.

— UNESCO notes on its website that, "The building features decorated beams and pillars of carved granite and dolerite with a distinctive and pyramidal Vimana (horizontally stepped tower) made of lightweight porous bricks, so-called 'floating bricks', which reduced the weight of the roof structures. The temple's sculptures of high artistic quality illustrate regional dance customs and Kakatiyan culture."

2025 BREAKTHROUGH PRIZE

— The 2025 Breakthrough Prize in Fundamental Physics was awarded to 13,508 physicists across four collaborative projects at CERN, the European particle physics laboratory near Geneva, Switzerland. It is dubbed as the "Oscars of Science".

— The awards were established in 2013 by Mark Zuckerberg and his wife Priscilla Chan, former Google chief Sergey Brin, genomics company 23&Me founder Anne Wojcicki, and tech investor couple Yuri and Julia Milner.

**BUSINESS AND ECONOMICS****IN TRUMP, CHINA BACK AND FORTH, AN UNCERTAIN CLIMATE**

Just a week after “Liberation Day” — when US President Donald Trump announced the most sweeping tariff hikes in recent history — he has announced a 90-day pause for most nations. Trump has, however, stepped up his attack on China, raising tariffs to a staggering 125 per cent. Markets initially welcomed the announcement, rallying in the hope that there is space for negotiation. The S&P 500 surged more than 8 per cent after the news, even though the 10 per cent base tariff remains in effect. On Thursday, markets gave up gains in early trading. The uncertainty is here to stay.

Trump has said that the decision to pull back was because some were getting “a little bit yippy, a little bit afraid”. But the immediate trigger for the reversal may be the threat from the bond market vigilantes. On April 9, the 10-year US treasury yield touched 4.51 per cent, up more than 50 basis points in a matter of a few days. The push back has been similar to what was seen in the UK under former prime minister Liz Truss — the market then had been spooked by the government’s tax proposals. Some may find comfort in the 90-day pause, believing that negotiations can be undertaken to avoid further action. But there are concerns. First, what will happen over the coming 90 days? Will Trump actively cut deals with all the countries that are willing to do so? Will he press for sweeping tariff reductions or will he also try to extract sector-specific and other concessions? Second, the tariff war with China is still on. A trade war between the world’s largest consumer and largest producer is likely to have far-reaching ramifications. It’s difficult to predict how this will play out. So far, China has refused to buckle. It has vowed to “fight to the end”, and has, in fact, retaliated in kind, announcing a tariff of 84 per cent on US imports. The question is whether the two countries can figure out a way to de-escalate.

The manner in which the US administration’s trade policy is unfolding is only raising the level of uncertainty in global markets. It will also raise a legitimate question in the minds of world leaders, businesses and households: What if the US administration changes its mind again? The global economy cannot function in a situation where the rules of the game are arbitrarily changed every day. The continuing flip-flop on tariffs will only add to the unpredictability, holding back both investment and consumption decisions of businesses and households. This will impact global trade and growth. The Indian administration’s response to this stunning reversal should not be one of complacency. It must press ahead with the bilateral trade deal.

Note:

- U.S. President Donald Trump abruptly backed down on Wednesday in his global trade war with a 90- day pause for most countries, but slapped even more levies against China in what has become a full-scale confrontation between the world’s two largest economies.
- While slapping additional measures, China, however, kept its door open for talks to resolve the issue. Chinese Foreign Ministry spokesperson Lin Jian on Friday said if the U.S. truly wanted to resolve issues through dialogue and negotiation, it must cease its maximum pressure tactics and reckless actions.
- “Whoever surrenders first becomes the victim,” said a Chinese policy adviser, asking for anonymity. “It’s a matter of who can hold out longer.” China has no great options, though. It will court other markets in Asia, Europe and the rest of the world, but this may not be



much of an escape valve. Other countries have much smaller markets than the U.S., and local economies are also taking a hit from the tariffs. Many are also wary of allowing more cheap Chinese products in. Domestically, a currency devaluation would be the simplest way to cushion the tariffs' impact but that could trigger capital outflows, while also alienating trade partners China may try to court. China has so far allowed very limited yuan depreciation. Hitting back with its own tariffs and export controls may not be very effective, given China ships to the U.S. about three times as much in goods than the around \$160 billion it imports. But it may be the only option if Beijing believes it has a higher pain threshold than Washington has.

- Also, similar to previous tariff hikes, China has filed a lawsuit against the U.S. with the World Trade Organisation's (WTO) dispute settlement mechanism, a Chinese Commerce Ministry spokesperson said.
- Besides its own sweeping tariffs, Beijing can use its control over some strategic commodities and parts of the corporate world to hit Washington where it hurts the most. China offered a taste of that when it added seven rare earths to its export control list, a move that threatened to cut off the supply of materials U.S. defence and technology sectors depend on. Beijing retains the option to expand the controls to 10 other rare earths or ban exports to the U.S. outright.
- The European Union had earlier launched its own counter-attack, announcing measures targeting some U.S. products from Tuesday in retaliation for American duties on global steel and aluminium exports. The 27-nation bloc, which Mr. Trump has accused of being created to "screw" the United States, will hit more than 20 billion euros' worth of U.S. products, including soybeans, motorcycles and beauty products. But the EU notably did not retaliate against the 20% U.S. tariffs that came into effect a minute after midnight on Wednesday.

CHINA'S RETALIATION TO TRUMP TARIFFS ADDS FUEL TO A GLOBAL TRADE WAR

The slapping of a 34 per cent duty by China on all goods imported from the US is striking for how fast it came — just two days after US President Donald Trump, on April 2, unveiled his so-called reciprocal tariff policy. While that policy supposedly addresses what the US President terms as "asymmetries in trade relationships" with other countries, it follows and reinforces his earlier actions explicitly aimed at China. Trump had, in early February, imposed a 10 per cent blanket additional tariff on Chinese imports, which was doubled to 20 per cent a month later. Adding the latest 34 per cent reciprocal tariff takes the total duty on Chinese goods entering the US to 54 per cent. Chinese retaliation was swift, even as the world was digesting Trump's country-specific reciprocal tariffs.

That China is at Trump's receiving end is also apparent from the high tariffs (46-49 per cent) he has levied on Vietnam, Laos and Cambodia, besides Indonesia (32 per cent), Bangladesh (37 per cent) and Sri Lanka (44 per cent). These are countries where Chinese firms have established manufacturing facilities, for leveraging their lower labour costs as well as rerouting exports to circumvent US tariffs. A lot of the increased exports from Vietnam to the US have come from Chinese companies, which had relocated production there after Trump hit China with tariffs during his first term in 2018. This time around, he hasn't stopped at China, but has targeted Beijing's extended supply chain and made it virtually impossible to get around his tariffs by using



other countries as conduits. This has added fuel to a global trade war, whose belligerents happen to be the world's top two economies.

Things could worsen if China were to make up for the loss of its merchandise exports to the US (\$438.9 billion out of a total \$3.6 trillion in 2024) through currency devaluation or dumping in other markets. Others too — be it the export-dependent southeast Asian economies or even the US, shut out of the Chinese market — may adopt similar beggar-thy-neighbour measures. One hopes better sense will prevail and all sides — especially Trump and Chinese president Xi Jinping — sit at the negotiating table soon. For India, however, hope cannot be a strategy. It should definitely not be a party to any trade war or revert to protectionism. On the contrary, rationalising and simplifying its import tariffs — the various additional customs duties and cesses must go — would attract global companies to make in India through competitive sourcing of intermediate inputs and adding value. In an unstable world, India can offer itself as a beacon of purposive reform, macroeconomic prudence and policy stability.

'HANDS OFF!' AMERICA SEES BIGGEST DAY OF PROTESTS AGAINST TRUMP AND MUSK

Opponents of President Donald Trump and billionaire Elon Musk plan to rally across the US on Saturday to protest the administration's actions on government downsizing, the economy, human rights and other issues.

- More than 1,200 "Hands Off!" demonstrations have been planned by more than 150 groups, including civil rights organizations, labour unions, LGBTQ+ advocates, veterans and fair-elections activists. The protests are planned for the National Mall in Washington, DC, state capitols and other locations in all 50 states.
- Protesters are assailing the Trump administration's moves to fire thousands of federal workers, close Social Security Administration field offices, effectively shutter entire agencies, deport immigrants, scale back protections for transgender people and cut federal funding for health programs.
- Musk, a Trump adviser who owns Tesla, SpaceX and the social media platform X, has played a key role in government downsizing as the head of the newly created Department of Government Efficiency. He says he is saving taxpayers billions of dollars.
- Activists have staged nationwide demonstrations against Trump or Musk multiple times since the new administration took power. But the opposition movement has yet to produce a mass mobilization like the Women's March in 2017, which brought thousands of women to Washington, DC, after Trump's first inauguration, or the Black Lives Matter demonstrations that erupted in multiple cities after George Floyd's killing in 2020
- Organizers say they hope the recent demonstrations will be the largest since Trump returned to office in January.

POPULISM AND ITS LIMITS

The implementation of Trump's electoral mandate will seriously undermine globalisation, now more than four decades old.

- President Donald Trump's tariff blitzkrieg raises a difficult, though important question. Are democracy and globalisation increasingly at odds?



