



CURRENT AFFAIRS FOR UPSC

4th to 10th February 2024



INTERNATIONAL

PROSECUTING TRUMP

The U.S. Court of Appeals for the District of Columbia Circuit has ruled that former U.S. President Donald Trump does not enjoy immunity from prosecution for crimes that he might have committed during his term in office, in the context of charges against him relating to undermining the constitutional democracy of the country. The ruling by the court's federal appeals panel implies that Mr. Trump can be tried in the case against him relating to a conspiracy to overturn the results of the 2020 presidential election, in which he faces four counts including conspiring to defraud the U.S. and to obstruct an official proceeding. However, because a month has passed since the time that the court heard arguments on immunity and issued the latest ruling, a high-pressure situation has emerged in terms of scheduling and carrying out the conspiracy trial before the date of this year's election, November 5. The prosecuting team, led by Special Counsel Jack Smith, is concerned that if Mr. Trump appeals the immunity decision and uses other stalling tactics in the conspiracy case, the trial might extend past the election date. In such a scenario, there might be a real risk that should Mr. Trump win the presidency again, he could use his position as a sitting president to either get the case against himself dismissed or potentially issue a self-pardon.

While the Circuit Court has given Mr. Trump until February 12 to appeal its decision in the U.S. Supreme Court, it is unclear whether the Supreme Court justices will take on such a highly charged political case as the present one. Even if they do, it might well be weeks or months before a decision is made. Already, the Supreme Court is set to hear arguments on whether, under the Constitution's 14th Amendment, Mr. Trump's name can be deleted from State ballots — as States such as Colorado have sought to do — under its "insurrection clause". The bottom line is this: Mr. Trump will continue battling legal cases throughout this lopsided election season and will potentially continue doing so after the election too. What remains to be seen is whether his legal battles affect his reputation among voters, positively or negatively. In the former case, the scenario of a convicted President, even one who governs from prison, cannot be ruled out under the U.S. Constitution. If the cases diminish his overall popularity and he falls short of securing the presidency, his political career may be at an end, but Trumpism as a movement reflecting broad voter frustration with the policies and values of traditional Republican and Democratic politics will continue to shape the destiny of the United States.

A HISTORY OF THE NORTHERN IRELAND CONFLICT

The story so far:

On February 3, pro-Irish unity politician Michelle O'Neill from the Sinn Fein party made history by becoming the first Nationalist First Minister of Northern Ireland, after the opposition Democratic Union Party (DUP), the largest pro-U.K. party, returned to government ending a two-year long political deadlock in Northern Ireland.

What led to the political deadlock?

Northern Ireland is governed by a power-sharing agreement known as consociationalism as laid down in the Good Friday Agreement of 1998. This system believes that power should be shared equally between the various sectarian groups in a state, in this case, between the pro-Irish unity faction, called the Nationalists or Republicans, and the pro-U.K. faction, which are the Loyalists or



the Unionists. Sinn Fein is the largest Nationalist political party (also left-wing), while the DUP is of the latter. The party that wins the largest vote-share will hold the First Minister position while the party with the second largest vote share will keep the post of Deputy First Minister. Of these two posts, one must be a Unionist and the other a Nationalist. Both positions hold equal weight and one cannot exist without the other.

In the 2022 elections, Sinn Fein finished first with a 29% vote share, while the DUP secured the second position with a 21.3% vote share. However, a government was not formed as the DUP exited Stormont (Northern Ireland's Parliament) because it objected to the new border controls between Britain and the Island of Ireland, which came in the aftermath of Brexit. When the U.K. exited the EU, Northern Ireland became the only province to share a land border with an EU country (Republic of Ireland). The U.K. and the EU then came up with the Northern Ireland Protocol, which stipulated that the trade border, where goods are checked for compliance, would be shifted to the Irish ports, essentially making it a sea border. However, this was rejected by the DUP, which held that this was against the Good Friday agreement which sanctioned free movement of goods and people across borders. In protest, they exited the government and the political deadlock set in.

The U.K. and the EU then drew up fresh rules, called the Windsor Framework, which stated that on arrival at the border of Northern Ireland, goods will be demarcated into two. The ones which were entering the region would go into the 'green lane' with no inspections while those entering the Republic of Ireland (EU territory) would go to the 'red lane' for compliance checks. After assurance from the U.K. of Northern Ireland's place in its internal market, the DUP has agreed to return to government.

How did Northern Ireland come into being?

Northern Ireland was the site of a 30-year civil war (1968-1998) known as 'The Troubles' between the Republicans and the Unionists, which killed over 3,500 people. It also had a religious aspect to it with the Republicans being mostly Catholic and the Unionists being largely Protestants.

Northern Ireland was formerly part of the Ulster province, which lies to the north of modern-day Ireland. Conflict between the Protestants and the Irish Catholics goes all the way back to 1609, when King James I started an official policy of migration wherein people from England and Scotland were encouraged to move to Ulster to work in his various plantations there. The religious war that was being waged in much of Europe at the time, between the Protestants and the Catholics, made its presence felt in Ulster as well. However, a much stronger resistance was brewing. Ireland at the time was under the rule of England. The growing resistance against the colonial English rule, especially after the Potato Famine of 1845 where over 1 million Irish people died due to disease and starvation, cemented these sectarian and religious differences. Finally, in 1916, in the middle of the First World War, during Easter week, Ireland rose up in arms against colonial rule under the leadership of the Irish Republican Army (IRA). After a bloody war, it was able to gain independence from England with the Anglo-Irish treaty of 1921.

However, Ireland was split into two territories. As there was a protestant majority in Ulster, out of the 32 counties in Ireland, six remained with the U.K, forming the region of Northern Ireland.

What led to the Good Friday agreement?

Peace did not come easy in Northern Ireland. The years that followed were rife with discrimination and instances of sectarian violence. The Irish Republicans being the minority were



often victims of discrimination when it came to housing and public service jobs. Moreover, there have also been claims that elections were heavily skewed towards the Unionists due to gerrymandering practices. In the late 1960s, various protests against the Northern Ireland government descended into violence with the IRA and the Unionist paramilitary forces taking up arms.

The Troubles had officially started and the British Army was deployed to maintain peace. The Army was often accused of colluding with the Unionists against the Republicans. Walls were built between communities to segregate them, curfews were implemented and dissidents were being arrested without trial. However, violence continued and in 1972, in an incident known as Bloody Sunday, the British Army shot and killed at least 13 unarmed civilians during a protest march in the Bogside area of Derry. In its aftermath, the war spread to the mainland of the U.K. and Ireland, with attacks and bombings orchestrated in London and Dublin.

In the backdrop of the ever-increasing tit-for-tat violence between the IRA and the Unionists, in the 1980s, IRA's political wing Sinn Fein started taking a more active role in the political landscape of Northern Ireland. It contested elections and played a part in governance. At the same time, peace talks were also being negotiated with the U.S. acting as a mediator. The 1990s brought about a significant shift in the war. The public was weary of violence and wanted peace. Both parties agreed to a ceasefire and peace talks were in full swing. While the decommissioning of arms was heavily pushed by the U.K., both the IRA and the Unionists at the time refused to give up their arms entirely. Therefore, talks took the 'twin approach' wherein peace and decommissioning was to happen in parallel as a treaty was being reached.

Finally, on April 10, 1998, the Good Friday Agreement was signed in Belfast bringing to an end the 30-year-old civil war in Northern Ireland.

What is the Good Friday Agreement?

The Good Friday Agreement is a unique peace treaty in that it conceded to most of the demands from both sides of the conflict. The treaty had three main aspects — that the Northern Ireland government would be formed on the sovereign wishes of both Republicans and the Unionists and that they would share governance equally; that the people of Northern Ireland could seek reunification with Ireland any time subject to a referendum; and that the citizens of Northern Ireland can seek Irish or British nationality or both. It also abolished border checks and encouraged the freedom of movement of people across the U.K. and Ireland.

However, tensions of the conflict still linger in the region. The power sharing system has not been smooth. Stormont has fallen multiple times before the completion of a term. The Assembly was suspended in 2000, in 2001, from 2002-2007 when Unionists withdrew from the executive and from 2017-2020. In February 2022, the government again collapsed as Unionists withdrew over border controls between the U.K. and Northern Ireland.

What next?

In a realistic assessment of the situation, the DUP decided to return to the power-sharing agreement after London agreed to reduce customs checks on the Irish border and spend some £3 billion in Northern Ireland to steady the region's finances. The Sinn Fein, which campaigned on bread and butter issues and promised to address immediate administrative challenges, is now formidable, and delaying the power-sharing agreement will not weaken the nationalists. For the Sinn Fein, which is still committed to the unification of the two Irelands, taking over the office of



the First Minister is historic. Party leader Mary Lou McDonald has said that unification is now “within touching distance”. Ms. O’Neill said as much when she remarked that “we are in a decade of opportunity” indicating the possibility of a referendum on the reunification of the region with Ireland in the next 10 years.

It need not be so, as a majority of Northern Ireland’s voters still prefer being a part of the U.K. In a paper released by the U.K. government, it said that it “sees no realistic prospect of a border poll leading to a united Ireland,” citing recent polling. In a similar vein, Irish premier Leo Varadkar, whose government in principle supports a united Ireland, also said the question of reunification was “not for today.”

Also, the posts of First Minister and Deputy First Minister (to be held by the DUP) are technically equal. However, the symbolic value of the Sinn Fein leading the government in Northern Ireland and being the largest bloc in the Republic of Ireland amid rising economic and political discontents in the island, especially after Brexit, cannot be understated. After decades of the Troubles followed by political reconciliation, the nationalists are on the ascendant, while the unionists are on the back foot.

QUEST FOR CREDIBILITY

Hours after the International Court of Justice in The Hague ruled on January 26 that Israel must do everything in its capacity to prevent “genocidal acts” from happening in Gaza, news broke of the complicity of a few UN Relief and Works Agency (UNRWA) staff members in the cross-border attacks by the Palestinian militant group Hamas on Israel on October 7.

The Benjamin Netanyahu-led government collated its charges into a dossier and presented it to the U.S. government on the same day as the ICJ ruling. The file stated that of the 12,000-strong UNRWA staff working in the Gaza Strip, 12 had direct involvement in the attacks that saw more than 1,100 Israelis killed and close to 250 taken hostage.

Shocked by these allegations, UN Secretary-General Antonio Guterres promised criminal action against those involved, and the agency’s chief, Philippe Lazzarini, said nine were terminated from service, while two were dead. The UN’s Office of Internal Oversight Matters — the organisation’s highest investigating authority — also opened an investigation into the matter.

As a fallout of these allegations, 13 countries, including the UNRWA’s largest donor, the U.S., have paused funding for the agency. In countermeasures, countries such as Saudi Arabia, Lebanon and Qatar have asked donors to reconsider their decision.

Right of return

The UNRWA is the only UN agency dedicated to helping refugees stemming from the Israel-Palestine conflict. It was established in 1949 to cater to refugees from the Arab-Israeli War of 1948, and began operations on May 1, 1950. That the agency exists to serve these refugees who still nurture hopes of the “right of return” irks Israel, as vast portions of their homeland lie in the country.

Israel has long accused the aid group of stoking anti-Semitism through its textbooks, possessing weapons in its compounds and allowing Hamas tunnels under its relief shelters. Attempts to discredit the agency bore partial fruit in 2018 when then-U.S. President Donald Trump cancelled funding to coerce the Palestinians to the negotiations table. Upon coming to power in 2020,



President Joe Biden reversed the decision, saying the move was consistent with U.S. values and crucial to a two-state solution.

In its early days, the UNRWA catered to 0.75 million refugees. That figure grew over the years and now stands at more than 5.9 million Palestinians, spread across Syria, Jordan, Lebanon, Gaza and the West Bank.

They include the 2.3 million residing in the Gaza Strip, who have been displaced from their homes and are now living in tents because of the Israeli ground offensive. The strikes have claimed the lives of 27,000 Palestinians — mostly women and children — and injured more than 65,000. The UNRWA itself has lost close to 150 workers, the highest death toll suffered by any UN agency in a single conflict.

For those remaining in the besieged Strip, the UNRWA is their primary conduit of aid. Without funding, the agency says it will have to cease operations by the end of February. The subsequent impact will be limited not just to Gaza but will spread across the region.

Also, a halt to funding will be in direct contravention to the ICJ ruling, which asked for direct humanitarian assistance to reach Gaza, Francesca Albanese, the Special Rapporteur for Palestinian territories, wrote on X.

Though the UNRWA began functioning with the objectives of direct relief and work programmes, it has grown in scope and now admittedly involves itself in education, healthcare, relief and even microfinance in Gaza. These are large shoes to fill. The sentiment was best echoed when U.S. Secretary of State Antony Blinken, who despite calling the Israeli intelligence ‘highly credible’, termed the UNRWA’s role ‘indispensable’. U.S. Ambassador to the UN Linda Thomas-Greenfield also shared a similar view when she condemned the Israeli allegations but simultaneously called the aid group “the only organisation on the ground that has the capacity to provide the (required) assistance”.

EXPRESS VIEW ON US STRIKES IN MIDDLE EAST: EXERCISE IN FUTILITY

Two rounds of US military strikes across the Middle East over the weekend against militant groups — the so-called “axis of resistance” — backed by Iran, are unlikely to either deter US adversaries or reassure US allies in the region. The US military response will not rally the deeply divided domestic opinion behind the White House. Nor will it dampen fears of a widening war and its impact on global commerce that relies on the vital trade route running through the Red Sea.

