



# DreamIAS

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UPSC

7th to 13 May 2023

DreamIAS



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## INTERNATIONAL

### NEW KING, NEW THINGS

In the first coronation in the country in 70 years, a lavish ceremony comprising 2,300 guests including more than 100 heads of state, Charles III has been crowned King of the United Kingdom. The event marked the culmination of plans that were set in motion last September upon the passing of King Charles' mother, Queen Elizabeth II. During the seven decades of her reign, emerging post-colonial nations grew in self-confidence, and some challenged the idea of the Commonwealth, while at home, the traditional public deference to the monarchy faded, requiring the members of the royal family to reposition themselves as good Samaritans working towards the greater good of British society. King Charles, in his prior avatar as the Prince of Wales, was quick to embrace the successive waves of change, particularly when it came to climate change and the environment. As a passionate supporter of sustainable ecosystems and architecture, he has advocated for organically maintained parks and natural reserves in the U.K. Under the aegis of the Prince's Trust, which operates under a royal charter to help disadvantaged youth in the U.K., more than a million young people had benefited by 2020.

While the new king has made a name for himself in the climate and social welfare spaces, he will have to work hard to tackle rifts within the royal family, potentially deal with an independence movement in Scotland, and face up to the long-standing challenge of Commonwealth nations that no longer wish to have the U.K. monarch as their head of state. Within the Windsor clan, King Charles's younger son Prince Harry has renounced his royal trappings and moved to California with his American wife Meghan Markle, and his recent novel, Spare, does not mince words in spelling out deep-seated resentment that he claims they felt while at the palace. The King will have to either make peace with the new arrangement forced by Prince Harry or build bridges with his second son. In Scotland, Humza Yousaf has now taken the reins of the Scottish National Party after the long tenure of Nicola Sturgeon. While the party has numerous internal issues to resolve, there is a distinct possibility of another independence referendum, which would pose sharp challenges to the U.K.'s economy and society, particularly in a post-Brexit context. King Charles would also have to engage with Commonwealth nations such as Antigua and Barbuda, Australia, the Bahamas, Belize, Grenada, Jamaica and St. Kitts and Nevis — nations that have signalled their intention to appoint their own heads of state. To tackle and effectively deal with these challenges, King Charles III will have to continue to embrace modern values while carrying the mantle of hoary royal traditions.

### WHAT IS THE STALEMATE OVER THE U.S. DEBT CEILING?

#### The story so far:

The U.S. Treasury Secretary Janet Yellen notified Congress last week that the country could default on its debt as early as June 1, if the Republican-dominated House of Representatives and President Joe Biden's White House did not reach a consensus to raise or suspend the debt ceiling.

#### What is the U.S. debt ceiling?

When the federal government spends more than it brings in, it runs up a budget deficit. It then has to borrow money to meet its financial obligations, accruing debt. The government borrows by

**3<sup>RD</sup> FLOOR AND 4<sup>TH</sup> FLOOR SHATABDI TOWER, SAKCHI, JAMSHEDPUR**



creating and selling debt securities like bonds to U.S. investors and companies, banks, pension funds, foreign investors and countries. The largest part of these are owned by the U.S. federal government itself, which keeps the money for social security schemes, medicare, federal pensions and so on. While the administration and Congress decide on taxation and spending, the collection of taxes and the borrowing of funds is done by the U.S. Treasury Department. In 1917, Congress passed the Second Liberty Bond Act, to allow then-President Woodrow Wilson to take out funds for the First World War without waiting for the approval of absent Congress lawmakers. However, the Congress created a limit on borrowing (\$11.5 billion at the time), thus creating a debt ceiling that could only be raised by the approval of the Congress (House and Senate).

The U.S. government has hit or come close to hitting the debt ceiling multiple times. According to Treasury Department figures, Congress has acted 78 separate times since 1960 either to permanently raise, temporarily extend, or revise the definition of the debt limit. While the government continues to receive taxation revenue after hitting the debt ceiling, it cannot borrow any more to pay its existing bills. The U.S. would then be unable to pay its debt-holders, resulting in a default.

#### **Why have debt ceiling standoffs become a recurring issue?**

For starters, the debt ceiling is not a “forward-looking” budgeting instrument, that is, it does not reveal what potentially ideal levels of spending look like. First, Congress approves programmes for which it does not have the entire funding, and then there’s a limit on how much the Treasury can borrow to pay for these already approved programmes. Take this analogy, for instance: if Congress approves \$100 of spending, \$70 comes from taxes but the cap on what the government can borrow to pay for the rest is fixed at a mere \$15.

Another reason why disagreements over the debt limit happen often, almost annually since 2011, is that it has become a political bargaining chip, as any raise or suspension has to be approved by Congress. As American politics becomes increasingly polarised, the Opposition has often used the debt limit as a way of getting budgetary and other legislative concessions. The U.S. came dangerously close to defaulting on its debt in 2011 when the Republicans and the Obama administration could not reach an agreement to hike the ceiling till the last minute. Observers have called the current impasse between House Republicans and the Biden administration even messier than in 2011. The Republican Speaker Kevin McCarthy-led House passed a Bill that pairs a \$4.8 trillion in spending cuts with an increase in the current \$31.4 trillion debt ceiling. However, Mr. Biden said that he wants a clean debt-ceiling hike and won’t negotiate any kind of cuts, resulting in the current deadlock.

Ms. Yellen and other economists suggest doing away with the debt ceiling, which does not contribute to fiscal discipline anymore and leads to frequent political grandstanding, often at the risk of national and global financial stability.

#### **What will happen if the U.S. defaults?**

Analysts say there is no set post-default scenario since the U.S. has never actually defaulted on its debt before. They have warned, however, of a “catastrophic” situation for American and global financial markets. If the government cannot make interest payments to domestic and foreign investors who own its debt securities, it could plunge the globe into a financial crisis, say Wall Street experts. The CFR points out that the “unthinkable” event of a U.S. default could lead to another downgrade of U.S. creditworthiness by agencies, large-scale job losses, weakening of the dollar, stock sell-offs, and a rise in the cost of borrowing for the U.S. government.



## SYRIA'S HOMECOMING

The Arab League's decision to readmit Syria, after over a decade of isolation, signals a growing desire of regional powers to set aside intra-Arab rivalries and work towards establishing a more predictable, stable relationship with one another. Ironically, it is Saudi Arabia, which had rallied the Arab countries to expel Syria in 2011 amid the regime's crackdown on protests, that pushed for Syria's readmission. The move is also recognition that Syria's President Bashar al-Assad has practically won the civil war and signals the weakening influence of the U.S., which still imposes heavy sanctions on the regime and is upset with the League's decision. When protests broke out in Syria in 2011, inspired by similar protests elsewhere in the Arab Street, the regime's response was one of violent repression. But when the protesters took up arms and got support from Mr. Assad's regional rivals such as Saudi Arabia, the UAE, Qatar, Jordan and Turkey, the crisis turned into civil war. Over the years, the Assad regime, backed by Russia, Iran and the Hezbollah, managed to stabilise and push back the rebels and jihadists. Today, Mr. Assad controls most of the country, except Idlib in the northwest, which is run by a former al-Qaeda unit, and the northeastern parts ruled by the Kurds, where the U.S. has a military presence.

Though late, the Arab countries realised that their policy of regime change and isolation of Syria had only boomeranged on them. As Syria was expelled from the Arab League and Arab countries backed anti-regime forces in the civil war, Damascus moved closer to Iran. Today, Saudi Arabia, the UAE, Jordan and others want to reestablish the lost balance in their ties with Syria. The Arab countries and Turkey, which host millions of Syrian refugees, want to send them back. For that, they need to cooperate with and help sanctions-hit Syria, which was battered by a devastating earthquake in February, sustain itself economically. The changing geopolitical environment in West Asia in which rivals Saudi Arabia and Iran are warming up to each other has also helped the Arab rapprochement with Syria. As a token gesture, Syria has agreed to take back 1,000 refugees from Jordan and cooperate with neighbours to crack down on drug smuggling. But this is only the beginning. Mr. Assad might have won the civil war, but the wounds of the war, in which his regime used brutal methods to crush the opposition, are still festering. The country's infrastructure needs massive investments, the economy needs a reboot and the millions of stranded Syrians have to be allowed to return. The Arab countries could help Syria rebuild itself, while also pushing Mr. Assad to reach out to the opposition to find a permanent solution to the country's religious and political cleavages.

## CHINA, CANADA ACT AGAINST EACH OTHER'S DIPLOMATS: WHAT IS PERSONA NON GRATA?

A day after Canada announced it would expel a Chinese diplomat over allegations of involvement in a campaign to intimidate a Canadian politician, China on Tuesday (May 9) declared a Canadian diplomat in Shanghai as persona non grata.

### What is persona non grata?

Persona non grata is a Latin phrase which means "unwelcome person." In diplomacy, it refers to a diplomat or foreign person whose entering or remaining in a certain country has been prohibited by that country.

As per a DW report, the designation received diplomatic meaning at the 1961 Vienna Convention for Diplomatic Relations. Article 9 of the treaty mentions that a country can declare any member of a diplomatic staff persona non grata "at any time and without having to explain its decision."

3<sup>RD</sup> FLOOR AND 4<sup>TH</sup> FLOOR SHATABDI TOWER, SAKCHI, JAMSHEDPUR



Soon after the declaration, the person concerned usually returns to their home nation. In case they fail to do so within a reasonable period, the country “may refuse to recognise the person concerned as a member of the mission.” The article also says that a person can be declared persona non grata even before arriving in a country.

#### **When is it used?**

There aren’t any fixed rules regarding when a country can declare a foreign person persona non grata as it doesn’t need to give an explanation according to Article 9 of the Vienna Convention.

Historically speaking, countries have used it to express their discontent with the actions of other nations. During the Cold War, it became a “tit-for-tat” sanction as both the US and the Soviet Union liberally declared each other’s diplomats persona non grata.

When it comes to India, the country labelled a Pakistan High Commission staffer persona non-grata for espionage activities in 2016 after he was arrested by Delhi Police with documents relating to defence deployment.

Notably, the imposition of persona non grata designation isn’t just limited to diplomats. The DW report noted that Hollywood actor Brad Pitt was declared persona non grata by China after starring in the 1997 film “Seven Years in Tibet,” though the ban was lifted in 2014. Donald Trump, much before becoming US President, was also labelled as persona non grata by Panama City’s Municipal Council after he said that America was “stupid” to “give away the Panama Canal for nothing.”

### **SRI LANKA’S SC CLEARS PATH TO LEGALISE HOMOSEXUALITY**

“The Supreme Court is of the opinion that the Bill as a whole or as any provision thereof is not inconsistent with the Constitution,” Parliamentary Speaker Mahinda Yapa Abeywardena announced on Tuesday morning.

The determination pertains to a recent case challenging a ruling party legislator’s Private Member’s Bill that seeks to amend Sri Lanka’s penal code, and decriminalise homosexuality. The Bill, gazetted in March, effectively states that sexual orientation of a person shall no longer be a punishable offence, and any sexual conduct between two consenting adults of the same sex, in public or private, shall no longer be an offence.

Three persons, all Rajapaksa loyalists, challenged the Bill that brought some promise to Sri Lanka’s queer community who have been fighting for equality for decades. However, their petition was swiftly countered by nearly a dozen others — LGBTQIA+ activists and allies — who intervened in the matter with compelling arguments in support of amending Sri Lanka’s century-old, colonial era laws on same-sex relationships.

#### **Reference to 377**

In its ruling, Sri Lanka’s apex court cited the landmark Navtej Singh Johar v. Union of India case in India, in which all consensual sex among adults, including those in same-sex relationships, was decriminalised as the Court historically struck down Section 377. The Sri Lankan Supreme Court drew attention to the 2018 judgment of Chief Justice of India D.Y. Chandrachud, then a Supreme Court Judge, that said: “Gays and lesbians, transgenders and bisexuals continue to be denied a truly equal citizenship seven decades after Independence. The law has imposed upon them a



morality which is an anachronism. Their entitlement should be as equal participants in a society governed by the morality of the Constitution.”

Activists see the Sri Lankan Supreme Court’s determination as a significant step in the queer community’s decades-long struggle for equal rights, while pointing to the next big test in Parliament.

## DESCENT INTO CHAOS

The Pakistan Supreme Court’s order to release former Prime Minister Imran Khan after calling his arrest “unlawful” is a blow to the government of Prime Minister Shehbaz Sharif and the military establishment that backs it. Mr. Khan was arrested on Tuesday from the Islamabad High Court, where he had appeared to seek bail in multiple corruption cases, by the paramilitary Rangers, on an order from the National Accountability Bureau, the anti-corruption watchdog. The arrest came a day after the military had warned him against making “baseless allegations” — that a senior military figure was involved in an attempt on his life in November 2022. Ever since he was ousted from power in April 2022, Mr. Khan has campaigned against the 13-party coalition government led by Mr. Sharif. He has demanded early parliamentary elections, due for October, organised massive rallies, and won back-to-back by-elections, proving his rising popularity. On the other side, the coalition government’s approval rating has tanked amid mounting economic woes, but Mr. Sharif has refused to give in to Mr. Khan’s demands.

The former cricketer-turned-politician, who came to power in 2018, had enjoyed warm links with the military for over three years. While in power, he hounded the then opposition politicians (now in government) and, according to his own words, the military had helped him stay in power amid political challenges. But after they fell out over key military appointments, Mr. Khan turned against the generals. The new government slapped case after case on him, deepening the political rift. The military, which has staged coups and ruled for more than half of Pakistan’s existence, retains its influence. One of the reasons is that Pakistan’s ruling parties typically work with the generals to neutralise their political opponents. The coalition government made the same mistake. The allegations against Mr. Khan should be probed but the way he was arrested, using the paramilitary forces, and the nationwide crackdown on his supporters that followed raised more questions, prompting the Supreme Court to wade in and order Mr. Khan’s release. This crisis is unfolding at a time when Pakistan is undergoing one of its worst economic crises. Its foreign reserves are depleting, inflation hit a record 35% in April, the highest in South Asia, and the Pakistani rupee keeps falling. The country has also witnessed a rise in terror attacks by the Tehreek-i-Taliban Pakistan (TTP), which has been emboldened by the Taliban’s return to power in neighbouring Afghanistan. The immediate priority for Pakistan’s leaders should have been to address these critical challenges but they are busy fighting each other instead, further weakening the country’s institutions and leaving its unelected power centres stronger.





## NATION

### EXPRESS VIEW: STRATEGIC CONVERGENCE BETWEEN INDIA AND US IS GROWING

Prime Minister Narendra Modi's state visit to Washington next month is about celebrating the transformation of bilateral relations under the NDA government as well as setting a more ambitious agenda for the future. The Modi years have seen the emergence of the United States as the most important and comprehensive strategic partner of India.

The US is India's largest trading partner, with commerce worth \$190 billion flowing between the two nations. While trade with China is significant, Delhi's deficit with Beijing has crossed \$100 billion, while India continues to enjoy a surplus with the US. And unlike Beijing, Washington is on India's side when it comes to territorial integrity and terrorism.

While China blocks India's regional and global aspirations, the US actively supports Delhi's major power ambitions. Russia dominates the Indian military inventory, but the US has become an important supplier of weapons.

The US is offering to modernise India's defence production and transfer advanced civilian and military technologies. The five million-strong Indian diaspora in the US and its continuing rise in the US business and political spheres makes Delhi's relationship with Washington unique.

This extraordinary transformation of bilateral relations was not anticipated by students of Indian foreign policy. In fact, scepticism has been the dominant feature of the Indian foreign policy discourse on the US, while sentimentalism envelops the discussion on Russia and romanticism on China. Although US-India relations have been on an upward trajectory since the end of the Cold War, there was much ambivalence in Delhi in successive governments since the 1990s about the kind of relationship India should have with the US.

This ambivalence came sharply to the fore in the UPA years, when Washington made big moves — including the civil nuclear initiative — to transform the relationship but Delhi clung on to its suspicions and sought to reinvent the idea of non-alignment.

It fell upon Modi to discard India's "historic hesitations" in engaging the US over the last decade. Modi also found common ground with the US in the Indo-Pacific and Middle East. India participates in such coalitions as the Quadrilateral Forum with US, Japan and Australia in the east and with Washington, Tel Aviv, Abu Dhabi and Riyadh to the west of the Subcontinent.

As the White House announcement this week on Modi's state visit makes clear, there is an even more ambitious agenda awaiting the Indian PM in Washington — ranging from defence to clean energy and from outer space to health security. Modi's strategic embrace of the US, however, stands in contrast to the anti-Americanism within the BJP's support base.

Bristling at the liberal American criticism of India's democratic backsliding under Modi, the Hindutva forces are ready to pull out the xenophobic anti-Western tropes that were once the staple of the Indian left.

The fact is that the Biden administration has chosen to bite its tongue on India's new internal dynamic rather than undermine the strategic partnership with India, but it can't stop its media and civil society from pointing to the troubling signs of Indian democracy.



The PM's impending visit to the US should encourage the BJP and its supporters to reflect on why India has lost much goodwill in the US even as the strategic convergence between Delhi and Washington continues to grow.

#### EXPRESS VIEW: A NORTH-SOUTH ASIA CORRIDOR IS A STEP IN THE RIGHT DIRECTION

The meeting between India's National Security Advisor Ajit Doval, with his US, Saudi Arabia and UAE counterparts on Sunday is significant for at least two reasons. First, it marks a deepening of India's outreach towards West Asia, strengthening the initiative taken with the I2U2 grouping consisting of India, Israel, the US and the UAE since October 2021. This is of particular significance since a series of recent events — from the hasty and poorly-executed US withdrawal from Afghanistan and the return of the Taliban, to China apparently brokering peace between Iran and Saudi Arabia earlier this year — have given the impression of a diminishing American role and rising Beijing-Moscow presence in the region. Second, the meeting signals a broader, integrated approach to India's West — similar, perhaps, to the Indo-Pacific — along with the US and regional partners.

The meeting in Saudi Arabia was held to discuss a proposal to link countries in West Asia through rail networks and roads, as well as build corridors between the region and South Asia through sea lanes. This ambitious endeavour is clearly a response to China's Belt and Road initiative, which has been used by Beijing to increase its footprint across Asia. Fears of China's "debt trap" and the recent easing of tensions between West Asian rivals make the infrastructure project seem desirable and viable. Indian expertise in railways — demonstrated recently in Sri Lanka — could be put to good use while also helping confirm the country's reputation as an executor of major projects. Direct corridors between West Asia and the Subcontinent will ensure a more steady and reliable supply of crude oil, and so, shore up the country's energy security. A deeper, direct presence of Indian companies and government can brighten the prospects for millions of Indian workers in the region.

Thus far, Delhi has focused on its east and the maritime domain to counter an increasingly belligerent China, and it has done so while maintaining its strategic autonomy. The Malabar exercise and the Quad, for instance, have not limited India's diplomatic options while deepening its partnerships with the US, Japan and Australia. The I2U2 and Sunday's meeting could mark a similar approach in West Asia. The current moment is opportune because it is now possible to de-hyphenate outreach in the region: The Abraham Accords of 2020 functionally normalised ties between Israel and the UAE and Bahrain; earlier this year, there was a restoration of ties between Saudi Arabia and Iran. It is, of course, early days and much will need to be done to make the projects a reality. Land connectivity with West Asia remains a challenge for Delhi, given the chill in relations with Pakistan. Delhi's balancing act between Russia and China, and Russia and the West will continue to be tested as it engages in projects with diverse partners. Even as it navigates these hurdles, Delhi's "Look West" is an important milestone.

#### EXPRESS VIEW: SCO, G20 PRESIDENCIES OFFER DELHI THE OPPORTUNITY TO DEMONSTRATE ITS STATURE AT A TIME OF GLOBAL TURBULENCE

The Council of Foreign Ministers' of the Shanghai Co-operation Organisation (SCO) at Goa was overshadowed by an India-Pakistan slanging match. This is unfortunate. China dominates the SCO, and Pakistan is a member too. India has good relations with neither, but the SCO gives Delhi a place at the table in Eurasia, from where it can not only watch over its interests in Central Asia



and be part of regional conversations on Afghanistan but also engage with adversaries. External Affairs Minister S Jaishankar's meeting with his Chinese counterpart Qin Gang on the sidelines of the SCO showed that such conversations are possible even with a neighbour that has made incursions into Indian territory in Eastern Ladakh, covets Arunachal Pradesh, and by Delhi's own reckoning has destabilised the Line of Actual Control to the point where the relationship is now fragile.