- The reason for posing the question this way is quite simple. Tariffs were an integral part of Trump's campaign for an election that he won. One may argue that his campaign did not include a frontal attack on universities or law firms.
- It was at best a subsidiary theme. But the centrality of tariffs to the campaign was beyond doubt. Raising tariffs can thus be viewed as an expression of a democratic mandate. The implementation of this mandate, however, will seriously undermine globalisation, now more than four decades old.
- Between the mid to late 1970s and 2008, trade as a share of global GDP rose from 37 per cent to 61 per cent (2008 was the highest point of globalisation; since then, trade's share of the world's GDP has declined somewhat).
- Producing as much as 25 per cent of global GDP, America is still the world's biggest economy and largest market. When tariffs raise the price of selling goods in such a large market, with retaliatory tariffs emerging in other big economies, free movement of goods across national borders is bound to suffer.
- Since trade has been so central to the international economy, worldwide income deceleration should be expected. US democracy and globalisation have entered a period of conflict.
- Note that this empirical point is different from whether US tariffs are economically desirable or justified. The size of the tariffs can certainly be critiqued.
- The formula for the calculation of tariff rates for each trading country can also be lambasted. The formula for each country is as follows: $\frac{1}{2}$ (size of trade deficit divided by the size of imports).
- Those economists whose work has been cited by the Trump administration to calculate the size of the tariffs say they have been misused or misunderstood. But a welfare or economic critique of tariffs is wholly different from its political logic. The two logics, political and economic, are not aligned.

Do You Know:

Ashutosh Varshney writes:

- In theory, globalisation represents the free movement of capital, goods and labour across national boundaries. In reality, compared to capital and goods, labour was always allowed lower freedom to move, though all moved more than before. Thus, the actually existing globalisation came to mean two things: One, greater overall economic freedom beyond national borders; or loosening of national control over economic activity. And two, within that larger trend, freer movement of capital and goods than of labour.
- Trump's attack on globalisation has two aspects. Immigration controls would restrict the movement of labour, and tariffs would create new obstacles for the movement of goods. Only capital would in principle be free to move but that too can be viewed as falling under new controls. He wants capital from everywhere to come to the US, but would make it harder for American capital to move abroad.
- Politically speaking, why is all this happening? Trade theory was rooted in the doctrine of comparative advantage – Americans producing airplanes, Japanese producing cars, Chinese producing textiles and footwear, Indians producing software.



- If each produced what it was good at and exported it, while importing what others were good at, free trade would benefit all. Theoretically, all boats would be lifted.
- There is no doubt that over the last 40-odd years of globalisation, more people have come out of poverty than ever before. Over a billion have been pulled out of poverty by the growth processes unleashed by globalisation, especially in China, India and Indonesia, three of the largest countries. Inequality between nations has gone down. Asia's rise in particular is noteworthy. In 1980, China and India had the 50th and 51st largest GDPs in the world. They are the second- and fifth-largest today.
- The economic inequalities have had serious political consequences. Populist politics, which Trump embraces, and rising inequalities are integrally connected. As an ideology, populism claims to authentically represent the people, the masses, the average Joe and Jane, against a globally networked elite and the global arrival of immigrants.
- The American version of populism also has an added dimension. It comes with an attack on the so-called "deep state", the part of the state that is not dependent on periodic elections and has a longer term. It does not wield power right at the top of the polity, but does so via the civil services lodged in the echelons below the political summit. The populist argument is that the deep state serves the elite, not the masses.
- In its current incarnation, democracy has undoubtedly provided the rationale for tariffs. Democracy is also likely to produce a reaction against it, as the full consequences become clearer. Whether that will lead to a restoration of globalisation remains unclear.

WHY CONFIDENCE IN US\$ IS FLAGGING

US President Donald Trump may have hit the pause on his trade vacillations, but there seems to be a lingering deleterious effect on the American Dollar, which has slumped sharply. Reason: waning confidence in the American economy is leading to a huge flight out of the greenback to other safe haven currencies and gold.

— The US economy has dominated the global order for the past eight decades because not only is it the biggest economy — its GDP is close to \$30 trillion — it is also the most well-regulated and freely traded economy. Its currency is managed very professionally and the executive branch (the US President) cannot interfere in monetary policy.

— In other countries, including India and China, the government has a much greater say on monetary policy and this erodes the confidence an random investor has in the value of the currency.

— However, with his adamance to place prohibitive tariffs against all the countries in the world, President Trump has dialled back time to an era when the US was not the standard-bearer of the world. The worst part of Trump's policy is the uncertainty that it has infused about his own policy stance. There is no clarity what his end goal is when he levies the tariffs, or how he calculates the tariff rates.

— Trump's sudden climbdown on reciprocal tariffs is said to have been triggered by the selloff in American bonds, as confidence in the US economy plummeted and bond holders waned. Foreign holders, including Japanese and Chinese investors, are among those said to have dumped US government debt amid spiralling concerns over the impact of Trump's tariffs.



— US President Donald Trump’s unilateral tariff impositions — 10% (at present) on goods imported from most countries and 145% from China — are comparable, for the scale of shocks unleashed and transformation engendered to the international trading or monetary system, to two other actions initiated by powerful men.

— The first was by a former president and the second by a central banker, both also from the US.

Do You Know:

— The bond market refers to the marketplace where a government (and even corporates/ companies) go to borrow money. It is different from the stock market where investors buy a piece of a company by owning a share of it.

— Governments are the biggest borrowers because they have to meet the gap between their revenues and expenditures. And because governments are not expected to default, when a government floats a bond — a paper which says the government owes the bearer of that paper a particular sum at the end of a year or 10 years — it is considered to be the safest asset in any economy.

— Holding a government bond is in practical terms as good as holding cash and the effective return (called the yield) that one earns from a government bond is considered to be the risk-free return in that economy.

— That is why the effective interest rate (yield) earned on a government bond changes over time as the price of the bond itself changes. This essentially means that if the bond prices fall, the yield rises and vice-versa.

WHY THE DONALD TRUMP ADMINISTRATION WANTS TO MAKE COAL A ‘CRITICAL MINERAL

In a bid to boost coal production in the United States, President Donald Trump has designated the carbon-based fuel as a “mineral” and instructed officials to determine whether it meets the definition of a “critical mineral”.

- The Trump administration has also removed red tape around coal mining and scrapped the mandatory use of emissions-control technologies in coal-fired plants, as part of efforts to revive America’s coal industry, which peaked in 2008.

- In other parts of the world, too — notably India and China — reliance on coal and thermal power has surged, primarily to balance the grid. In 2024-25, India’s coal production crossed the 1-billion tonne mark for the first time.

- Increasing coal production is closely linked to Trump’s ambitions of a manufacturing revival in the US, with a focus on the steel industry. At the same time, the coal push also seeks to help meet the energy requirements of frontier technologies such as artificial intelligence (AI).

- Still, Trump’s embrace of coal marks a sharp break from a decade of US energy policy that cut coal’s share in power generation from around 40 per cent in 2014 to just 15 per cent last year.

- On March 20, the Trump administration put out an executive order defining “minerals” for which extraction projects will be prioritised. Less than three weeks later, on April 8, another executive order added coal to that list.



- The order also directed senior officials to examine whether coal used in steelmaking — coking coal — could be formally classified as both a “critical mineral” and a “critical material”.

Do You Know:

- Under the US Energy Act of 2020, a critical material is defined as a “non-fuel mineral, element, substance, or material,” while a critical mineral is defined broadly as any “mineral, element, substance, or material” that meets the criteria for criticality.
- In the US, criticality is defined by whether the material serves an essential role in energy technologies and whether its supply is at a high risk of disruption.
- If the US follows through on classifying coal as a critical mineral, it would be among the first countries to do so. The European Union already includes coal in its list of “critical raw materials,” alongside high-demand minerals such as lithium, cobalt, and rare earth elements.
- The idea has also gained traction in India. In a recent research report submitted to the NITI Aayog, professor R Srikanth of the National Institute of Advanced Studies called for classifying coking coal as a critical mineral to strengthen domestic supply chains.
- In one of the four energy-related executive orders issued on Tuesday, the Trump administration also emphasised grid stability as demand for power surges, led by AI data centres. Unlike renewable energy capacities such as solar and wind, which are variable in nature, coal-fired capacities can provide baseload support to the grid at all times.

TEXTILE MAJOR BANGLADESH OFFERS US COTTON PURCHASE TO DODGE TARIFF

Bangladesh, the world’s second-largest ready-made garment exporter after China, on Monday offered to purchase various US farm products, including cotton, duty-free in an effort to avoid reciprocal US tariffs, a letter from Bangladesh’s Chief Adviser, Muhammad Yunus, to US President Donald Trump showed.

- Yunus sought a three-month postponement of the reciprocal tariff measure on Bangladeshi exports to the US, proposing a series of initiatives, including facilitating the launch of Billionaire Elon Musk’s Starlink in Bangladesh and opening the country’s advanced tech sectors—such as civil aviation and defence—to US companies. Several textile manufacturing hubs such as Vietnam, Cambodia have also sought such deals with the US.
- The move comes amid concerns that reciprocal tariffs have disproportionately affected smaller, more vulnerable economies due to the nature of US tariff calculations. Bangladesh has been hit with a 37 per cent reciprocal tariff, a big blow to its textile sector — the country’s largest foreign exchange earner.
- India, which exports over \$2 billion worth of cotton and yarn to Bangladesh annually, has a stake in the Bangladesh textile industry as several Indian textile firms operate factories in Bangladesh to benefit from the favourable duty regime granted to nations bracketed as Least Developed Countries (LDCs) by the European Union.