Although the US remains the pre-eminent external power with significant leverage in the region, the Biden Administration’s political and military dilemmas have only been accentuated with each passing day since the October 7 terror attacks against Israel. The one step that could dampen the conflict is Washington’s decisive pressure on Israel to accept a ceasefire. Despite its push for a pause in the Gaza war, Washington has been unwilling to apply the necessary political pressure on Israel.

The wave of attacks by militant groups on US military presence in the region since October 7 included one at the end of January that killed three US soldiers at a US base in Jordan. President Joe Biden, in the middle of a challenging campaign for reelection, promised a decisive military response. The first round of the response on Saturday saw the US bomb 85 targets of Iran’s Revolutionary Guards Force in Iraq and Syria.



A second round of attacks in the early hours of Sunday focused on the Houthis, the Yemeni group backed by Tehran, who have been attacking international shipping in the Red Sea region. The US counterattacks are unlikely to impress the hawks at home, especially in the Republican Party, who accuse Biden of being weak, indecisive, and unwilling to confront the source of the challenge in Iran. The doves in the Democratic Party are angry that Biden is leading the US into a wider war in the Middle East, notwithstanding the claims of the Biden administration to the contrary.

A ceasefire in Gaza and a fresh diplomatic effort to address the concerns of the Palestinian people could go a long way in deterring Iran and its proxies that have built support by pointing to Israel's brutal record against Palestine. To be sure, the Biden Administration is trying to broker a long pause in the Gaza military operations and facilitate the release of Israeli hostages and Hamas prisoners that could set the stage for a renewed peace process that would recognise the long-standing aspirations for a credible Palestinian state. But resistance from Israel's Prime Minister, Benjamin Netanyahu, continues to stymie US peace efforts. Using military force against the "axis of resistance" without disciplining Netanyahu will be an American exercise in futility.

A FAILED COUP

Brazilian police's startling allegations that former President Jair Bolsonaro, his allies and some military officers had attempted to stage a coup, after the 2022 presidential election, expose both the structural fault lines and political challenges the young South American democracy faces. The police adds that they were involved in spreading propaganda on voter fraud, pushing for new elections, recruiting troops to organise a coup, bringing judges under surveillance and encouraging the mob to stage protests defying the results. Well before the elections, Mr. Bolsonaro had raised doubts about the election systems. He had refused to concede defeat to his leftist rival Luiz Inácio Lula da Silva, while his far-right supporters continued their protests, which culminated in the January 2023 riots at Brazil's Congress, Supreme Court and Presidential office. A court has ordered Mr. Bolsonaro to surrender his passport, and three of his allies and the head of his party have been arrested. The far-right leader, under whose watch Brazil's economy tanked, social tensions rose, the health-care system crumbled under the weight of COVID-19, and institutions came under attack, says the allegations are politically motivated. But he does not have an easy way out of the mess.

Those who were in power being targeted by the system is nothing new in Brazil. Former leftist President Dilma Rousseff was impeached in 2016 on charges of violating budget rules. Lula, the incumbent President, spent 580 days in jail between his terms, on a corruption conviction, which was later annulled by the Supreme Court. While Ms. Rousseff and Lula were accused of corruption and fell prey to the powerful lobbies in Brazil's Congress and judiciary, the charges against Mr. Bolsonaro, a defender of the brutal dictatorship of 1964-1985, are far more serious. Democracy remains fragile and for the military, memories of the dictatorship are still fresh. Any attempt by politicians or officers to defy the election process and undermine democracy should be dealt with utmost seriousness. But it should be done as per the law, avoiding political vendetta. Lula returned to power on promises that he would strengthen democracy and enable prosperity and growth. His hands are full. He should also make sure that there are impartial investigations and the truth about the riots and the alleged coup plot is uncovered. Earlier, the 'car wash' scandal had exposed deep-rooted corruption in the political system, which led to the weakening of Lula's Workers' Party and the rise of the far-right. He should not allow the coup scandal to further fracture the country's polity and erode the legitimacy of its democratic system.



MALDIVES ACCELERATES PLAN TO LOWER DEPENDENCE ON INDIA

In January, controversial tweets by deputy ministers of the Maldives on Indian Prime Minister Narendra Modi's visit to Lakshadweep led to a diplomatic row between the two countries. The consequences of this row have been two-fold. The tweets sparked a call by some Indians on social media to boycott the Maldives. This was an attempt by them to puncture the biggest money-maker for the Maldives, the tourism industry. Meanwhile, Maldivian President Mohamed Muizzu strengthened ties with one of India's rivals, China. Just a few days after tensions between the Maldives and India flared up, Mr. Muizzu visited China, met with Chinese President Xi Jinping, and appealed to Chinese tourists to visit his nation in large numbers and reclaim the top spot in tourist arrivals, which they once held.

While the number of Indian tourists visiting the Maldives has declined marginally, Chinese tourists have swiftly filled this gap, resulting in an overall increase in tourist inflows, data show. Chart 1 shows the number of tourists who visited the Maldives in the first 35 days of 2023 and 2024. The number of Indians who visited the archipelago dropped marginally from 21,460 to 16,895 in the period considered. It is important to note that the decline cannot be entirely attributed to the boycott call as a considerable share may also have dropped their plans fearing repercussions of the ongoing row, among other reasons. Moreover, the number of Russian tourists also decreased from 26,305 to 22,577 in the period, so India is not an outlier.

The decline in Indian visitors did not have an impact on the overall number of tourists to the Maldives. In fact, if the first 35 days of 2023 and 2024 are compared, the number of tourists went up slightly from 1,97,252 to 2,22,502. This increase is entirely due to the sudden surge in the number of Chinese tourists from just 6,563 to 25,303 in the period.

More worryingly, the impact of the diplomatic fallout has been felt by more than just the tourism industry. Generally, 20,000 to 40,000 medical tourists from the Maldives visit India annually for treatment (Chart 2). On January 13, Mr. Muizzu announced that the government's health insurance scheme will cover visits to the UAE and Thailand too, to "diminish reliance on a select group of countries". He made this announcement immediately after his return from China. He also said that a 100-bed hospital with Chinese aid will be built.

Mr. Muizzu and Mr. Xi signed key agreements, including agricultural schemes that would "end its [Maldives'] dependence on one country for imported staple foods such as rice, sugar, and flour," by growing them locally. Currently, the Maldives relies heavily on India for a number of products.

The Maldives imports over 95% of its granite, 40% of its steel bars and coils, over 30% of tubes/pipes, electric motors and cement, 65% of flat-rolled iron and stainless steel sheets, and over 50% of bulldozers from India (Chart 3). Moreover, it sources over 80% of rice, 60% of eggs, close to 30% of cattle meat, 50% of onions, melons and nuts, 25% of wheat, over 45% of crabs/shrimp/prawns and cabbages, and 40% of tomatoes from India. Essentially, the tourism boom in the Maldives — from food to stay — relies heavily on the supply of raw materials from India.

India exports 70% of its cabbages/cauliflowers, over 20% of eggs, over 10% of its melons and live animals and nuts to the Maldives. The archipelago's key agreements with China after the fallout with India threatens this mutually beneficial relationship, and gives China more sway in the Indian Ocean region.



NATION

WHY ARE NATIONS REVISING RULES FOR FOREIGN STUDENTS?

The story so far:

Migrating abroad, especially to English-speaking countries, is set to become harder for Indian students aspiring to pursue a higher education, what with countries such as Canada and the U.K. tightening rules to seek admissions to universities.

What are the new set of changes?

Following the political turmoil between India and Canada in December last year, the Canadian government issued revised requirements that it said are 'to better protect international students.' The foremost of these was to upwardly revise the Guaranteed Investment Certificate (GIC) amount from 10,000 Canadian dollars, which amounts to ₹6.15 lakh, to over double at 20,635 Canadian dollars, close to ₹12.7 lakh. In another instance, the U.K. announced that come 2024, international students will be restricted from bringing in dependant family with them as they pursue their studies. Countries such as Germany and Australia too have gradually increased the GIC amount by approximately 10% annually. As on May 2023, the amount required to apply for a German visa is 11,208 euros which is ₹10 lakh, up from the earlier cap of 10,000 euros.

Higher education experts say that an amount as low as ₹6.15 lakh is not enough for a student to survive in an expensive country like Canada. "Canada had earlier kept a low GIC threshold to attract students, but the government realised that this was not enough to keep up with rising housing costs, inflation. While other countries like Germany and Australia gradually increased the amount by 10% year-on-year, the Canadian jump of 100% came as a shocker because the hike occurred in one go," said Ankur Dhawan, president of ed-tech start-up UpGrad Abroad.

Which students have been hit the most?

In the latest tweak of rules, Canada has said that it is restricting the total number of study permits or student visas it plans to issue to 3.6 lakh (earlier this was nearly four lakh). India alone used to send up to 1.4 lakh students to Canada, approximately 80% percent of whom went to study diploma level courses there.

Earlier, aspirants looking to migrate to Canada would take any diploma as the 'study abroad' option, essentially as a passport to migrate to the country in poorly equipped educational institutions, while a spouse visa work permit would allow their spouses to work while the aspirant studied. People would take on hefty loans to fuel this move. Now Canada has stated that while they will issue a spouse visa, the spouse will not have a work permit. Akshay Chaturvedi, CEO of LeverageEdu, opines, "In some sense it's a great step towards solving Canada's 'diploma mills' problem, it will shut down bad institutions and also de-incentivise agents who engage in shoddy practices."

How are tightened rules affecting students?

While Canada aims to rein in its burgeoning 'diploma mills' problem, it has eased norms for masters program students to come in. Masters students can apply for a three-year work permit after their course is complete. However, the stricter guidelines have put those who want to seek a Bachelors' degree in Canada in the lurch.



Take for instance, 21-year-old Manvir Singh, a resident of Rajnandgaon in Chhattisgarh who during the years from 2022-2023 was enrolled in the University of Yorkville and completed his first two years of bachelors in Business Administration (BBA) remotely. Mr. Singh was supposed to get admitted for his third-year on-campus studies from May 2024. Mr. Singh who has deposited his third-year fees of \$15,000 and has submitted a GIC of \$20,900 has now been advised by the University to put his visa application on hold. “All visa applications of students wanting to go to study in Canada are on hold till March this year, as universities need to figure out how to send attestation letters to students which will have to be secured from the Canadian government,” Mr. Singh said.

What about other foreign countries?

UpGrad Abroad analysed data of 25,000 aspirational students who showed interest in studying abroad. While 18% of this pool was interested in studying in Canada during the data collected between January to July last year, this demand dropped by half to 9.3%, in the data analysed between July and December, last year.

On the contrary, a destination like Germany, which had initially been in demand with nearly 17% students, is now attracting demand from 32% students. Apart from Australia, New Zealand, Ireland, the Netherlands and Finland, Mr. Dhawan added that newer destinations like Taiwan and Israel are also emerging in the list of potential study abroad destinations as they want to attract Indian talent to their countries.

UNENDING WOES

The continuing arrests of fishermen from Tamil Nadu and Puducherry by the Sri Lankan Navy in the Palk Bay, despite diplomatic interventions at the highest level, and the attacks on them mid-sea by armed civilians are a matter of serious concern. True, Indian fishermen cross into Sri Lankan waters in search of catch, and affect the livelihood of Sri Lankan Tamil fishers. But the numbers this year are staggering. The detention of 23 fishermen and the seizure of two trawlers on Saturday, off Delft island on charges of “poaching”, has taken the number of those arrested so far this year to 69, compared to 240 the whole of last year. Since 2013, Sri Lankan authorities have also remanded some fishermen in judicial custody for several months. This year, 34 fishermen, including 12 who were arrested last year, have been released, while over 45 men remain in custody. What is distressing for the community is the confiscation of their expensive fishing nets and vessels — this year, 10 boats were seized. By the time these boats are released through a judicial process or following diplomatic talks, most are not in a sea-worthy condition.

No doubt, Sri Lanka is under pressure from its northern province fishermen to act against Tamil Nadu fishermen, who they accuse of resorting to destructive bottom trawling, a practice banned by the country since July 2017. While India promised to end bottom trawling in the Palk Bay and incentivise fishermen to take to deep-sea fishing under the Blue Revolution Scheme, bottom trawlers are still active. Fishermen also face a practical problem as under the Tamil Nadu Marine Fishing Regulation Act 1983, mechanised fishing boats are permitted to fish only beyond three nautical miles from the coast. Since the distance between Dhanushkodi and the International Maritime Boundary Line is only nine nautical miles, breaches do occur, a point the Sri Lankan Navy should not overlook. As Prime Minister Narendra Modi emphasised in 2015, the tensions over fishing must be handled as a “humanitarian concern”. Unfortunately, neither side has demonstrated consistency in the handling of the issue. In November 2016, the countries had agreed upon a Joint Working Group (JWG) on Fisheries that would meet every three months, and



also have a bi-annual meeting of the Ministers of Fisheries. But the JWG has held just five sittings, the last one being in 2022. Tangible and targeted action is needed to encourage deep-sea fishing, bottom trawling being given up and the issue resolved with mutual compassion and periodic talks. Failing this, the Palk Bay would remain perilous territory for Indian fishermen.

CAN PREAMBLE BE AMENDED KEEPING DATE INTACT, ASKS SC

The Supreme Court on Friday asked if the Preamble of the Constitution could have been amended without changing the date of its adoption on November 26, 1949. The Preamble was amended only once in December 1976 by the Indira Gandhi government to introduce the words 'socialist' and 'secular'.

The phrase "unity of the nation" was replaced with "unity and integrity of the nation". The changes were made in the Preamble through the 42nd Constitutional Amendment during the Emergency.