If Delhi can engage such an adversary with civility, it should be able to do so with Pakistan as well. Of course, it did not help that Pakistan's foreign minister Bilawal Bhutto Zardari treated his first visit to India for grandstanding on Kashmir. He made it plain before arrival that he was going to Goa to keep Pakistan's tryst with the "Shanghai spirit" and not to seek reconciliation with India. At the meeting, that took place on a day that five more soldiers were killed in a second episode with terrorists in two weeks in the Rajouri-Poonch border area in Jammu, his homily — "let's not get caught up in weaponising terrorism for diplomatic point-scoring" and "root causes" — was asking to be called out. Jaishankar's response reiterated the political message that Delhi has nothing to talk to Pakistan on Kashmir except the return of parts of the erstwhile state that are under Pakistani occupation. This hawkishness is likely to continue for the foreseeable future.

India-Pakistan ties are hostage to domestic politics more than ever before, which is why a backchannel springs up every now and then. Realisation is dawning on Pakistan that eating grass is overstated. From India's point of view, talking to Pakistan will become an unavoidable requirement of its big power aspiration. Moreover, Delhi can Pakistan-proof its international diplomacy only up to the point where it cannot stop engaging with China, which, as the second biggest economy, is as influential at the G20 as it is in the SCO, or indeed BRICS. India, in the chair of the rotating presidency of the eight member group, is to host the SCO summit in July. Hopefully, the spat will not impact the attendance at that meeting, or take the shine off the G20 summit two months later. The coincidence of the double presidency — of an expanding regional group and an international prestige club with some overlapping membership but different power centres — is an opportunity for Delhi to demonstrate it has the goodwill and clout cutting across geopolitical fault lines to convene high profile international gatherings at a time of global turbulence. It is in India's interests not to let its conflict with Pakistan become a centrepiece of these events.

#### EXPRESS VIEW: INDIA'S CALCULATED RISK OF NUCLEAR WEAPONS PAID OFF

Between May 18, 1974, and May 11, 1998, one of the worst-kept secrets in the global strategic community was India's nuclear capability. Despite conducting a nuclear explosion test, the establishment in New Delhi was encumbered by the moral dilemma of becoming a nuclear power. Since its independence, India had been a champion of non-proliferation in the international community and there was concern about its declaration of nuclear weapon prowess. There were also apprehensions about how India would weather the international reaction, including economic sanctions, and that the ensuing arms race with Pakistan could help the latter level the playing field. Exactly 25 years ago, at Pokhran, that trepidation was overcome. And it is now clear that the Atal Bihari Vajpayee government's calculated risk paid off.

In the aftermath of the tests on May 11 and 13, the US-led economic sanctions did not have the disastrous effects they once could have — post-liberalisation, the Indian economy had grown enough to hold its own. On the strategic front, the civil nuclear deal — pushed by George Bush Jr and Manmohan Singh — ensured that India became a de facto nuclear power. Since that time, the two countries have drawn closer. Pakistan, on the other hand, was increasingly seen as an unreliable nuclear state, and there was real concern that extremist groups could gain access to its



nuclear weapons. The aftermath of Pokhran II also led to a rethink of India's external orientation: With China blocking India's entry into the Nuclear Suppliers Group, the notion that double standards regarding non-proliferation were merely a conceit of the US and the West was undermined. India's becoming a nuclear power also had effects vis a vis its hostile neighbours. With respect to China, it has helped balance the military asymmetry by ensuring a credible deterrent. Soon after the n-tests, India beat back Pakistan at Kargil — the US, for the first time, did not lean towards Pakistan in a conflict with India. More recently, strikes against Pakistan in the aftermath of the Uri and Pulwama attacks showed that Rawalpindi's nuclear capability does not give it a free pass.

For many critics at the time, Pokhran II represented a departure from India's stated commitment to peace. It is clear now that Delhi's nuclear arsenal is a means for credible minimum deterrence — its "no first use" policy is a part of that promise. Complete nuclear disarmament should be a global goal. However, given the realities of the post-atomic age, that is unlikely any time soon. Meanwhile, India today is a responsible nuclear power and in its journey, May 11, 1998, is a major milestone.

## THE SC RULING ON SENA VS. SENA

### The story so far:

In a unanimous judgment, the Supreme Court on Thursday held that then Maharashtra Governor Bhagat Singh Koshiyari's call for a trust vote, which led to the resignation of the Uddhav Thackeray-led Maha Vikas Aghadi government last June, was illegal. It said that Mr. Koshiyari was "not justified" in calling Chief Minister Uddhav Thackeray to prove his majority on the floor of the House. But the Court also said that it could not reinstate Mr. Thackeray as Chief Minister because he had resigned instead of facing the trust vote.

### How did the case land in the SC?

Last year, the Uddhav Thackeray-led MVA government was toppled and replaced by another government, comprising a faction of the Shiv Sena, which claimed to be the "real" Sena, the Bharatiya Janata Party and several Independent MLAs. The leader of the breakaway Sena faction, Eknath Shinde, became Chief Minister.

The first petition was filed by Mr. Shinde last June after notices were issued by then Deputy Speaker of the Maharashtra Assembly, Narhari Zirwal, against 40 rebel MLAs under the 10th Schedule of the Constitution which deals with disqualification on the grounds of defection. Thereafter, petitions were filed by the Thackeray group challenging the then Maharashtra Governor's decision to call for a trust vote and the swearing-in of Mr. Shinde as Chief Minister. The election of the new Speaker, Rahul Narwekar, was also challenged. A Constitution Bench of Chief Justice of India D.Y. Chandrachud, Justices M.R. Shah, Krishna Murari, P.S. Narasimha and Hima Kohli had reserved its judgment on March 16. On May 11, based on the five petitions and arguments made by both parties, the Court gave its ruling on questions of law that arose in this case in a 141-page judgment.

### Can the Supreme Court decide a disqualification petition?

The Speaker is the authority to adjudicate petitions for disqualification under the 10th Schedule. The petitioners wanted the Court to give its decision on the issue of disqualification of Mr. Shinde and his supporters. However, the Court said it "cannot ordinarily adjudicate petitions for



disqualification under the 10th Schedule. There are no extraordinary circumstances in the instant case that warrant the exercise of jurisdiction by this Court to adjudicate disqualification petitions. The Speaker must decide disqualification petitions within a reasonable period.”

The Court said an MLA has the right to participate in the proceedings of the House “regardless of the pendency of any petitions for their disqualification. The validity of the proceedings of the House in the interregnum (the period between a regime change) is not ‘subject to’ the outcome of the disqualification petitions.”

#### **Was the floor test justified?**

The Court noted that the Governor was not justified in calling upon Mr. Thackeray to prove his majority on the floor of the House “because he did not have reasons based on objective material before him, to reach the conclusion that Mr. Thackeray had lost the confidence of the House.” But the Court also said that “status quo ante cannot be restored” because Mr. Thackeray did not face the floor test and resigned from the post. The Governor, it said, was justified in inviting Mr. Shinde to form the government.

#### **What is the Court’s ruling on the role of the political party in relation to the legislature party?**

Questions arose on whose whip is binding, if the whip appointed by the political party and the one acting on behalf of the legislature party (the Shinde group in this case) give different instructions to members. The Shinde faction argued that it is the legislature party that appoints the whip. The Court disagreed: “To hold that it is the legislature party which appoints the Whip would be to sever the figurative umbilical cord which connects a member of the House to the political party. It would mean that legislators could rely on the political party for the purpose of setting them up for election, that their campaign would be based on the strengths (and weaknesses) of the political party and its promises and policies, that they could appeal to the voters on the basis of their affiliation with the party, but that they can later disconnect themselves entirely from that very party and be able to function as a group of MLAs which no longer owes even a hint of allegiance to the political party.”

The Court ruled that direction to vote in a particular manner or abstain is issued by the political party, and not the legislature party.

Both the Whip and the Leader of the party in the House should be appointed only by the political party. Accordingly, it said the Speaker’s action approving Mr. Shinde’s appointment as Shiv Sena leader in the House was contrary to law. “The Speaker shall recognise the Whip and the Leader who are duly authorised by the Shiv Sena political party with reference to the provisions of the party constitution, after conducting an enquiry in this regard and in keeping with the principles discussed in this judgment,” the judgment read.

**FAIZAN MUSTAFA WRITES: SUPREME COURT’S DELHI VERDICT CARRIES PROMISE OF A CONSTITUTIONAL RENAISSANCE**

Thomas Jefferson once said that a “just government should derive its powers from the consent of the governed”. The Supreme Court judgment on the issue of who controls the bureaucracy in Delhi is a reiteration of this ideal of representative and accountable governance. True, the central government too is a representative government with a massive mandate. It derives powers from the consent of the people. But this consent is to govern the country, not Delhi. Delhi’s elected



representatives have a more legitimate constitutional right and the explicit consent of the people of Delhi to govern them.

Post the Emergency, the Supreme Court was suffering from a crisis of legitimacy due to its pro-government judgments. To regain the people's confidence in subsequent years, the SC, through Public Interest Litigations, tried to course correct. In recent times, similar apprehensions were raised again. But with the new CJI assuming office in November 2022, a visible change seems to have taken place. The Court has criticised the sealed cover process and looks far more committed to the supremacy of the Constitution and civil liberties.

In fact, the Delhi judgment may contribute to ushering in a “constitutional renaissance”. Terming the verdict as a mere setback to the central government would negate this renaissance. The Delhi judgment — and to a great extent even the Shiv Sena verdict — would certainly restore people's confidence in the judiciary.

The very first line of the judgment, authored by the CJI, indicates that, in the final analysis, it deals with the asymmetric federal model of governance.

The bench in the Delhi judgment clearly opposed the Centre's control over services. Since CJI Chandrachud was also on the 2018 Constitution Bench led by the then CJI Justice Dipak Misra, any major deviation from the fundamental principles of that judgment was not on the cards. Accordingly, the judgment has extensive quotes from the 2018 decision. Of course, the CJI deserves appreciation for delivering a unanimous verdict in such a contentious matter.

Justice Misra favoured the purposive interpretation of the Constitution as the Court was concerned with the sustenance of what he had called the “glory of constitutional democracy” — that the constitutional promise of representative democracy to the citizens is fulfilled. He had said people or collectives, who are the real sovereigns, speak through their elected representatives.

Unfortunately, on the issue of “services”, a two-judge bench could not come to unanimity. Justice Ashok Bhushan said that services in Delhi would be under the control of the Centre. Justice A K Sikri did not agree with him and the matter first went to a three-judge bench and finally, to this Constitution Bench. In the latest pronouncement, the Constitution Bench has overruled the opinion of Justice Bhushan and given a landmark verdict in favour of federalism and representative government. Everyone expected that the CJI's court would give a pragmatic interpretation of Article 239AA to further the spirit of the Constitution, the rule of law and participatory democracy. He had reiterated that the Court cannot take a blinkered view, ignoring the legislative and constitutional history of this provision.

The judgment has upheld the “spirit of the Constitution”, which favours decisions by the elected representatives by yet again emphasising that the Delhi model is sui generis. The Court has observed that in the three identified matters, Delhi — as a Union Territory (UT) — shall be governed by the Centre. This scheme of distribution of powers cannot be disturbed to give a greater say to the central government. The Court categorically held that all UTs cannot be treated in the same way. UTs with a legislative assembly of their own are akin to states and their government's executive powers would extend to all matters on which their legislative assemblies can make laws.

Thus, there is no homogenous class of UTs. Justice Chandrachud in explicit terms negated the theory of an identical relationship between the Centre and all UTs. The CJI has observed that “the design of our Constitution is such that it accommodates the interests of different regions. While



providing a larger constitutional umbrella to different states and UTs... It preserves the local aspirations of different regions". He went on to observe that the "unity within diversity" is not only used in common parlance but is also embedded in our constitutional structure. Accordingly, constitutional interpretations must give substantive weight to this underlying principle.

Giving a new impetus to pluralism, Justice Chandrachud said that federalism in a multi-cultural, multi-religious, multi-ethnic and multi-linguistic country like India ensures the representation of diverse interests. In a veiled reference to the proponents of over-centralisation who believe that "one nation, one government" will make India strong, Justice Chandrachud observed that "recognising regional aspirations strengthens the unity of the country and embodies the spirit of democracy".

He also cited the example of several states that have been given special autonomy under Article 371 to justify asymmetric federalism with the accommodation of differences and specific requirements. How much will the Court rely on this accommodation or autonomy principle while examining the constitutionality of the near abrogation of Article 370 in respect of the erstwhile state of Jammu & Kashmir, particularly on the issue of division of the state into two UTs, remains to be seen.

The Court has rejected the argument that the Constitution is federal but has strong unitary features in respect of UTs. It quoted B R Ambedkar, who said in the Constituent Assembly the dual polity of the proposed Constitution will consist of a Union and states, each endowed with sovereign powers to be exercised in their respective allotted arenas. Ambedkar clarified that the Indian Constitution is neither a league of states nor are the state administrative units or agencies of the government. He also said that the "Centre and states under the Constitution are co-equals". Accordingly, the Tamil Nadu Chief Minister insists that the central government should be addressed as a Union of States. Relying on Ambedkar and the SR Bommai judgment (1994), Justice Chandrachud has concluded that the states are not subservient to the Union or its mere appendages.

Delhi must be governed by its elected representatives. In two different electoral processes, "we, the people" express our will. Unless the services in Delhi are brought under the control of Delhi's elected government, the welfare of the people cannot be assured and the triple chain of accountability cannot be maintained. Let Delhi's elected representatives now demonstrate austerity, honesty and the constitutional values that would contribute to the much-needed constitutional renaissance. They must remain consistent on federalism and support other regional autonomy battles.

#### ASYMMETRY, POWER

Asymmetric federalism has been a positive feature of India's polity, but even the most pragmatic arrangement may not always guarantee harmonious relations between the Centre and its constituent units. The wrangling between the Union government and the Government of the National Capital Territory of Delhi (GNCTD) has been an endless saga for years, and the Supreme Court has repeatedly sought to lay down the terms of their relationship in the way the territory is governed. In the latest verdict, a Constitution Bench has ruled that the elected government does indeed have control over administrative services. However, it is limited to services related to the extent of its current executive and legislative powers, which extend to all subjects under the State and Concurrent Lists, except for the three excluded ones — public order, police and land. The Centre's argument, that in the absence of a Public Services Commission for Delhi and in view of



the phrase “insofar as such matter is applicable to Union Territories” the subject of ‘services’ will not fall under the Delhi government’s remit, was rejected. The Court’s unanimous verdict rejects the attempt to read the phrase as one that imposes an additional limitation on its legislative and executive powers. The Court has emphasised the sui generis nature of Delhi, so that its Union Territory status is not used to limit the role of the elected government. The five-judge Bench ruling again underlines the principle that a representative regime should not be undermined by an unelected administrator.

Delhi Chief Minister Arvind Kejriwal, who has been embroiled in a prolonged tussle with the Lieutenant Governor over several issues, will be elated with the Court’s ruling that “the involvement of the Union of India in the administration of NCTD is limited by constitutional provisions, and any further expansion would be contrary to the constitutional scheme of governance”. However, even yet another Constitution Bench verdict underscoring the representative character of the GNCTD may not be enough to end the underlying power struggle in Delhi, as long as the Centre continues with its efforts to clip the powers of the government because of its antagonism towards the Aam Aadmi Party. It is five years since the Court observed that constitutional trust between high functionaries is needed to resolve matters, but there is no sign of the conflict abating. In practical terms, the provisions of the GNCTD (Amendment) Act, 2021, which sought to strengthen the hand of the Lt. Governor in running Delhi, may continue to be a source of conflict. The validity of its provisions is also under challenge before the Supreme Court, an indication that the legal tussle is hardly over.

#### SC STATUS FOR DALIT CONVERTS: FORMER CJI SAYS INQUIRY COMMISSION CAN FINISH TASK IN A YEAR

Former Chief Justice K.G. Balakrishnan, who heads the Inquiry Commission into whether Dalit converts to religions other than Sikhism or Buddhism should get Scheduled Caste status, on Sunday said his panel could deliver its report in a year, and that too before the election year of 2024.

At the same time, the retired judge said the Inquiry Commission had not yet been provided with “all the facilities”.

The commission has been given two years to complete its task.

The former Chief Justice’s confidence in finishing the assigned task in a year may be significant in a debate that rages in the Supreme Court on whether it should wait for the Justice Balakrishnan Commission report to come out before deciding a series of petitions seeking Scheduled Caste status for Dalit converts to Christianity.

These petitions have been pending in the court for 19 years. The government has asked the Supreme Court to stall till the Justice Balakrishnan Commission report is out. However, the court sounded sceptical in the last hearing on April 12.

“You may have one commission today and another tomorrow. Different political dispensations may come and bring different political ideologies to the issue. Twenty years have gone by. So much material has been collected through the years. Now, you constitute a new Commission. Tomorrow, this commission may also end up with the same scenario,” Justice Sanjay Kishan Kaul had told the government.





“Let us hear this case which has been pending for 19 years. Why shy away?” Justice Ahsanuddin Amanullah, the other judge on the Bench, had observed.

He had disagreed with the government’s assessment that the 2007 report of the Justice Ranganath Misra Commission for Religious and Linguistic Minorities was “flawed”. “Are you sure? You probably need to re-check. It is not that perfunctory. You are making a generalised statement on this report,” he had said in court.

The 2007 report had recommended that Dalits who converted to Islam and Christianity to escape caste oppression in the Hindu religion should be permitted to avail SC reservation benefits in government jobs and educational institutions. The government had argued that the Ranganath Misra report was “myopic” and composed within the “four walls of a room”.

The petitioners’ lawyers, including senior advocates C.U. Singh and Colin Gonsalves and advocates Prashant Bhushan, Franklin Caesar Thomas, had urged the court to not wait for the Justice Balakrishnan report. They said the Ranganath Mishra Commission had provided enough “authoritative empirical data”.

### CASTE SURVEY SETBACK: IS NITISH KUMAR JUMPING THE GUN ON BIG-TICKET LEGISLATION?

The Patna High Court’s stay on the Bihar government’s ongoing caste-based survey on Thursday is another legal setback for the Nitish Kumar-led government, with sources talking of lack of adequate preparation while drafting major decisions.

Over the last eight years, it has repeatedly stumbled before the courts on big-ticket legislation — whether the drafting of its trademark prohibition law, or its attempt to quantify the backwardness of OBCs for civic body polls without setting up a commission to collect the data.

This is the fourth time since 2016 when the Bihar government has received flak from either the Patna High Court or the Supreme Court, for legal lapses and administrative loopholes in its key legislative and administrative decisions. After the High Court put an interim stay on the Nitish government’s caste-based survey, days before it was due for completion on May 15, the Chief Minister said he was surprised at the “criticism”.

The HC asked the state government to explain how the process was not a “census” — which is the exclusive domain of Parliament — under the “garb of a survey”; if it did not infringe upon norms of privacy and data security; and if there was legal sanction for the Rs 500 crore fund disbursed for the survey so far. Former minister and Advocate General P K Shahi failed to convince the HC on the questions posed by the six petitioners who had challenged the survey, who described it as a political tool ahead of the 2024 Lok Sabha elections

The HC asked the state government to file a counter-affidavit on all the questions raised by the next date of hearing, July 3.

Last year, the Supreme Court directed the state government to set up a dedicated commission to collect quantifiable data on the backwardness of OBCs ahead of the civic polls, before allotting them quota in the seats.

Following the Supreme Court order, the state government notified an OBC/EBC Commission.



However, on this count, Bihar is not alone. Since the Supreme Court in 2021 set a ‘triple test’ criteria for tabulating OBCs, courts have set aside OBC reservations in local bodies on similar grounds in Karnataka, Maharashtra, Odisha and Madhya Pradesh.

The state government’s multiple scaledowns on the Bihar Prohibition and Excise Act, 2016, are another case study on poor drafting of a major law. In December 2021, then Chief Justice of India N V Ramanna had criticised the state for “lack of administrative foresight” in drafting its liquor law which, it said, had resulted in clogging of cases in court. The state government has, so far, amended the law thrice.

There was another scaledown recently, when Nitish took back his December 2022 announcement in the Assembly of not sanctioning Rs 4 lakh as compensation to the next of kin of those who die from consuming spurious liquor. The government recently now announced compensation for such victims.