Do You Know:

- Bangladesh is currently recovering from a political and economic crisis in the country last year. High inflation had eroded Dhaka’s US dollar reserves, limiting the country’s ability to import



critical goods such as agricultural items, iron and steel, electricity, and plastics from India. During the last financial year, economic activity has been slowing in Bangladesh as its imports of petroleum products from India slipped 8 per cent in June compared to May last year.

- After China, India is the second largest producer of cotton, accounting for 24% of global production. Cotton cultivation engages around 60 lakh farmers, mostly across Gujarat, Maharashtra, and Telangana. The entire cotton textile value chain—from processing raw fibre and spinning yarn to weaving fabric, dyeing, and stitching—employs over 4.5 crore people.
- The size of India's textile and apparel industry cannot be understated—it contributes 13% to industrial production, 12% to exports, and roughly 2% to GDP. However, manufacturing in the textile and apparel industry has slightly contracted over the past 10 years, according to the Index of Industrial Production (IIP).

TRADE MINISTRY BEGINS EXPANDING NAFTA WING AS INDIA SEEKS QUICK US TARIFF TRUCE

In a bid to strike an early trade deal with the US and potentially sidestep the 26 per cent reciprocal tariffs, the Ministry of Commerce and Industry has stepped up efforts by expanding its NAFTA division, which handles India's bilateral trade with the United States, Canada, and Mexico.

- The ministry has begun assigning new officers to strengthen the NAFTA (North American Free Trade Agreement) division as more coordination officers would help the division manage the workload better. Senior officers nearing the end of their term in the ministry may also see their tenures extended, two government officials aware of the development said.
- A swift deal with the US is crucial for Indian exports, as several countries hit with high reciprocal tariffs—such as Vietnam and Cambodia—have signalled to the US their willingness to slash tariffs on American goods under a trade agreement. The US is also in talks with several other countries that have expressed interest in such deals.
- Vietnam, facing 46 per cent US reciprocal tariffs, has also requested a delay of at least 45 days in the imposition of these duties to allow time for negotiations that could prevent a move detrimental to both the Vietnamese economy and American consumers. Vietnam's tariffs on US goods stand at 9.4 per cent—lower than India's tariffs on US imports.
- Meanwhile, Cambodian Prime Minister Hun Manet has sought negotiations after the US government imposed a 49 per cent tariff on products from Cambodia. According to Chinese news agency Xinhua, Manet stated that Cambodia is committed to promoting US-based product imports, with an immediate reduction of tariffs on 19 product categories from a maximum bound rate of 35 per cent to a 5 per cent applied tariff rate.
- However, India is yet to sign a full-fledged trade deal with any Western country due to significant differences over labour and environmental standards. India's trade agreements with the European Union and the UK have been under negotiation for several years.

Do You Know:

- According to the Investopedia, the North American Free Trade Agreement (NAFTA) was implemented to promote trade among the United States, Canada, and Mexico. The agreement, which eliminated most tariffs on trade among the three countries, went into effect on Jan. 1, 1994.



Numerous tariffs, particularly those related to agricultural products, textiles, and automobiles, were gradually phased out through Jan. 1, 2008.

- NAFTA was terminated and replaced by the United States-Mexico-Canada Agreement (USMCA) in 2020.

- Indicating that the US would likely press India on a range of issues during trade talks, a report by the United States Trade Representative (USTR) expressed concerns about data localisation requirements for payment service providers and banks. The USTR report also stated that the US has placed India on the 'Priority Watch List' due to inconsistent progress on intellectual property (IP) issues. It cited the absence of specific laws for "trade secret protection" and long waiting periods for patent approvals as major concerns.

- Additionally, the US has raised concerns over India's price caps on coronary stents and knee implants, arguing that these controls have not kept pace with inflation and do not consider production costs or innovation, potentially discouraging US companies from operating in the Indian market.

TRUMP' TARIFFS AND MARKET FALL — INDIA NEEDS TO BE BETTER PREPARED

The Indian stock markets experienced a sharp fall in the wake of the trade war that is unfolding globally. The benchmark indices — Nifty 50 and Sensex — each lost more than 2.5 per cent of their value on Monday. This is the most they have fallen since the dip in the wake of the results of the general election in June last year. The Indian markets took their cue from the sharp declines in US markets towards the end of last week; US markets lost over \$6 trillion in value thanks to the fall on Thursday and Friday. The other Asian market benchmarks have registered even more painful lows. The Nikkei 225 (of Japan) was down almost 8 per cent, the TAIEX (of Taiwan) fell 9.7 per cent, the Hang Seng (of Hong Kong) lost more than 13 per cent of its value and the SSE Composite of Shanghai stock exchange was down more than 7 per cent. And the bad news may not end tomorrow since the European indices continue to fall; German DAX, British FTSE 100, French CAC 40 and the broader STOXX600 — all were trading at losses of around 5 per cent even as the futures market in the US suggests further weakness across S&P 500, Dow Jones Industrial Averages, Nasdaq 100 as well as Russell 2000.

At one level, the reason is pretty straightforward: The massive upending of global trade thanks to the unilateral announcement of punitive tariffs on the rest of the world by US President Donald Trump. Tariffs — regardless of who pays them — are an increase in costs without a commensurate increase in production or productivity. As such, they bring down corporate profits just as they dent demand and raise prices across the board. The indirect effects in terms of the disruption of well-established and efficient global supply chains is far less understood but possibly, in effect, even more damaging. But the problem with Trump's tariffs is not limited to their existence; it also pertains to their legality (will they hold up in a court of law in the US), their permanence (will the US Congress, especially the Republicans, allow the US President to upend trade relations with the rest of the world), and their effectiveness (how many company CEOs will decide to allocate billions of dollars towards new factories in the US just based on tariffs that lack legislative backing of the US Congress). None of these uncertainties take into account the element of retaliation by others such as China and the European Union.

There are two ways in which Indian policymakers can view this fall. One, as just a temporary blip and a good opportunity to buy more of the market especially since Indian markets are falling less



than the rest. Soon, tariffs will be withdrawn and all will be fine. Two, as a tectonic shift in global trade where the US has lost its credibility as a trade partner and opened the door to protectionist industrial policies that belong to a bygone era. In a world without fair trade rules, India will have to be better prepared to make its way, and thrive.

A CUT IN TIME

The Reserve Bank of India (RBI)'s Monetary Policy Committee's unanimous decision to cut the repo rate by 25 basis points, to 6%, is a timely reprieve for India's business community. For weeks now, exporting sectors have been imploring the government to hasten bilateral trade negotiations with the U.S. to attempt to shield themselves from President Donald Trump's "reciprocal" tariffs. The tariffs have been paused for 90 days, except for the 10% universal tariff, which is still applicable. The pause, even while raising tariffs against China to 125% in a trade stand-off with Beijing, suggests a strategy pivot to stem the massive sell-off of U.S. treasury bonds and the gutting of trillions of dollars in American stock valuations. Worried about an economic slowdown as investor sentiment turns negative, the RBI has changed its stance from "neutral" to "accommodative" that could indicate further rate cuts are likely. A decrease in the repo rate will most likely be reflected in loan service reductions for businesses, homeowners and retail borrowers, as banks pass on the rate cut. This began happening hours after the rate cut announcement. The central bank hopes this rate reduction ensures liquidity for businesses in a time of uncertainty, so that they can continue investing in the real economy even as they attempt to diversify their exports.

More ominous, however, is the RBI's lowered GDP growth estimates for the current fiscal, from 6.7% to 6.5%. This indicates that despite the RBI's growth stimulus, steadily declining retail inflation — down to 3.61% in February — and steep falls in food staple prices, the central bank expects a growth contraction due to the uncertain economic climate. It is a universally accepted economic principle that stable governance, along with a predictable policy framework, is a necessary condition to foster growth. It would be no exaggeration to say that this principle has been turned on its head since Mr. Trump's return as President. China's move to impose retaliatory tariffs, totalling 84%, signals the beginning of a full-blown trade war, the likes of which the world has not witnessed since the Smoot-Hawley Act of 1930. Those tariffs, with objectives similar to the current ones — to protect American farming and manufacturing — ushered in an era of economic nationalism in the inter-war years, hitting global trade and contributing significantly to the Great Depression. Perhaps a lesson for nations must be that protecting one's own economy can be achieved without hurting others, so long as countries recognise their competitive advantages and build on them. In America's case, it is doubling down on research, education and innovation.

LIVING WITH DEBT

Ishan Bakshi Writes: Not only are more households taking on debt, they are also taking on more debt than before. This speaks of structural defects in the economy

- In the previous decade, it was the twin balance sheet problem — of an over-leveraged corporate sector and a banking system plagued by bad loans — that was holding back private investments. The question now is whether high household debt is holding back private consumption.