Originally, the text of the Preamble declared India as a 'sovereign, democratic republic'. The words 'socialist' and 'secular' were inserted between 'sovereign' and 'democratic'. "From an academic point of view, could the Preamble have been changed by keeping the date intact?" Justice Dipankar Datta, sharing a Bench with Justice Sanjiv Khanna, asked. The Bench was hearing a petition filed by BJP leader Subramanian Swamy to delete the words socialist and secular from the Preamble.

"Originally these two words [socialist and secular] were not there... The text says 'In our Constituent Assembly this 26th day of November, 1949, do hereby adopt, enact, and give to ourselves this Constitution'," Justice Datta said.

Justice Datta said "it was not that the Preamble could not have been amended", but could it have been done without changing the date. In fact, the largest Bench in the history of the Supreme Court (13 judges) in the Kesavananda Bharati case had held that the Preamble was an integral part of the Constitution and was subject to the amending power of the Parliament, provided the basic structure was not tinkered with. Advocate Vishnu Jain said the Preamble "did come with a date. Therefore, amending it without any debate" had been suspect. Dr. Swamy said the amendments were pushed through during the Emergency.

'Infamous amendment'

Advocate Sriram Parakkat, appearing for Communist Party of India (CPI) leader Binoy Viswam, said the 42nd amendment was indeed "infamous". It had after all tried to reduce the power of the Supreme Court and High Courts. "While subsequent amendments more or less restored the Constitution to what it was pre-1976, this change made in the Preamble... that we are secular and socialist... was retained," Mr. Parakkat submitted in court.

The court agreed to hear further arguments in the week commencing April 29, 2024.

THE DISPUTE OVER VARANASI, MATHURA MOSQUES

The story so far:

The Places of Worship (Special Provisions) Act, 1991, is once again in focus, albeit in a context in which its objectives are being ignored. Civil suits questioning the religious character of mosques at Varanasi and Mathura are progressing apace. These developments show that legislation



freezing the status of places of worship is inadequate to stop Hindu claimants from making determined legal efforts to achieve their goal of replacing them with temples.

Why was the Places of Worship Act enacted?

When the Babri-Masjid Ram Janmabhoomi dispute gained momentum, the Vishwa Hindu Parishad and other Hindu organisations took up the case of two other mosques — the Gyanvapi mosque in Varanasi and the Shahi Idgah in Mathura. In September 1991, the P.V. Narasimha Rao government enacted a special law to freeze the status of places of worship as they were on August 15, 1947. The law kept the disputed structure at Ayodhya out of its purview as it was then an ongoing litigation.

What are the Act's main features?

The Act declares that the religious character of a place of worship shall continue to be the same as it was on August 15, 1947. It says that no person shall convert any place of worship of any religious denomination into one of a different denomination or section. It declares that all suits, appeals or any other proceedings regarding converting the character of a place of worship, which are pending before any court or authority on August 15, 1947, will abate as soon as the law comes into force. No further legal proceedings can be instituted.

There are a couple of exceptions to the rule. The 1991 Act will not apply to ancient and historical monuments and archaeological sites and remains that are covered by the Ancient Monuments and Archaeological Sites and Remains Act, 1958. It will also not apply to any suit that has been finally settled or disposed of, any dispute that has been settled by the parties before the 1991 Act came into force, or to the conversion of any place that took place by acquiescence.

What is the status of the ongoing cases on the Gyanvapi mosque?

A suit was filed in 2022 in the Varanasi district court by a group of Hindu women worshippers seeking to assert their right to worship deities they claim are still found on the premises of the Gyanvapi mosque. The plaintiffs say they have a right to worship Ma Sringar Gauri, Ganesh, Hanuman and other "visible and invisible" deities. Also pending is another batch of suits filed in 1991 seeking a declaration that a part of the site of the Gyanvapi mosque belongs to Lord Vishweshwar.

The main basis for the suits is that the Hindu side says that an old temple of Lord Vishweshwar lies at the centre of the Gyanvapi compound. The site, they contend, is the abode of the 'self-manifested' deity since time immemorial. They claim that the temple was demolished on the order of Emperor Aurangzeb in 1669.

So far, court orders have favoured the position that these suits are not barred by the Places of Worship Act. On the district court's order, the Archaeological Survey of India (ASI) has conducted a survey of the premises.

The ASI's report, submitted to the Varanasi district court, claims that a temple existed there prior to the construction of the mosque. Subsequently, the court has allowed the conduct of Hindu prayers at a cellar on the premises. The order allowing Hindu prayers has been questioned by the Anjuman Intezamia Masjid Committee, which administers the Gyanvapi mosque.

The suits in Mathura pertain to the Shahi Idgah mosque that stands adjacent to the Krishna Janmabhoomi Temple there. These suits claim that the mosque was built over the birthplace of



Lord Krishna. The mosque committee, however, denies the allegation. The dispute was settled through a compromise between the Sri Krishna Janmasthan Seva Sansthan and the Shahi Idgah Trust in 1968, and implemented through a decree in 1974. As part of the settlement, the Sansthan had given up a portion of the land to the Idgah. The current suits challenge this compromise as 'fraudulent' and seek the transfer of the entire parcel of land to the deity. The Allahabad High Court has transferred to itself all suits pertaining to the Mathura dispute.

Why hasn't the Act barred suits on Gyanvapi and Shahi Idgah?

In both disputes, the respective mosque committees sought rejection of the suits on the ground that the Places of Worship Act prohibits such litigation. However, court orders so far say the Act does not bar these suits and that they must go on.

In the Gyanvapi worshippers' case, the ruling is that the suits aimed to assert the right of worship of the Hindu deities and did not seek to convert the status of the mosque. Regarding the earlier batch of suits, the Allahabad High Court has taken the view that the Act does not define the term 'religious character'. A structure cannot have the dual character of being both Hindu and Muslim, and that only an examination of evidence can determine its religious character. The Act cannot be an absolute bar on proceedings to ascertain its religious character, it held.

Regarding the Mathura dispute, the district court has taken the view that the suits are not barred by the Places of Worship Act, as what is under challenge is the compromise decree based on the 1968 agreement. As the decree was drawn up before the commencement of the 1991 Act, it is not applicable to the case, it has held.

SHOULD SOME SCs GET MORE QUOTA BENEFITS THAN OTHERS: WHAT IS THE DEBATE, IN WHICH APEX COURT HAS RESERVED VERDICT

Some states have argued that despite reservation, some castes are grossly underrepresented in comparison with the so-called dominant Scheduled Castes. They want to create a separate quota for such castes within the SC quota of 15%, to ensure that the benefits are adequately distributed.

In 2004, a five-judge Constitution Bench in 'E.V. Chinnaiah v State of Andhra Pradesh' held that only the President could notify which communities could receive reservation benefits as per Article 341 of the Constitution, and that states did not have the power to tamper with this.

A number of states have now returned to the Supreme Court to argue against the Chinnaiah decision, claiming that states do have the power to make sure reservation benefits are distributed to communities that need them the most. The respondents on the other hand, defended the Chinnaiah judgment and argued that all Scheduled Castes must be treated equally.

The beginning

In 1975, the Punjab government issued a notification dividing its 25% SC reservation at that time into two categories. In the first category, seats were reserved solely for the Balmiki and Mazhabi Sikh communities, which were and continue to be considered two of the most economically and educationally backward communities in the state. Under the policy, they were to be given first preference for reservation in education and public employment. The second category consisted of the rest of the SC communities.



While the notification remained in force for nearly 30 years, it ran into legal hurdles when in 2004, a five-judge Constitution Bench struck down a similar law introduced by Andhra Pradesh in 2000. In 'E.V. Chinnaiah v State of Andhra Pradesh', the Supreme Court struck down the Andhra Pradesh Scheduled Castes (Rationalisation of Reservations) Act, 2000 for being violative of the right to equality. The law contained an expansive list of Scheduled Caste communities in the state and the quota of reservation benefits provided to each of them.

The court held that the sub-classification would violate the right to equality by treating communities within the category differently, and said that the SC list must be treated as a single, homogenous group. The rationale was that since the Constitution classifies certain castes in a Schedule as they historically faced discrimination due to untouchability, they cannot be treated differently from one another.

The court also drew attention to Article 341 of the Constitution, which gives the President the power to create a list of SC communities for the purposes of reservation. The five-judge Bench held that this meant states did not have the power to "interfere" or "disturb" this list, including through sub-classification.

Two years after the apex court ruling, the Punjab & Haryana High Court in 'Dr. Kishan Pal v. State of Punjab' struck down the 1975 notification.

The appeal

In October 2006, four months after the Punjab & Haryana High Court struck down the notification, the Punjab government attempted to bring back the law by passing the Punjab Scheduled Caste and Backward Classes (Reservation in Services) Act, 2006. This Act reintroduced the first preference in reservations for the Balmiki and Mazhabi Sikh communities.

In 2010, the High Court once again struck down this provision. The Punjab government then moved the Supreme Court.

In 2014, the Supreme Court in 'Davinder Singh v State of Punjab', referred the appeal to a five-judge Constitution Bench to determine if the 2004 E V Chinnaiah decision required reconsideration, since it needed an inquiry into the interplay of several constitutional provisions. Interpretation of the Constitution requires a Bench of at least five judges of the Supreme Court.

Reconsidering the E V Chinnaiah ruling

In 2020, the Constitution Bench headed by Justice Arun Mishra held that the court's 2004 decision required reconsideration. The ruling noted that the court and the state "cannot be a silent spectator and shut its eyes to stark realities." The ruling disagreed with the premise that Scheduled Castes are a homogeneous group and said there are "unequals within the list of Scheduled Castes, Scheduled Tribes, and socially and educationally backward classes."

Crucially, since the E V Chinnaiah decision, the concept of a "creamy layer" has also trickled down to SC reservations.

In the landmark 2018 ruling in 'Jarnail Singh v Lachhmi Narain Gupta', the Supreme Court upheld the concept of "creamy layer" within SCs too. The 'Creamy layer' concept puts an income ceiling on those eligible for reservations. While this concept applies to Other Backward Castes (OBC), it was applied to promotions of SCs for the first time in 2018.



States have argued that the sub-classification is essentially an application of the creamy layer formula, where instead of excluding the better-off castes from the Scheduled Caste list, the state is merely giving preferential treatment to the most disadvantageous castes.

Since the Davinder Singh Bench was also of five-judges (same as E V Chinnaiah), a larger seven-judge Bench is now hearing the issue — only a larger Bench's judgement can prevail over the decision of a smaller Bench.

Apart from Balmikis and Mazhabi Sikhs in Punjab and Madiga in Andhra Pradesh, Paswans in Bihar, the Jatavs in UP, and Arundhatiyars in Tamil Nadu will also be impacted by the sub-classification strategy.

The arguments on both sides

The Advocate General of Punjab, Gurminder Singh, argued that E.V. Chinnaiah was mistaken when it held that states could not tamper with the classes that comprised the Presidential list under Article 341.

Highlighting the language used in Article 16(4) of the Constitution, he pointed out that the Article allows the State to provide reservations for backward classes who are not "adequately represented" in State services. As the phrase used is "adequately" and not "equally", Singh argued, there is no obligation to provide the same opportunities to every community in the Presidential list.

Additional Advocate General of Punjab Shadan Farasat pointed out that the recently introduced Article 342A on the Constitution made it clear that the Chinnaiah decision could no longer apply. This provision specifically empowers States and Union Territories to maintain a list of Socially and Economically Backward Classes which may be different from the Presidential list.

Former Attorney General KK Venugopal also made a rare return to court to argue in favour of sub-classification. Recalling his experience arguing in the Chinnaiah case, he stated that without sub-classification, the weakest sections of society will be left behind, defeating the very purpose of reservations.

Senior Advocate Sanjay Hegde, appearing for the respondents, argued that all the communities included in the Presidential list suffered from the "taint of untouchability", and the Constituent Assembly made a choice not to enter into comparisons of who suffered the most.

He then claimed that if a community named in the Presidential list did not receive reservation benefits, they would only be left with the stigma of being a Scheduled Caste. Another intervenor similarly argued that states did not have the discretion to ignore some Scheduled Castes in favor of others.

The Bench took note of this point and CJI Chandrachud acknowledged that the court would have to lay down criteria to ensure popular politics does not affect the granting of reservations.

A TRAVESTY

The Supreme Court of India's stinging remarks on the manner in which the Mayor of Chandigarh was elected has confirmed suspicion that the victory of Manoj Sonkar, the Bharatiya Janata Party (BJP) candidate was obtained through manipulation. After viewing footage of the videographed electoral process, the Chief Justice of India found it appalling that the presiding officer himself

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appeared to be defacing the ballots, and termed it a “mockery of democracy”. Many had noted as soon as the election was called in favour of the BJP that it was a travesty that took place on January 30, as eight votes cast by elected councillors were declared invalid. The election held on January 30 itself was based on a direction from the Punjab and Haryana High Court. Earlier, it was due to be held on January 18, but it was deferred to February 6 at the last minute as it was disclosed that Anil Masih, a nominated councillor and a BJP minority wing functionary, fell ill. However, thanks to the court’s intervention, it was advanced to January 30. The Congress and the Aam Aadmi Party (AAP) allege that the election was put off only because two parties, which were contesting jointly, were set to win. AAP has 13 members and the Congress seven in the Corporation, but the AAP candidate Kuldeep Kumar polled only 12 votes, with eight votes being declared invalid. Mr. Sonkar, with 16 votes, was declared the winner.