The state government has also been receiving flak for not reverting the EBC Lohar caste to its previous caste location. The Lohars had boycotted the recent caste survey exercise, saying they cannot be categorised as a sub-caste of Kamar (carpenter) or under the ST categories of Lohar, Lohra or Lohara. In February 2020, the Supreme Court struck down the state government’s decision to put EBC Lohar under the SC category.

Another recent state government decision — tweaking the Bihar Prison Manual, 2012, to give waiver to former MP Anand Mohan Singh, allowing his release from jail on April 27 in the 1994 G Krishnaiah lynching case — has been challenged in the Patna High Court as well as the Supreme Court. While the state government’s plea is that it has given remission to 698 convicts in the last seven years, it might be hard to explain the decision to “tweak” the jail manuals, which facilitated Mohan’s release.

Speaking to The Indian Express, a JD(U) leader conceded: “It is true that we have faced legal setbacks recently. We have to take sound legal opinions and also make major course corrections in our caste survey format, if we want the survey to be declared legal by the courts.”

## SUSPENDED AFTER TAJPURIYA MURDER: WHY TAMIL NADU COPS WERE DEPLOYED AT TIHAR JAIL

After gangster Sunil Balyan alias Tillu Tajpuriya was killed by inmates inside New Delhi’s Tihar Jail last week, the role of officers of the Tamil Nadu Special Force, deployed at the prison, has come under the scanner. CCTV footage purportedly shows that when Tajpuriya was being stabbed, the police personnel did not act in time.

The Director General of Prisons in Delhi wrote to the Director General of Tamil Nadu Special Force regarding the incident, after which the force on Sunday suspended seven officers and called them back to the state.

At present, there are over 1,000 officers from the Tamil Nadu Special Force guarding the inmates in Tihar Jail. They are deployed at all wards in the jail premises and also on the periphery, including on the watch towers.

**Why is Asia’s biggest jail guarded by officers from a state over 2,400 kilometres away?**

The answer lies in a 1976 jail break that was a big embarrassment to the Delhi establishment.



Thirteen inmates, who had been awarded the life sentence by courts, managed to dig a tunnel under the boundary wall of the jail complex and escape to freedom in March 1976.

“When records were checked, it came to the fore that all the convicts were from Haryana. At the time, most of the jail staff and the superintendent were also from the same state. Questions about the complicity of the officers in the escape were raised,” said Sunil Gupta, who was the law officer and spokesperson for Tihar between 1981 and 2016.

He said that a need to create a distance between the inmates and the guards was then felt.

“Because most of the prisoners in Tihar were from Delhi and states such as Haryana, Uttar Pradesh and Rajasthan, it was decided that a request would be made to the Centre to intervene and provide staff from another state, especially a state where Hindi and its dialects were not spoken commonly,” said a former Tihar jail official who did not want to be named.

Police personnel from other states are often roped in to conduct elections too, for similar reasons. For instance, for the upcoming Karnataka polls, a PIB press release says that “based on the assessment of the ground situation, Central Armed Police Forces (CAPFs) and State Armed Police (SAP) drawn from other States will be deployed during the election.”

#### **Why was Tamil Nadu the state chosen for Tihar?**

Gupta said Delhi had no hand in this decision. “Authorities wrote to the Centre explaining the issue and requesting that a force from a different state be provided. Factors such as availability of forces, discipline and performance are likely to have been kept in mind while taking the final decision,” he said.

The first batch of officers from the Tamil Nadu Special Force joined Tihar in the early 1980s.

The Tamil Nadu Special Force, however, is not the only security agency deployed at Tihar. The Central Reserve Police Force (CRFP) and jail staff are also deployed.

Sources said that officers are routinely shifted from one jail to another — Tihar, Rohini and Mandoli — and many serve in Delhi jails for around two years.

However, in recent years, questions of collusion have still been raised at Tihar. Cases of corruption and violence have emerged, such as the murder of gangster Prince Tewatia in April and bribery allegations in the case of conman Sukesh Chandrasekhar.

### **ETHNIC TIES, FAMILY BONDS: WHY MIZORAM IS CONCERNED ABOUT MANIPUR VIOLENCE**

Last week, as the initial reports of the unrest in Manipur emerged, its neighbour Mizoram was the first to express “deep concern” on the matter — from Chief Minister Zoramthanga to Rajya Sabha MP Vanlalvena, the Mizoram government has been sending missives to the Centre asking for urgent intervention.

#### **The Manipur unrest**

The clashes in Manipur — primarily involving the numerically dominant Meitei community and the minority Kuki tribe — have left over 60 dead, hundreds injured and thousands displaced in the last few days.



A “tribal solidarity march” on May 3 — to protest against the inclusion of the Meiteis in the Scheduled Tribe (ST) category — was just the immediate trigger. For months now, the Biren Singh-led BJP government’s actions — from the crackdown on poppy plantations and eviction drives, to frequent allegations that the Kukis of Churachandpur were sheltering “foreigners” from Myanmar — have led to simmering tensions in the state’s southern hill districts, which border Myanmar.

The 2021 coup across the border, where the Myanmar Army took control of the country, was an inflection point of sorts: it led to thousands fleeing to Manipur and Mizoram, seeking shelter. While Mizoram welcomed the refugees, the Manipur government said it would go by the Centre’s directives to seal borders and turn away shelter-seekers.

### **Mizoram’s stand**

Late Wednesday night, as the first reports of the “solidarity march” called by tribal organisations turning violent emerged, Mizoram Chief Minister Zoramthanga tweeted how he was “deeply pained” by the happenings.

### **The ethnic bond**

At the heart of Mizoram’s strong political reaction is the deep ethnic bond the Mizos and Kukis share. The Chin-Kuki-Mizos are a conglomerate ethnic group collectively known as the ‘Zo’ people.

“Historically, culturally, socially, linguistically, they are all related,” said Professor Jangkhongam Doungel who teaches in the department of political science in Mizoram University.

According to him, these “ethnic tribes commonly traced their historical origin to a mythological cave known by different names by different tribes”. He explained, “They are known as Chin when they settle in Burmese plains and Chin became their official name in Burma. Those who moved down to Lushai Hills (Mizoram) and Chittagong Hill Tracts (Bangladesh) from Chin Hills were known as Kuki and Kuki became the official name in India.” He added, “The term ‘Mizo’ began to be used officially in Lushai Hills (present Mizoram) since 1946. After that, Mizo began to be used popularly in Mizoram.”

These ethnic bonds continue to endure across state and international boundaries, said Doungel, adding: “If your own brother and sisters are killed, would you not react? That is the reaction of Mizoram.”

Following the unrest, Mizoram is currently hosting nearly 3,000 people displaced during the violence in Manipur. A Mizo politician, speaking on the condition of anonymity, said “most of them were their relatives”. He blamed the BJP government in Manipur for allowing the situation to explode. “If they would have handled the refugee situation better, this would not have happened,” he alleged.

**HIGH COURT DOES NOT HAVE POWER TO DIRECT CHANGES TO SCHEDULED TRIBES LIST: CJI**

Even as the Manipur government and the Union government claimed that the State was returning to normalcy, Chief Justice of India D.Y. Chandrachud on Monday asked why a 23-year-old Constitution Bench judgment which clearly held that no court or State had the power to “add,



subtract or modify” the Scheduled Tribes List was not “shown” to the Manipur High Court in the first place.

Chief Justice Chandrachud orally said a High Court does not have the power to direct changes to the Scheduled Tribes List. “It is a Presidential power to designate a Scheduled Caste or Scheduled Tribe,” he observed.

“It is not open to State governments or courts or tribunals or any other authority to modify, amend or alter the list of Scheduled Tribes specified in the notification issued under clause (1) of Article 342,” the Constitution Bench in State of Maharashtra versus Milind had held in November 2000.

It had held that a notification issued under clause (1) of Article 342, specifying Scheduled Tribes, can be amended only by law to be made by Parliament.

The Constitution Bench had held that the Scheduled Tribes Order “had to be read as it is”.

“The Scheduled Tribes Order must be read as it is. It is not even permissible to say that a tribe, sub-tribe, part of or group of any tribe or tribal community is synonymous to the one mentioned in the Scheduled Tribes Order if they are not so specifically mentioned in it,” the Bench had drawn the line.

#### WHO ARE THE MEITEI, MANIPUR’S VALLEY-DWELLERS WITH AN OLD AND RICH HISTORY?

The Cheitharol Kumbaba, royal chronicles of Manipur that are the primary source of information on its early rulers, trace the origin of the Meitei kingdom of Kangleipak to 33 AD. The Meiteis are divided into seven Salai or clans — Mangang, Luwang, Khuman, Angom, Moirang Kha, Ngangba, and Sarang Leishangthem. An unbroken line of kings of the Ningthouja dynasty, belonging to the Mangang clan, ruled until 1955, and Pakhamba, the serpent king from whom the dynasty claimed descent, remains the presiding deity of Manipur and symbols of Pakhamba — a snake with its tail in its mouth — are seen all over the Imphal valley, in offices, homes, temples, restaurants, and the palace.

Imphal-based historians have contended that the Kangleipak lands extended beyond the Imphal valley — comprising the five present-day districts of Imphal East, Imphal West, Thoubal, Bishnupur, and Kakching — but the tribes of the hill districts have contended they were always independent entities.

#### Arrival of Hinduism

The Hindu religion first appeared in Manipur in the late 15th century. The Maharaja of Manipur was gifted an idol of Vishnu on Garuda, which he installed in a temple in Bishnupur. The idol no longer exists, but the name it gave the district persists.

Author and former IAS officer Dr R K Nimai said Vaishnavism took root in Manipur in phases, as Bengali Hindu monks and laity fleeing persecution under the sultans of Bengal came to Manipur, built temples, and became integrated into Manipuri society.

In the early 18th century, the Meitei king Pamheiba made Hinduism the kingdom’s official religion, leading to the gradual decline of the ethnic polytheistic Sanamahi religion. The king also encouraged the use of the Bengali script, and ordered the Sanamahi scripture Puyas written in it.



As assimilation progressed, the Manipuri Goddess Panthoibi became Durga, and aspects of the ancient festival and dance Lai Haraoba were incorporated into Manipur's famous Ras Lila.

### **Caste in Manipur**

With Hinduism came caste and, over time, three broad categories emerged.

There were the Bahmons (Brahmans) many of whom are believed to be outsiders who settled in Manipur and married local women. Bahmons could be priests who performed rituals, or cooks who produced meals during Meitei festivals and ritual feasts.

The Kshatriyas were converts to Hinduism, who took the surname Singh. Both Chief Minister N Biren Singh and his predecessor Okram Ibobi Singh of the Congress are Kshatriyas.

Those who continued to follow the pre-organised religion practices of ancestor worship became the Scheduled Castes. They live mainly in Andro in Imphal East and Sekmai and Phayeng in Imphal West, and are traditional brewers of local rice wine.

Then there are the "RKs" — Rajkumars and Rajkumaris — who are part of Manipur's original nobility and claim to be direct descendants of Pakhamba.

### **History of war**

During the "Seven Years Devastation" from 1819 to 1826, forces of the Burmese kingdom occupied Manipur, and king Marjit Singh fled to Cachar. After the first Anglo-Burmese war, Gambhir Singh was installed as Maharaja, and a British political agent was posted in the kingdom.

During a period of internal rivalry, the British sided with Maharaja Surachandra Singh in a tussle with Crown Prince Kullachandra, who was backed by the powerful general Tikendrajit Singh. After Tikendrajit was taken into custody, another army official, General Thangal, entered the battle.

On August 13, 1891, the British hanged both. Bir Tikendrajit Memorial or Shaheed Minar now stands in the heart of Imphal, and Patriots Day is observed on August 13 every year. Incidentally, the most powerful insurgent group in Manipur, the Meitei United National Liberation Front (UNLF), is led by a descendant of Tikendrajit, R K Meghen, who is known as Sanayaima or 'Golden Son'.

### **Attempts at revival**

Over the years, there have been attempts to restore the Meitei community's original history, including Sanamahism and the Meitei Mayek script. While Vaishnavism has largely retained its hold on the Meitei people, the story of the script has unfolded differently.

Nimai, the retired IAS officer, recalled that in the 1860-70s, the British political agent, G A Damant, introduced the teaching of the Meitei Mayek script in Manipur's schools. "The Manipuri elite at the time had studied in Kolkata, Dhaka, and Sylhet, and they lobbied for the Bengali script instead," Nimai said.

In the 1930s, a campaign began for both the revival of Sanamahism and Meitei Mayek. It took until 1992 for the Manipuri language to be included in the Eighth Schedule of the Constitution. In 2005, Meitei Mayek was introduced in schools and universities, and road signs in the Imphal valley were changed from the Bengali script. Manipuri language newspapers, however, continue to be published in the Bengali script.



### Complex faultlines

Much of the Meitei insurgency is rooted in its history, and is replete with echoes of re-establishing the glory of the ancient Manipur kingdom. The loss of identity, and the struggle to restore it, remains at the heart of the Meitei movement, and is foundational in Manipuri society.

Many Manipuris believe that Maharaja Bodhachandra was forced to sign the merger agreement under duress. Once the Naga tribes had launched their own movement for secession, reimagining the region's geography as part of a Greater Nagalim, the Manipuri insurgent groups were fighting both against the Indian state, as well as the Naga insurgent groups.

The conflict intensified as the Kuki-Zomi tribes set up their own armed groups to fight the Nagas. The Kuki demand for a homeland drove a wedge between the traditional allies, Meiteis and the Kukis. The Kukis served as a buffer between the kingdom and the Nagas, and Maharaja Bodhachandra travelled with four Kuki bodyguards.

In recent decades, the ethnic divide has widened further as the tribes have accused the majority Meiteis of grabbing an unfair share of the state's finances and development. The Meiteis have in turn, accused the government of allowing undue advantage to the tribes by protecting their lands and giving them reservation in jobs.

The recent Kuki-Meitei ethnic clashes — the first in three decades — have reopened old wounds. The Meiteis are reminded that they cannot access one of their most sacred sites, Mount Koubru, which is dominated by Kukis who allegedly cultivate poppy on the slopes of the mountain. An Meitei academic based in Imphal argued that the Meitei demand for ST status was more to press for the principle of equality than to actually buy tribal land. "A Meitei will never settle in the hills, because that landscape is not part of our culture. Meitei people live near water, and most of our ritual practices are water-based... The tribal is a hunter and is comfortable in the forest; the Meitei is a fisherman," the academic said.

### SLOWDOWN HITS HARD, MANIPUR'S JOBLESS RATE TWICE NATIONAL AVERAGE

A worsening employment crisis linked to a slowdown in its services sectors — a key driver of the hill state's economy — seems to be a contributing factor for the unrest in Manipur.

Data from the annual Periodic Labour Force Survey (PLFS) for 2021-22, the latest nationwide employment survey, shows Manipur to be among the states with the highest unemployment rate for the age group of 15 years and above, at 9 per cent — more than double the national unemployment rate of 4.1 per cent in 2021-22, and higher than other states in the Northeast.

The unemployment rate in the state's rural areas, the predominantly hilly regions where the Kuki and Naga tribal populations are concentrated, was estimated to be 9.5 per cent in the PLFS for 2021-22, while the unemployment rate in the urban areas, where much of the Meitei population lives, was marginally lower at 7.6 per cent. Nearly 65 per cent of men in the state were reported as self-employed in rural areas, compared to the all-India rate of 59 per cent.

A continued slowdown in its services sectors, including trade, hotels and restaurants, transport, communications, and the real estate sub-sectors, has meant that Manipur's tertiary sector — the highest contributor to the state's GSDP (Gross State Domestic Product) — failed to generate employment opportunities for the youth.



The only tertiary sector that showed a degree of resilience is public administration, which had a Gross Value Added (GVA) growth of 11.8 per cent in FY20, over 32 per cent in FY21, and double-digit growth in the estimates in FY22.

Public administration is a proxy for government spending, including on jobs — a point of contention in the demand for quotas in Manipur that resonates with similar agitations in other states like Maharashtra and Rajasthan. Anecdotal references point to a steady exodus of young job-seekers from the state for employment opportunities in the service sector hubs of the National Capital Region, Bengaluru and Mumbai.

This is even more contextual given the unique problem that the state has — a moribund secondary sector that has failed to keep pace with its primary agricultural base, including about 3,268 square kms of area covered by bamboo forests that makes Manipur one of India's largest bamboo producing states.

While Manipur's primary sector — agricultural activities, fishing, mining etc — recorded a growth rate of over 4 per cent in FY20 (Gross State Value Added at basic price), over 9 per cent in FY21 and a projection of nearly 8 per cent growth in FY22, the state's secondary sector – manufacturing and allied activities – registered a contraction of 4.1 per cent in FY20, a 3.4 per cent slide in FY21, and a dip of 8.5 per cent in FY22, according to the state's directorate for economics and statistics.

This is despite Manipur having the highest number of handicraft units and craftspersons (skilled and semi-skilled) in the entire Northeast region. Handlooms is the largest cottage industry in Manipur and the state ranks among the top five in terms of the number of looms in the country.

## THE LAW ON POLYGAMY AMONG RELIGIOUS GROUPS IN INDIA

Assam Chief Minister Himanta Biswa Sarma has said that the state government will move to ban the practice of polygamy through “legislative action”, and that an “expert committee” would be formed to examine the issue.

### Practice of polygamy

Polygamy is the practice of having more than one married spouse — wife or husband. The issue is governed both by personal laws and the Indian Penal Code (IPC).

Traditionally, polygamy — mainly the situation of a man having more than one wife — was practised widely in India. The Hindu Marriage Act, 1955 outlawed the practice.

IPC Section 494 (“Marrying again during lifetime of husband or wife”) penalises bigamy or polygamy. The section reads: “Whoever, having a husband or wife living, marries in any case in which such marriage is void by reason of its taking place during the life of such husband or wife, shall be punished with imprisonment of either description for a term which may extend to seven years, and shall also be liable to fine.”

This provision does not apply to a marriage which has been declared void by a court — for example, a child marriage that has been declared void.

The law also does not apply if a spouse has been “continually absent” for the “space of seven years”. This means a spouse who has deserted the marriage or when his or her whereabouts are not known for seven years, will not bind the other spouse from remarrying.





### The second marriage

Generally, the first wife files a complaint that her husband has remarried. The court will have to look into whether the husband has entered into a legally valid second marriage. This means that the second marriage would have to be performed as per prescribed customs, and the penal provision will not apply for adulterous relationships that do not qualify as valid marriages under the law.

In *Kanwal Ram and Ors v The Himachal Pradesh Administration* (1965), the Supreme Court reiterated the legal position that the standard of proof must be of marriage performed as per customs. “In a bigamy case, the second marriage as a fact, that is to say, the ceremonies constituting it must be proved...”

Section 495 of the IPC protects the rights of the second wife in case of a bigamous marriage. It reads: “Whoever commits the offence defined in the last preceding section (i.e. Section 494) having concealed from the person with whom the subsequent marriage is contracted, the fact of the former marriage, shall be punished with imprisonment of either description for a term which may extend to ten years, and shall also be liable to fine.”

### Under Hindu law

After Independence, anti-bigamy laws were adopted by provincial legislatures including Bombay and Madras. The Special Marriage Act, 1954, was a radical legislation that proposed the requirement of monogamy — subsection (a) of Section 4 of the SMA (“Conditions relating to solemnization of special marriages”) requires that “at the time of marriage...neither party has a spouse living”.

Parliament passed the Hindu Marriage Act in 1955, outlawing the concept of having more than one spouse at a time. Buddhists, Jains, and Sikhs are also included under the Hindu Marriage Code. The Parsi Marriage and Divorce Act, 1936, had already outlawed bigamy.

Section 5 (“Conditions for a Hindu marriage”) of the Hindu Marriage Act lays down that “a marriage may be solemnized between any two Hindus, if...[among other conditions] neither party has a spouse living at the time of the marriage”.

Under Section 17 of the HMA bigamy is an offence, “and the provisions of sections 494 and 495 of the Indian Penal Code, 1860, shall apply accordingly”.

However, despite bigamy being an offence, the child born from the bigamous marriage would acquire the same rights as a child from the first marriage under the law.

A crucial exception to the bigamy law for Hindus is Goa, which follows its own code for personal laws. So, a Hindu man in the state has the right to bigamy under specific circumstances mentioned in the Codes of Usages and Customs of Gentile Hindus of Goa.