- Household debt has surged dramatically in the years after the pandemic — rising from 36.6 per cent of GDP in June 2021 to 40.2 per cent by December 2023 and further to 42.9 per cent as of June 2024.
- To put this in perspective — it had averaged around 33 per cent between 2015-19. This credit surge, post Covid, has not just been concentrated in a particular segment of the population, but has been more widespread in nature. The increase can be seen in the flow of credit to households across the entire income distribution.
- Between March 26, 2021 and March 22, 2024, personal loans by the banking sector grew by 75 per cent. Over the same period, retail credit extended by non-banking finance companies and housing finance companies grew by 70 per cent, while loans from microfinance institutions rose by 67 per cent. In comparison, during this period, household disposable income grew by 43 per cent and consumption by 49 per cent.
- Had it not been for this surge in debt, and if household borrowings over these years had been in line with past trends, then private consumption would have been lower by around 2 percentage points of GDP or savings would have fallen.

Do You Know:

Ishan Bakshi Writes:

- Household debt is defined as all liabilities of households (including non-profit institutions serving households) that require payments of interest or principal by households to the creditors at a fixed dates in the future. Debt is calculated as the sum of the following liability categories: loans (primarily mortgage loans and consumer credit) and other accounts payable. The indicator is measured as a percentage of net household disposable income.
- Greater indebtedness implies that loan repayment will account for a bigger portion of household disposable income. And unless incomes grow rapidly, the burden of repayment will eat into disposable incomes, impacting spending capacity.
- It is not as if this credit binge went unnoticed. In November 2023, the RBI introduced various measures — increasing the risk weights on banks' exposure to NBFCs and on consumer credit for some segments — to slow down credit growth. However, with growth slowing down sharply — the hit to consumption reflects in the commentary from India Inc — the central bank has now reversed its stance partially.
- Loans that are overdue for more than 90 days are estimated to be inching upwards. Delinquencies are increasing in gold loans, and asset concerns are arising in the personal and consumer finance segment, and also in the passenger vehicle and two-wheeler segments. In the case of MFIs, loans that are due for 31-180 days have risen considerably in recent months. Banks have also been steadily writing off unsecured retail loans, indicating a worsening of asset quality.

BUDGET MSME CLASSIFICATION TWEAK SPARKS SLUGFEST BETWEEN MICRO & MID-SIZED FIRMS

The Union government's decision to revise the classification criteria for micro, small, and medium enterprises (MSMEs), effective April 1, has created unease among some representative bodies, who argue the revision will have an "adverse impact" on micro and small firms.



- Announced by Finance Minister Nirmala Sitharaman in her Budget speech in February, the revision increased the investment cap for each of the three segments by 2.5 times and the turnover cap by two times. In other words, some firms that were previously medium-sized are now small enterprises, while some small firms are now micro enterprises.
- In a letter to the Ministry of MSME on March 12, Laghu Udyog Bharati — a Rashtriya Swayamsevak Sangh (RSS)-affiliated body for micro and small enterprises — flagged that with the revision, erstwhile medium firms will “corner” benefits meant for smaller firms.
- In India, micro and small enterprises benefit from a 25 per cent public procurement quota and MSMEs overall are eligible for priority sector lending, with a sub-target for micro firms.
- In its letter, Laghu Udyog Bharati argued that due to the Covid-19 pandemic in 2020 and 2021, MSMEs were adversely impacted and that their recovery would be hard to assess as of now.
- “Therefore, it would be too early to enhance the level of Investment to 2.5 times and to double the turnover level for various categories of MSMEs and no tangible benefits can be achieved by simply revising their classification,” the letter said.

“Presumably, it would not be possible for the Govt. to properly assess the impact of revision of classification of MSMEs undertaken during the year 2020. Most probably, no benefit could be attributed to MSMEs due to change in classification criteria made earlier,” it also said, flagging the absence of fresh data on MSMEs since the National Sample Survey in 2015-16.

Do You Know:

- Giving new definitions for micro, small and medium enterprises (MSMEs) and announcing a slew of initiatives to help such businesses, Finance Minister Nirmala Sitharaman on Saturday termed them the second power engine for development.

—In her Budget speech, she said the investment and turnover limits for classification of all MSMEs will be increased 2.5 and two times respectively.

—This means the investment limit to be classified as a micro enterprise goes up to Rs 2.5 crore. For small enterprises, this limit goes up to Rs 25 crore, and for medium ones, it becomes Rs 125 crore. Similarly, the turnover limit for these classifications goes up to Rs 10 crore for micro enterprises, Rs 100 crore for small ones, and Rs 500 crore for medium enterprises.

- Prior to April 1, micro enterprises were defined as those with investments up to Rs 1 crore and annual turnover up to Rs 5 crore. The threshold for small enterprises was Rs 10 crore in investment and Rs 50 crore in turnover, while for medium enterprises, it was Rs 50 crore in investment and Rs 250 crore in turnover.

GOVT WORKS TO BRING ONLINE GAMING FIRMS UNDER PMLA FOLD

The Centre is in advanced stages of finalising a move that could bring online real-money gaming companies such as Dream11, Games24x7, and Winzo under the ambit of anti-money laundering laws and subject them to stricter obligations such as know-your-customer (KYC) requirements, and tracking and reporting suspicious transactions, The Indian Express has learnt.



- The proposal, steered by the Ministry of Finance and sent for inter-ministerial consultations, could result in online real-money gaming companies getting denoted as “reporting entities” under the Prevention of Money Laundering Act (PMLA), 2002.
- PMLA stipulates certain record-keeping and reporting obligations for financial institutions — banks, financial intermediaries or a person carrying on a designated business or profession — by classifying them as reporting entities.
- A reporting entity, under PMLA, has to furnish information about its clients and transactions to Financial Intelligence Unit-India (FIU-IND) under the Ministry of Finance and follow a number of compliance obligations including maintaining a record of all transactions, documents evidencing identity of its clients and beneficial owners as well as account files and business correspondence relating to its clients.
- It is also subject to compliance with anti-money laundering and countering the financing of terrorism (AML/CFT) obligations, in line with norms of the global money laundering watchdog Financial Action Task Force (FATF).
- In a similar move in 2023, the Finance Ministry had notified virtual digital assets (VDAs) as reporting entities, a measure which was squarely aimed at cryptocurrency firms.
- If this is finalised, it would mark the second major action on gaming companies after a 28 per cent Goods and Service Tax (GST) was levied on full deposits that users make on such apps in 2023.
- It also follows rules to regulate the sector which were notified by the IT Ministry, but remain in limbo and unenforceable due to procedural issues.

Do You Know:

- According to a report by FICCI and EY from March 2025, online gaming companies in India collectively earned a revenue of close to \$2.7 billion in 2024. These companies typically make money by taking a cut from a user’s winnings.
- As per the report, more than 155 million Indians engaged with real money gaming sub-segments such as fantasy sports, rummy, poker, and other transaction-based games in 2024, marking a 10 per cent increase over 2023. On an average, around 110 million people played these games daily.
- Sources in the gaming sector, who work for companies based in India, said that while domestic companies will abide by requirements of the PMLA, their concern is that offshore betting and gambling apps are unlikely to abide by the requirements — an issue they had raised when the 28 per cent GST was imposed on them.
- The government has been acting against flouting of compliance norms by online gaming companies. Earlier this month, the government informed Parliament that the IT Ministry had issued more than 1,400 blocking directions related to online betting/gambling/gaming websites between 2022- 2025 (until February). The Directorate General of GST Intelligence (DGGI) has blocked over 350 links of illegal and non-compliant offshore online money gaming platforms.
- Much of the industry’s woes also stem from the fact that the IT Ministry’s effort to regulate the online gaming sector, which was done through amendments to the Information Technology (IT) Rules, have failed to take off and have had no regulatory teeth.



- In April 2023, the ministry had notified rules for online gaming which allowed for the setting up of self-regulatory bodies to vet the legitimacy of online games, with oversight of the government, among other provisions.
- However, some proposals for self-regulation could not be accepted by the ministry as it felt they may be influenced by the gaming industry, raising potential conflict of interest issues.
- In an ongoing case in the Madras High Court where the court is hearing challenges to the state's online gaming law, the IT Ministry, in a submission, said that the IT Rules provisions related to the sector remained "unenforceable" since the ministry has not designated any self-regulatory bodies.

LPG TO COST `50 MORE, CNG `1; NO CHANGE IN PETROL, DIESEL RETAIL RATES

The government on April 7, 2025, hiked the excise duty on petrol and diesel by Rs 2 per litre and announced an increase in the price of cooking gas cylinders by Rs 50 with effect from April 8, 2025.