The Mayor is chosen by the 35 elected Councillors and the Member of Parliament for Chandigarh. A simple method for a comparatively small elected body choosing its mayor is by a show of hands or the members rising in support of the respective candidates. That they had to record their preferences through voting slips indicates that there was suspicion of possible cross-voting. What made the process dubious was that Mr. Masih, who presided over the election, was accused of not showing the ‘invalid’ ballot papers to the candidates. As a result, no one knew why exactly these votes, presumably those that ought to have gone to the AAP candidate, were declared invalid. The apex court has done the right thing in ordering the ballots and the records be handed over to the High Court’s Registrar-General and the proposed Corporation meeting postponed until further orders. The development may concern only one municipal corporation in the country, but the idea that an election can be so brazenly rigged has grave implications for democracy. A political party seeking to be re-elected for a third consecutive term at the national level cannot be seen as manipulating any election in this manner. Only a verdict invalidating the election and ordering a fresh one, with safeguards against manipulation, will be in the interest of justice.

DESPITE DELHI COURT DIRECTIONS, AAP LEADER SANJAY SINGH NOT CALLED FOR TAKING OATH IN RS

Despite directions from a Delhi court, Aam Aadmi Party leader Sanjay Singh, who was recently elected to the Rajya Sabha for a second term, could not take oath on Monday in the absence of summons from the Rajya Sabha Secretariat.

Mr. Singh was reportedly not called for the ceremony as four cases of breach of privilege are pending against him before the Privileges Committee of the Upper House, said sources in the office of Chairman Jagdeep Dhankhar. The cases pertain to Mr. Singh’s previous tenure. He was suspended on July 24, 2023.

On August 11, the House passed a motion continuing his suspension till the committee submitted its findings. Mr. Singh, who is in judicial custody in the Delhi liquor policy case, did not come to Parliament on Monday.

Special Judge M.K. Nagpal of Rouse Avenue Courts had on Saturday directed the Jail Superintendent to ensure that Mr. Singh was taken to Parliament on Monday to be sworn in, under the condition that he would not address the press.

Mr. Dhankhar’s office said, “Summons [for taking oath] were not issued to Sanjay Singh who had also been elected, as he suffered the directives of the House passed on August 11, 2023, disintitling him from participating in the proceedings of the House till the House takes decision



on the report of the committee of privileges as and when presented to it. The fact that this matter pertains to his previous term has no impact on this directive.”

Reacting to the incident, RJD MP Manoj K. Jha said in a post on X, “Sanjay Singh was deprived of taking oath today after being elected as MP for the second time and despite the court’s instructions. This is the new parliamentary paradigm of the so-called Amrit Kaal.”

EXPLAINED: THE NEW PROCESS FOR PICKING ELECTION COMMISSIONERS, WHY IT WAS BROUGHT IN

Election Commissioner Anup Chandra Pandey is set to retire on February 14, and his successor will be picked through a consultative process being adopted for the first time.

The selection will be made by a committee comprising Prime Minister Narendra Modi, Lok Sabha Leader of Opposition Adhir Ranjan Chowdhury, and a Union minister. A similar committee, comprising the PM, Chowdhury, and Home Minister Amit Shah, met on Wednesday to appoint the Lokpal and the Central Vigilance Commissioner.

Before this, members of the Election Commission were appointed solely at the discretion of the government. The two other members of the Commission are Chief Election Commissioner Rajiv Kumar and Arun Goel.

What prompted the change?

It was the Supreme Court that forced the government’s hand. Four petitions were filed before the apex court in 2015, 2017, 2021, and 2022, which broadly called for a fair and transparent system to choose Election Commissioners.

On October 23, 2018, while considering the 2015 petition, a two-judge bench felt that the matter required interpretation of Article 324 of the Constitution, which deals with the role of the Election Commission of India. This issue hadn’t been discussed before in the Supreme Court, and so it was referred to a Constitution bench. In September 2022, a five-judge Constitution bench led by Justice KM Joseph started hearing the petitions.

The petitioners pointed out that Article 324(2) specifies the President’s role in appointing Election Commissioners, with the caveat that this appointment is subject to any law passed by Parliament. However, successive governments had not shown any inclination to enact such a law. They criticised the current appointment system for being opaque and said it raises doubts about the institution’s independence. They called for a consultative process in which a collegium or a body of persons is tasked with the responsibility to select the Election Commissioners.

How were Election Commissioners appointed then?

The power to make appointments rested exclusively with the Executive (read: the Union government). The government maintained a database of serving and retired officers, primarily Secretaries to the Government of India and Chief Secretaries, from which the Law Ministry would create a shortlist. The Prime Minister held the power to decide the appointment, with the President formally appointing the chosen candidate.

Notably, past Election Commissioners were predominantly retired officers of the Indian Administrative Services (IAS), with very few exceptions.



What was the Centre's stand in the SC?

The Centre opposed any intervention by the Supreme Court in the appointments. The government argued that while Article 324 (2) mentions the appointment being subject to a law by Parliament, without such a law, the President had the constitutional power to appoint them. Furthermore, the government stated that the existing procedure had been consistently relied upon by different governments, and that a “utopian model cannot be the premise” for making changes.

The Centre's legal representatives also argued that the petitioners were unable to demonstrate that the independence of the Election Commission is under threat, and hence, there's no immediate trigger to warrant judicial interference. Essentially, the government asked the court to show judicial restraint.

What was the Supreme Court's ruling?

On March 2, 2023, the five-judge bench ruled on the matter.

The Supreme Court delved into the legislative history of Article 324, including the discussions in the Constituent Assembly regarding the role of the Election Commission and the appointment of its members. The Court observed that it was evident that the founding fathers of the Constitution did not want the Executive to have exclusive authority in appointing Election Commission members. Therefore, the inclusion of the words “subject to any law to be made by Parliament” in Article 324 (2) was representative of the need for Parliament to legislate on this matter.

The absence of such a law, the court noted, left a vacuum. Taking note of the “devastating effect of continuing to leave appointments in the sole hands of the Executive”, the court deemed it appropriate to lay down a process for the appointment of election commissioners. Accordingly, it ruled that “the appointment of the Chief Election Commissioner and the Election Commissioners shall be made by the President on the advice of a Committee consisting of the Prime Minister, the Leader of the Opposition of the Lok Sabha, and in case no Leader of the Opposition is available, the leader of the largest opposition Party in the Lok Sabha in terms of numerical strength, and the Chief Justice of India.”

However, the Court was careful to specify that these norms were “subject to any law to be made by Parliament”. In other words, Parliament was free to enact a law on the appointment process in the future.

Was this the first time a consultative process was considered?

The consultative process ordered by the Supreme Court wasn't unprecedented. It echoed a similar proposal from the 1990 committee chaired by the then Law Minister Dinesh Goswami. This committee recommended that the President consult the Chief Justice of India and the Leader of the Opposition, or the leader of the largest Opposition group, for appointing the Chief Election Commissioner. For the other two Election Commissioners, the consultation was to involve the Chief Justice of India, the Leader of the Opposition, and the Chief Election Commissioner.

In 2015, the 20th Law Commission's 255th report also emphasised the need for a consultative process. It suggested the President make appointments after consulting a three-member collegium or selection committee, comprising the Prime Minister, the Leader of the Opposition or the leader of the largest Opposition party in the Lok Sabha, and the Chief Justice of India.



What happened after the SC judgment?

The Centre introduced a Bill in Parliament in August last year, outlining a procedure for appointing Election Commissioners. Since the Court had specified that its appointment norms are “subject to any law to be made by Parliament,” the government was well within its right to bring a Bill. However, the appointment process proposed in the Bill raised concerns regarding its potential to undermine the reforms sought by the Court.

The Bill, passed by Parliament in December 2023, establishes a committee comprising the Prime Minister, the Leader of Opposition in the Lok Sabha, and a Cabinet Minister nominated by the PM. The selection will be made from five names shortlisted by a screening panel headed by the Law Minister and comprising two Union secretaries.

The composition of the committee was criticised by the Opposition. This is because, as per the intent of the Constitution’s framers, the Election Commission should be an independent body. The proposed committee’s composition effectively sidelines the Leader of Opposition, who could be consistently outvoted by the Prime Minister and the Union minister.

This Bill was passed by Parliament in December 2023 and the President gave her assent within a week.

UNDERSTANDING THE DELIMITATION EXERCISE

The story so far:

The delimitation of constituencies for the Lok Sabha and State Legislative Assemblies is to be carried out on the basis of the first Census after 2026. The 2021 Census was originally postponed due to the COVID-19 pandemic and subsequently due to delays on the part of the Central government.

What is delimitation?

Delimitation means the process of fixing the number of seats and boundaries of territorial constituencies in each State for the Lok Sabha and Legislative assemblies. It also includes determining the seats to be reserved for Scheduled Castes (SC) and Scheduled Tribes (ST) in these houses. Article 82 and 170 of the Constitution provide that the number of seats in the Lok Sabha and State Legislative assemblies as well as its division into territorial constituencies shall be readjusted after each Census. This ‘delimitation process’ is performed by the ‘Delimitation Commission’ that is set up under an act of Parliament. Such an exercise was carried out after the 1951, 1961 and 1971 Census.

What is the constitutional requirement?

‘Democracy’ means ‘rule or government by the people’. It follows that the government is elected by a majority with the broad principle of ‘one citizen-one vote-one value’. The number of seats in the Lok Sabha based on the 1951, 1961 and 1971 Census was fixed at 494, 522 and 543, when the population was 36.1, 43.9 and 54.8 crore respectively. This broadly translated to an average population of 7.3, 8.4 and 10.1 lakh per seat respectively.

However, it has been frozen as per the 1971 Census in order to encourage population control measures so that States with higher population growth do not end up having higher number of seats. This was done through the 42nd Amendment Act till the year 2000 and was extended by

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the 84th Amendment Act till 2026. Hence, the population based on which the number of seats is allocated refers to the population as per the 1971 Census. This number will be re-adjusted based on the first Census after 2026. The boundaries of territorial constituencies were readjusted (without changing the number of seats) and seats for SC and ST were determined as per the 2001 Census and will again be carried out after 2026.

In a normal course of events, the delimitation process for the number of seats, boundaries of territorial constituencies and determining the reserved seats for SC and ST would have happened based on the Census of 2031 as it would have been the first Census after 2026. However, with the 2021 Census now being postponed and the year 2026 nearing, there have been talks about the impending delimitation exercise.

What are the issues?

The number of seats were frozen based on the 1971 Census in order to encourage population control measures. The population explosion that happened in our country during the last five decades has been uneven with some States like Uttar Pradesh, Bihar, Madhya Pradesh and Rajasthan having a greater increase than States like Kerala, Tamil Nadu, Karnataka and Andhra Pradesh. There are two options that are being discussed in the public domain with respect to the revised delimitation exercise based on the projected population of various States as of 2026.

The first is to continue with the existing 543 seats and their redistribution amongst various States and the second is to increase the number of seats to 848 with proportionate increase among various States. It can be noticed in both these scenarios that the southern States, the smaller states in the north like Punjab, Himachal Pradesh and Uttarakhand, as well as the northeastern States are bound to be at a disadvantage when compared to the northern States of Uttar Pradesh, Bihar, Madhya Pradesh and Rajasthan. This may go against the federal principles of our country and may lead to a feeling of disenchantment in the population of the States that stand to lose in their representation. It also goes against the philosophy of freezing seats as per the 1971 Census with the States that have been better at controlling the population losing out on their political significance.

What are international practices?

In a federation like the U.S., the number of seats in the House of Representatives (the equivalent of our Lok Sabha) has been capped at 435 since 1913. The population of the country has increased almost four times from 9.4 crore in 1911 to an estimated 33.4 crore in 2023. The seats among the States are redistributed after every Census through the 'method of equal proportion'. This does not result in any significant gain or loss for any of the States. For example, based on the Census of 2020, the reapportionment has resulted in no change in the number of seats for 37 States. Texas gained two seats, five other States gained one seat each and seven States lost one seat each.

In the European Union (EU) Parliament which consists of 720 members, the number of seats is divided between 27 member countries based on the principle of 'degressive proportionality'. Under this principle, the ratio of population to the number of seats shall increase as the population increases. For example, Denmark with a population of around 60 lakh has 15 seats (average population of 4 lakh per member) as against Germany with a population of 8.3 crore having 96 seats (average population of 8.6 lakh per member).



What can be an ideal solution?

The issue arises because democratic and federal principles seem to be at loggerheads in the delimitation exercise as envisaged. However, they can be harmoniously reconciled by giving equal importance to both. The main work of a Member of Parliament is to legislate on 'Union List' matters like Defence, External Affairs, Railways, Telecommunication, Taxation etc. and hold the Central government accountable. Majority of the schemes of the Central government are implemented only by the State governments. Hence, the number of MPs in Lok Sabha may be capped at the present number of 543 which would ensure no disruption in the present representation from various States. This will maintain and uphold the federal principle. The number of MLAs in each State may be increased in line with current population (without changing the number of Rajya Sabha seats) to address the democratic representational requirement.

However, the most important reform for strengthening democracy is to empower the local bodies of panchayats and municipalities who engage with the citizens on a day-to-day basis. The devolution of powers and finances to these bodies must be significantly increased to strengthen democracy at grass root levels.

TOWARDS UNIFORMITY

A Uniform Civil Code (UCC) is a desirable and progressive goal for a secular country. However, mere uniformity without making reasonable allowances for diverse cultural and social practices among different social groups may not be ideal. The UCC adopted by the Uttarakhand Assembly aims to consolidate the laws relating to marriage, divorce and succession among all communities. The State has become the first since pre-Independence Goa to adopt a uniform code for civil matters. What is particularly violative of the Constitution is the bizarre portion in this UCC aiming to formalise live-in relationships through registration. This unwanted incursion into citizens' personal life is worsened by the prescription of a three-month prison term for non-registration. It will expose citizens to intrusive inquiries, social hostility and pointless deprivation of liberty. While it contains positive features such as conferring legitimacy on children born of live-in relations and mandating maintenance in the event of desertion, the very idea that people living together should submit themselves to registration and verification is repugnant to individual rights.