These circumstances include a case where the wife fails to conceive by the age of 25 or if she fails to deliver a male child by the age of 30. However Goa Chief Minister Pramod Sawant has said that the provision for Hindus is virtually “redundant” and that “no one has been given the benefit of it since 1910”.

### Under Muslim law



Marriage in Islam is governed by the Shariat Act, 1937. Personal law allows a Muslim man to have four wives. To benefit from the Muslim personal law, many men from other religions would convert to Islam to have a second wife.

In a landmark ruling in 1995, the Supreme Court in *Sarla Mudgal v Union of India* held that religious conversion for the sole purpose of committing bigamy is unconstitutional. This position was subsequently reiterated in the 2000 judgment in *Lily Thomas v Union of India*.

Any move to outlaw polygamy for Muslims would have to be a special legislation which overrides personal law protections like in the case of triple talaq.

### **Prevalence of polygamy**

The National Family Health Survey-5 (2019-20) showed the prevalence of polygamy was 2.1% among Christians, 1.9% among Muslims, 1.3% among Hindus, and 1.6% among other religious groups. The data showed that the highest prevalence of polygynous marriages was in the Northeastern states with tribal populations. A list of 40 districts with the highest polygyny rates was dominated by those with high tribal populations.

## **CAN'T SAY MARRIAGE NOT A FUNDAMENTAL RIGHT: SUPREME COURT**

The Supreme Court on Tuesday disagreed with the contention that there is no fundamental right to marry under the Constitution and said the core elements of marriage are protected by constitutional values.

“To state...that there would be no fundamental right to marry under the Constitution would be far-fetched. What are the core elements of marriage? If you look at each of these elements, they are protected by Constitutional values...” Chief Justice of India D Y Chandrachud, presiding over a five-judge Constitution bench hearing petitions seeking legal recognition for same-sex marriages, said.

CJI Chandrachud was responding to senior advocate Rakesh Dwivedi’s argument that the Constitution “only gives a fundamental right to form relations, associations, which...can be regulated”.

The CJI said, “Marriage itself postulates the right of individuals to cohabit...marriage accompanies with it the notion of existence of a family unit, something which directly owes its existence to Constitutional values...marriage has procreation — (a) very important ingredient, though equally we must be cognizant of the fact that validity or legality or social acceptance of marriage is not conditional only upon procreation for the reason that people may not want to have children; they may not have the ability to have children; or they may get married at an age they cannot have children...”

Stating that marriage, “in a significant way”, is exclusionary of all others, the CJI said, “Two people who come together or cohabit are entitled to exclude everyone else from that area of marriage.”

The bench also comprises Justices S K Kaul, S Ravindra Bhat, Hima Kohli and P S Narasimha.

Agreeing that the State has a legitimate interest in regulating marriage, the CJI said, “We must accept as a basic proposition that marriage is something which is entitled to Constitutional protection; it’s not just a statutory recognition. Once we cross that threshold, we enter the next



level which is the contested issue here: is heterosexuality an intrinsic or core constituent element of the institution of marriage?"

Dwivedi, who appeared for Madhya Pradesh government, had argued that "we call our association marriage". He said, "It has... resulted in a social institution. It's not an overnight thing — two people coming together and calling it marriage. It's a long period of time where this institution of marriage has emerged..."

Appearing for Jamiat-Ulema-i-Hind, senior advocate Kapil Sibal said the Special Marriage Act (SMA), 1954, is only for heterosexual marriage and the court cannot misinterpret the statute.

While the petitioners have sought rewriting of SMA to grant same-sex marriage rights, Sibal argued that according to him, "what they (petitioners) have asked for is not a fundamental right. What they must get is something short of it, but something that is meaningful."

#### ADOLESCENT LOVE CAN'T BE CONTROLLED BY COURTS, MUST BE CAREFUL GRANTING, DENYING BAIL IN POCSO CASE: HC

Observing that adolescent love cannot be controlled by courts, the Delhi High Court said that the attitude towards such relationships has to be scrutinised in the backdrop of real-life situations.

The observation was made by a single-judge bench of Justice Swarana Kanta Sharma in its May 8 order while granting bail for two months to a 19-year-old man booked for rape under the IPC and aggravated penetrative sexual assault under the POCSO Act.

"The prosecutrix and the accused herein might have made a mistake in the affairs of the heart; however, the teenage psychology and adolescent love cannot be controlled by courts and the judges have to be careful while rejecting or granting bail in such cases depending on the facts and circumstances of each case. Attitude towards early love relationships, especially adolescent love, has to be scrutinised in the backdrop of their real life situations to understand their actions in a given situation. The teenagers who try to imitate the romantic culture of films and novels, remain unaware about the laws and the age of consent," Justice Sharma observed.

The court noted that the accused and the girl who he had allegedly raped were due to get married at the end of this month. The court noted that though the girl was allegedly 16 years old at the time of the incident in 2021 (which she had disputed), she is now a major.

The court observed that the girl had consistently stated in her statement and testimony that she had gone with the accused "out of her own free will as she had developed a liking for him". The girl had said that she was 18 years old at the time of the incident where she had allegedly gone away with the accused to Chennai.

During investigation, the girl was found seven weeks pregnant and medical termination of pregnancy was conducted, and the DNA report confirmed that the accused was the father.

The court noted that as per the records it was a "teenage love story" where the couple had developed a liking for each other which was clear from the girl's statement.

"The prosecutrix wanted to get married to him and therefore, being in love, both of them left Delhi so that they could live in peace away from their families. The story reveals that the boy who is accused started working and looked after the prosecutrix. The prosecutrix gave him another idea,



as she states in her statement, that in case they will be blessed with a child, their parents will accept their marriage,” the order records.

The HC also observed that “genuine innocent teenage boys and girls” who are unaware that the age of consent in law is 18 years “languish in jail or in protection home” which has an “adverse negative impact on their future too”.

Justice Sharma also said that confinement in jail also causes distress and “will impact the psychological health of the accused also”.

“The Court, however, is bound by the law as it is and therefore, at this stage, in such circumstances can only direct that the accused be granted his freedom of bail and not languish in jail,” the HC said.

The HC however also cautioned and clarified that cases of such nature have to be decided on its own “peculiar facts and circumstances” and the “age being in shadow of doubt as well as the consistency in the statement of the prosecutrix and lack of inducement or threat in such cases has to be adjudicated on facts and circumstances of each case”.

#### INSTALL CCTV CAMERAS IN OFFICES OF INVESTIGATIVE AGENCIES BY JULY 18, SAYS SC

The Supreme Court has given the Centre three months, setting a July 18 deadline, to comply with the directions in its December 2020 judgment to install closed circuit television (CCTV) cameras in the offices of its investigative agencies such as the Central Bureau of Investigation, the National Investigation Agency and the Enforcement Directorate for the sake of transparency and protection of human rights of accused and undertrial prisoners.

A Bench led by Justice B.R. Gavai noted how “disheartening” it was that several agencies had not taken any steps to comply with the court order. “It is disheartening to note that insofar as the Union of India is concerned, out of seven investigating agencies, no steps of sincere nature have been taken in case of four investigating agencies,” the top court observed in a recent affidavit.

#### ‘Non compliance’

The court directed that in case the Centre chose not to comply and file an affidavit, “the Secretary (Home), Union of India, shall remain personally present before the court on the next date of hearing to show cause as to why an action for committing contempt should not be taken against them”.

In its latest order, the court noted that the Centre and the States were yet to fully comply with the judgment.

“This is not an adversarial litigation. When this court had issued directions, in order to maintain transparency at the police station and the officers of the investigating agencies, the Union of India and the State Governments/Union Territories ought to have complied with the directions,” the Bench said.

The order noted that only two Union Territories — Andaman and Nicobar Islands, and Ladakh — as well as the States of Mizoram and Goa have fully complied with the directions, making budgetary allocations as well as actually installing the CCTV cameras.



## EXPRESS VIEW ON ARREST OF JOURNALISTS IN PUNJAB: IT STAINS AAP, SHOWS HOW MUZZLING THE PRESS CUTS ACROSS PARTY LINES

NOT that another reminder was needed. But the arrest of a reporter and her two colleagues from Times Now Navbharat by the Punjab Police for allegedly knocking a woman down with their vehicle and “using casteist slurs” against her — the channel and its staff have denied the allegations — is another reminder of how, increasingly, those in power, whatever their politics, see the press as an adversary that better be reined in and intimidated, rather than given the secure space to address the people’s right to know by either revealing uncomfortable truths or asking uncomfortable questions. The three Times Now Navbharat staffers were in Punjab to cover an AAP government event, at which Delhi Chief Minister and AAP supremo Arvind Kejriwal was present. According to their version of events, the reporter and her colleagues were denied entry to the event and “...were returning when their car probably brushed past a rickshaw and the (petitioners) were asked to come out of the vehicle and surrounded”. According to the police, they knocked down a woman and hurled casteist slurs at her. The case against them is under the SC/ST Atrocities Act. While the reporter has been released on interim bail, her colleagues are in judicial custody.

The Punjab government’s action comes days after the channel broadcast “Operation Sheeshmahal”, alleging that there had been “ultra-lavish and disproportionate expenditure incurred in refurbishing the official residence of Delhi CM”. The Aam Aadmi Party and its government should address the questions raised by the report and, of course, have the right to rebut, even refute the allegations. That, however, doesn’t give it a free pass to target the channel or its employees in a state where it is in power.

Sure, many news organisations, including TV channels, have decided to be megaphones of those in power. It is no one’s case that journalists should not be subjected to due process of law, their protections under Article 19 are the same as the citizen’s. At the same time, there is a disturbing pattern in how governments across the political spectrum are treating the press: from searching a newsroom in Kerala to locking up a reporter in UP, sending a police team from Rajasthan to question a TV anchor or sending the taxmen to knock on many a door in the capital. The dictum seems to be: have power, will abuse. The AAP has claimed its “Delhi Model” of governance and politics is radically different from the path followed by other political parties; the party has projected itself as a dissenter in the political space and presented education and health as the twin pillars of its politics. Pushed to the defensive over the liquor excise charges, its senior leaders and state ministers are now welcoming the arrest of journalists. For a party that doesn’t hesitate to seize the moral high ground, this is a dispiriting low.

## ALLAHABAD HC ALLOWS CARBON DATING OF GYANVAPI ‘SHIVLING’: HOW DOES CARBON DATING WORK?

The Allahabad High Court on Friday (May 12) ordered a “scientific survey”, including carbon dating, of a “Shivling” said to have been found at the Gyanvapi mosque complex in Varanasi after setting aside a lower court order on the issue. The order was passed by Justice Arvind Kumar Mishra.

On May 16 last year, a court-ordered videographic survey of the Kashi Vishwanath temple-Gyanvapi mosque was completed by a Commission appointed by a local court. During the survey



proceedings, a structure – claimed to be a “Shivling” by the Hindu side and a “fountain” by the Muslim side – was found inside the mosque premises.

In their plea before the High Court, the Hindu petitioners had requested “to make scientific investigation by carbon dating or otherwise to determine the age, nature and other constituents of the Shivlingam.”

Senior Advocate Syed Farman Ahmad Naqvi, representing Anjuman Intezamia Masjid Committee (AIMC) told The Indian Express the decision on whether to challenge the High Court order would be taken soon.

#### **What is carbon dating, and what will it help achieve?**

##### **What is the science behind carbon dating?**

Carbon dating is a widely-used method to establish the age of organic materials, things that were once living. Living things have carbon in them in various forms. The dating method is based on the fact that Carbon-14 (C-14), an isotope of carbon with an atomic mass of 14, is radioactive, and decays at a well known rate. This is how it works:

The most abundant isotope of carbon in the atmosphere is C-12. A very small amount of C-14 is also present. The ratio of C-12 to C-14 in the atmosphere is almost static, and is known.

Plants get their carbon through photosynthesis; animals get it mainly through food. Because plants and animals get their carbon from the atmosphere, they too acquire C-12 and C-14 in roughly the same proportion as is available in the atmosphere.

When they die, their interactions with the atmosphere stops. While C-12 is stable, the radioactive C-14 reduces to one half of itself in about 5,730 years — known as its ‘half-life’. The changing ratio of C-12 to C-14 in the remains of a plant or animal after it dies can be measured, and can be used to deduce the approximate time when the organism died.

##### **But what about non-living things, like the purported Shivling in Varanasi?**

Though extremely effective, carbon dating cannot be applied in all circumstances. It cannot be used to determine the age of non-living things like rocks, for example.

Also, the age of things that are more than 40,000-50,000 years old cannot be arrived at through carbon dating. This is because after 8-10 cycles of half-lives, the amount of C-14 becomes almost very small and is almost undetectable.

But there are other methods to calculate the age of inanimate things, many of which are based on the same principle as carbon dating. So, instead of carbon, decays of other radioactive elements that might be present in the material become the basis for the dating method.

These are known as radiometric dating methods. Many of these involve elements with half-lives of billions of years, which enable scientists to reliably estimate the age of very old objects.

Two commonly employed methods for dating rocks are potassium-argon dating and uranium-thorium-lead dating. The radioactive isotope of potassium decays into argon, and their ratios can give a clue about the age of rocks. Uranium and thorium have several radioactive isotopes, and all of them decay into the stable lead atom. The ratios of these elements present in the material can be measured and used to make estimates about age.



There are also methods to determine how long an object has remained exposed to sunlight. These apply different techniques, but are again based on radioactive decays and are particularly useful in studying buried objects or changes in topology. The most common of these is called cosmogenic nuclide dating, or CRN, and is regularly applied to study the age of ice cores in polar regions.

In some situations, carbon dating can be used indirectly as well.

For example, a way in which the age of ice cores in glaciers and polar regions is determined by studying carbon dioxide molecules trapped inside large ice sheets. The trapped molecules have no interaction with the outside atmosphere, and are found in the same state as when they were trapped. Determining their age gives a rough estimate of the time when the ice sheets were formed.

How long a rock has been at a particular place can also be determined similarly — organic materials like dead plants or insects trapped underneath can give an indication of when that rock reached that place.

#### **So how does all of this fit into the Gyanvapi case?**

In the Gyanvapi case, the Hindu petitioners claim that the Gyanvapi mosque was built on an ancient Hindu temple. The purported “Shivling” is being cited by the Hindu cite as evidence for the existence of the temple. In this case, the petitioners’ purpose would likely be served if it was established that the “Shivling” existed at that place before the mosque came up in 1669.

But there will be specific limitations. The structure cannot be uprooted or disrupted, as per orders of the Supreme Court, so methods like looking for trapped organic material beneath it might not be feasible.

### HOW MICRO-TARGETING CAMPAIGNS AFFECT THE VULNERABLE INDIAN VOTER

The liberating and anti-establishment potential of the Internet are considered as a promise for the health of a liberal democracy. At the same time, it can have serious ramifications if this potential is used by demagogues to spread fake news and propaganda

In the lead up to the Karnataka elections, there have been reports of citizens getting targeted phone calls and messages asking for their voter preference and party affiliation. This micro-campaigning has raised concerns about the breach of data of voters. In this article, dated February 17, 2020, Prashant Singh and Meghna Sharma talk about such privacy breaches and how it affects the informational autonomy of the voter.

Two years ago, there was a massive outcry against the hiring, by Indian political parties, of Cambridge Analytica, a data mining and analytics firm. The episode highlighted the need for regulating social media platforms by way of a comprehensive data protection law which takes issues such as political micro-targeting seriously. With the recently introduced draft of the data protection law, the Personal Data Protection Bill, 2019, the debate has again resurfaced. In the Internet age, any data protection law must be alive to the potential impact of social media companies in shaping public opinion. The current draft empowers the Central government to notify social media intermediaries as significant data fiduciaries if their user base crosses a certain threshold and whose actions are likely to have an impact on electoral democracy. This provision merits serious discussion to ensure that digital tools are used for enhancing democracy through citizen engagement, and not for harvesting personal data for voter targeting.



### World of political advertising

In today's world, online presence, which ensures greater outreach, is a key source of competitive advantage. This realisation gave rise to strategic efforts by political parties to tap into the fragmented political discourse by catering to the individual. Earlier, the idea was to capture mass issues. But in the present day and age, the focus of the campaign is the individual. Political parties are increasingly employing data-driven approaches to target individual voters using tailor-made messages. Such profiling has raised huge concerns of data privacy for individuals and has become a burning issue for political debate. Therefore, the concerns related to regulation of the digital world are being debated in all jurisdictions which have experienced the impact of this technological advancement.

Although, each jurisdiction may have distinct factors influencing the final shape of the Internet governance model, the reasons for the initial debate are common to all, i.e. to arrest any negative externalities emerging out of the Internet. Therefore, any forward-thinking regulatory framework needs to have both supervisory mechanisms in place as well as effective law enforcement tools in its quiver.

This situation is not particularly characteristic of Indian politics. The United States and European countries are equally affected by the impact of this unregulated practice of micro-targeting. This practice has raised some serious concerns with regard to the kind of data that is being collected, the manner in which voters are being profiled, how transparent the process of profiling and targeting is, what the nature of functioning of organisations engaged in this business is, and how neutral globally present intermediaries such as Google and Facebook are. Recently, regulators in the U.S. and Brazil have held Cambridge Analytica guilty of employing illegal practices while harvesting personal data of millions of Facebook users.

Over the years, political advisory and advertising firms have devised sophisticated tools to gather voter data and made proper campaign products out of it. The politicians of today's age leave no stone unturned while canvassing for votes. The reason why this issue becomes important is that the passive users are just not aware of what they are being subjected to.

### Unregulated zone

The informational autonomy of the voter is under serious threat because the entire business of collecting personal data continues to remain unregulated and is also proprietary in nature. It is extremely difficult to trace the methods used by such firms to scrutinise the personal life and intimate details of the individual. This threat becomes imminent in light of the rising number of political firms which are making most use of the right to freedom of speech and expression. The status of this right is near absolute with regard to political speech in most countries such as the U.S. It is but obvious that this can be misused by political entities. Profiling the potential voter has become a thriving industry. Therefore, there are extremely well-crafted techniques when it comes to electoral campaigning.

There is serious harm to the country's democratic nature resulting on account of loss of informational autonomy. The liberating and anti-establishment potential of the Internet are considered as a promise for the health of a liberal democracy. At the same time, it can have serious ramifications if this potential is used by demagogues to spread fake news and propaganda.

Although the digital revolution is being celebrated everywhere, the regulatory efforts regarding different spheres of its influence have only been reactionary. While innovators have continued to





develop more advanced technologies, the regulators have never been able to catch up with it. There are infinite contours of this information age; hence, the scope of a data protection framework also needs to be sensitive towards the magnitude of a variety of data usage. The electoral process in India is becoming increasingly advanced in terms of use of data. It is highly likely that within a few years, Indian political parties may start using the same tactics as used by their U.S. counterparts in targeting individual voters. It remains to be seen as to how the privacy law responds to the implications of political micro-targeting.

## MINIMISING THE THREAT FROM IEDS

### The story so far:

On May 5, five soldiers were killed and another was injured in a gunfight with militants in the Rajouri-Poonch sector of Jammu division. According to the Army, the gunfight broke out after an explosive device was triggered when a search team established contact with a group of terrorists hiding in a cave in the Kandi forests, killing two soldiers. On April 26, an IED (improvised explosive device) killed 10 security personnel of the District Reserve Guard in Chattisgarh's Dantewada area. The jawans were out on an anti-Maoist mission when they were ambushed.

### Were any tactical mistakes made?

The quintessential dilemma for security forces is that they are dealing with an enemy who is faceless, unidentifiable and hidden among the people. Wedded to upholding the law of the land and protecting its people, security personnel can open fire only in self-defence, not on apprehension. Militants, whether they are the Lashkar-e-Taiba in Kashmir or the Maoists in central India, have the 'first mover advantage', on triggering a landmine or an IED on a mobile Army vehicle or opening burst fire with an AK- 47 on a static CRPF sentry post.

In all such scenarios, particularly in landmine/IED ambushes, the reaction or the response time available for what is called "Immediate Action (IA) or Counter Ambush drill" is a few seconds, and that too, if a few of the security personnel are lucky enough to survive the initial IED ambush. Hence, all standard operating systems and procedures, technological measures etc. are directed towards identification and detection of IEDs/landmines and to avoid being caught in them.