- Both these steps, according to Petroleum Minister Hardeep Singh Puri, are aimed at providing relief to public sector oil marketing companies (OMCs) by compensating them for their accumulated losses on cooking gas sales. To insulate consumers from high prices of liquefied petroleum gas (LPG, or cooking gas) in the international market, the OMCs have been selling LPG to households at a loss.
- The hike in fuel excise duty was notified by the Finance Ministry on Monday afternoon. Speaking to reporters shortly after, Puri clarified that the burden of increased excise duty will not be passed on to the consumers and it will have no impact on retail prices of the two fuels.
- The minister indicated that the additional amount collected as a result of the duty hike may eventually be used by the government to cover the OMCs' losses on LPG sales. He said that the OMCs will also hike LPG prices for households by Rs 50 from Tuesday morning, which will also help in reducing their under-recoveries on cooking gas sales.
- Amid a steep fall in international crude oil prices over the mounting trade friction between the US and China, the government hiked the Special Additional Excise Duty (SAED) on petrol to Rs 13 per litre from Rs 11, and that on diesel to Rs 10 from Rs 8 per litre.
- SAED is a component in the overall fuel excise structure and goes entirely into the Centre's kitty, unlike the Basic Excise Duty (BED) that is shared with states. Over the past 11 years, the government has hiked excise duty on petrol and diesel on a number of occasions when international oil prices saw significant downward correction. It has also cut excise duty on the two fuels on a few occasions to provide relief to consumers when global oil prices rose notably.
- As for domestic cooking gas prices, a 14.2-kg cylinder will cost Rs 853 from Tuesday for general households, up from Rs 803 in Delhi, with corresponding changes in other states. For poor households availing cooking gas under the Ujjwala scheme, the price in Delhi will go up to Rs 553 per cylinder from Rs 503. As India depends on imports to meet its LPG demand, cooking gas prices are linked to international LPG price benchmarks.

**Do You Know:**

- Annual petrol and diesel sales in the country stand at around 16,000 crore litres, which means that the increase in excise duty should lead to an additional revenue of around Rs 32,000 crore for the government on an annualised basis.
- The Petroleum Ministry and the OMCs expect this incremental revenue to flow back into the OMCs as government support. Notably, in October 2022, the government had approved a one-time grant of Rs 22,000 crore for OMCs to partially cover their accumulated losses of around Rs 28,000 crore at the time from selling LPG at a loss in consumer interest.
- According to industry insiders, the recent decline in international crude oil and petroleum product prices had created enough headroom for the Centre to increase the levy on the two fuels. Alternatively, the benefit could have been passed on to the consumers in the form of a reduction in retail prices of the two fuels.
- According to the Petroleum Ministry's estimates, the average Saudi CP—the international benchmark for LPG pricing—has gone up 63 per cent to \$629 per tonne in February 2025 from \$385 in July 2023. This should ideally translate into cooking gas being retailed at Rs 1,028.50 per 14.2-kg cylinder in Delhi. However, the OMCs have been selling cooking gas to households at a significant loss in consumer interest. The Petroleum Minister indicated that cooking gas prices will be reviewed every 15 days to a month and if international prices cool down, the benefit will be passed on to the consumers.

CRISIS IN THE COTTON FIELDS

India's cotton economy isn't in great shape. This, despite the advantage the country has as a producer of the natural fibre and its textile exports facing only 27% duty – as against China's 54%, Vietnam's 46%, Bangladesh's 37%, Indonesia's 32% and Sri Lanka's 44% – under US President Donald Trump's "reciprocal tariff" policy.

- India's cotton output in the 2024-25 marketing year (October-September) is projected at just over 294 lakh bales (lb; 1 lb=170 kg), the lowest since the 290 lb of 2008-09. Production has been on a declining path since the peak of 398 lb in 2013-14. A fall from almost 400 lb to under 300 lb can even be termed catastrophic.
- The cultivation of genetically modified (GM) cotton hybrids – incorporating alien genes isolated from a soil bacterium, *Bacillus thuringiensis* or Bt – had led to not only a near-trebling of production (from 136 lb to 398 lb), but also a 139-fold jump in exports (from 0.8 lb to 117 lb), between 2002-03 and 2013-14.
- The above production slide, and India turning from a large cotton exporter to a net importer, is mainly courtesy of the pink bollworm (PBW). This is an insect pest, whose larvae bore into the bolls (fruits) of the cotton plant. The bolls contain seeds from which the white fluffy cotton fibres or lint grow. The PBW caterpillars feed on the developing seeds and the lint, causing yield loss as well as lint discolouration

Do You Know:

- The pink bollworm (PBW), known among farmers as gulabi sundhi, damages the cotton crop by burrowing its larvae into the cotton bolls. This results in the lint being cut and stained, making it



unfit for use. While there exist effective techniques to prevent PBW attacks, these methods gave not seen widespread adoption by farmers.

- The GM cotton now grown in India have two Bt genes, 'cry1Ac' and 'cry2Ab', coding for proteins toxic to the American bollworm, spotted bollworm and cotton leafworm pests. The double-gene hybrids initially provided some protection against the PBW too, but that effectiveness has dissipated over time.
- The reason for it is that the PBW is a monophagous pest, which feeds exclusively on cotton. This is unlike the other three pests that are polyphagous and survive on multiple host crops: The American bollworm larvae infest even maize, jowar (sorghum), tomato, bhindi (okra), chana (chickpea) and lobia (cowpea).
- Being monophagous enabled the PBW larvae to gradually build resistance to the toxins from the existing Bt cotton hybrids. The PBW population that became resistant from continuously feeding on these plants eventually overtook and replaced the ones that were susceptible. The pest's short life cycle (25-35 days from egg laying to adult moth stage), allowing it to complete at least 3-4 generations in a single crop season of 180-270 days, further accelerated the resistance breakdown process.
- A recent article in the Nature scientific journal showed the PBW developing resistance to both cry1Ac and cry2Ab toxins by 2014, about 12 years after Indian farmers began cultivating Bt cotton.

DELHI SPENDS MOST TIME ON WORK-RELATED ACTIVITIES, NAGALAND LEAST, FINDS GOVT SURVEY

People in Delhi spend an average of 563 minutes each day in work-related activities while those in Nagaland spend the lowest, 329 minutes, according to data from a national survey conducted by the Ministry of Statistics and Programme Implementation.

- The Time Use Survey (TUS) 2024 reveals that Delhi's residents are more time-intensive in their daily routines. With 563 minutes spent on "employment and related activities", they significantly surpassed the national average of 440 minutes, even showing an increase from 510 minutes recorded in the last such survey in 2019.
- Goa follows closely, with its residents clocking 536 minutes on work-related tasks, a rise from the 367 minutes recorded in the 2019 survey.
- The Time Use Survey tracks how people allocate their time across various activities such as paid work, childcare, volunteering, and socialising. The primary aim of the survey is to assess men's and women's participation in both paid and unpaid activities, providing insights into time spent on unpaid caregiving, volunteer work, and domestic services. It also sheds light on time spent on learning, socialising, leisure activities, and self-care.
- The findings of this survey are crucial for shaping policies on poverty, gender equity, and human development.

Do You Know:

- Over the past three decades, many developed countries have increasingly conducted time-use surveys. For instance, the US has been conducting annual surveys since 2003, while Australia

4TH FLOOR SHATABDI TOWER, SAKCHI, JAMSHEDPUR



began its full-scale national survey in 1992, and Canada has been conducting them since 1961. Countries like Germany, Austria, and Israel have also embraced similar surveys.

- India's first national Time Use Survey, the NSS Report – Time Use in India, was released in 2019. The second round of the survey, findings of which were released this year, was conducted between January and December 2024, covering 1.39 lakh households and 4.54 lakh individuals over the age of six.
- The latest survey reveals that Indians engaged in employment and related activities spend an average of 440 minutes per day on such tasks. Men spend an average of 473 minutes in work-related activities while women spend 341 minutes.
- The survey also reveals that the average time spent in India on learning activities has declined to 414 minutes in 2024 from 424 minutes in 2019. The states with the highest time spent on learning activities are Andhra Pradesh, where people spend an average of 465 minutes per day, up from 451 minutes in 2019. Tamil Nadu residents spend 462 minutes, slightly down from 469 minutes in the previous survey, but still among the highest in the nation. Delhi stands out with a significant increase in learning time, jumping from 403 minutes in 2019 to 456 minutes per day in 2024.
- Nagaland reported the lowest average, with 368 minutes spent on learning activities, down from 419 minutes in 2019, suggesting a need for greater emphasis on education in the state.
- The 2024 survey also shows how social interactions and community participation are evolving across India.

WILL AVIATION DISPUTES BE EASIER TO RESOLVE?

The story so far:

Parliament last week passed the Protection of Interests in Aircraft Objects Bill, 2025. The proposed legislation establishes a legal framework to resolve disputes between airlines and lessors over high-value aviation assets, such as aircraft, helicopters, and engines. The legislation aims to align India's aviation laws with international standards, in order to boost investor confidence amid rapid fleet expansion by IndiGo and Air India. Once enacted, the law will streamline processes, allowing lessors to repossess aircraft for unpaid dues, avoiding lengthy court proceedings like those seen with GoFirst's 2023 shutdown. However, the industry remains worried over the lack of ease of doing business as well as complicated tax laws in the country.

What is the Bill and what are its provisions?

The Bill implements the Cape Town Convention and Protocol, which is an international treaty adopted by the United Nations aviation watchdog, the International Civil Aviation Organization (ICAO), in 2001 and signed by India in 2008 following a Cabinet approval. The Cape Town Convention and Protocol standardises transactions involving aviation assets such as aircraft and engines, and provides remedies for creditors in cases of financial default by airlines towards the lessors they rent aircraft from.