When the Constitution makers made the adoption of a UCC one of the directive principles, opinion was divided on whether a UCC will undermine minority rights or promote equal status for women in all religions. B.R. Ambedkar felt the UCC, if enacted, should be voluntary in the initial stages. The previous Law Commission had said a UCC is neither desirable nor necessary, and, instead, suggested that each body of personal law be reformed to eliminate discrimination or regressive practices. However, the present Law Commission has revived the idea and has started gathering views from the public. Much of the Uttarakhand Code seems to have been borrowed from existing laws on marriage and succession, but with significant omissions. For instance, the Code is the only avenue for dissolving a marriage and there is no waiting period to remarry after a divorce; nor is there any need for a woman to marry another person before she can re-marry her former husband. These provisions, which eliminate the concepts of iddat, talaq and nikah halala, are all progressive and further individual rights. Interestingly, it preserves the existing provision allowing custom and usage as an exception to the bar on marriage within prohibited degrees of relationship, but adds a rider that such custom cannot be against public policy or morality. An unfortunate fallout of all this is a polarising discourse taking shape in the run-up to the general



election. The concept of justice should not be lost in the search for uniformity, which should be no more than an incidental consequence of equality.

UTTARAKHAND UNIFORM CIVIL CODE BANS POLYGAMY: IS THE PRACTICE MORE PREVALENT AMONG MUSLIMS?

The Uttarakhand Legislative Assembly Wednesday (February 7) passed the Uniform Civil Code (UCC) Bill, 2024 after a two-day discussion. The Bill brings uniformity in personal laws, governing things such as marriage, divorce, and inheritance, across communities in the state (excluding tribals).

Among other things, it extends the rule of monogamy to the Muslim community. One of the conditions for solemnising a marriage is that “neither party has a spouse living at the time of the marriage”. This clause already existed in the Hindu Marriage Act of 1955, but Muslim personal law hitherto allowed men to have up to four wives.

Limitations of the data

Government data on polygamy can be obtained from two main sources — the decadal census and the National Family Health Survey (NFHS). Both have certain limitations.

The census does not directly collect data on polygamy. Rather its incidence is inferred from the difference in the number of married men and the number of married women in the country. More married women than men point to the prevalence of situations where men have married more than once.

UCC bans polygamy, polygamy, Uniform Civil Code, Uttarakhand Legislative Assembly, Indian express explained, explained news, explained articles Polygamy among various religious groups in India.

However, polygamy alone may not be responsible for this gap — it can also be explained by men going abroad to work, leaving their spouses back at home.

Moreover, the most recent census was held in 2011, more than a decade back.

The NFHS has been held more recently, and asks women a more direct question: “Besides yourself, does your husband have other wives?” Unlike the census, however, it does not look at the whole population. The most recent NFHS-5 (2019-21) sampled approximately 6.1 lakh households, less than 1% of the total number of households in India.

The last major government study on polygamy was conducted in 1974. It had found that Buddhists, Jains and Hindus had higher rates of polygamy than Muslims.

What the census data say

According to the census of 2011, there are 28.65 crore married men in India, compared to 29.3 crore married women. The difference between the two numbers — 65.71 lakh — can be explained either by the incidence of polygamy or by men going abroad.

The highest discrepancy in the population of married men and women can be found among Hindus (who make up the largest number of Indians), followed by Muslims, Sikhs, Christians, Sikhs, and



Buddhists. However, when compared to their respective shares in the total population, Muslims and Christians report the greatest difference.

What NFHS data say

The NFHS-5 showed the prevalence of polygamy (the percentage of women who reported their husbands had other wives) was highest among Christians (2.1%), followed by Muslims (1.9%), and Hindus (1.3%), looking at religion. Overall, Scheduled Tribes reported the highest incidence at 2.4%.

A June 2022 study by the International Institute of Population Sciences (IIPS) titled 'Polygyny in India: Levels and Differentials' analysed data from the NFHS-3 (2005-06), NFHS-4 (2015-16) and NFHS-5 (2019-21). It showed that polygynous marriages (one man married to more than one woman at a time) have decreased from 1.9% in 2005-06 to 1.4% in 2019-21, among the whole population.

UCC bans polygamy, polygamy, Uniform Civil Code, Uttarakhand Legislative Assembly, Indian express explained, explained news, explained articles Based on a recent study, change in the number of polygynous marriages in India over time.

Buddhists, who reported a 3.8% incidence of polygyny in 2005-06, saw the sharpest dip of 65.79% to 1.3% in 2019-21. The incidence of polygyny in the total population fell by 26.31%.

EXPRESS VIEW ON DEMOLITION OF AKHOONDJI MASJID: A COLLECTIVE LOSS

The demolition of the Akhoondji mosque in Mehrauli on January 30 by Delhi Development Authority (DDA) as part of its anti-encroachment drive calls into question, yet again, the nature of due process and the lacunae that exist in cultural conservation. While its precise history remains unknown, the Akhoondji mosque, located in close proximity of the Qutub Minar, a UNESCO World Heritage site, is believed to have been between 600 and 700 years old, built during the reign of Delhi Sultanate's Razia Sultana, and listed by the Archaeological Survey of India in 1920.

The DDA has contended that it has followed due process in compliance with the directions of the Ridge Management Board — the structure's "encroachment" on Sanjay Van in south Delhi, a city forest the edifice predates by several centuries — is said to legitimise its actions. It is an argument that does not pass muster. The Delhi High Court has sought an explanation on why the structure was razed without notice, directing DDA to maintain status quo on the land until the next hearing on February 12.

This is not the first time that the DDA's anti-encroachment drive has come under criticism. Last year, its drive to clear unauthorised encroachments on government land housing protected ASI monuments in the villages of Mehrauli and Ladha Sarai had met with a pushback from several quarters.

But the present case is particularly disquieting because it points to what a weaponisation of a rightful mandate might do to a significant part of Delhi's cultural heritage — its Islamic past. It also underscores the need to strengthen the conservation mechanism to address such questions. In a city like Delhi, with its wealth of heritage monuments, demolitions cannot happen in an arbitrary manner.



In December last year, the New Delhi Municipal Council had asked for public opinion on a proposal to demolish the 150-year-old Sunehri Bagh Masjid, a Grade-III heritage structure near the Parliament, to ease the movement of traffic. While its fate still hangs in balance, it had, rightfully, initiated a larger conversation around the proposal. The DDA could have followed its example.

Any conversation about Delhi's history comes to rest on its storied past — the cities on whose foundation the modern metropolis rests, the rise and fall of dynasties that shaped its tryst with power. But Delhi is also a city of survivors, a city that knows how to co-exist cheek by jowl with its mandirs and masjids, jhuggis and highrises, its pasts and its present. Any attempt to change that composite culture, or to shrink it, will be a collective loss.

WINNING TRUST

By nominating Champai Soren to the position of Chief Minister and ensuring a convincing win in the trust vote, the Jharkhand Mukti Morcha and its allies, the Congress and the Rashtriya Janata Dal, did well to weather the storm after the resignation of Hemant Soren over corruption charges. The predominantly tribal populated Jharkhand remains one of just a few States that have not been wrested by the Bharatiya Janata Party ever since the beginning of what political scientists call the era of the BJP-dominated party system in northern India. It is to the JMM's leadership's credit that it sought to elevate a leader who played a major role in the State's formation (after its bifurcation from Bihar) rather than appointing another family member, even if this was a decision taken under duress, and avoiding the impression that it was the Shibu and Hemant Soren-led family that would rule by proxy. This, in a way, bucked the trend in most regional parties, where power tends to concentrate in the families of its most popular leaders, either due to the fact that this allows party finances to be controlled by those closest to the leadership or because such parties are unable to evolve into cadre-based, ideology-driven units.

By catapulting Champai Soren to the helm of governance, the JMM signalled a return to its past when it was more a movement and less a typical party. Yet, two issues should worry the party. His appointment was also made possible because of a family rift over the possible candidature of Kalpana Soren, Hemant Soren's wife. And, second, the unedifying sight of MLAs being transported to Congress-ruled Telangana suggests that the ruling alliance was not so sure of ideological leanings acting as a glue to keep its flock together — a phenomenon that has become sadly true of many politicians in India. Hemant Soren's resignation would also have been welcomed in normal circumstances where anyone in government should give up power if they face serious corruption charges as he did in a purported land scam. But the fact that the Union government has used its law enforcement agencies such as the Enforcement Directorate less as weapons against corruption and more as a tool to browbeat any opposition, gives cause for pause. Regardless of this, Mr. Soren's case must be thoroughly investigated and should not be subject to the vagaries of political outcomes such as the retention of power by the JMM and its allies. In a way, the developments should compel the JMM-led government to reorient its focus on governance in one of India's most mineral-rich, but materially poor, States, and that will be its best answer to the questions raised about it following the arrest.

HONOUR AND EXCEPTION

The Bharat Ratna, the highest civilian honour of the country, has been conferred on 50 people since 1954. Bharatiya Janata Party (BJP) leader L.K. Advani and the late socialist leader, Karpoori Thakur, are the newest recipients. The making of national heroes is equally about the recipients



as it is about its function as a stimulant of a collective consciousness. It is often the collective that needs heroes to hold itself together. By placing leaders on a higher pedestal, the group seeks to reinforce ideals represented by them. Mr. Advani has been a defining figure of modern Indian history. As he reminisced, he joined the Rashtriya Swayamsevak Sangh at the age of 14. His role in the advancement of the Hindutva ideology has been the biggest by any single leader before Prime Minister Narendra Modi. He has been a mentor to Mr. Modi, with his campaign for a temple in Ayodhya definitively changing the course of Indian politics. The campaign pushed the limits of constitutional order, based on the claim that matters of faith cannot be subject to litigation. As it happens with an extraordinary assertion of popular sovereignty, the Ram Janmabhoomi movement changed the country at several levels; the Supreme Court of India, by 2019, unanimously ruled in favour of the temple that was inaugurated by Mr. Modi on January 22.

Thakur was a central figure in the social justice politics — a euphemism for the demand for better representation of intermediate castes — of Bihar and the larger Hindi belt, who challenged the Congress's hegemony. He served two terms as the Chief Minister of Bihar in the 1970s. Social justice politics went through phases of self discovery, and scattered into numerous parties over the years. One strand is closely aligned with the BJP. There are social justice groups that are still opposed to it, but the BJP owes its current strength considerably to intermediate castes. That ongoing process is being reinforced by honouring Thakur. In 2015, A.B. Vajpayee, the first Prime Minister from the BJP, and Madan Mohan Malaviya, the founder of the Banaras Hindu University, were conferred the Bharat Ratna. In 2019, Pranab Mukherjee, Bhupendra Kumar Hazarika, and Nanaji Deshmukh were recipients. All these selections are in tune with the politics of the present — and how the history of the Bharat Ratna has always been. All India Anna Dravida Munnetra Kazhagam founder M.G. Ramachandran and B.R. Ambedkar were also conferred the award in the hope that their followers would, in turn, back the party or alliance ruling at the Centre. Mr. Advani and Thakur represent the two legs of BJP politics, namely Hindu consolidation and higher representation for intermediate castes in all fields.

A DECISION WITH POLITICAL OVERTONES

The Narendra Modi-led government often looks across the political aisle to award state honours, and the announcement of the Bharat Ratna for former Prime Minister P.V. Narasimha Rao could be part of that pattern. However, Rao's legacy and his complicated relationship with his own party, the Congress, make this a decision pregnant with political meaning.

Both Congress leader Sonia Gandhi and party president Mallikarjun Kharge welcomed the announcement of the honour on Friday, but the Congress leadership has long been uneasy with the first non-Gandhi PM from the party to complete a full term. Mr. Modi has often pointed out that the Congress, and especially the Nehru-Gandhi family, has not "recognised the talent" of those outside the pale of their approval, including Rao. At a public meeting in Telangana, Rao's home State, he said, "This land gave the country a Prime Minister in the form of P.V. Narasimha Rao. But the Congress's royal family didn't like it and insulted him every step of the way. Even after Rao's death, the Congress's royal family did not leave a single opportunity to insult Rao."

Rao, who was the PM of a Congress-led government between 1991 and 1996, came to the post following the assassination of Rajiv Gandhi in the middle of the 1991 poll campaign, an election that Rao himself had kept away from, preparing for a fade-out from public life.

A long career in the Congress had seen Rao become the Minister for External Affairs and Home Affairs, and he was packing to leave Delhi during that turbulent campaign of 1991 when Rajiv



Gandhi's death upended everything. Various factions of the Congress wanted different leaders to become PM after the results were announced, and after the newly bereaved Ms. Gandhi herself refused the post, the choice devolved to Rao.

He came to the helm at a time of great churn, both economic and political, with both the balance of payments crisis and the Ram Janmabhoomi movement hanging fire. While Rao, along with his hand-picked Finance Minister Manmohan Singh, skilfully steered India on the path of economic reforms, the Babri Masjid was also brought down on his watch in 1992, a grievance that many Congressmen held against Rao till the end of his days.

His ability to provide cover to policymakers to implement the reforms needed to get the country out of a deep economic hole was only matched by the changes he effected in India's foreign policy, including the Look East policy. For the Congress, however, all this was eclipsed by the destruction of the Babri Masjid.

An open wound

When the Congress lost the Lok Sabha election in 1996, the blame was laid at his feet.