### How can errors be minimised?

The first thing that must be kept in mind is to avoid travel by vehicle. The safest mode of travel is on foot in a region where left-wing extremism is active. Studies show that over 60% of casualties/fatalities in Maoist territories are because of vehicles ambushed in landmines/IEDs, as also seen in the recent Chhattisgarh incident. Routine operations like area domination, cordon-and-search, long range patrolling, ambush-cum-patrolling and so forth should only be undertaken on foot. Vehicle travel should be undertaken rarely and that too, only for urgent operational reasons, after exercising due diligence.

If vehicle travel is absolutely essential, the onward and return journeys should never be by the same route, nor undertaken during the day time. A little-known fact is that Maoists, to avoid the risk of civilian casualties, neither trigger IEDs during night time, nor use anti-personnel/pressure induced mines. The exact timing of triggering IEDs is also an issue during night time. Hence, night travel by vehicles is relatively safe for security forces. Unfortunately, in most instances, the security forces travelled during daytime and that too by the same route, resulting in fatalities.



### **Will moving around in camouflage help?**

Stealth, camouflage and concealment are integral to anti-terrorist operations. Olive green vehicles of the Army and light green vehicles of the CRPF are easily identified from a distance, giving adequate time and opportunity to terrorists to organise an IED ambush. If vehicle travel is absolutely essential, security forces are expected to take civilian or State Road Transport Corporation buses. To avoid easy identification, they must travel with civilians in mufti with weapons carefully concealed.

### **What about armoured vehicles and other protective gear?**

In certain war zones, vehicular deployment is inevitable. Security forces working in such areas should be equipped with appropriate protective gear, such as blast-resistant clothing, helmets, and eye protection. Their vehicles should also be equipped with V-shaped and armour-plated hull, blast-resistant technology and proper sandbagging to minimise damage in the event of an explosion. Machine guns and other weapons should be mounted on top of the vehicles with outward facing rotatory seats, from where the men can have a 360-degree observation outside.

Also, security forces should always travel in a convoy of minimum two to three vehicles, maintaining a distance of at least 40 to 50 metres between them, so that even if one vehicle is caught in a landmine, the personnel in other vehicles are able to take positions and neutralise the threat.

### **How can a region be made safe for travel?**

Rigorous and regular implementation of various detection methods, such as metal detectors, ground-penetrating radar, and trained sniffer dogs, to locate and clear landmines and IEDs, is essential. Road opening parties play an important role in detection of ambushes. Aerial surveillance carried out through drones and road opening parties equipped with UGVs (Unmanned Ground Vehicles), can not only detect the presence of terrorists to carry out operations but also pick tell-tale signs of a likely ambush like piles of rock and mud bags, dugout portions on the sides of the roads, and absence of people or movement of other vehicles.

Based on the above inputs, areas known or suspected to contain landmines or IEDs can be mapped and contingency plans prepared for them. This includes establishing safe routes, setting up checkpoints, and creating evacuation plans as part of both preventive and mitigation measures.

### **What about Intelligence inputs?**

While it is important to gather actionable intelligence, due to enormous risks of reprisals by terrorists, locals usually do not divulge information for money alone. Winning of hearts and minds is neither easy nor quick. Relationships have to be cultivated and goodwill generated among the local population on a long-term basis beyond and above transactional levels. This requires patience, commitment, empathy and integrity on the part of security forces, which is sometimes lacking.

### **What can be learnt from an explosion?**

There is simply no substitute for good, old routine investigation of crimes, including that of IED ambushes. An IED ambush is not an insular, standalone event. There is a whole ecosystem behind it, comprising of financiers, suppliers, transporters, builders and triggermen. It is pertinent to mention here that in just one year alone (2008-9) in Afghanistan, the U.S. forensic investigation



teams picked up a mindboggling 5,000 finger prints from the remnants of IEDs and explosives, recovered from the scenes of bomb blasts. This enabled identification and detection of hundreds of suspects and accomplices involved in IED ambushes. Diligent and scientific investigation, establishment of linkages through meticulous collection and marshalling of evidence, framing of chargesheets, followed by speedy trials and conviction, serve as a strong deterrent to terrorism.

#### **What are some of the other measures that need to be undertaken?**

Several measures need to be undertaken at the government level, both at the Centre and States. These include collaboration with international organisations, NGOs, and other countries to share information, resources, and best practices for landmine and IED prevention, detection, and clearance; implementation and enforcement of national and international laws, policies, and regulations aimed at preventing the use, production, and trade of landmines and IEDs.

Legislative measures are required for mandatory addition of odoriferous chemicals and/or biosensors to explosives used in industry and mining etc. for their easy detection during transport. Likewise, legislative measures are required for stricter controls on manufacture, supply and sale of explosives and detonators. Other countries have taken several counter-IED measures spending billions. The U.S., for example, set up the Joint Improvised-Threat Defeat Organization to “prevent, identify and defeat IEDs” and has spent about \$20 billion on counter IED measures since 2005. NATO’s Counter-IED Centre of Excellence is based in Madrid; a small unit exists in India under the National Security Guard. But given that IEDs have been causing major setbacks to fighting militants in India, it is high time that an overarching agency is created under the Ministry of Home Affairs to coordinate the efforts of both the Government of India and the State governments, and to provide legislative, technological and procedural support to law enforcement agencies.

#### **MORE THAN A STORY**

The demand for a ban on *The Kerala Story*, a film apparently based on the instances of a few women joining the Islamic State, is ill-conceived. It is to the credit of the Supreme Court and the High Courts of Kerala and Madras that they did not yield to the clamour for proscribing the movie. It garnered adverse publicity because of a teaser that made an exaggerated claim that 32,000 girls have gone missing in Kerala, presumably to join the terrorist group. However, the film-makers have agreed to withdraw the teaser and carry a disclaimer that the film’s content is fictional. The film’s more notable feature is that it has been denounced as undisguised propaganda. Those seeking the ban accuse its makers of trying to stoke communal passions and the projecting of a fake narrative against Muslims. However, even if that is true, any ban on the film will be counter-productive. Bans can be overturned by courts, and they tend to evoke curiosity about the film and often end up making more people form opinions on its content. In effect, it enhances the propaganda value, and furthers the ulterior motive, if any. It is now legally settled that once a film has been certified by the statutory authority, there is really no case to ban one. Laws pertaining to public order indeed empower the police and local authorities to stop a film’s screening, but it will be perilous to do so every time a group demands a ban.

Reports from Tamil Nadu and Kerala suggest that threats of protests have resulted in multiplexes and some cinema owners choosing not to screen the film. It is normally the local authorities who have a duty to provide adequate security, as ruled by the Supreme Court. However, rather than the law, it is prudent assessment of the ground situation that helps them make a decision. What is also condemnable is the attempt to make political and electoral capital out of *The Kerala Story*. The Prime Minister himself has alleged that only those who support terrorism will criticise such



a movie. It does not behove high constitutional functionaries to communalise the debate over the film. Protests against an allegedly false narrative about a State or a community will not amount to backing terrorism. The fear that the film purportedly grapples with — that young people may be targeted for radicalisation — should be addressed by isolating extremist elements and fostering better understanding among communities. The mischief wrought by a false projection of reality is best undone through exposing the falsehood and the underlying motive, and not through hasty bans.

## A TRAGEDY FORETOLD

Every time a boat capsizes in Kerala, where inland cruise tourism is flourishing largely unregulated, the familiar refrain is that it was a tragedy waiting to happen. The boat that sank in the Poorapuzha estuary in Tanur municipality on Sunday evening, killing 22 people, 15 of them children, was packed with local tourists to twice its capacity and was not cleared for post-dusk operations. It remains unclear how a fishing boat fitted with an upper deck received clearance, if at all it did, to conduct inland tourist operations. Rescue workers, most of them fishermen, sustained injuries from the broken glass panels that covered the windows on its lower deck where most victims had got trapped. The Kerala government has ordered a judicial inquiry, with the support of experts, into the accident and the police have arrested the owner of the vessel.

It was just a month ago that international disaster management expert Muralee Thummarukudy issued a prescient warning, which sounds eerie in hindsight, of an imminent houseboat tragedy in Kerala with at least 10 casualties. The cautionary note flagged the absence of crew training, sparse availability and use of safety material such as life vests, lack of on-board briefing of guests and erratic renewal of operational licence and enforcement thereon. Inquiring into the Thekkady boat capsize, in 2009, the worst Kerala has seen with 45 casualties, the former judge, E. Moideen Kunju, had recommended expeditious formation of a maritime board to regulate water transport. The Kerala Maritime Board was formed in 2017 by merging the Directorate of Ports, Kerala State Maritime Development Corporation Limited, and the Kerala Maritime Society. But the police investigation in the case dragged on, with a second charge sheet filed 10 years after the accident. The trial has not begun yet. As per official data, 3,213 inland vessels are in operation in Kerala's numerous waterways, but industry insiders give a ballpark figure of about 4,000 vessels, also counting the unlicensed ones. The maritime board, vested with the responsibility to ensure the fitness, licensing and safe operation of all tourist vessels in Kerala including houseboats, is short of adequate manpower to carry out its job. It has no enforcement wing to keep a tab on errant vessels including those that dodge periodic renewal of licence. Boat tourism holds tremendous potential in a State lined with waterways, but to be able to reap its benefits, the safety of the people using it should be given top priority. The government should expeditiously arm the maritime board with the wherewithal to carry out enforcement. This will ensure that erring officials are taken to task and not just the boat crew and managers.

## SNAP JUDGMENT

It is almost three months since South Africa sent a batch of 12 cheetahs to India and two have already died. Taken along with the death of one of the eight cheetahs from Namibia — it had a pre-existing renal infection — and it emerges that about 15% of the animals have not made it past the first phase of India's ambitious Project Cheetah. The aim is to establish a sustainable population of about 35 cheetahs in the next decade by bringing in a few every year from Africa. Thus, it is implicit that there will be many deaths among the animals if one factors in both the natural



lifespan of the cat as well as the challenges of adapting to Indian conditions. Daksha, one of the female cheetahs, died from injuries following a violent mating attempt by two males — again not entirely unexpected from what is known about the predator’s behaviour.

Ordinarily, the success of wildlife breeding programmes must be measured over longer intervals. The increase in the lion population in Gir, Gujarat, as well as tiger numbers have been the result of sustained efforts over decades, that have also seen the wildcat count dip to precipitous levels. Therefore, it is yet premature to weigh in on the success of the cheetah translocation programme. However, the arrival of the cheetahs in India was far from an ordinary event. For one, it capped decades of government planning undertaken since 2009, hearings in the Supreme Court, protracted negotiations with two countries, the complex logistics of choosing and ferrying the animals, the Prime Minister’s personal involvement in the enterprise, as well as the significant publicity effort by government departments to promote the endeavour as India’s exemplary commitment to wildlife conservation. It is thus only natural that three deaths in three months raise consternation on whether the conservation approach adopted by experts is based on sound principles. There is criticism that Kuno National Park is inadequate to host 20 cheetahs and that some ought to be in other sanctuaries. The existing batch of animals lived far too long in captivity (in preparation for the translocation) and thus were excessively stressed and more vulnerable, the argument goes. Project Cheetah managers however underline that the investments such as in making the landscape adequately stocked with prey, consultations with experts in Namibia and South Africa with actual experience in managing cheetahs, and cultural traditions that minimise poaching and incentivise local communities to be protective of wildcats, are the right ones to help the species flourish. Given that the relocation programme has been conceived as an ‘experiment’, it is important that every death and every birth are not seen as markers of failure or success. However, there also ought to be clearly defined criteria with timelines that project managers must adhere to, to decide if course correction is warranted.

#### INDIA AMONG TOP 5 COUNTRIES WHERE BABIES BORN TOO SOON: STUDY

Every two seconds, a baby is born too soon. Every 40 seconds, one of those babies dies.

Almost half of all pre-term births (babies born before the 37th week of pregnancy) in 2020 happened in five countries — India, Pakistan, Nigeria, China and Ethiopia — according to a new report released by the United Nations (UN) agencies and partners on Tuesday. Together they accounted for 45 per cent of babies born too soon around the world, exposing them to a high mortality risk. This indicates a “silent emergency” for children’s survival and health.

An estimated 13.4 million babies were born pre-term in 2020 with nearly one million dying from complications. This is equivalent to around one in 10 babies as per the report titled ‘Born too Soon: Decade of Action on Pre-term Birth’, put together by WHO, United Nations Children’s Fund and Partnership for Maternal, Newborn and Child Health (PMNCH) – the world’s largest alliance for women, children and adolescents.

In 2020, Bangladesh had the highest estimated pre-term birth rate (16.2 per cent), followed by Malawi (14.5 per cent) and Pakistan (14.4 per cent). India and South Africa, at an estimated 13 per cent each, were among the top five countries with high pre-term birth rates. The total pre-term birth numbers for the five countries are alarming indeed as India tops the list with 30.16 lakh births, Pakistan is at 9.14 lakh, Nigeria at 7.74 lakh and China at 7.52 lakh. The report includes updated estimates from WHO and UNICEF.



What's causing pre-term births in India? Clearly the infrastructure for neonatal care needs to be more expansive and last-mile. Explaining the findings, Dr Surender Singh Bisht, secretary general of the National Neonatology Forum (NNF), said, "In rural areas, there used to be a common complaint of lack of access to health care but initiatives like special newborn care units, improved labour rooms and efficient deliveries have helped save many pre-term babies. But they are still not as expansive."

The government has launched many programmes such as the India Newborn Action Plan and Rashtriya Bal Suraksha Karyakram and has set up many Speciality Newborn Care Units (SNCUs) across the country.

Dr V C Manoj, president-elect of NNF, said, "Several factors like lifestyle changes, chronic diseases and IVF pregnancies are associated with increased pre-term births in urban centres." Dr Bisht concurred. "Reduced fertility levels and assisted pregnancies are also not without the risk of pre-term births."

As for the region-wise break-up of pre-term births in India, a report published on June 28 last year in PloS-Global Public Health showed that West Bengal reported 16 per cent of such births, Tamil Nadu 14 per cent and Gujarat 9 per cent.

Overall, the report finds that pre-term birth rates have not changed in any region in the world in the past decades. The global pre-term birth rate was 9.9 per cent in 2020, compared to 9.8 per cent in 2010.

There was also no change in pre-term birth rates in any region, including the highest-burden regions (southern Asia logging in 13.3 per cent in 2010 and 13.2 per cent in 2020, and sub-Saharan Africa at 10.1 per cent in both 2010 and 2020). In fact, these two regions collectively account for over 65 per cent of pre-term births globally.

At a webinar, Dr Anshu Banerjee, director for Maternal, Newborn, Child and Adolescent Health and Ageing at WHO, said every woman must be able to access quality health services before and during pregnancy to identify and manage risks and avoid a pre-term birth.

According to Dr Sachin Shah, president, Indian Academy of Paediatrics – Intensive Care (Pune chapter), it is important to encourage quality care at special newborn care units and train mothers in practising kangaroo care for low birth weight infants. This essentially means prolonged skin-to-skin contact with the mother and frequent breastfeeding.

Pre-term birth is the leading cause of child mortality, accounting for nearly one in five of deaths of children under five years. Three of four pre-term babies are still born. According to the report, only a few countries have made progress in reducing their pre-term birth rates, though changes have been modest at five per cent in 10 years, a mere 0.5 per cent per year. The "four Cs" – conflict, climate change, COVID-19 and the cost-of-living crisis – heighten threats for the most vulnerable women and babies in all countries. Helga Fogstad, Executive Director, PMNCH, said that climate change was a big factor in pre-term births and policy changes were needed to mitigate such risks.



## THE LACK OF A DRUG RECALL LAW IN INDIA

### The story so far:

On April 25, Abbot, a multinational pharmaceutical company, published a public notice in newspapers alerting people about a mislabelled batch of medicine that it had inadvertently shipped to the market. While such recalls take place regularly in the U.S., we have never witnessed domestic or foreign pharmaceutical companies recall substandard or mislabelled drugs in India.

### Is there a drug recall law in India?

One of the reasons for this difference in behaviour in India and the U.S. is because the law in the latter requires pharmaceutical companies to recall from the market those batches of drugs that have failed to meet quality parameters. India, on the other hand, has been mulling the creation of a mandatory recall law for substandard drugs since 1976, and yet no law exists that mandates such medicine be removed from the market to this day.

In 1976, the Drugs Consultative Committee, which consists of all the state drug controllers along with senior bureaucrats from the Ministry of Health and the national drug regulator, the Central Drugs Standard Control Organisation (CDSCO), discussed the issue of drug recalls. The minutes of this meeting record a discussion on how drugs ordered to be recalled by a state drug controller in one State were found to be on sale in another State. While the meeting resolved to have greater cooperation between various state drug controllers to facilitate better coordination, this decision never translated into amending the law to create a legally binding structure to enforce such recalls. Since then the issue has come up repeatedly in regulatory meetings in 1989, 1996, 1998, 2004, 2007, 2011, 2016, 2018 and 2019 but none of them resulted in amendments to the Drugs and Cosmetics Act to create a mandatory recall mechanism. In 2012, certain recall guidelines were published by the CDSCO but they lacked the force of law.

### Why is there no recall law?

There are three possible answers to this question. The first is that the Drug Regulation Section of the Union Health Ministry is not up to the task of tackling complex drug regulatory issues due to a combination of factors including apathy, lack of expertise and a greater interest in enabling the growth of the pharmaceutical industry than protecting public health. The second possible factor is India's highly fragmented regulatory structure, with each State having its own drug regulator. But despite the fragmentation, drugs manufactured in one State can seamlessly cross borders to be sold in all States around the country. To create an effective recall mechanism, the responsibility of recalling drugs has to be centralised, with one authority wielding the legal power to hold companies liable for failures to recall drugs from across the country. However, both the pharmaceutical industry and state drug regulators have resisted greater centralisation of regulatory powers. This opposition has little grounding in logic. If India is a single market for drugs, it follows that it should have one regulator. If not, the incompetence of a regulator in one State can lead to adverse effects for patients in other States.

The third possible factor is that India's drug regulators are aware of the fact that a mandatory drug recall system, which necessarily has to be centred on a system of wide publicity, will bring to public attention the state of affairs in India's pharmaceutical industry.



### What happens when substandard drugs are not recalled?

People, including children, are almost certainly dying or suffering from adverse health events because substandard drugs are not swiftly removed from the market. Every month, dozens of drugs fail random-testing in government laboratories. Ideally, these drugs will be necessarily recalled in a transparent manner, with the people being informed of the failures.

If this were to actually happen in India, the people would be flooded with alerts on an almost daily basis, which then would increase the pressure on drug regulators to institute extensive reforms.

If the bureaucracy's intention is to avoid accountability, it might prefer to keep quiet and let substandard drugs, even those with dangerous consequences for consumers, circulate in the market. This has been their modus operandi for decades, until recently, when drug failures overseas brought attention to this issue. Yet nothing has changed on the ground.

### WELCOME INITIATIVE

In a welcome move, the Ministry of AYUSH and ICMR have at last joined hands to undertake quality human clinical trials to generate evidence on the benefits of using ayurveda along with modern medicine (evidence-based medicine) in treating certain disease conditions of national importance. With its decades of experience in conducting human clinical trials, it makes eminent sense to rope in the ICMR to design and conduct these trials. To begin with, the collaboration will be restricted to ayurveda. The other systems of AYUSH — yoga, unani, siddha and homoeopathy — may be included, and each system will be tested together with modern medicine when the central councils of the respective AYUSH systems are ready to work with the ICMR. An expert committee will soon decide the area/disease conditions to be included for detailed clinical testing using both ayurveda and modern medicine. Initially, clinical trials for each disease may have two arms — modern medicine as the standard of care as well as a combination of modern medicine and ayurveda. The arm that uses both ayurveda and modern medicine will, if at all, only be able to validate the superiority of combining the two for better outcomes. Scientific validation of superior outcomes of combined therapy using ayurveda and modern medicine will form the basis on which integrated medicine will be offered to patients. Encouraging trial outcomes might probably serve as a starting point to undertake further trials using ayurveda interventions alone to evaluate their effectiveness and understand the mechanism of action; this is currently not within the ambit of the agreement.

While the initiative may right away not provide scientific validation of ayurveda interventions in treating disease conditions when used singularly, it is the first major step in evidence-based approach of validating medical interventions. Though trials using ayurveda and other systems of AYUSH have been conducted in the country, they suffer from major limitations, thus making the outcomes meaningless. The ICMR's expertise is sure to help in overcoming the major obstacle in scientific validation, which all systems of AYUSH currently suffer from. Evidence, as the practitioners of AYUSH refer to, is nothing but anecdotal, which is not an alternative to evidence-based approach. Lack of scientific validation, as a stand-alone intervention or as adjunct to modern medicine, has been the bane of alternative medicine in India. No sincere, large-scale attempts have been made to address this serious shortcoming. The collaboration with the ICMR is, therefore, a step in the right direction.