Speaking in the Rajya Sabha, the Minister for Civil Aviation Ram Mohan Naidu said that the Bill will "provide a significant boost to the leasing industry, which is the need of the hour." This he said would be made possible by providing much needed legal clarity, while referring to past disputes



such as those involving SpiceJet and the now defunct GoFirst, where the absence of a uniform legislation often led to challenges in interpreting the Cape Town Convention and Protocol by courts. It also led to difficulties for lessors in re-possessing their assets rented to airlines. The Minister also said that airlines have informed him that such a legislation could bring down leasing costs by 8-10%, which he claimed would offer a trickle-down advantage for passengers through lower airfares. The Minister said that the Bill has the potential to promote domestic leasing in the Gujarat International Finance Tec-City (GIFT) City in Ahmedabad.

The Bill designates the Directorate General of Civil Aviation (DGCA) as the Registry Authority for the purposes of the Convention. Such an authority is responsible for the registration and de-registration of aircraft. The Bill also empowers the DGCA to issue directions to implement the Convention. It lays down the obligations of debtors, such as airlines, which include submitting a record of dues to the DGCA. It also defines remedies available in case of a default in payment that includes the right to take back possession of the asset within a period of two calendar months or a mutually agreed upon period, whichever is earlier. The Bill will also have an overriding effect, which means that if there is any inconsistency between the Bill and any other law, the provisions of the Bill will prevail.

Why has the Bill been introduced?

The Bill was introduced to address long-standing challenges in India's aviation sector, particularly the legal uncertainties faced by international lessors and creditors.

The necessity of such a law was witnessed at the time of the closure of Kingfisher Airlines and GoFirst as well as in disputes involving SpiceJet. Despite India's accession to the Cape Town Convention in 2008, the lack of implementing legislation meant that domestic laws, such as the Insolvency and Bankruptcy Code (IBC), often conflicted with international standards. This led to difficulties in repossessing aircraft during airline insolvencies, as seen in the case of GoFirst (2023). These inconsistencies increased risks for lessors and lowered India's compliance score on the Aviation Working Group's (AWG) Cape Town Convention Index (previously at 50, now improved to 62, with a target of 90).

The Bill aims to resolve these issues by providing legal clarity, aligning India with global norms, and reducing the financial burden on airlines.

For instance, during the shutdown of GoFirst, which sought voluntary insolvency before the National Company Law Tribunal (NCLT) in May 2023, the court granted the airline protection under moratorium from adverse actions by lessors, lenders, airports and oil companies. This prevented the lessors from de-registering their aircraft and removing the planes from India within the permissible five-day period.

Later, they also faced challenges with respect to accessing aircraft for carrying out maintenance to ensure airworthiness, and also found themselves repaying exorbitant dues owed by the airline to airport operators for expenses incurred on counter and office space, ground and cargo handling apart from aircraft parking costs.

How has the decision been received by the leasing industry?

The Bill has been broadly welcomed by the industry as far as disputes and concerns over ability to repossess aircraft go, though some say it is like "closing the stable door after the horse has bolted," referring to the challenges posed by GoFirst, SpiceJet and Kingfisher Airways.



Executives in the international leasing industry explain that the claims promoted of reduced leasing costs as a result of the proposed law are not entirely true as the creditworthiness of an airline, its financials and volume of orders are the real driving factors, especially for airlines like Air India and IndiGo, as the industry is bullish about their growth prospects. However, smaller airlines and start-ups may benefit through a 10% rebate in interest rates offered by the EXIM bank for financing of aircraft leasing.

Similarly, airline executives state that claims of a likely respite in airfares are exaggerated as ticket prices are driven by market forces of demand and supply for air travel, and that costs incurred by airlines don't drive the fares.

However, the Bill will lower the risk of doing future business in India, which will impact an airline's net income.

But the industry is worried about India's complicated taxation regime. Many lessors of a large airline have been speaking in hushed tones about IT notices being slapped on them for operating through Special Purpose Vehicles (SPVs) to lease airplanes as they are not allowed to have a permanent establishment in India.

The industry feels the government is arm-twisting international lessors to set up a local arm at GIFT City, Gandhinagar, where the government aims to create its own ecosystem for domestic leasing.

An executive from a major leasing company, speaking anonymously, described the Indian taxation regime as "whimsical, suspicious, and inconsistent," citing these issues as key reasons for the lukewarm response from the leasing industry to GIFT City.



DreamIAS



LIFE AND SCIENCES

THE MAGIC OF A MIRROR: HOW IS IT ABLE TO SHOW YOUR REFLECTION?

Dressing up is probably one of the most annoying things. You stand in front of a mirror and try to find the right combination of clothes of various colours hoping you look more tolerable to people. This is probably one trait that distinguishes us from other animals: we spend a few good minutes every morning staring at a mirror.

Have you ever wondered, though, when we stare at a mirror, what we're really staring at?

What is a mirror?

Most mirrors feel like glass. They are heavy and break easily. But then if you stare at a glass, say your window, and you stare at a mirror, what you see are very different things.

On a bright day, glasses are transparent, and you can see the outside world through a glass window. At night, if you look at your window and if you are in a well-lit room, you will now see yourself. In a mirror, on the other hand, you always see yourself irrespective of whether it is day or night (and as long as it is not dark).

To understand the difference between a mirror and window glass, we need to learn about metals and insulators.

What are metals and insulators?

Metals are shiny things, like your steel cups and plates, the aluminium pressure cooker, and coins in your purse. Metallic objects are usually hard, not easy to break, and have a silvery shine. They also get hot and cold quite easily and can conduct current. It's one reason why we never touch a live socket using a spoon. Insulator objects on the other hand are made of glass, wood, and plastics. The things that usually don't conduct current also often don't look silvery.

An electric current is conducted by electrons. Atoms have both positively charged protons and negatively charged electrons. In a metal, electrons are like unruly, fun-loving kids: they leave their parent atoms and move around between different atoms, forming a big soup of electrons. On the other hand, in an insulator, every electron in an atom is a bit shy and stays close to the parent atom. Therefore when we put in a battery and try to push the electrons, they will move freely in a metal, since they are unruly, but in an insulator they won't. Therefore metals conduct current, insulators don't.

But the fact of how electrons behave towards batteries also decides how they behave when light falls on them.

How do light and electrons interact?

Light is an electromagnetic wave. A wave is any disturbance that moves periodically in time and can go from one point to another. For instance, when you drop a stone in a pond, you generate waves of water. When you speak, you generate waves of air, or sound waves.

When light falls on us — that's an electromagnetic wave, a periodic wave of electric and magnetic fields. Electric fields create forces that make electrons move, such as in your watch. Magnetic forces are the ones that keep your refrigerator magnets stuck on the door. But these forces don't



change with time. When they start changing periodically in time they generate light, an electromagnetic wave.

Electrons behave very funnily when light falls on them. Just like we move periodically when someone pushes us on a swing, when light falls on electrons, these electrons start moving periodically in time, as if they are dancing.

But the way they dance in metal and insulators are different. Since in a metal, all electrons are in a soup, they dance in a group like a flash mob. But in an insulator, every electron just dances individually on its own, inside its atomic home.

The type of electron dance decides whether light can go through a material. When light falls on a metal, all these electrons team up and start dancing together. This obstructs the light so much that it can't go through the metal and just bounces back. On the other hand, in an insulator, since every shy electron just dances a bit in its atomic home, most of the light goes through.

This is why insulators such as glass let some light go through while metals usually don't.

This is also the reason why you can see your face very clearly on a steel plate or spoon. The light from your face is reflected fully by the plate and enters your eye. But on a day when you just look at a window, most of the light from your face just goes through the glass to the other side, making it hard to see yourself. Moreover there is light from the outside that enters the glass into your eye, making you see the outside world. In the night, however, there is little ambient light, so just the light from your well-lit room reflects a bit from the glass and you can see yourself.

How does a mirror work?

So how is it then that a mirror, which feels like glass, an insulator, reflects like a steel plate? This is because the mirror is not just a glass: it has a secret. While it is in fact made of glass, there is a thin layer of metal placed on its back side. The front side is glass that lets the light through but the back side is a metal, where the electrons dance to reflect the light.

This is what makes you see yourself every time you stare into a mirror. A mirror is thus not one material but two. Both the glass (of shy electrons) and metal (of unruly electrons) conspire to make a long-lasting mirror on your almirah or in the washroom.

We just learnt that the back surface of the mirror has a metal layer. Now imagine a block of glass where you put layers of silver on all its surfaces. This would be very strange: from the outside it will look like a metal but it won't be able to conduct current on the inside. We can create such an object using two different materials — glass and silver, say — but can these properties occur in an object made of a single material? Such a material would have to behave differently on the surface and inside, such as a metal outside and an insulator inside.

Such materials were discovered in the second half of the 20th century and are called topological materials. Some of their discoverers won the Nobel Prize for physics in 2016. More recently, Microsoft released a quantum-computing chip that is made of such topological materials.

To understand why all of this really works, one needs quantum mechanics, one of the most beautiful subjects known to us. In fact, the UN has declared 2025 to be the International year of Quantum Science and Technology. We are currently celebrating 100 years since scientists discovered its foundational principles.



In the meantime, when you next stare at a mirror, don't just look for yourself: also appreciate the dance of electrons, both in the glass and in the shiny metal layer at the back, which is sending your light back to you.

HADEAN PROTOCRUST: HOT AND HELLISH

WHAT IS IT?