When he passed away, just eight months after the Manmohan Singh-led UPA government came to power, the manner of his last rites became an open wound. In his 2014 book, *The Accidental Prime Minister*, Mr. Singh's former media adviser, Sanjaya Baru, claimed that the Congress did not want Rao's cremation to take place in Delhi, but rather in Hyderabad, and that he had been approached to convey this to Rao's children. The cremation did take place in Hyderabad, with Rao's body not even laid in state at the All India Congress Committee's headquarters.

During its first term, the Modi government created a memorial for Rao in 2015.

With the award of the Bharat Ratna to Rao, the message that the Modi government can reach across political lines and honour one of the Congress's own has been again brought into sharp relief.

EXPRESS VIEW ON DISABILITY ACCESS: EVERYONE IN MOVIE HALLS

Eight years after a landmark piece of legislation enshrined the rights of all persons with disabilities (PwDs) "to participate in recreational activities equally with others", the Ministry of Information and Broadcasting, on January 8, issued its draft "Guidelines of Accessibility Standards in the Public Exhibition of Feature Films in Cinema Theatres for Persons with Hearing and Visual Impairment". The guidelines, for which stakeholder comments are invited till February 15, constitute another welcome step towards ensuring that an experience that most movie buffs take for granted can be accessed by a section of Indians who continue to be largely excluded from it. They carry forward the spirit of the Rights of Persons with Disabilities (RPwD) Act of 2016.

According to estimates of the World Health Organisation, approximately 84 million Indians are deaf and hard of hearing and 75 million are blind and visually impaired. There has long been a demand for making the movie-going experience more accessible to them. Efforts by organisations, such as the Delhi-based NGO Saksham, and a handful of willing collaborators in the industry, like actor-producer Aamir Khan, have resulted in some films in the last couple of decades, such as *Dangal* and *Munnabhai MBBS*, having features like audio description, subtitles and closed captions. The draft guidelines require producers to deliver two versions of a film for certification by the CBFC, including one with accessibility features enabled, and call on theatres to schedule



special shows for PwDs and the use of special equipment and mobile apps. Such steps can help make accessibility the norm as is the case in countries such as the US and UK. In the UK, theatres have seats into which a visually impaired viewer's headphones may be plugged so that she can hear the audio description of the film being played.

In December 2022, the Supreme Court formed a committee to make the court more disabled-friendly and has recently released a handbook for combating stereotypes about PwDs. Last year, the government made it mandatory for digital offerings to meet the standards set under the RPwD Act. Enabling PwDs to more easily access and savour one of India's most beloved art forms, a globally exported cultural product and significant source of soft power — cinema — is yet another step in the right direction.

EXPRESS VIEW: ANTI-CHEATING LAW – YOUTH NEEDS AN ENABLING ENVIRONMENT

On Tuesday, Lok Sabha passed the Public Examinations (Prevention of Unfair Means) Bill, 2024 in Parliament. The legislation is an attempt to address a disturbing state of affairs. Examination malpractices tar the credibility of the public recruitment system. An investigation by this newspaper found more than 40 instances of paper leaks in 15 states over the last five years.

The cascading effects touched the lives of at least 1.4 crore applicants for about 1 lakh posts. Paper leaks lead to either the cancellation or postponement of exams, adversely affecting the prospects of the aspirants — in seven cases investigated by this newspaper, candidates are still awaiting a re-examination. Some states do have anti-cheating laws, but they haven't proved to be effective deterrents. The Centre's Bill is intended as a "model draft", which aims to introduce "greater transparency and fairness".

This is a much-needed step — accountability for paper leaks must be fixed. Much more, however, needs to be done to make sure that unfair practices have no place in the government recruitment system.

In recent years, several states have witnessed public outrage over the disruption of examination schedules. This issue was among the talking points in the recent state assembly elections in Rajasthan, Telangana and Madhya Pradesh. In Rajasthan, the BJP alleged that members of the then-ruling Congress were complicit in the paper leaks.

The Congress hurled similar accusations against Telangana's BRS government. However, alleviating the anxieties of the young public service aspirants has never gone beyond trading charges, it is yet to become a major election issue — say, like the demands of caste groups. The political class's shortage of ideas on this issue is disturbing in a country that proclaims its intention to reap its demographic dividend in the next quarter century.

Even after more than 30 years of liberalisation, a large section of the country's young population, especially those from the middle and lower-middle classes, seek the safety of a government job. Regular salaries and social security benefits enhance the appeal of these jobs and multiple pay commissions have reduced the gap between private and public sector salaries. In large parts of the country, working for the government is seen as the most assured route of upward mobility.

The number of aspirants for such jobs seems to have grown after the economic crises of 2008 and 2013 and the pandemic-induced disruption. At the same time, however, the government employment pie has been shrinking across states. This demand-supply gap creates fertile grounds for the job mafia and exam fixers.



Comparatively, examinations conducted for the elite All India Services, IITs and medical institutions have been less prone to such controversies or scams. Introducing the new Bill, Minister of State for Personnel, Public Grievances and Pensions Jitender Singh said that “the government is aware of the concerns of youth regarding irregularity in examinations”. The Lok Sabha has passed the bill without much debate. The discussions in the Upper House will hopefully suggest a way forward on framing broader and durable solutions to a longstanding problem.

LATEST ALL INDIA SURVEY OF HIGHER EDUCATION (AISHE): WHAT IT SAYS ON FEMALE ENROLMENT, TAKERS FOR ARTS AND SCIENCE

The report of the All India Survey of Higher Education (AISHE) 2021–22, made public on January 25, found that 4.33 crore students are currently enrolled in a higher educational institute — up from 4.14 crore in 2020-21, and 3.42 crore in 2014-15.

The survey captures total student enrolment in eight different levels: undergraduate, postgraduate, PhD, MPhil, diploma, PG diploma, certificate, and integrated programmes. In all, 10,576 standalone institutions, 42,825 colleges, and 1,162 universities/university level institutions responded to the survey.

Here are five key takeaways.

Female enrolment greater than male

The number of women enrolled in higher educational institutes has steadily increased, the AISHE report showed.

From 1.5 crore women enrolled in 2014-15, there has been a jump of 32% to 2.07 crores enrolled in 2021-22. In the last five years, the number of women enrolled increased by 18.7%, from 1.74 crore in 2017–18.

The most astounding rise was seen at the PhD level. In 2021-22, the total PhD enrolment in the country is 2.12 lakh of which 98,636 are women. Eight years ago, only 47,717 women were enrolled in PhD programmes.

The proportion of women enrolled in higher education, compared to men, has also gone up. Of the 91 lakh more students to have joined higher educational institutes in 2021-22 (when compared to 2014-15), 55% were women. The proportion of women is highest at the post graduate level, where 55.4% students are female.

GER and Gender Parity

Gross Enrollment Ratio indicates how many students are part of the higher education system in a given population. The estimated GER for the age group 18-23 years in India is 28.4, the AISHE 2021-22 report said (based on population data from the 2011 census).

In terms of state-wise data, Chandigarh, at 64.8%, boasts of the highest GER, followed by Puducherry at 61.5%, Delhi at 49%, and Tamil Nadu at 47%.

Another indicator called the Gender Parity Index (GPI) shows the ratio of the female GER to male GER. A GPI of 1 indicates parity between the two genders; any number between 0 and 1 shows a disparity in favour of males, whereas a GPI greater than 1 indicates a disparity in favour of females.



The survey observed that in 26 states and Union Territories, the GER is in favour of women. At the all-India level, GPI is 1.01, and for SC and ST categories, the GPI is 1.01 and 0.98 respectively.

Arts over the sciences in graduation, PG

The survey showed that the Bachelor of Arts (BA) programme has the highest enrolment, with 1.13 crore students — 34.2% of total undergraduate enrolment across India. In all, 3.41 crore students are enrolled in UG programmes.

Among disciplines at undergraduate level, in 2021-22, the enrollment is highest in Arts (34.2%), followed by science (14.8%), commerce (13.3%) and engineering and technology (11.8%). BA(Hons) accounts for 20.4 lakh (6.2%), the survey shows.

Similarly, the social science stream has also the highest number of postgraduate students enrolled at 10.8 lakh. The latest survey shows that the Master of Arts (MA) programme has the highest enrolment, with 20.9 lakh students, which is 40.7% of total postgraduate enrolment

At PhD level, however, social sciences stood at third spot after engineering and science. While 52,748 are pursuing a PhD in engineering, and 45,324 in science, 26,057 students are pursuing PhD in the social sciences.

Primacy of government institutions

Interestingly, 73.7% of all students attend government universities, which make up only 58.6% of all universities.

In the government sector, state public universities have the largest share of enrolment, accounting for around 31% of the total enrolment for universities.

In actual numbers, government-owned universities have an enrolment of 71.06 lakh, whereas enrolment in privately managed universities is 25.32 lakh. Even though there are more private universities, students prefer government educational institutions.

Demographics of students graduating

During the 2021–22 academic year, 1.07 crore students were estimated to have graduated from undergraduate, graduate, doctorate, master's, and other diploma/certificate programmes. Among these 1.07 crore students, 54.6 lakh or roughly 50.8% are women.

Category-wise, in 2021-22, around 35% of the students belong to Other Backward Classes (OBC), 13% are from Scheduled Caste (SC) community and 5.7% of the graduates are from Scheduled Tribe (ST) community.

The graduation rate in arts and social sciences streams is higher than others. At the UG level, BA degree has been awarded to 24.16 lakh — the highest among all programmes. Even at PG level, the number of MA graduates are maximum with 7.02 lakh degrees awarded in 2021-22.

At PhD level, the highest graduates are in the science stream with 7,408 followed by engineering and technology at 6,270 graduating students.



MORE SUBJECTS, CREDIT SYSTEM: WHAT CHANGES CBSE HAS PROPOSED FOR CLASS 10 AND 12, WHY

The Central Board of Secondary Education (CBSE), the country's largest national school board, is planning significant changes to the academic framework of Classes 9, 10, 11, and 12 as part of its plan to implement creditisation, recommended by the 2020 National Education Policy (NEP).

The CBSE, The Indian Express reported last week, has proposed that Class 10 and 12 students study more subjects, especially more native Indian languages.

The plan was sent to all heads of CBSE-affiliated institutions late last year, to review and provide comments by December 5, 2023.

What is the credit system and why is CBSE rolling it out?

Creditisation aims to establish academic equivalence between vocational and general education, facilitating mobility between the two education systems, as proposed by the NEP 2020. To implement this, the University Grants Commission — the higher education regulator — had come up with the National Credit Framework (NCrF) in 2022.

NCrF is a unified credit framework for the integration of training and skill development into schools and higher education. For a student in Class 9 to advance to Class 10, they will need to earn a specified number of credits. Eventually, the student will earn enough credits to be eligible to enrol in an undergraduate programme in a university. The credits earned by a student will be digitally stored in the Academic Bank of Credits and accessible through a linked Digilocker account.

To implement this in its affiliated schools, the CBSE formed a subcommittee in 2022 that suggested how the current academic framework should be redesigned to align it with NCrF.

What changes has the CBSE subcommittee proposed?

At present, the standard school curriculum does not have a formalised credit system. As per the CBSE plan, an academic year would be made up of 1,200 notional learning hours, which would translate to earning 40 credits. Notional learning refers to a stipulated amount of time an average student would need to spend to attain specified outcomes. In other words, each subject has been allotted a certain number of hours so that, in a year, a student spends a total of 1,200 learning hours to be declared 'pass'. The hours will include both academic learning at school and non-academic or experiential learning outside the school.

The scheme of studies has accordingly been tweaked to mention teaching hours and credits earned against each subject.

In order to operationalise this, the committee has proposed to add multidisciplinary and vocational courses to the list of existing subjects. So, in order to pass the final exams, students in Classes 9 and 10 must complete 10 subjects — three languages and seven core subjects. Currently, students in these grades have to take five subjects: three main subjects and two languages.

Of the three compulsory languages, at least two should be Indian. For instance, students can choose a combination of Hindi, Sanskrit and English. That apart, math and computational thinking, social science, science, art education, physical education and well-being, vocational education and environmental education are the seven main subjects.



For Classes 11 and 12, the Board suggested that students must study six subjects, consisting of two languages and four subjects with an optional fifth. At least one of the two languages has to be Indian. The current system requires passing five subjects — one language and four electives.

How will exams be conducted under the proposed system?

The credits earned will be independent of the marks students obtain in exams.

For Class 10 students, CBSE will conduct external (read: board) exams for the three languages, mathematics and computational thinking, social science, science and environmental education. Art education, physical education and vocational education would be a mix of internal and Board examination. But students would have to pass all 10 subjects to move on to the next grade.

In Class 12, all subjects will be categorised into four groups. The languages group is categorised as Group 1. Group 2 would consist of subjects of arts education (like dance, music, sculpting), physical education, and vocational education. Group 3 will have social science subjects (eg: history, geography, political science, economics etc) and interdisciplinary areas (such as environmental education and commerce). Group 4 has mainly subjects of mathematics and computational thinking and science.

Class 12 students will have to choose at least two languages from Group 1, and four main subjects (with an optional fifth subject) from at least two of the remaining groups. There will be an external exam for both languages and Groups 3 and 4 subjects. If a student chooses to study a subject from Group 2, she will be assessed based on a mix of internal and Board exams.

What will happen to the existing grading system?

In all CBSE-affiliated schools, students are graded based on the marks obtained in the examination. The credit system recommended will not change this. For each subject, students will be graded from A1, A2 up to D and E as per usual. For awarding grades, the Board will put all students in a rank order and award grades. The top one-eighth of the candidates who passed the exam, for example, will receive an A1 grade; the next one-eighth will receive an A2 grade, and so on.