## WHAT ARE THE REGULATIONS TO CURTAIL MISLEADING FOOD ADS?

### The story so far:

On April 29, the Advertisement Monitoring Committee at the Food Safety and Standards Authority of India (FSSAI) flagged 32 fresh cases of food business operators (FBOs) making misleading claims and advertisements. As per the regulator, the count of such offences has shot up to 170 in the last six months.

### What are the regulations?

There are varied regulations to combat misleading advertisements and claims, some are broad, while others are product specific. For example, FSSAI uses the Food Safety and Standards (Advertising & Claims) Regulations, 2018 which specifically deals with food (and related products) while the Central Consumer Protection Authority (CCPA)'s regulations cover goods, products and services. Further, the Programme and Advertising Codes prescribed under the Cable Television Network Rules, 1994 stipulate that advertisements must not imply that the products have "some special or miraculous or supernatural property or quality, which is difficult of being proved." The FSSAI seeks that the advertisements and claims be "truthful, unambiguous, meaningful, not misleading and help consumers to comprehend the information provided". The claims must be scientifically substantiated by validated methods of characterising or quantifying the ingredient or substance that is the basis for the claim.

Product claims suggesting a prevention, alleviation, treatment or cure of a disease, disorder or particular psychological condition is prohibited unless specifically permitted under the regulations of the FSS Act, 2006.

### When can a product be referred to as 'natural' and 'fresh'?

A food product can be referred to as 'natural' if it is a single food derived from a recognised natural source and has nothing added to it. It should only have been processed to render it suitable for human consumption. The packaging too must be done sans chemicals and preservatives. Composite foods, which are essentially a mixture of plant and processed constituents, cannot call themselves 'natural', instead, they can say 'made from natural ingredients'.

'Fresh' can be used for products which are not processed in any manner other than washing, peeling, chilling, trimming, cutting or irradiation by ionising radiation not exceeding 1 kGy or any other processing such that it remains safe for consumption with the basic characteristics unaltered. Those with additives (to increase shelf life) may instead use 'freshly frozen', 'fresh frozen', or 'frozen from fresh' to contextualise that it was quickly frozen while fresh.

### What about 'pure' and 'original'?

'Pure' is to be used for single-ingredient foods to which nothing has been added and which are devoid of all avoidable contamination, while unavoidable contaminants are within prescribed controls. 'Original' is used to describe food products made to a formulation, with a traceable origin that has remained unchanged over time. They do not contain replacements for any major ingredients. It may similarly be used to describe a unique process which has remained unchanged over time, although the product may be mass-produced.



### What about 'nutritional claims'?

Nutritional claims may either be about the specific contents of a product or comparisons with some other foodstuff. Claims of equivalence such as “contains the same of (nutrient) as a (food)” or “as much (nutrient) as a (food)” may be used in the labelling provided that it gives the equivalent nutritional value as the reference food. According to Manisha Kapoor, Chief Executive Officer and Secretary General at the Advertising Standards Council of India (ASCI), most complaints of misleading ads were related to the nutrition of a product, its benefits and the ingredient mix not being based on adequate evidence.

“A lot of claim data is to be based on technical data. For example, if you say, that there is Vitamin D in my product, we need evidence to substantiate that there indeed is Vitamin D in your product,” she says, adding, “then if you claim that Vitamin D in your product can also help reduce fatigue, improve stamina or another claim like that — then there needs to be enough literature to substantiate that the ingredient does what is being stated”.

### ARE GOVERNMENT HEALTHCARE WORKERS PAID ENOUGH TO BE RETAINED?

A data blog published by the World Bank argues that the wages given to front line healthcare workers in the public sector are not competitive enough to attract qualified candidates. The problem is more acute in low- and middle-income countries where the governments face rising public debt and are forced to reduce public spending. The blog argues that to strike a balance between these policy goals, reliable data and evidence are needed, considering the workforce-heavy aspect of healthcare services delivery.

About 64% of all paid healthcare workers are employed in the public sector worldwide, with 75% in Europe and Central Asia, and 49% in Latin America and the Caribbean. This can be largely attributed to some historical reasons and the restricted capacity or demand for private healthcare services, particularly in developing nations.

In healthcare systems worldwide, a greater proportion of employees work in administrative roles compared to direct patient care roles. Over 75% of personnel in Europe and Central Asia and Sub-Saharan Africa perform administrative tasks rather than attending to patients directly, potentially leading to resource allocation imbalances. Restructuring administrative operations and reducing costs might allow for a more efficient distribution of resources towards patient care.

In most countries, public healthcare employees earn a wage premium compared to their private sector equivalents, with an average basic pay that is 21% higher. The extent of this premium relies on the job composition and characteristics of public sector health workers. However, if we focus only on front line personnel, this premium turns into a wage penalty. The basic pay of front line health workers in the public sector is 1% lower than their private counterparts. These charts show that the administrative staff of public health care are paid much higher than their private counterparts, but it is the reverse if only front line health workers in the public sector are considered. This could be due to salary caps and other limitations on earnings, while the private sector may have the capacity to provide higher salaries and bonuses to recruit skilled front line employees such as doctors.

A majority of administrative and medical staff positions in the public sector are held by women. However, women predominantly occupy lower-level roles. Women comprise nearly 84% of the



28.5 million nurses and midwives worldwide, but they are outnumbered by men when it comes to doctors. Gender stereotypes impact hiring practices, says the blog.

In terms of wage disparities, women in the public sector get a 30% wage premium, on average, compared to all paid employees. However, this premium is 7% if only female healthcare employees of the public sector are considered. Furthermore, this premium falls to just 2% if only female front line workers of the public sector are considered.

The wage premium for women in the public sector compared to the private sector may indicate a dedication to ensuring equitable wages and benefits. Nevertheless, the smaller premium for female healthcare employees in comparison to all salaried workers suggests that compensation policies may still need improvement.

### WHEN SHOULD YOU GO FOR A MAMMOGRAM? HOW FAR APART SHOULD YOU SCREEN YOURSELF?

There are a lot of questions among my women patients about how soon to do a mammogram and whether it needs to be done regularly like any other routine test. Awareness about mammograms as a screening procedure continues to be low among Indian women and even looked at with suspicion.

#### **Why do I need a mammogram when I do not have any symptoms of breast cancer or even have a family history of it?**

All breast cancers are not because of family or a breast cancer gene. Many women patients are the first in their families to have it because of mutation of genes and normal cells in their body. About 30 to 40 per cent of women in India above the age of 40 years are prone to breast cancer. Also 90 per cent of breast cancers are not linked to family history. That's why I say that women with a family history should begin screening as soon as they turn 40 and those without a history must make it a routine post 50. Also, we must remember that onset of symptoms may indicate disease progression and Stage 1 and Stage 2 usually show no symptoms. One of my patients reported an abnormality during a routine mammogram. In fact, it seemed like a pre-cancerous lesion. But on surgery, it was found to be Stage 1 cancer. A mammogram can help women aged 40 and older detect breast cancer, the commonest form of cancer among women, earlier, leading to less aggressive treatment and a higher rate of survival.

According to the American Cancer Society, early-stage breast cancers have a survival rate of 99 per cent compared to later-stage cancers at 24 per cent. Besides, prevention is better than cure.

#### **Will a mammogram expose me to unsafe levels of radiation?**

The amount of radiation is only as much as a digital X-ray and is very less. Besides, these procedures happen within medical guidelines and norms. You will need more than a 1,000 mammograms in your lifetime to breach the safety barrier! So, if your doctor suggests more than one mammogram to clear doubts and suspicions, go for it. Otherwise, any woman who is clean should get a mammogram done once in two years or once a year if cancer is detected.



### **Which mammogram should I go for, 3D or digital?**

Three dimensional mammograms are old tech now. Digital mammography gives a better image quality and contrast, so the diagnosis is better. Since breast tissue is dense, this helps in detecting early cancer more accurately and can even save you from false alarms.

### **Can my mammograms pick up all kinds of breast cancer?**

They may not always pick up cancer if it is too small or obscure and gets hidden by dense tissue. But generally mammograms have a 95 per cent sensitivity. They are quite reliable and continue to be the best screening test. If there is a doubt, an abnormal finding that could just mimic cancer or persistent complaints by the patient, then the doctor will anyway suggest an MRI or biopsy.

### **If my mammograms are clear, why should I keep doing them?**

While it is good to have normal results, it does not mean that your tissues will continue to be normal with advancing years. According to the largest trials in the US, there was a 33 per cent decrease in death from breast cancer in women older than 40 who undertook regular mammograms for screening.

## **INDIA'S FIRST NATIONAL WATER-BODY CENSUS**

### **The story so far:**

The findings of the first-ever water body census, conducted by the Ministry of Jal Shakti, was published recently.

### **Why is a water body census necessary?**

India is facing a water crisis with groundwater decline, biodiversity loss, and climate change increasing the frequency of floods and droughts. In this context, water bodies are important. They buffer against climate variability, holding flood waters for use in dry periods. They contribute to food and water security as well as livelihoods by recharging groundwater and providing water for irrigation and livestock. They also have cultural and ecological significance. However, water bodies are increasingly under threat from pollution, encroachment, urbanisation, and drying. If they are to be conserved and managed effectively, we need action plans which require baseline data. As water bodies are managed by different agencies from State to local to private entities, the data must be uniform and easily accessible. To actually manage water bodies, we need contextual and traditional knowledge of communities which are to be integrated with formal data. While data on reservoirs and rivers has been available on the India Water Resources Information System (WRIS) for the last few years, there has been no data on smaller water bodies that are the lifeline of rural India and critical cultural, flood-control and recreational spaces in cities.

### **How was the census conducted?**

The massive effort expended in the first-ever water body census was much needed. The census's objective was to develop a national database with information on the size, purpose, ownership, status, and conditions of water bodies. It covered all natural and human-made units bounded on all sides for storing water, irrespective of condition or use.



A software for data entry and a mobile app for capturing the location and visual of the water bodies were developed, and data-processing workshops were conducted to train the surveyors in all States and Union territories.

The census was built on existing and publicly available satellite-derived datasets. These datasets are extremely rich, allowing citizens to hone in on a specific village and download the historical time series data on each water body. However, they only include attributes that can be observed from space. The water body census thus, extends this to social characteristics including ownership, use and condition.

#### **What does the data show?**

Such a large national effort allows us to compare spatial and temporal trends of water bodies across the country. These are some of the observations based on the data:-

(a) Most water bodies in the country are very small — the vast majority of India’s water bodies are less than one hectare (ha) large. This means locating and keeping track of them is likely to remain a challenge. The traditional way to map these water bodies, using satellites, may not work, which is why the mammoth effort expended in ground-based tracking is very welcome.

(b) The water bodies show regional patterns that correlate with rainfall — in general, in drier States like Gujarat, Maharashtra, and Rajasthan, water bodies tend to be larger and publicly held. In the wetter parts of the country, like Kerala, West Bengal, and States in the northeast, more than three-quarters of the water bodies are privately owned. In drier States, the water bodies are primarily used for irrigation and groundwater recharge while in wetter States, domestic use and pisciculture dominate. Mid-sized water bodies are largely panchayat-owned.

(c) Most water bodies have never been repaired or rejuvenated — several water bodies were classified “not in use”, meaning despite the recent interest in rejuvenating water bodies, most of them have never been repaired or revived.

#### **How can the census improve?**

While the census was a clearly Herculean effort, we must take care when interpreting the data.

First, there are some clear gaps. Water bodies have an important role in supporting biodiversity. They harbour fish that birds feed on and provide roosting and breeding spaces for resident and migratory birds. These ecological functions are related to the size and location of the water bodies. But the latest water body census does not address any questions about this. The report itself noted in its preamble that water bodies “support healthy ecosystems”, yet the focus was exclusively on human use, which means only pisciculture or fish farming, which is seeded and does not reflect natural biodiversity.

In classifying water bodies in terms of reasons of abandonment or disuse, “others” emerged as a significant reason, on par with “drying up” in a few States, but far ahead of other specific categories such as industrial pollution, construction, and salinity. One possibility is that the census questionnaire may have left out the most common reasons like eutrophication, sewage pollution, and solid waste dumping.

Secondly, there are inconsistencies in the census. The census groups water bodies into five types: ponds, tanks, lakes, reservoirs, and water conservation schemes. Its glossary defines a pond as a smaller water body than a tank, while “water conservation structures” might include check dams



and percolation tanks. However, these categories are not mutually exclusive — many tanks that were traditionally used directly for irrigation serve primarily as recharge structures today. Based on the data, it appears that in Karnataka, these were classified as ponds and tanks serving the purpose of irrigation, whereas in Maharashtra these were classified as water conservation structures, primarily serving the purpose of groundwater recharge. The sources of irrigation statistics for the two States suggest neither State has much tank irrigation.

Third, the data was not standardised across States. Some States like Gujarat do not show any water bodies not being in use, whereas Karnataka reports almost 80% of its water bodies as being in a state of disuse. This suggests differences in interpretation by the enumerators.

There are some other concerns as well. For example, the map for north Karnataka seems suspiciously empty. Since the original geotagged data does not seem to have been made available yet, it is unclear if some districts were skipped or if they genuinely had a lower water-body density.

Notwithstanding these shortcomings, it is crucial that the government continue such nationwide censuses of a vital resource, with modifications. This first edition itself provides high-level indications on the way forward by detailing ownership, state of use, and the costs of construction and repair. It points to how and why water bodies must be restored, which agency's capacities need to be strengthened, where and how much funds are needed, and who will benefit from such efforts. If such censuses are conducted every five or 10 years, over time, they will accurately represent emerging trends and the state of water in the country as a whole.

## GLOBAL WARMING: WHY INDIA IS HEATING UP SLOWER THAN THE WORLD AVERAGE

The annual mean temperature of the world is known to have increased by 1.1 degree Celsius from the average of the 1850-1900 period. But this increase, as can be expected, is not uniform. It varies in different regions and also at different times of the year. This single number denoting global temperature increase, very effective for communicating the dangers of climate change, is built on top of several layers of averages.

Temperature rise over land is much higher than over oceans. Over land, the annual mean temperatures have risen by as much as 1.59 degree Celsius since preindustrial times, according to the latest report of the Intergovernmental Panel on Climate Change. Oceans, in contrast, have warmed by about 0.88 degree Celsius.

The warming trends over the Indian region are very different. An assessment of climate change over the Indian subcontinent, published by the Ministry of Earth Sciences in 2020, said annual mean temperatures had risen by 0.7 degree Celsius from 1900. This is significantly lower than the 1.59 degree Celsius rise for land temperatures across the world. It could give the impression that the problem of climate change over India was not as acute as other parts of the world. But that is not entirely accurate.

### Why is warming over India lower?

The relatively lower rise in temperatures over India is not a surprise. Also, India is not a special case. The increase in temperatures is known to be more prominent in the higher altitudes, near the polar regions, than near the equator. This is attributable to a complex set of atmospheric phenomena, including heat transfers from the tropics to the poles through prevailing systems of air circulation. India happens to be in the tropical region, quite close to the equator.



A substantial part of the difference between the temperature rise over India and that over the entire world can be explained by understanding what the different numbers represent.

The planet as a whole has warmed by 1.1 degree Celsius compared with preindustrial times. But, as mentioned earlier, this is just the average. Different regions have seen very different levels of warming. The polar regions, particularly the Arctic, have seen significantly greater warming. The IPCC report says the Arctic region has warmed at least twice as much as the world average. Its current annual mean temperatures are about 2 degrees Celsius higher than pre-industrial times. Some other studies suggest the Arctic could be warming even faster.

Again, this happens because of a variety of reasons, including the processes mentioned earlier. Another prominent cause is what is known as the albedo effect, or how much sunlight a surface reflects. The ice cover in the Arctic is melting, because of which more land or water is getting exposed to the Sun. Ice traps the least amount of heat and reflects most of the solar radiation when compared with land or water. More recent research suggests that the higher warming in the polar region could be attributed to a host of factors, including the albedo effect, changes in clouds, water vapour and atmospheric temperatures.

The warming in the polar regions account for a substantial part of the 1.1 degree Celsius temperature rise over the entire globe.

#### **Higher warming over land than oceans**

However, the 0.7 degree Celsius temperature rise over India has to be compared with the warming seen over land areas, not the entire planet. As mentioned, land areas have become warmer by 1.59 degree Celsius.

Land areas have a tendency to get heated faster, and by a larger amount, than oceans. Daily and seasonal variations in heating over land and oceans are usually explained in terms of their different heat capacities. Oceans have a higher capacity to cool themselves down through the process of evaporation. The warmer water evaporates, leaving the rest of the ocean relatively cooler.

However, longer-term enhanced heating trends over land have to be attributed to other, more complicated, physical processes involving land-ocean-atmospheric interactions.

#### **Impact of aerosols**

Aerosols refer to all kinds of particles suspended in the atmosphere. These particles have the potential to affect the local temperature in multiple ways. Many of these scatter sunlight back, so that lesser heat is absorbed by the land. Aerosols also affect cloud formation. Clouds, in turn, have an impact on how much sunlight is reflected or absorbed.

Aerosol concentration over the Indian region is quite high, due to natural as well as man-made reasons. Due to its location in the tropics and the arid climate, India is no stranger to dust. But it also happens to be experiencing heavy pollution right now. Emissions from vehicles, industries, construction, and other activities add a lot of aerosols in the Indian region. A reduction in warming could be an unintended but positive side-effect.



### Tropical location key

A major part of India's relatively lesser warming can be attributed to its location in the lower latitudes. As Bala Govindasamy, professor at the Centre for Atmospheric and Oceanic Sciences at the Indian Institute of Science in Bengaluru, said, the fact that higher latitudes experience greater warming is now fairly well established in science.

A majority of the global landmass is concentrated in the northern latitudes. In the tropics and along the equator, it is mostly oceans. Land areas are also prone to faster, and greater, heating. Because of both these reasons — that lands heat up more, and most of the land is located in northern latitudes — the average warming over global land areas has become more pronounced. For a country like India, located in the tropics, the deviation in temperature rise from the global average is not surprising.

Aerosols could also be playing a role, but the extent of the impact is not very clear right now. As M Rajeevan, former Secretary in the Ministry of Earth Sciences, put it, aerosols have the potential to avoid 0.1 to 0.2 degree Celsius of warming over the Indian region. Tragically, this would mean that as we clean up our air, temperature rise could be faster.

Incidentally, while the maximum temperatures over India have shown a significant increase since 1900, the rise in minimum temperatures has not been much. The rise in annual mean temperatures, therefore, has been mainly due to the increases seen in the maximum temperatures. The reasons for this are not very well understood. The climate system operates at a global level, and modelling it on regional scales introduces a lot of uncertainties.

### VIDEO OF TIRUMALA TEMPLE ANANDA NILAYAM GOES VIRAL

A video clip of Ananda Nilayam, the golden canopy atop the sanctum sanctorum of the Lord Venkateswara temple at Tirumala in Andhra Pradesh, allegedly captured by a devotee, went viral on the social media on Sunday, raising questions over the security arrangements in place at the hill shrine.

The Tirumala Tirupati Devasthanams (TTD) said that a detailed inquiry had been ordered and all the CCTV footages were being examined.

The TTD has set up a three-tier security system at the hill shrine and carrying any electronic gadget into the temple premises is prohibited.

Devotees are thoroughly checked and frisked twice — at the Vaikuntam Complex and the security point near the main entrance of the shrine — before entering the temple complex. They have to pass through the metal detectors before entering the temple.

It is yet to be ascertained as to how the electronic gadget purportedly used to shoot the video of the 'Ananda Nilayam' was brought into the temple complex, bypassing the security points.

TTD Chief Vigilance and Security Officer Narasimha Kishore said that the temple trust board had taken a serious view of the incident.

"Strict legal action will be taken against those responsible for shooting the video in the prohibited zone. Tirumala witnessed a heavy downpour the previous evening and power supply was interrupted for more than two hours. It is suspected that a person sneaked through the security points during this period and captured the video," said Mr. Kishore.