The Hadean protocrust is the name for the earth's crust — its outermost layer — when it first formed. The 'Hadean' prefix refers to the planet's first geologic aeon. At this time, within 200 million years of its genesis, the earth's surface was partially molten and almost constantly bombarded by rocks from space. As many volcanoes also raged, the surface was very hot and hellish.

As parts of the magma ocean cooled, the first pieces of the crust began to take shape. It was still somewhat flaky, with some parts sloughing off and new parts solidifying. The thicker parts of the crust slowly formed the first continents, which moved like plates on the asthenospheric mantle, a layer of hot, gooey rock going 400 km down.

The plates soon began drifting into each other, sometimes sliding over, sometimes diving under. Such plate tectonics have left unique chemical signatures in the crust over millennia. In fact, scientists have understood the history of plate tectonics by studying these signatures.

A new study by an international team of researchers led by Macquarie University in Australia has now called this assumption into question. The researchers have reported that the signatures scientists have associated with plate tectonics actually existed in the Hadean protocrust, before the plates began to subduct, calling an important tenet of geology into question.

The study, which used a combination of models and lab studies, will have to be validated by independent research.

CAPTCHA: A DIGITAL BORDER BETWEEN HUMANS AND BOTS

In the ever-changing world of Internet technology, keeping users safe and verifying their identities is important. One of the most important security systems for this is CAPTCHA (Completely Automated Public Turing test to tell Computers and Humans Apart). It's like a puzzle that is easy for us to solve but hard for machines.

CAPTCHA was introduced in the early 2000s when the internet was flooded with automated bots. These bots made fake accounts, spammed websites, and stole data. Computer scientists Luis von Ahn, Manuel Blum, Nicholas J. Hopper, and John Langford wanted to create a system that could tell humans from machines, even as bots got smarter and more advanced.

In 2003, von Ahn and his team filed the first patent for CAPTCHA. Back then, users had to solve distorted text or characters that bots struggled to understand. These challenges often involved recognising letters, numbers, or symbols that were deliberately messed up so that machines couldn't parse them but humans could.

CAPTCHA helps keep websites safe from automated attacks and makes online services more user-friendly. The challenge was simple, but its impact was huge. It stopped bots from getting into users' sensitive data.



How does CAPTCHA work?

CAPTCHA is a clever way to tell if you're a real person or a robot. It's like a brainteaser that only humans can solve. Imagine you're trying to figure out what's written in a distorted picture. It's tricky for computers, but it's easy for us. Over time, CAPTCHA has gotten smarter and started to include other challenges to verify humans. Now, you might have to pick an image with a specific object in it, like a car or a traffic light. These challenges are even harder for computers/bots to solve.

CAPTCHA is based on an idea called the Turing test. This was proposed by British mathematician Alan Turing back in the 1950s. The idea was to create a test that could tell if a machine could act like a human. CAPTCHA does just that by making sure that tasks are easy for humans but hard for computers.

How has CAPTCHA changed over time?

At first, CAPTCHA mostly used distorted text to check if a user is a real person. But as computers got better and bots became more advanced, CAPTCHA had to adapt. Now, it has a variety of different challenges to keep us safe.

In 2009, a new way to check if you're a real person called reCAPTCHA came along. It used words from scanned books to verify users. This was a new idea as it not only stopped bots from taking over, but it also helped digitise printed texts. When you solved a reCAPTCHA challenge, you were actually helping to digitise books by typing out words that the computer couldn't recognise. This idea showed how users could come together to help improve digitisation of the world's books.

As CAPTCHA got better, more advanced versions came out. In 2014, Google introduced 'Invisible reCAPTCHA,' which used users' mouse movements to tell if they were human. It was designed to be less annoying while still stopping bot attacks. Today, CAPTCHA is still very important for keeping the internet safe, but it's part of a bigger set of security tools.

How does CAPTCHA help keep the internet safe?

CAPTCHA is everywhere on the internet, used in many different places. Businesses and organisations use CAPTCHA to protect themselves from bots. Business websites use CAPTCHA in contact forms, comment sections, and registration pages to stop bots from spamming. This ensures that only real people can submit forms or leave comments. Many financial and e-commerce websites use this verification technique as an extra layer of security when users sign up for an account, log in, or make a purchase. It helps stop automated bots from stealing credit cards or their personal data.

Another way to think of CAPTCHA is like a secret code that helps keep a user's accounts safe. It's used when they want to recover their accounts, making sure only real people can take control, not bots. It's also used in online surveys and polls, where bots can sometimes try to trick websites. CAPTCHA helps make sure the results are from real people, not bots.

However, even though CAPTCHA is great, it's not perfect.



What are its limitations?

CAPTCHA is everywhere, but it has some downsides. As bots get smarter, they can sometimes trick CAPTCHA. And for people with disabilities, like those who are blind, CAPTCHA can be a real challenge. Even with audio CAPTCHA, it can be hard for people with hearing problems.

While CAPTCHA is great at stopping bots, it does add an extra step to our interactions with websites. This extra step can be annoying, especially on mobile devices, where completing CAPTCHA can be a pain and take a long time. Some CAPTCHA tests can also be really tough, and make people frustrated. If the characters are hard to see or the instructions are unclear, it can be hard for people to finish the task. This can scare away people who just want to use the website.

Moreover, as bots get better, they can sometimes bypass even the best CAPTCHA systems. Machine learning algorithms are getting better at solving complex CAPTCHA, and many websites are using even more complicated verification methods to stay ahead.

What lies ahead?

CAPTCHA has changed the way websites keep user accounts safe and their data protected. From simple text-based challenges to the advanced reCAPTCHA systems we use today, CAPTCHA has made a big difference in online security. But as bots keep getting smarter and people have different expectations, CAPTCHA needs to figure out how to be more accessible and easier to use for humans, and effective to stay important in the world of digital security.

UNTRANSLATABLE WORDS INDUCTED INTO OXFORD ENGLISH DICTIONARY HIGHLIGHTS FLUIDITY OF LANGUAGES

For those unfamiliar with its particular trajectory, the range of affectations that the Bengali word “nyaka” conveys has always been particularly challenging to translate into other languages. Or, take for instance, the Malayalam word “adipoli”. Its English equivalent — “awesome” — does not hold a candle to the flourish of the original. “Nyaka” or “adipoli” might not feature among them, but 42 untranslatable terms from various languages have recently found a home in the Oxford English Dictionary, a hat-tip to both the idiosyncrasies of languages and the beauty of linguistic fluidity. Among the dictionary’s picks are the Tagalog word “gigil”, now a fixture in Philippine English, and other words of Asian origin, such as the Malay expression “alamak”. The former implies a reaction to overweening cuteness, the latter can convey anything from surprise to shock.

The phenomenon of “lexical borrowing”, where words, roots and sounds from one language seamlessly integrate into another, reinforces a process as old as language itself. Ancient civilisations, whether through trade, war, or migration, exchanged words as readily as goods. Sanskrit found its way into languages from the Persian Empire to Southeast Asia; Latin infused modern European languages with its syntax and vocabulary. From the French “restaurant” to the Arabic “alcohol”, English owes much of its vast lexicon to the Normans, the Vikings, and other influences, including from its colonies.

In several countries, including in India, there is, of late, an insistence on the “purity” of language, or culture for that matter. This puritanism ignores the thriving history of linguistic exchange. Far from diluting a language, every borrowed word is an invitation to understand a new facet of human experience, a window into the lived realities of different cultures. To resist them is to stifle the very forces that have driven the evolution of language. The real tragedy, then, lies not in



linguistic borrowing, but in the false belief that any culture or language can remain unchanged in a world that is, and always has been, in constant flux.

AT 2028 LOS ANGELES OLYMPICS, A BLOW TO GENDER DISPARITY

In 1900, women had a token presence at the Olympics. They were a sprinkle at the Summer Games, barely 2 per cent of participating athletes. But global sport is finally striding towards an epochal moment at the 2028 Los Angeles Olympics when female athletes are set to outnumber the males. It is a massive step for the Olympic movement given that it was only in 2012, in London, that women were allowed entry into every discipline. Swimming Olympic medallist Kirsty Coventry was elected president of the International Olympic Committee (IOC) months ago; these days, mixed teams are a norm in almost every individual sport and team games require elite female squads to be considered at the Olympics.

It is only apt that the first Games where the percentage of women athletes is 50.4 are taking place in the US. It is the nation where the Title IX reforms had long mandated student sport to treat male and female equally — be it in representation, funding, scholarships or visibility. It is market forces that finally coaxed the organisers to have more women's football teams than men. The conviction to take this call was because of the pioneers — women players like Wilma Rudolph, Billie Jean King, Serena and Venus Williams, Nadia Comaneci, Danica Patrick, Simone Biles.

Interestingly, the pathbreakers were the nations that haven't been historically friendly to the US — Soviet Russia, the former East Germany and later communist China, never baulking at promoting strong female athletes and ringing in equality in the funding of their training. China's surge in Olympic medal tallies has always been led by female champions in diving, table tennis, badminton and shooting. Europe, the US and Australia have seen massive interest from spectators for women's sport in the last few decades. India also had its own women champions who were role models for generations to follow. Track star P T Usha started it and others followed. Karnam Malleswari and Mirabai Chanu are the country's only weightlifting medallists, and Saina Nehwal and P V Sindhu in badminton. Wrestler Sakshi Malik rescued a disastrous 2016 Olympics with her medal, and Vinesh Phogat could well have brought the first wrestling gold. Shooter Manu Bhaker is India's only double medallist from a single Games. The women nosing ahead of the men shouldn't come as a surprise. LA 2028 has taken a pragmatic call, they are only responding to the forces of history.