KYASANUR FOREST DISEASE: THE ASSAULT OF THE TICK

Since January 1 this year, two people have died due to Kyasanur Forest Disease (KFD), a viral infection, in Karnataka. The number of deaths reported due to the disease since 1956, when it was noticed in the forests of Shivamogga district, is above 560. The number of cases in Malnad's districts — Shivamogga, Uttara Kannada and Chikkamagaluru — has been increasing, forcing the Health and Family Welfare Department to take measures to contain its spread. Since January 1, the Department of Health and Family Welfare has conducted 2,567 tests and 68 people have been found positive.

What is KFD? The disease was first noticed in the Kysanur Forest area of Sorab Taluk in Shivamogga district in 1956, and was named after the region. It is also known as monkey fever, as monkeys also get infected. In fact, the death of a monkey serves as a warning of a KFD outbreak. The scientists concluded that the virus must have been present in the forests of Malnad region. It became active due to ecological changes.



The disease spreads through ticks. Primates that come in contact with infective ticks contract the disease. Human beings who visit the same forest area can contract the disease. Normally, the transmission begins from late November to June. It peaks between December and March, according to studies. A blood test is done to identify if someone has KFD.

Symptoms start to appear three to eight days after the bite, of an infective tick. Fever, redness of the eyes, severe headache, and body pain are common symptoms. Three-four days after the onset of initial symptoms, the patient may have gastro-intestinal symptoms. In severe cases, bleeding from the nose is noted. There is no specific treatment, doctors handle the symptoms, and monitor the vitals daily. An attempt to use a vaccine was given up after studies showed it to be ineffective. The ICMR is said to be in consultation with Indian Immunologicals for development of a vaccine.

For nearly 15 years (up to 1971), the disease was confined to Shivamogga district. It was noticed in Uttara Kannada district in 1972. In 1980, cases were reported in Koppa, Chikkamagaluru. Two years later it was found in Dakshina Kannada. Cases were later reported in Chamarajanagar (2012), Belagavi district (2016), Gadag (2017), Mysuru, and Hassan (2019). The virus has been found in other states too. It was detected in dead monkeys in the Nilgiri district of Tamil Nadu in 2012. Six human cases were reported in Wayanad and Malappuram, Kerala in 2013–14. An outbreak was reported in North Goa district in 2015–16. Maharashtra reported cases in 2016.

The forest department is distributing DEPA oil, a tick repellent, to families who have to go into the forest. The State Government has also decided to provide free treatment to patients.

EXPRESS VIEW ON INDIA'S CAR T-CELL THERAPY: TAKING CANCER ON

For decades, oncologists have relied on chemotherapy, radiation and surgery to treat cancer patients. These are still the primary methods to treat the dreaded disease. In the past two decades, however, research has extended the frontiers of anti-cancer interventions. Drugs have been developed to home in on the molecules cancer cells require to survive and spread. Immune system-boosting drugs have shown the ability to shrink tumours in some patients with advanced malignancy. CAR T-cell therapy is among the most promising recent developments, especially because it has shown the ability to eradicate advanced leukemias and lymphomas. Most of the early research in this field was conducted in laboratories in the US, Europe and China. In October, India joined this elite list after the country's drug regulator approved a CAR T-cell therapy incubated at Tata Memorial Centre and IIT Bombay laboratories. Now, a 64-year-old former army doctor has become the first patient in the country to be free of cancer cells after being administered this therapy.

CAR T-cell therapies are customised for each patient. It involves extracting T cells — they help orchestrate the immune response in a patient's body — growing them in the laboratory, arming them against cancer via gene editing and infusing them back into the patient's body. In other words, the patient is fortified with a living drug that's constantly working against cancer. While it would be too early to say if the former army doctor has been cured for life, evidence from countries that have pioneered the treatment shows that CAR T-cell therapy is effective against relapse. The treatment is far less exacting for the patient compared to several sessions of chemotherapy. Laboratory and animal studies have shown that India's homegrown therapy has significantly fewer side effects compared to those developed in the West.

In the last decade, cancer mortality rates have declined in the developed countries. Cancer incidence and mortality, however, continue to rise, driven by spikes in the Global South. In India,



where the disease claims about 8 lakh people every year, treatment is expensive for an overwhelming section of the population. The homegrown therapy costs about a tenth of the treatment in the US. However, at about Rs 40 lakh, it's beyond the reach of most patients in the country. With more laboratories working on this oncological intervention, there is reasonable optimism that costs could come down appreciably in the next decade. The country will require inputs from its planners, scientists and policymakers to ensure that the products of such cutting-edge research reach the most vulnerable.

WHY PETA WANTS TO BAN TWO AGE-OLD ASSAMESE TRADITIONS

The Assam government's attempt to revive traditional practices of buffalo and bulbul (songbird) fighting during Magh Bihu has come up against a legal challenge by People for Ethical Treatment of Animals (PETA) in the Gauhati High Court, which admitted petitions by PETA India seeking a ban on both.

An age-old tradition

These fights are part of the folk culture associated with the Assamese winter harvest festival of Magh Bihu, which takes place in January, at the same time as harvest festivals in other parts of the country such as Makar Sankranti, Pongal and Lohri.

Buffalo fights are held in different parts of Assam during Magh Bihu, with Ahatguri in Nagaon district being the biggest centre. There, the fights been conducted for many decades by the Ahatguri Anchalik Moh-jooj aru Bhogali Utsav Udjapan Samiti, drawing huge crowds. Bulbul fights, on the other hand, are an attraction at the Hayagriv Madhab Mandir in Hajo, around 30 km from Gauhati. Participants rear birds for around two weeks before Bihu, before they are made to fight until one emerges stronger.

"While the buffalo fights are folk culture and tradition, this is tied to religion. Before starting, we light saki (lamps) in Lord Vishnu's name and lay xorai (offering trays)... The practice is very old, we cannot really say when it started. But it was held with great pomp by the Ahom rulers," Shiba Prasad Sarma, doloi (administrator) of the temple, told The Indian Express.

DUSTED APOLLO SIGHTED FOR FIRST TIME IN HIMACHAL'S CHAMBA

Dusted Apollo (*Parnassius stenosemus*), a rare high-altitude butterfly, has been sighted and photographed for the first time in Himachal Pradesh, indicating the flourishing diversity of Apollo butterflies in the region, bringing cheers to butterfly enthusiasts.

The butterfly was sighted and photographed in September 2023, during a trek to Manimahesh Lake in Chamba by Gajinder Verma and Abinash Thakur, both forest guards of Chamba Forest Circle, Himachal Pradesh Forest Department. The species was discovered in 1890.

The distribution range of Dusted Apollo extends from Ladakh to west Nepal and it flies between 3,500 to 4,800 metres in the inner Himalayas.

Dusted Apollo is extremely rare and has never been photographed before in Himachal Pradesh.

Another rare species, Regal Apollo (*Parnassius charltonius*), which is protected under Schedule II of the Wildlife Protection Act, 1972, was also photographed at Manimahesh, he said.



MUSIC WITHOUT BORDERS

Time stood still twice at the 66th annual Grammy Awards on Sunday when iconic singer-songwriters Joni Mitchell and Tracy Chapman took the stage to tell stories one more time through music. While the 80-year-old Mitchell, who had suffered a life-threatening aneurysm some years ago, performed her 1968 song, 'Both Sides Now', Tracy Chapman, 59, accompanied by her guitar and Luke Combs, belted out her classic hit, 'Fast Car' — both numbers powerful markers of the human experience and still speaking to the times. As if on cue, Annie Lennox, who paid tribute to Sinead O'Connor by reprising her haunting song, 'Nothing Compares 2 U', shouted at the end of her performance: 'Artists for ceasefire. Peace in the world'. After that, two ongoing wars and other social crises appeared forgotten for the most part of the show, though the super indie group, boygenius, who won for 'best rock performance', advocated for a ceasefire through red pins on their attire. After years of being pulled up for not celebrating female, black, Hispanic artists enough, the Grammys made amends this time by honouring a host of young women musicians. 'Swifties' were duly acknowledged by helping Taylor Swift make history with her record-setting fourth album of the year award for 'Midnights', surpassing Frank Sinatra, Stevie Wonder and Paul Simon, who won the award three times.

Miley Cyrus ('Flowers'), Billie Eilish ('What Was I Made For?', a melancholic melody for Greta Gerwig's Barbie) and SZA all got their moment in the spotlight. India made a mark too with a belated nod coming in for one of the country's best-known fusion bands, Shakti, which bagged the Best Global Music Album for 'This Moment', a studio album they released after four decades. The band, formed in the 1970s to critical acclaim and fame, later regrouped and brought out an album in 2023 with founding members, guitarist John McLaughlin and tabla maestro Zakir Hussain, joining vocalist Shankar Mahadevan, percussionist V. Selvaganesh and violinist Ganesh Rajagopalan. Zakir Hussain won two more Grammys, one with flutist Rakesh Chaurasia, and two other performers, for their song 'Pashto' which won in the Best Global Music Performance category. In the past, the Grammys have honoured and celebrated the music of Pandit Ravi Shankar, Pandit Vishwa Mohan Bhatt, A. R. Rahman and others. But Indian artists of today, who play a mind-boggling array of instruments, from the sitar, sarod and veena to the flute, mridangam and violin, can now aspire to claim their rightful place on the global stage and be open to collaborations which have brought musicians such as Zakir Hussain accolades and recognition.

DreamIAS



BUSINESS & ECONOMICS

CHINA BETS ON OPEN-SOURCE CHIPS TO EVADE SANCTIONS

China is strategically investing in open-source RISC-V architecture for chip development to counter U.S. sanctions and reduce dependence on Western technology. The People's Liberation Army's Academy of Military Sciences utilized RISC-V in a high-performance chip patent, aiming to address malfunctions in chips for cloud computing and smart cars. RISC-V's geopolitical neutrality, in contrast to Western-controlled standards like x86 and Arm, has made it a key part of Beijing's plan. Despite its current small market share, recent breakthroughs and applications, often government-funded, have raised hopes in China that RISC-V could challenge the x86-Arm duopoly. Chinese investment in RISC-V projects from 2018 to 2023, amid sanctions, exceeded \$50 million. RISC-V's open nature allows users to build energy-efficient chips, and half of the global RISC-V chips shipped by 2022 were made in China, according to China Daily. This strategic move aligns with China's pursuit of technological self-sufficiency.

WHAT THE WHITE PAPER ON ECONOMY SAYS — AND DOESN'T

Finance Minister Nirmala Sitharaman presented a “white paper” on the Indian economy in Parliament on Thursday (February 8). The document, which has been prepared by the Ministry of Finance, essentially compares the 10-year record of economic governance under the Congress-led UPA governments (between 2004-05 and 2013-14) with the 10-year record of the BJP-led NDA governments (between 2014-15 and 2023-24).

What is a white paper, and is this one?

A white paper typically provides information about a specific issue. A government may present a white paper — say, on black money — to make people aware of the nature and scope of the problem and the possible ways to resolve it.

In that sense, what was presented in Parliament is not exactly a white paper, because it is a comparison between the record of two governments on a variety of economic parameters. A comprehensive review of the state of the Indian economy as things stood in 2014, when the incumbent government first took charge, would have been a white paper on the economy.

Why is it being presented now?

The document explains why the white paper is being presented at the end of 10 years instead of at the start. “Our government refrained from bringing out a white paper on the poor state of affairs then. That would have given a negative narrative and shaken the confidence of all, including investors. The need of the hour was to give hope to the people, to attract investments, both domestic and global and to build support for the much-needed reforms.”

What the white paper on economy says — and doesn't UPA and NDA: Crucial numbers on the economy.

What is its objective?

There are four stated objectives.

One, it seeks to inform everyone “of the nature and extent of governance, economic and fiscal crises that were bequeathed” to the NDA government when it assumed office in 2014.



Two, it informs about “the policies and measures that (NDA) government took to restore the health of the economy” since 2014.

Three, it “hopes to generate a wider, more informed debate on the paramountcy of national interest and fiscal responsibility in matters of governance over political expediency.”

Four, and it quotes Prime Minister Narendra Modi’s speech on last year’s Independence Day, “to commit ourselves to national development, with new inspirations, new consciousness, new resolutions, as the country opens up immense possibilities and opportunities.”

What does it say?

The 58-page white paper has three main parts. Part 1 discusses the macroeconomic situation during the 10 years of UPA rule. Part 2 provides the “current status of the various corruption scams of the UPA government”. Part 3 shows how the NDA “turned the economy around”.

Here are some of the most important claims in the white paper.

*The UPA Government inherited a healthy economy ready for more reforms, but made it non-performing in 10 years.

*UPA abandoned economic reforms.

*In a quest to maintain high economic growth by any means after the Global Financial Crisis of 2008, UPA severely undermined the macroeconomic foundations. For instance, it underscores high inflation, high fiscal deficit (or the money borrowed to meet expenses), and high proportion of bad loans in the banking system that dragged down economic activity.

*Not only did UPA borrow heavily from the market, but the funds raised were applied unproductively. “Capital expenditure as a per cent of total expenditure (excluding interest payments) halved from 31 per cent in FY04 to 16 per cent in FY14.” This ratio stands at 28% in the current year. The resulting “neglect of infrastructure creation and challenges of the logistical constraints caused industrial and economic growth to stumble.”

*Health expenditure of Indian households showed very little improvement.

*Defence preparedness was hampered by policy paralysis. “By 2012, shortage of combat-ready equipment and ammunition was a chronic issue plaguing our forces,” quotes the document from another of PM Modi’s speeches in 2018.

*UPA’s decade was marked by “policy misadventures and scams such as non-transparent auction of public resources (coal and telecom spectrum), (and) the spectre of retrospective taxation...”