**3<sup>RD</sup> FLOOR AND 4<sup>TH</sup> FLOOR SHATABDI TOWER, SAKCHI, JAMSHEDPUR**





## 10 INDIAN LANGUAGES TO GET TECHNICAL-TERM DICTIONARIES

The Commission for Scientific and Technical Terminology (CSTT), under the aegis of the Union Ministry of Education, is working on technical and scientific terminology in 10 Indian languages that are under-represented in the learning landscape.

The CSTT will bring out what it calls fundamental (basic) dictionaries with 5,000 words per language, in three or four months. These will be in digital, searchable format, and free of cost. About 1,000-2,000 copies will be printed in each language.

Bodo, Santhali, Dogri, Kashmiri, Konkani, Nepali, Manipuri, Sindhi, Maithili and Sanskrit are a part of the list of 22 official languages of India according to the Eighth Schedule of the Constitution. However, there is a paucity of study material in these languages, primarily because of a lack of words to describe scientific phenomena and technical terms. The sparse content available has been confined to the primary-school level that used English words when regional vocabulary was unavailable.

The immediate task is to cover 15 disciplines: journalism, public administration, chemistry, botany, zoology, psychology, physics, economics, Ayurveda, mathematics, computer science, political science, agriculture, civil and electrical engineering. These will enable textbook formulation at the middle- and senior-school as well as university levels.

### **Wide distribution**

The dictionaries will be distributed to State education boards, universities, engineering institutes, and the National Testing Agency that conducts entrance examinations such as the Common University Entrance Test (CUET), Joint Entrance Examination (JEE) Main, and University Grants Commission (UGC)-National Eligibility Test (NET) to aid in preparation of content.

The language list, when created in 1950, had 14 languages. Sindhi was added in 1967; Konkani, Manipuri and Nepali in 1992; and Bodo, Dogri, Maithili and Santhali in 2004.

“There is a lack of content and linguistic resources in these 10 languages, leading to a lack of availability of learning material in these languages,” said Girish Nath Jha, chairperson of the CSTT.

The CSTT, which was set up in 1961, has the mandate of evolving technical terminology in all Indian languages. The organisation is finalising several memoranda of understanding (MoUs) with prominent institutes, including IIT Bombay, for quick online dissemination. The move assumes importance as the National Education Policy 2020 has espoused the use of regional languages as a medium of education in both school and college.

**BUSINESS & ECONOMICS****GREEN CROSSHAIRS**

Starting this October, the European Union (EU) proposes to introduce a framework for levying a carbon tax on imports of products that rely on non-green or sub-optimally sustainable processes and where carbon emissions are deemed to have not been adequately priced. This Carbon Border Adjustment Mechanism (CBAM) will begin with an import monitoring mechanism and culminate in the levy of duties as determined from January 2026. The EU argues that the CBAM will ensure its climate objectives are not undermined by carbon-intensive imports and spur cleaner production in the rest of the world. This poses a significant threat to some of India's biggest exports to the trading bloc, including iron ore and steel, with carbon levies estimated to range from 19.8% to 52.7%. During a visit to France in early April, Commerce and Industry Minister Piyush Goyal said it was too early to gauge the tax's impact on Indian exports, as operational clarity was yet to emerge. By last Thursday, top trade officials were more assertive and termed tackling this risk as one of the top items on the government's agenda, with several options being explored.

It is critical that the Centre reacts with greater alacrity to what may be considered by some as a sophisticated trade barrier doused in 'greenwashing' optics, proposed by the EU. Last year, about a third of India's iron, steel and aluminium exports, for instance, were shipped to EU members. Engineering products, the largest export growth driver in recent years, would be impacted too. Larger players across sectors are gradually turning to greener technologies, but the transition needs time — even more so for smaller businesses — to move away from legacy carbon-heavy technologies (such as blast furnaces for steel making). The EU believes the carbon tax is compatible with World Trade Organization norms, but India is looking to challenge that. It may also flag the incompatibility with the UN's climate change framework which moots common but differentiated responsibilities for developed and developing nations. But even if these arguments are upheld, these two avenues lack enforcement options. So, a threat of retaliatory tariffs on EU imports is also being weighed even as plans are afoot to quantify the various carbon taxes levied in India. Having positioned itself as the voice of the global South, India must play that part to the hilt while at the helm of the G-20 this year and galvanise other nations to take on the EU's carbon tax framework. This championing need not revolve around its own concerns, but the far worse implications the CBAM entails for poorer countries, many of whom rely more heavily on mineral resources than India does.

**WILL THE GREENBACK STILL BE GREEN?**

The status of the U.S. dollar as a preferred currency for international trade and as a reserve currency has not been a result of any purposeful policy or an international agreement. The rise of the dollar as the world currency closely aligns with the rise of the U.S. as one of the world's strongest economies with a deep financial system and a stable government. This is not to say there were no competitors. Starting with the Great Britain Pound to the emergence of the euro as the currency of the European Union, the position of the dollar has been challenged from time to time. However, the dollar seems to continue its dominance uninterrupted.

According to reports from the International Monetary Fund, the dollar's share of foreign exchange reserves has fallen over time from 80% in the 1970s to about 60% in 2022. The euro has made up for about 20% of the remaining 40% room created by this fall. Smaller currencies such as the



Australian and Canadian dollars, Swedish krona, and South Korean won have claimed their share in the portfolios of various countries' foreign exchange reserves making up most of the remaining gap of 20%, with Chinese currency taking up the rest.

China runs a closed capital account, which explains why it still does not feature as a prominent choice in which to maintain reserves. Most of the Renminbi reserves that are held outside China are by Russia. In fact, both these countries accumulate the currency of the other as foreign exchange reserves. From that point of view, a trading arrangement between China and Russia makes more sense. However, even though India's biggest supplier of oil is Russia followed by Saudi Arabia and Iraq, its biggest trading partner is still the U.S., according to recent data. Moreover, Russia's importance as an oil supplier is a result of the deep discounts offered by its oil suppliers to Indian refiners. Such discounts will not be sustainable over the long run. This further casts some doubt on the long-term viability of a common currency or a reciprocal trading arrangement between China, India, and Russia as geopolitical compulsions push India closer to the U.S.

#### **Dollar-denominated assets**

Along with general acceptability as a medium of exchange for international trade, the U.S. dollar is also in demand because of demand for dollar-denominated assets worldwide. The debt issued by the U.S. government is bought by many countries across the world as a hedge against currency fluctuations affecting valuation of reserves. U.S. government debt and other dollar-denominated assets also serve as a quality collateral in international transactions. Additionally, many currencies are pegged to the U.S. dollar and a few countries use the dollar as their own currency. This has meant that a huge proportion of U.S. dollars reside outside the U.S. China itself has substantial U.S. dollar reserves earned from its trade with the U.S. over the past three decades, which in turn has fuelled its economic might across the globe. It has used these dollar reserves to fund its strategic investments abroad. All this feeds into the demand for the dollar and strengthens its importance in the international financial system. Any currency competing for the position of the U.S. dollar as international reserve currency will have to provide these additional services as well. That is not a trivial task that can be achieved over a shorter time period.

The fight of countries to substitute the U.S. dollar with their own currency as a world currency is understandable. Being a supplier of international reserve currency confers a distinct advantage on the government issuing it — the ability to borrow at a low interest rate. As U.S. government debt is in high demand worldwide, it gets issued at the lowest interest rate. This relaxes the fiscal constraint substantially, boosting the debt-issuing government's capacity to borrow more without having to deal with the negative effects of such borrowing on the domestic economy. This phenomenon is often referred to as the dollar premium and is something that many other governments would like to have access to, including that of China and Russia.

Thus, the run of the U.S. dollar as an international reserve currency is far from over. The only serious contender at this point is the euro, which stands second but at quite a distance. The possibility where the Chinese currency or any other common currency could become a serious contender is thin and distant at this point. This not to say that the current system is optimal and should not be improved on. However, to expect that from a common currency between China, India, and Russia or any such reciprocal trading arrangement would be an exaggeration.



## FITCH AFFIRMS INDIA'S RATING AT 'BBB-' WITH A STABLE OUTLOOK

Fitch Ratings on Tuesday affirmed India's long-term foreign-currency issuer default rating at 'BBB-' with a stable outlook, backed by strong growth prospects. It, however, raised concerns over the country's higher deficits.

"India's rating reflects strengths from a robust growth outlook compared with peers and resilient external finances, which have supported India in navigating the large external shocks over the past year," the rating agency said.

A 'BBB' rating indicates that expectations of default risk are currently low. The capacity for payment of financial commitments is considered adequate, but adverse business or economic conditions are more likely to impair this capacity. The rating agency said India's growth prospects have brightened as the private sector appears poised for stronger investment growth following the improvement of corporate and bank balance sheets in the past few years, supported by the government's infrastructure drive.

## WHAT INDIA'S LATEST FARM EXPORTS DATA SHOW

India's agricultural exports are poised to scale a new peak in the financial year ending March 31, 2023. But so are imports, bringing down the overall farm trade surplus.

Government data show the value of farm exports in April-December 2022, at \$39 billion, was 7.9% higher than the \$36.2 bn for the corresponding period of the previous year. At the present rate, the record \$50.2 bn exports achieved in 2021-22 look set to be surpassed.

However, equally significant are the imports of agri produce, that at \$27.8 bn in Apr-Dec 2022, have grown 15.4% over the \$24.1 bn for Apr-Dec 2021. As a result, there has been a further shrinking of the surplus on the farm trade account.

### The drivers of exports...

The two big contributors to India's agri-export growth have been rice and sugar.

India in 2021-22 shipped out an all-time-high 21.21 million tonnes (mt) of rice valued at \$9.66 billion. That included 17.26 mt of non-basmati (worth \$6.12 billion) and 3.95 mt (\$3.54 billion) of basmati rice. In the current fiscal, the growth has been primarily led by basmati rice. Its exports have gone up by 40.3% in value (from \$2.38 billion in April-December 2021 to \$3.34 billion in April-December 2022) and 16.6% in quantity (2.74 mt to 3.20 mt) terms. The corresponding increases have been less for non-basmati exports: 3.3% in value (\$4.51 billion to \$4.66 billion) and 4.6% in quantity (12.60 mt to 13.17 mt).

More spectacular perhaps is sugar. Sugar exports hit a record value of \$4.60 billion in 2021-22, as against \$2.79 billion, \$1.97 billion, \$1.36 billion, and \$810.90 million in the preceding four fiscals. This fiscal has seen a further surge of 43.6%, from \$2.78 billion in April-December 2021 to \$3.99 billion in April-December 2022.

India exports of rice and sugar are well on course to touch, if not top, \$11 billion and \$6 billion respectively in 2022-23. Marine products exports, too, are likely to exceed last year's peak of \$7.77 billion, having registered a marginal 2.7% jump from \$6.12 billion in April-December 2021 to \$6.29 billion in April-December 2022.



However, exports of some big-ticket items have faltered or slowed. The value of buffalo meat shipments fell 5.1% from \$2.51 billion in April-December 2021 to \$2.39 billion in April-December 2022. So did spices: down 6.7% from \$2.95 billion to \$2.75 billion. While wheat exports have grown by 3.9% from \$1.45 billion to \$1.51 billion, they are unlikely to sustain or even reach the 2021-22 full-fiscal level of 7.23 mt (\$2.12 billion), thanks to a poor crop and the ban on shipments imposed in May 2022.

### ...And that of imports

More than a general export slowdown, it's the growth in imports that should be cause for concern. This has come mainly from three commodities.

The first is vegetable oils, whose imports shot up from \$11.09 bn in 2020-21 to \$18.99 bn in 2021-22, and even more during the first nine months of 2022-23 over the same period of last fiscal — from \$14.04 bn to \$16.10 bn or 14.7%. According to the Solvent Extractors' Association of India, India's total edible oil imports rose from 13.13 mt in 2020-21 to 14.03 mt in the 2021-22 oil year (Nov-Oct), and increased further by 30.9% from 2.36 mt in Nov-Dec 2021 to 3.08 mt in Nov-Dec 2022. Imports now account for over 60% of the country's estimated 22.5-23 mt annual oil consumption.

The second is cotton. India's cotton exports reached an all-time-high of \$4.33 bn back in 2011-12. It remained at reasonably high levels until 2013-14 (\$3.64 bn), before plunging to \$1.62 bn by 2016-17 and \$1.06 bn in 2019-20. There was a recovery thereafter to \$1.90 bn in 2020-21 and \$2.82 bn in 2021-22.

But during this fiscal, not only have exports collapsed to \$512.04 million in April-December (from \$1.97 billion in April-December 2021), imports have also soared from \$414.59 million to \$1.32 billion for the same period. In other words, India has turned from a net exporter to a net importer of cotton.

The third commodity is cashew. During April-December 2022, imports have posted a 64.6% rise to \$1.64 billion from \$996.49 million in April-December 2021, even as exports of cashew products have plummeted from \$344.61 million to \$259.71 million for the same period. A similar trend has been witnessed in spices, with exports de-growing (from \$2.95 billion to \$2.75 billion) and imports edging up (\$955.75 million to \$1.03 billion).

### The policy implications

The UN Food and Agriculture Organization's (FAO) Food Price Index — having a base value of 100 for the 2014-16 period — averaged 122.5 points in 2012-13 and 119.1 points in 2013-14. Those were the years when India's agri-exports were at \$42-43 billion. As the index crashed to 90-95 points in 2015-16 and 2016-17, so did exports to \$33-34 billion. The exports recovery in 2020-21 and 2021-22 happened along with — rather, on the back of — rising global prices and the FAO index averaging 102.5 points and 133 points in the two years.

The FAO index peaked at 159.7 points in March 2022, just after the Russian invasion of Ukraine. Since then, it has fallen every month, with the latest reading of 131.2 points for January 2023 the lowest after the 129.2 points of September 2021.

Going by past correlation, one can expect this to lead to India's farm exports slowing down in the months ahead. Moreover, this could be accompanied by increased imports, as was the case from 2014-15 to 2017-18. In the event, the focus of policymakers too, may have to shift from being pro-



consumer (to the extent of banning/ restricting exports) to pro-producer (providing tariff protection against unbridled imports).

Secondly, the government needs to do something about cotton and edible oils. India's cotton production has declined from the high of 398 lakh bales in 2013-14 to a 12-year low of 307.05 lakh bales in 2021-22. Clearly, the effects of not allowing new genetic modification (GM) technologies after the first-generation Bt cotton are showing, and impacting exports as well. A proactive approach is required in edible oils as well, where planting of GM hybrid mustard has been permitted with great reluctance — and which is now a matter before the Supreme Court.

### GST E-INVOICING TO INCLUDE SMALLER FIRMS FROM AUGUST 1

In a move that would add to the compliance requirements for small and medium businesses under the GST regime while expanding the tax net, the Centre has made it mandatory for all businesses with an annual turnover of ₹5 crore to use e-invoices from August 1.

The Central Board of Indirect Taxes and Customs (CBIC), which notified the reduction from the current ₹10-crore level, also rolled out an 'Automated Return Scrutiny Module' for GST returns. The module's implementation has already commenced with the scrutiny of GST returns for the financial year 2019-20.

"This module will enable the officers to carry out scrutiny of GST returns of Centre-administered taxpayers selected on the basis of data analytics and risks identified by the system," the Finance Ministry said in a statement.

"In case customers accept invoices from such vendors without e-invoice compliance, their input tax credit would be denied, resulting in GST loss for them to the extent of 18% generally, which could severely impact their bottom lines," said Vivek Jalan, partner at Tax Connect Advisory.

### RBI'S HOARD OF GOLD NOW ALMOST 800 TONNES: WHAT'S BEHIND THE GOLD RUSH BY CENTRAL BANKS?

The Reserve Bank of India's (RBI) gold reserves touched 794.64 metric tonnes in fiscal 2023, an increase of nearly 5 per cent over fiscal 2022, when it held 760.42 metric tonnes of gold.

#### **So why are these reserves increasing?**

Because, as part of the diversification process, the RBI has been adding gold to its reserves, which is considered a more safe, secure, and liquid asset, to safeguard its returns amid global uncertainty and a rising inflation scenario.

#### **And how much gold has RBI bought?**

The RBI bought 34.22 tonnes of gold in fiscal 2023; in fiscal 2022, it had accumulated 65.11 tonnes of gold. Between the fiscal year ended June 30, 2019 (the RBI used to follow the July-June accounting year then; this was changed to April-March starting 2020-21) and fiscal 2023, the RBI's gold reserves swelled by 228.41 tonnes.

The 794.64 tonnes of gold reserves in fiscal 2023 also included gold deposits of 56.32 tonnes. In its half-yearly report on Management of Foreign Exchange Reserves: October 2022-March 2023, released on Monday (May 8), the RBI said 437.22 tonnes of gold is held overseas in safe custody



with the Bank of England and the Bank of International Settlements (BIS), and 301.10 tonnes of gold is held domestically.

As on March 31, 2023, the country's total foreign exchange reserves stood at \$578.449 billion, and gold reserves were pegged at \$45.2 billion. In value terms (USD), the share of gold in the total foreign exchange reserves increased from about 7 per cent at the end of March 2022 to about 7.81 per cent at the end of March 2023. It was 7.06 per cent as of end-September 2022.

#### **But why is the RBI purchasing so much gold?**

Experts believe that the RBI has been stepping up its gold purchases over the last few years in order to diversify its overall reserves. This change in strategy, according to experts, has been driven by negative interest rates in the past, the weakening of the dollar and growing geopolitical uncertainty.

"Central banks want security, safety, liquidity and return. Gold is a safe asset to have as it is liquid, has an international price which is transparent, and as it can be traded anytime. So, central banks are buying gold," World Gold Council's (WGC's) Regional CEO (India) Somasundaram PR said last week.

The RBI added 7 tonnes of gold in January-March 2023, a recent WGC report showed. According to Somasundaram, the RBI is among the top five central banks that are buying gold.

#### **So are other central banks too buying gold?**

Yes, many other central banks, including the Monetary Authority of Singapore (MAS), the People's Bank of China (PBoC) and the Central Bank of the Republic of Turkey have been buying gold. In the calendar year 2022, central banks around the world purchased 1,136 tonnes of gold, which was a record high.

"Gold has been 'en vogue' with central banks since they became net purchasers on an annual basis in 2010. The two key drivers of central banks' decisions to hold gold are its performance during times of crisis, and its role as a long-term store of value," the WGC said in its report on Gold Demand Trends for 2022, released in January 2023.

"It's hardly surprising then that in a year scarred by geopolitical uncertainty and rampant inflation, central banks opted to continue adding gold to their coffers and at an accelerated pace," the report said.

### **PRIVATE GENERAL INSURANCE PLAYERS' EXPANDING MKT SHARE**

Private general insurance players have wrested some market share from public sector companies as witnessed in the case of the banking sector in the fiscal year 2022-23 (FY23).

The four public sector general insurers, New India Assurance (NIA), United India Insurance, Oriental Insurance and National Insurance Company, with a total premium of Rs 82,895 crore (Rs 75,132 crore in FY22) have reported a cumulative market share of 32.27 per cent, down from 34.03 per cent in FY22.

However, private sector general insurers including five stand-alone health insurers (SAHIs) with a total premium of Rs 158,182 crore during the year ended March 2023 (Rs 130,420 crore in



FY22) expanded the total market share to 61.56 per cent from 59.16 per cent in FY22, according to figures released by the General Insurance Council.

#### MSCI TWEAK: WHAT TRIGGERED THE SELL-OFF IN HDFC TWINS?

HDFC Bank and HDFC Ltd stocks fell close to 6 per cent on May 5. The massive sell-off in merger-bound entities was seen after global index provider Morgan Stanley Capital International (MSCI) announced a change in the rules for inclusion of the merged in MSCI Global Standard Index. This resulted in a fear of outflow post the merger. The sell-off in HDFC Ltd and HDFC Bank resulted in fall in domestic equity markets, with the Sensex and the Nifty plummeting one per cent on Friday.

##### **What was the MSCI's announcement?**

Market participants said MSCI intends to delete HDFC from MSCI Global Standard Index and at the same time add HDFC Bank to the large cap segment of MSCI Global Standard Indexes with a foreign inclusion factor (FIF) of 0.37 after applying an adjustment factor of 0.5.

This means that the weight of the merged entity will be lower than what HDFC Ltd currently has in the MSCI India Index.

#### WHAT A TOTAL BAN ON DIESEL VEHICLES COULD MEAN IN INDIA

A government panel has recommended that all diesel four-wheelers should go off the road by 2027 in a very large number of Indian cities. The proposal, if accepted, will dramatically hasten what has so far been a gradual move towards cleaner fuels. But it will also cause serious disruption in the transport sector, and will impact both companies and citizens.