DIRE EFFORTS

Colossal Biosciences is an American company with an unusual marketing line: combining genomics with conservation — not in its traditional form, but through de-extinction, which is resurrecting species extinct for thousands of years. Leading this project is Harvard geneticist George Church, a prominent promoter of the company, who aims to bring back the woolly mammoth, a distant ancestor of the elephant. The stated logic is to combat global warming. During the Pleistocene Ice Ages, the mammoth roamed lush grasslands across the tundra. Until its extinction around 5,000 years ago, the Arctic tundra also supported large populations of bison, wolves, cave lions, and giant deer. As the climate warmed, these species disappeared, and the grasslands gave way to shrubbery and sheets of snow. As temperatures rise, permafrost begins to disappear, resulting in high emissions of methane, a more potent greenhouse gas than carbon dioxide. To prevent this, some scientists at a Siberian park have been transporting large animals that are resistant to cold to see if their foraging can restore the grasslands. Grass absorbs less heat



than the tall trees in a shrub forest — the dominant species — and therefore decelerates warming, but it cannot stop warming.

The woolly mammoth, though extinct, is seen as a potent weapon in this climate plan. Scientists at Colossal have extracted fragments of its DNA from fossils and reconstructed its genome. By comparing it to that of the modern elephant, they have edited specific genes to recreate mammoth-like traits, with the goal of eventually incubating a hybrid embryo in an elephant's womb. Scientists have also experimented with the dire wolf, an extinct relative of the gray wolf, and birthed three snow-white wolves. However, this claim has yet to pass rigorous peer review. Critics point out that only 20 genes were edited, and what has been created is, in essence, a "strange-looking gray wolf". Despite such criticisms, the technological achievement is a testament to the ability to engineer precision edits to the genome. The work of Chinese scientist He Jiankui, who claimed to have produced gene-edited human babies, remains controversial. Colossal may be credited for its genomics work, but the claim that it is reviving species for conservation is not credible. Thousands of living species are vanishing due to habitat loss and human encroachment. Spending millions of dollars on speculative projects, whose benefits, if there are any, will fructify only over centuries, takes away resources from immediate conservation efforts. The scientific community must lay down strict guidelines on the use of gene-editing technology in applications other than health.

WEST AFRICA CHIMPS ARE LOSING THEIR CULTURE, IN ANOTHER HUMAN LEGACY

Culture is what we learn from others and pass on to successive generations by practising it over and over. Scientists have found cultural traditions among humans as well as animals, the latter in the way they forage, socialise, use tools, care for themselves, and mate.

Among these traditions, the characteristic patterns of behaviour that involve communication are called dialects. In new research published in the journal *Cell*, scientists with the Tai Chimpanzee Project in West Africa reported four dialects that male wild chimpanzees (*Pan troglodytes verus*) use in the Tai National Park to find mates to copulate with.

Unfortunately, after documenting the chimpanzees' lives for more than a generation, the scientists also reported these apes are 'forgetting' parts of the dialect thanks to human influences.

'Secretly ask females for sex'

Researchers once believed culture separated humans from other animals. But in the last seven decades, research has revealed cultural practices in many animals. Even so, community-specific dialects in non-human primates such as chimpanzees, orangutans, and bonobos have been rare.

The scientists with the Tai Chimpanzee Project reported four distinct types of dialects that male West Africa chimpanzees used to find mates: heel-kick, knuckle-knock, leaf-clip, and branch-shake. In a heel-kick, the chimpanzees lifted their feet and kicked against a hard surface to make noise. The knuckle-knock involved repeatedly, but somewhat quietly, knocking their knuckles against hard surfaces. Likewise, in the leaf-clip, chimpanzees bite a leaf and strip it into pieces without eating it, creating a ripping sound. The branch-shake is self-explanatory.

"It is amusing to watch how young subordinate males try to secretly ask females for sex without the dominant males knowing," Ms. Crockford said. "This is the main function of these more subtle gestures".



The team documented heel-kicks among the North, South, Northeast, and East chimpanzee communities; knuckle-knocking in the Northeast community; and leaf-clip and branch-shake among the North, South, and Northeast communities.

A dangerous demographic shift

The knuckle-knock gesture is restricted to the Northeast community. It was previously among adult males of the North community as well, but since 1999, it has suffered significant population loss.

The problem became so bad that between 2004 and 2011, the North group didn't have two adult males existing at the same time. Put another way, any adult male didn't have to compete with other adult males and thus had no use for the knuckle-knock dialect.

Researchers understand that demography plays a crucial role in shaping culture and keeping it alive across generations. A systematic data collection effort concluded in 2019 that no members of the North group had used knuckle-knocking in 20 years.

Significant changes in a population, in this case the near-complete loss of an entire demographic (adult males), can thus have a long-lasting impact on the preservation or loss of cultural traditions. Restoring them isn't easy. For example, with the help of ecologists and the Côte d'Ivoire government, the North group has had four adult males since 2016 but the knuckle-knock gesture hasn't reemerged among them.

"While establishing absence is challenging, our observations demonstrate a shift-away from knuckle-knock gesture usage," the researchers wrote in their paper.

Their own language

To further understand the origins of the chimpanzees' culture, the team compared mating solicitation gestures involving the use of tools between Taï chimpanzees and Sonso chimpanzees at the Budongo Forest Reserve in Uganda.

Whereas the Taï chimpanzees preferred the knuckle-knock, the Sonso chimpanzees used the object-slap: moving the arm from the shoulder to slap an object with an open palm. Likewise, the Sonso chimpanzees frequently used leaf-clipping to express their interest in mating but the Taï chimpanzees didn't.

Chimpanzees have genetically inherited certain gestures across subspecies but individuals have been known to express only a subset. But within a closed group, multiple individuals use the same set of gestures over time and can even differ from the gestures used in a neighbouring group.

The Budongo Forest Reserve is about 4,160 km from the habitat of the Taï chimpanzees of Côte d'Ivoire. "We can rule out that the different signals used in each community have a genetic origin. Given they live in a similar forest environment, we can also rule out environmental influences on culture," Ms. Crockford said. "This leaves us with the most likely option: that different signals in neighbouring communities arise through social learning."

Bringing conservation to culture

The preservation of animal culture is a relatively new concept. The International Union for the Conservation of Nature (IUCN) recently included it among the metrics it uses to prepare its 'Red



List of Endangered Species.’ The message seems to be that chimpanzees should be protected as well as their cultures.

But the IUCN’s job isn’t done. In a November 2024 paper in *Science*, researchers reported that the deaths of a species’ elders are disproportionately more harmful than the deaths of other members. This is because the elders possess important cultural knowledge: where to find the best watering holes in particular weather, the ways to respond to different predators, caring for the young when the parents can’t, and so on. One of the authors of this study wrote then that the “loss of old individuals is not yet recognised by the IUCN as a means of listing threatened species.”

EARLY SCREENING FOR GESTATIONAL DIABETES CAN ENSURE A HEALTHY FUTURE FOR MOTHER AND CHILD

This World Health Day (April 7), the World Health Organization (WHO), chose an apt theme: ‘Healthy Beginnings, Hopeful Futures.’ Diabetologists have, for decades, been propounding the theory of primordial prevention, or preventing diabetes in the womb itself, in order to ensure a happy and healthy future for both the mother and the baby.

The WHO’s choice of theme for this World Health Day is a vindication of the work and advocacy campaigns undertaken towards this goal.

Diabetes has long been a silent epidemic, affecting millions worldwide, but its roots often lie much earlier than commonly recognised. Gestational diabetes mellitus (GDM) increases the risk of type 2 diabetes in mothers and metabolic disorders in children. GDM is usually diagnosed between 24 and 28 weeks of pregnancy. However there is now evidence that points to the possibility of preventing its onset during the first trimester or even earlier. Its impact on both the mother and the child are profound and lasting.

Research underlines that maternal glucose levels should be carefully regulated as early as the eighth week of pregnancy. An early intervention would help prevent foetal hyperinsulinemia, a metabolic disturbance that occurs in the 11th week, and reduce the risk of the child developing diabetes and other non-communicable diseases (NCDs) later in life. Given India’s recent burgeoning diabetes burden, this matter needs immediate attention from the medical community and policymakers.

The case for glucose screening

Existing GDM management is based on screening in the second trimester and commencing treatment. Nevertheless, it may be too late. Maternal hyperglycemia in the first trimester appears to programme the child’s foetal metabolism, increasing the risk that the child will be obese and insulin-resistant or develop diabetes later in life.

Leading endocrinologists concur that glucose intolerance should be screened much earlier — at about the eighth week of pregnancy.

Reasonable justification exists because, by the 24-week time point in GDM, the foetus has been exposed to excessive glucose for months. This results in excessive foetal insulin production, which can lead to lifelong metabolic disorders.