A panel formed by the Ministry of Petroleum and Natural Gas has recommended a ban on the use of diesel-powered four-wheel vehicles by 2027 in cities with a population of more than 1 million, and instead transition to electric and gas-fuelled vehicles.

The Energy Transition Advisory Committee, headed by former petroleum secretary Tarun Kapoor, has also recommended that city transport should be a mix of Metro trains and electric buses by 2030.

"Diesel-driven 4-wheelers may be eliminated as soon as possible. Therefore, a ban on diesel-powered four-wheelers in all Million Plus cities and all towns with high pollution has to be enforced in five years, i.e. by 2027," the report says. Also, "commercial vehicles may transition to LNG in the short term", and "no diesel city buses addition be allowed in urban areas, to drive towards transition towards clean fuel urban public transport in about 10 years".

##### **What is the background of this proposal?**

The panel's recommendations come in the wake of the government's stated aim to reduce greenhouse gas emissions, and to produce 40% of its electricity from renewables as part of its 2070 net zero goal. Diesel currently accounts for about 40% of India's petroleum products consumption, according to estimates by the Petroleum Planning & Analysis Cell.

The proposed ban will have a significant footprint — a large number of cities in India have more than 1 million people, and include not just the metropolitan centres, but also smaller towns and cities such as Kota, Raipur, Dhanbad, Vijayawada, Jodhpur, and Amritsar.





### **Who makes diesel cars in India?**

Maruti Suzuki, the country's largest passenger vehicle manufacturer, stopped making diesel vehicles from April 1, 2020, and has signalled that it does not have plans to re-enter this segment.

The diesel engine is, however, part of models sold by Hyundai and Kia, and Toyota Motor's Innova Crysta range. Tata Motors, Mahindra, and Honda have discontinued production of 1.2-litre diesel engines; diesel variants are available only for 1.5-litre or higher engine capacity.

Since 2020, most carmakers have taken significant steps towards deleveraging their diesel portfolios. As a result, the contribution of passenger vehicles to overall diesel vehicle demand has fallen to just 16.5%, compared to 28.5% in 2013.

### **So what is the issue with the proposal?**

It is not yet clear how the proposal for a ban, if accepted, will unfold and how practical it would be to implement. This is especially true in the case of medium and heavy commercial vehicles that are used for the transport of goods on highways, and for buses plying in most Indian cities, where diesel is the mainstay. Even if the ban on diesel for commercial vehicles were to have a longer transition time, significant disruption could still happen.

Around 87% of diesel fuel sales are in the transport segment, with trucks and buses accounting for about 68%. Uttar Pradesh, Maharashtra, and Haryana make up almost 40% of the diesel sold in India. While it seems easier at the moment to convert diesel trucks to compressed natural gas (CNG), there are certain limitations — including CNG being used for shorter distances, and its lower tonnage carrying capacity.

Also, many auto industry players argue that carmakers having a presence in the diesel segment are already in compliance with current emission norms, and have invested heavily to transition their diesel fleet from BS-IV to BS-VI emission norms.

### **What is the reason people prefer diesel vehicles?**

The higher fuel economy of diesel engines over petrol powertrains is one factor. This stems from the greater energy content per litre of diesel, and the inherent efficiency of the diesel engine.

Diesel engines do not use high-voltage spark ignition (spark plugs), and thus use less fuel per kilometre, as they have higher compression ratios, making it the fuel of choice for heavy vehicles.

Also, diesel engines offer more torque (rotational or turning force), and are less likely to stall as they are controlled by a mechanical or electronic governor, thereby proving to be better for haulage.

### **Why are carmakers moving away from diesel?**

The higher compression ratio of diesel engines means there are increased emissions of oxides of nitrogen (NOx), which is one of the main drawbacks of diesel engines versus petrol. The biggest blow for diesel, though, has been an external trigger — the Volkswagen emissions scandal, which led to an increase in the negative perception against diesel across markets, including India.

Also, the reason why Maruti Suzuki and other carmakers announced an exit from the diesel segment was the rollout of the new BS-VI emission norms from April 1, 2020, and the prohibitively high cost of upgrading diesel engines to meet the new standard. The government's decision to



leapfrog directly from BS-IV to BS-VI is the reason carmakers such as Maruti Suzuki cite for the unviability of retaining diesel in their portfolio.

#### **Didn't petrol engines too need upgrades as a result of the shift to BS-VI?**

While petrol vehicles needed upgrades for this transition, these were limited to catalysts and electronic control upgrades. But for diesel vehicles, the upgrades were more complicated and entailed higher costs. Carmakers had to put three pieces of equipment — a diesel particulate filter, a selective catalytic reduction system, and an LNT (Lean NOx trap) — to meet the BS-VI norms, all at the same time. This was vital to curb both PM (particulate matter) and NOx emissions as mandated under the BS-VI norms.

For most carmakers, the economics of the conversion simply did not make it worthwhile to continue with the diesel option after the transition to BS-VI. “For us, diesel is completely out... We did study the market, but we found that it didn't make sense given the future regulatory environment, the cost would have been really high and it just didn't make sense,” CV Raman, chief technology officer, Maruti Suzuki India had told The Indian Express in an interaction in March.

#### **And what about the buyers of diesel vehicles?**

There is the issue of the price of diesel, and consequently, of running the car. The Indian carbuyer's romance with diesel powertrains lasted nearly a decade, with diesel cars accounting for 48% of passenger vehicle sales in the country in 2013. The main reason was the sharply lower price of diesel as compared to petrol — a yawning Rs 25 per litre at its peak.

But this changed when the decontrol of fuel prices started in late 2014. The price difference has since come down to around Rs 7 per litre — the closest the two fuels have been in price since 1991. Consequently, diesel cars accounted for less than 20% of overall passenger vehicle sales in 2021-22, less than half the share they had five years ago.

#### **So what is the upshot, overall, of this proposal?**

A move towards a phasing out of diesel — and ultimately petrol as well — vehicles is in keeping with action by most federal governments across the world.

In the case of India, however, automotive experts foresee difficulties in implementing a total ban on diesel because, (a) carmakers — and oil companies — have invested heavily in transitioning to BS-VI and all that investment could go down the drain if a complete ban were to be implemented and; (b) in the commercial vehicles segment, where diesel penetration is very high and alternative fuels options such as electric vehicles, CNG, liquified natural gas (LNG), and hydrogen are still only being explored, and a total ban would cause serious disruption.

The Energy Transition Advisory Committee report has said that “LNG has the potential to replace both diesel and CNG in heavy-duty vehicles and thereby reduce GHG emissions. Its push in both medium and heavy-duty vehicles, despite cost constraints and higher payback periods, can be a gamechanger for the Indian logistics market”, alongside a recommendation for an EV push and leveraging hydrogen as a motive fuel.

Automakers have consistently maintained that the government's approach should be technology-agnostic, and that interventions should be restricted to prescribing stringent operational standards, including emission norms. If a particular technology or fuel type is not able to meet the

standards, then it should be phased out, rather than proposing a complete ban on a technology platform, an executive with a car company said.

Oil marketing companies claim that emission standards under BS-VI have necessitated oil refineries to substantially reduce the level of sulphur in diesel, and that the Bureau of Indian Standards (BIS) has brought out the specification for “diesel with 7 per cent biodiesel”, which further lowers the emission footprint of diesel.



# DreamIAS



## LIFE & SCIENCE

### INDIAN SCIENTIST-LED TEAM WITNESSES STAR ENGULFING JUPITER-SIZED PLANET

In a first, scientists have witnessed a bloated star in our own galaxy swallowing a planet. This planetary feast is believed to have occurred near Aquila, an eagle-like constellation, located about 12,000 light-years from Earth.

The Sun-like star, identified as ZTF SLRN-2020, gobbled up the entire hot gas-giant planet, nearly measuring in size that of Jupiter.

In a joint study, a team of researchers from California Institute of Technology, Massachusetts Institute of Technology (MIT), Universities of Harvard and Cambridge, and other noted institutions, confirmed the death of a planet following an event first discovered in May 2020.

Life cycles of stars have been well studied and understood for some decades now. Older stars, eventually, ingest the nearby planets (like Mercury, Venus with respect to our Sun), too, is scientifically known.

“But it was considered extremely challenging to provide experimental evidence proving the death of a planet,” Kishalay De, lead author of the study published in the journal Nature, shared with The Indian Express via email.

Even Earth could face a similar fate five billion years from today, De said.

“At the end of its life, the Sun will swell up to a size that will certainly be bigger than the present-day orbit of Earth. So nominally, the Earth would get engulfed when the Sun runs out of fuel in about 5 billion years,” De, who studies transient optical or infrared sky in search for cataclysmic explosions in the Milky Way and other galaxies, added.

The rate of planet engulfment in the galaxy is not very well known, De said, but a reasonable estimate is about one per year.

### OBSTACLE SENSORS, RADARS AND EVENTUALLY, SELF-DRIVING CARS: THE ROAD TO ADVANCED DRIVER ASSISTANCE SYSTEMS

There is a progressive democratisation of autonomous driving tools, with car manufacturers starting to now offer advanced driver assistance systems (ADAS) as standard bells and whistles on their mid-segment vehicles.

The new Verna, Hyundai's upgrade of its flagship sedan, now comes equipped with front and rear radars, sensors and a front camera to allow for what is called 'Level 2 ADAS' functionality, meaning that it will not just detect obstacles on the road or issue a warning in the event of an unusual departure of the car from a designated lane, but also initiate corrective actions.

The ADAS suite will also include features such as automatic emergency braking, forward collision warning, blind spot collision warning, blind spot collision-avoidance assist, lane-keeping assist, driver attention warning and adaptive cruise control, which can enhance the safety and convenience of driving.



Honda Cars India too now offers these ADAS features on the higher-spec variants of its mid-segment sedan, the City, while Tata Motors offers these in the top variants of the Harrier and the Safari Red Dark Edition. These tools have traditionally been offered with cars having a substantially higher price sticker, including Hyundai's premium SUV Tucson and sedans and utility vehicles sold by German luxury car makers such as Mercedes-Benz and the Volkswagen Group's Audi.

#### **What's behind the increasing offerings of ADAS tech?**

While this progressive trend of moving down the price bracket is being driven by several factors, including the increasing demand for safer vehicles among Indian consumers and the government's push for increased road safety, the availability of more affordable ADAS technology is also accelerating this trend.

With the adoption of ADAS technology, car manufacturers say they are helping to improve the overall safety of Indian roads and reduce the number of accidents and fatalities. But ADAS level 2 is where the self-driving goal of most carmakers seems to have maxed out, at least for now, despite lofty promises over the years.

Every single year since 2014, Tesla Inc. CEO Elon Musk has promised that the Austin-based carmaker will get its self-driving technology road-ready, with a definitive time-frame for this upshift in passenger car technology. And each of these last eight years, what is evident is that self-driving continues to be as elusive for Tesla as it is for a bunch of other carmakers in the fray that aim to put passenger cars on the roads without anyone behind the wheels.

Not to be undone, Musk, in keeping with the trend, repeated his claim in August last year, with a freshly updated target to boot: that he would get the electric auto maker's self-driving technology ready "by year-end". That, predictably, is still an elusive target.

#### **So what exactly is autonomous-driving?**

There are five levels in the evolution of autonomous driving: each level describing the extent to which a car takes over the responsibilities from the driver, and how the two interface. So, the levels range from 0 to 5, progressively defining their relative extent of automation. Level 0, "No Automation", is where the driver controls the car without any support from a driver assistance system – the case for most cars on the road currently.

The driver assistance systems of level 1, like adaptive lane assist or parking assist, are already being offered in a number of top-end cars, while level 2 is a further upgrade that was available only across some models of premium car makers such as steering and lane-keeping assist and remote-controlled parking – examples include Tesla's 'Autopilot' or BMW's 'Personal CoPilot'. This is what Hyundai is now offering with its new Verna and Honda with the new City.

Level 3 is where it starts to get tough for carmakers – who have to offer an even greater array of "automated driving" tools where the driver can partly take his eyes off the road, while level 4 stands for "Fully Automated Driving", where the driver can take his hands off the steering wheel for most of the drive. Level 5 is "Full Automation", where the car can drive without any human input whatsoever. All of these are still in the testing phase and that's where the projections made by Musk and other self-driving proponents have to do more of the walking-the-talk.

#### **Why is the self-driving objective still elusive?**



When Musk first made his claim over a decade ago, Tesla had been working on its driver assisted technology, which they have branded as autopilot, for about 12 months or so. Success has been patchy ever since.

Problems ranged from jumping red lights, not recognising pedestrians to situational problems like identifying a cyclist who briefly disappears behind a parked vehicle. Ultimately, Tesla began beta testing its full self-driving system only in 2020. But there's a catch with Tesla's beta testing: it is doing the testing with regular people driving their Tesla cars on public roads, with each of these drivers having forked out an amount of \$12,000 for the privilege of doing so.

Google's Waymo and Cruise owned by General Motors are among companies that predicted they'd have full self-driving cars by 2020, with only limited success: that too limited to ring fenced, geotagged areas. But none of them are anywhere close to reaching level 5. And there are perils of unleashing less-than-optimally tested tech: In June last year, for instance, 13 Cruise Robo taxis stopped simultaneously on a major arterial street in San Francisco, bringing traffic to a standstill.

Clearly, developing full self-driving cars is way harder than carmakers initially thought. Also, there is the continuing debate on the technology of choice: cameras vs a combination of technologies that include lidar, radar, sensors and camera. While Tesla is relying primarily on cameras, most other car models depend on multiple sensors to feed information into onboard computers, which expends huge amounts of processing power to map what's going on and forecast what might happen next.

While it is easy for humans to do this kind of prediction based on situational awareness, this can present a complex problem for computers, such as when someone at the side of the road steps off the pavement and disappears behind a parked van for a minute or distinguishing between a red signage on a wall versus an actual stop sign. In the first instance, a human driver might anticipate that the person behind the van could emerge from the other side and step out onto the road.

But for a computer, this predictive capacity is still work in progress. For self driving to work in a country like India, where traffic is extremely haphazard, it will be an even tougher task.

#### **What's next in terms of the milestones for self-driving?**

In 2022, eight years after his first prediction, Musk highlighted the real scale of the problem – that to solve full self-driving, the issue of a mastery over real world AI is a must, which is still a work-in-progress. The rapid advances being made in large language models is a somewhat positive sign, going forward. But all the information the car will need to drive properly has to be aggregated by sensors or cameras and then fed into the computer for it to learn from it, which is possible only with increased autonomous driving miles.

As a result of these gaps, both car hiring majors Uber and Lyft are offloading their self driving divisions. Tesla was sued for failing to deliver on Musk's long standing promise to develop a fully self-driving car. Also, there is the danger of miscommunication by companies. Drivers using advanced driver assistance systems like Tesla's Autopilot or General Motors Super Cruise often treat their vehicles as fully self-driving despite warnings.

The Insurance Institute for Highway Safety, a US-based industry funded group that prods automakers to make safer vehicles, released the findings of a survey in October than reported that regular users of Super Cruise, Nissan/Infiniti's ProPILOT Assist and Tesla's Autopilot "said they



were more likely to perform non-driving-related activities like eating or texting while using their partial automation systems than while driving unassisted.”

## WHAT IS BLUESKY, THE LATEST MICRO-BLOGGING PLATFORM IN THE MARKET?

Since Elon Musk’s takeover, Twitter has been constantly in the news. The social media company’s workforce has dropped from nearly 8,000 to around 1,000. Alongside the drop, technical glitches and outages have increased. Separately, as the blue tick verification and API access become paid features, several users are searching for alternative social media platforms. Though the decentralised Mastodon emerged as an early contender, Bluesky has come to the fore as a potential claimant to Twitter’s throne.

### What is Bluesky?

Bluesky is a micro-blogging platform and social website built on the AT Protocol (Authenticated Transport Protocol). Bluesky might be classified as a Twitter competitor due to its founding team but it is different in terms of its structure, as it is meant to form part of a decentralised ecosystem. Users of apps built on the AT Protocol would be able to move between platforms without losing their followers, media, work, and data. This account portability, as the feature is called, is a major part of the AT Protocol’s structure.

Bluesky says its founding mission is to “develop and drive large-scale adoption of technologies for open and decentralised public conversation.”

### Who is behind Bluesky?

The CEO of Bluesky is Jay Graber, a software engineer with a background in cryptocurrency. Bluesky was launched in 2019 by former Twitter CEO Jack Dorsey, who chose Ms. Graber to lead the project. Twitter and Bluesky were meant to eventually connect and work with each other, but the companies ended their service agreement last year. Since then, Mr. Dorsey has admitted that mistakes were made in how Twitter handled certain content moderation debates.

### Could Bluesky replace Twitter?

Not anytime soon. Bluesky is currently in private beta, meaning that only a select group has been allowed to join via invite codes. Others interested in trying it out can add themselves to a waitlist. Regular Bluesky members are also given a new invite code at periodic intervals that they can share with new applicants they deem trustworthy.

Bluesky said it had more than 50,000 users at the end of April but maintained that it would distribute invites at its own discretion to maintain the integrity of the platform. Based on this announcement, it is unlikely that Bluesky will replace Twitter any time soon, as it continues to grow its membership at a highly controlled rate.

## FDA APPROVES FIRST VACCINE FOR RESPIRATORY SYNCYTIAL VIRUS

On May 3, the Food and Drug Administration (FDA) approved the first vaccine — Arexvy — for respiratory syncytial virus (RSV) to lower respiratory tract disease in people older than 60 years. This is the first RSV vaccine to be approved anywhere in the world.



According to the U.S. Centres for Disease Control and Prevention, lower respiratory tract disease caused by the RSV virus leads to approximately 60,000-1,20,000 hospitalisations and 6,000-10,000 deaths among adults who are 65 years of age and older. The RSV virus significantly affects older adults with comorbidities. Like the common cold, the RSV usually causes mild symptoms but can turn deadly if it infects older people.

Besides older adults, infants too are at high risk from RSV. According to the Atlanta-based CDC, every year, 58,000 to 80,000 children in the U.S. who are younger than five years are hospitalised because of the RSV and the mortality is 100 to 300.

As per a GSK press release, the vaccine will be available for older adults in the U.S. before the 2023-2024 RSV season, which typically starts ahead of the winter months.

## OF HOPE AND VIGILANCE

The world's lived experience with pandemics has conferred it with the certitude that epidemics wane to die down, or transform into seasonal outbreaks; COVID-19 is no exception. The World Health Organization (WHO) Director-General, Tedros Adhanom Ghebreyesus, last week declared, on the basis of advice from the emergency committee (comprising independent experts), that the COVID-19 pandemic was no longer a Public Health Emergency of International Concern. After over three years, he was reading down an emergency that he first announced on January 30, 2020, forced by a rapidly spreading infection that moved from China to 20 other nations across the world. Dr. Tedros notably invoked hope when he declared that COVID-19 was over as a global health emergency, but followed it up with a rider: it did not mean COVID-19 was no longer a global health threat. Over the months leading up to the announcement, various experts with WHO were laying the ground, urging that it was time to treat COVID quite like seasonal influenza. For a world fatigued by great loss, human and otherwise, caused by the COVID pandemic, and exhaustively on guard, the DG's announcement brought a collective sigh of relief.

However, the task now for WHO and nations is to ensure that this announcement is not selectively received, to prevent the world from slipping into a torpor of complacency. For, COVID is not over — multiple variants and sub variants continue to emerge regularly, and it has not yet settled into a seasonal pattern that one can read, or prevent. At any point of time, it is possible that a new variant, or recombinant may lead to rapid transmission and cause severe disease, resulting in hospitalisations and even higher mortality rates. As global health experts continue to insist: for health systems, eternal vigilance is essential, to maintain a level of care and periodically test their capacity to respond to epidemic situations. The impressive network of INSACOG laboratories capable of genetic sequencing and even routine health infrastructure built up during the COVID years must be utilised well. It is also important to not take the foot off the pedal in terms of research and development into vaccine platforms, drug delivery systems, anti virals, and antibiotics. This will enable nations to be prepared and on guard not just for COVID-19 but also other emerging infections. At a personal level, individuals will benefit from following the hygiene and precautions that became a habit during the COVID years, particularly adhering to the vaccination schedule, and following hand hygiene and masking under certain circumstances.