A substantive part of the documents goes on to claim how things have improved under the NDA. It uses data from the International Monetary Fund to show how “average headline Inflation has been lower in the NDA decade”. Or how many of the schemes — such as construction of toilets or opening of bank accounts — achieved higher results during the NDA decade.

Upshot

Analysing the performance of any economy over two decades, even when they are aligned back to back, is a daunting task. This is so because a variety of factors affect not just the economy but also how we measure it.



For instance, a very big reason why domestic inflation was very high during the last couple of UPA years and immediately subsided during the first two of NDA is the cost of crude oil, which ranged between \$111 and \$105 a barrel between FY12 and FY14, and then fell to \$84 in FY15 and to \$46 in FY16.

Indeed, on aggregate, data shows that India registered better GDP growth as well as lower fiscal deficits during the UPA time.

The NDA government has several genuine achievements to its credit — such as the GST and IBC — but the white paper ignores all that is amiss with the economy. For instance, it does not even contain the word “unemployment”. This was when the government’s own Periodic Labour Force Survey showed that unemployment had reached a 45-year high in 2017-18.

Similarly, it makes no mention of the fact that there has been no formal measure of poverty since 2011. Or that this government has failed to conduct the decadal Census — the first such miss since 1881. Also, a white paper on the Indian economy over two decades does not have a single chart on GDP growth over this period.

WHY IS FISCAL CONSOLIDATION SO IMPORTANT?

The story so far:

Union Finance Minister Nirmala Sitharaman announced during her Budget speech that the Centre would reduce its fiscal deficit to 5.1% of gross domestic product (GDP) in 2024-25. She further added that the fiscal deficit would be pared to below 4.5% of GDP by 2025-26. The FM’s projections surprised most analysts who expected the government’s fiscal deficit target would be slightly higher, at about 5.3% or 5.4% of GDP. The government’s revised estimates also lowered the fiscal deficit projection for 2023-24 to 5.8% of GDP.

What is fiscal deficit?

Fiscal deficit refers to the shortfall in a government’s revenue when compared to its expenditure. When a government’s expenditure exceeds its revenues, the government will have to borrow money or sell assets to fund the deficit. Taxes are the most important source of revenue for any government. In 2024-25, the government’s tax receipts are expected to be ₹26.02 lakh crore while its total revenue is estimated to be ₹30.8 lakh crore. The Union government’s total expenditure, on the other hand, is estimated to be ₹47.66 lakh crore.

When a government runs a fiscal surplus, on the other hand, its revenues exceed expenditure. It is, however, quite rare for governments to run a surplus. Most governments today focus on keeping the fiscal deficit under control rather than on generating a fiscal surplus or on balancing the budget.

The fiscal deficit should not be confused with the national debt. The national debt is the total amount of money that the government of a country owes its lenders at a particular point in time. The national debt is usually the amount of debt that a government has accumulated over many years of running fiscal deficits and borrowing to bridge the deficits. The fiscal deficit is generally expressed as a percentage of a country’s GDP since it is believed that the figure shows how easily the government will be able to pay its lenders. In other words, the higher a government’s fiscal deficit as a share of GDP, the less likely its lenders will be paid back without trouble. Countries with larger economies can run higher fiscal deficits (in terms of absolute numbers of money).



How does government fund its fiscal deficit?

In order to fund its fiscal deficit, the government mainly borrows money from the bond market where lenders compete to lend to the government by purchasing bonds issued by the government. In 2024-25, the Centre is expected to borrow a gross amount of ₹14.13 lakh crore from the market, which is lower than its borrowing goal for 2023-24, as it expects to fund its spending in 2024-25 through higher GST collections. Economists were expecting that the Centre would set a borrowing target of about ₹15.6 lakh crore for 2024-25.

It should be remembered that central banks such as the Reserve Bank of India (RBI) are also major players in the credit market, although they may not always directly purchase government bonds. The RBI may still purchase government bonds in the secondary market, from private lenders who have already purchased bonds from the government. So, when a government borrows from the bond market, it not only borrows from private lenders but also indirectly from the central bank. The RBI purchases these bonds through what are called 'open market operations' by creating fresh money, which in turn can lead to higher money supply and also higher prices in the wider economy over time.

Government bonds are generally considered to be risk-free as the government can — under the worst-case scenario — get help from the central bank, which can create fresh currency to pay off the lenders. So governments generally do not find it hard to borrow money from the market. The bigger problem is the rate at which they are able to borrow the money. As a government's finances worsen, demand for the government's bonds begins to drop forcing the government to offer to pay a higher interest rate to lenders, and leading to higher borrowing costs for the government.

Monetary policy also plays a crucial role in how much it costs governments to borrow money from the market. Central bank lending rates which were near zero in many countries before the pandemic have risen sharply in the aftermath of the pandemic. This makes it more expensive for governments to borrow money and could be one reason why the Centre is keen to bring down its fiscal deficit.

Why does the fiscal deficit matter?

The fiscal deficit matters for several reasons. For one, there is a strong direct relationship between the government's fiscal deficit and inflation in the country. When a country's government runs a persistently high fiscal deficit, this can eventually lead to higher inflation as the government will be forced to use fresh money issued by the central bank to fund its fiscal deficit. The fiscal deficit recently reached a high of 9.17% of GDP during the pandemic and has since improved significantly and is projected to drop to 5.8% now.

The fiscal deficit also signals to the market the degree of fiscal discipline maintained by the government. A lower fiscal deficit may thus help improve the ratings assigned to the Indian government's bonds. When the government is able to fund more of its spending through tax revenues and borrow less, this gives more confidence to lenders and drives down the government's borrowing cost.

A high fiscal deficit can also adversely affect the ability of the government to manage its overall public debt. In December, the International Monetary Fund warned that India's public debt could rise to more than 100% of GDP in the medium term due to risks although the Centre disagreed with the assessment. It is also worth noting that the Centre has been keen on tapping the



international bond market. A lower fiscal deficit may help the government to more easily sell its bonds overseas and access cheaper credit.

What lies ahead?

The Centre plans to bring down its fiscal deficit in 2024-25 to 5.1% of GDP despite having plans to boost capital expenditure and to spend on other programmes. So, most of the revenue to fund such spending will have to come from tax collections. The Centre expects tax collections to rise by 11.5% in 2024-25. It has also projected a cut in expenditure on fertilizer subsidy, from ₹1.88 lakh crore in 2023-24 to ₹1.64 lakh crore in 2024-25. The amount spent on food subsidy is also projected to drop from ₹2.12 lakh crore in 2023-24, to ₹2.05 lakh crore in 2024-25. Trying to balance the budget primarily through raising tax rates to increase tax collections, however, could come at the cost of economic growth since taxes can act as a dampener on economic activity. There is no guarantee, however, that the government will be able to meet its fiscal deficit target, which is seen as ambitious by many, as its projections may turn out to be wrong.

EXPRESS VIEW ON PROTESTS BY KARNATAKA AND KERALA: GRAND BARGAIN 2.0

One state's chief minister hit the national capital's streets, along with his cabinet colleagues, against the Centre's alleged discrimination in devolution of tax revenues and non-release of drought relief funds. Another state's CM followed suit, having already moved the Supreme Court against the Centre imposing limits on its borrowing powers. The fact that both of them, Karnataka and Kerala, are Opposition-ruled and the timing of the protests, ahead of Lok Sabha elections, may make these seem purely political in nature. Nor have these states' own fiscally irresponsible actions helped. The ruling Congress in Karnataka should have thought twice before announcing its five assembly poll "guarantee" schemes, which are costing the state exchequer an additional Rs 52,000 crore per year. The Kerala government has, likewise, sought to circumvent its normal net borrowing ceiling, of 3 per cent of GDP fixed by the Centre, by resorting to off-budget loans raised by two state-owned entities.

The political motivations notwithstanding, there are genuine concerns with regard to both the letter and spirit of fiscal federalism that need addressing. To start with, the Centre accounts for more than 60 per cent of the gross tax revenues collected together with the states. On the other hand, the states have well over a 60 per cent share when it comes to total government spending. The disparity between revenue generation capacities and expenditure responsibilities imparts an inherent vertical fiscal imbalance. That imbalance would only have widened with the implementation of the goods and services tax (GST), which has replaced the value added tax and a host of other levies that were major sources of revenue for the states earlier. But the states accepted the apparent loss of fiscal sovereignty through a grand bargain that was a result of consensus building and addressing apprehensions of revenue loss, if any, from the new nationwide non-cascading indirect tax regime. The high point was the setting up of the GST Council, comprising the finance ministers of the Centre and all states, to decide on tax rates, exemptions and any regulatory changes.

A similar compact is required today in matters of tax devolution and other resource transfers, both vertical (Centre to states) and horizontal (among states). Karnataka, for instance, is justified in asking why its share in the divisible tax pool was reduced from 4.713 to 3.647 per cent between the 14th and 15th Finance Commission awards. The next commission should frame clear and transparent rules for distribution of the Centre's tax proceeds and grants-in aid. As part of a Grand



Bargain 2.0, the Centre must desist from levying non-sharable cesses and surcharges on taxes, just as states should be made to strictly adhere to deficit targets and borrowing limits.

UNION GOVERNMENT'S REINS ON FINANCIAL TRANSFERS TO STATES

Ever since the start of the Fourteenth Finance Commission award period (2015-16), the Union government has been reducing financial transfers to States. This is particularly strange given that the Fourteenth Finance Commission recommended devolving 42% of Union tax revenues to States, which is a clean 10 percentage points increase over the 13th Finance Commission's recommendation. The Fifteenth Finance Commission retained this recommendation of 41%, excluding the devolution to Jammu and Kashmir (J&K) and Ladakh, which were recategorised as Union Territories. If we include the shares of J&K and Ladakh, it should be 42%. The Union government not only reduced the financial transfers to States but also increased its own total revenue to increase its discretionary expenditure. The discretionary expenditures of the Union government are not being routed through the States' Budgets, and, therefore, can impact different States in different ways.

Some basic math on tax revenue

The Finance Commissions recommend the States' share in the net tax revenue of the Union government. The difference between the gross and the net tax revenue includes collection costs, tax revenue to be assigned to Union territories, and cess and surcharges. Though the Fourteenth and Fifteenth Finance Commissions recommended 42% and 41%, respectively, of the net tax revenue to be the shares of States, the share of the gross tax revenue was just 35% in 2015-16 and 30% in 2023-24 (Budget Estimate). While the gross tax revenue of the Union government increased from ₹14.6 lakh crore in 2015-16 to ₹33.6 lakh crore in 2023-24, the States' share in the Union tax revenue increased from ₹5.1 lakh crore to ₹10.2 lakh crore between these two years.

In other words, the gross tax revenue of the Union government more than doubled while the share of States just doubled. Grants-in-aid to States is another statutory grant recommended by the Finance Commission. The grants-in-aid to States declined in absolute amount from ₹1.95 lakh crore in 2015-16 to ₹1.65 lakh crore in 2023-24. Thus, the combined share of the statutory financial transfers in the gross tax revenue of the Union government declined from 48.2% to 35.32%.

One of the reasons for the States' share in gross revenue declining during this period is that the net tax revenue is arrived at after deducting the revenue collections under cess and surcharge, revenue collections from Union Territories, and tax administration expenditure. Among the three factors, revenue collection through cess and surcharge is the highest and increasing. The cess and surcharge collection in 2015-16 was 5.9% (₹85,638 crore) of the gross tax revenue of the Union government, and this ratio increased to 10.8% (₹3.63 lakh crore) in 2023-24. This calculation is excluding the Goods and Services Tax (GST) cess that is collected to compensate for the revenue loss of the States due to implementation of GST till June 2022. The Union government is increasing tax collection under cess and surcharge categories mainly to implement its own schemes in specific sectors, and at the same time, the revenues so raised need not be shared with the States.

More centralisation of public expenditure

When the financial transfers to States either as tax devolution or grants-in-aid decline on the one hand, or do not increase at least proportionately to increase in gross revenue of the Union



government on the other, the resultant effect is the availability of larger discretionary funds for the Union government to spend. This could affect the equity in distribution of financial resources among States. The Union government has two other routes of direct financial transfers to States, i.e., Centrally Sponsored Schemes (CSS) and Central Sector Schemes (CSec Schemes). The Union government influences the priorities of the States through CSS wherein the Union government provides partial funding and another part is to be committed by States. In other words, the Union government proposes the schemes and States implement them, committing their financial resources as well. Between 2015-16 and 2023-24, the allocation for CSS increased from ₹2.04 lakh crore to ₹4.76 lakh crore through 59 CSS. Thus, the Union government compels the State to commit more or less an equivalent quantum of financial resources. Moreover, the actual financial transfers to States under CSS is only ₹3.64 lakh crore (2023-24), retaining nearly ₹1.12 lakh crore of CSS allocation for other expenses.

An important aspect of CSS shared schemes is that the States that can afford to commit matching finances from the State budgets alone can avail of the matching grants. This creates two different effects in terms of inter-State equity in public finances. Wealthy States can afford to commit equivalent finances and leverage Union finances inwards through the implementation of CSS. Less wealthy States will have to commit their borrowed finances in these CSS, thus increasing their own liabilities. These differential trajectories of the public finances of States accentuate inter-State inequality in public finances, the major reason being CSS.

The CSec Schemes are fully funded by the Union government in sectors where the Union government has exclusive legislative or institutional controls. The allocation for CSec Schemes increased from ₹5.21 lakh crore in 2015-16 to ₹14.68 lakh crore in 2023-24 to implement more than 700 schemes. Thus, it is clear the Union government allocates a larger share of the finances to CSec Schemes. It is quite likely that the Union government can allocate financial resources with a motive to benefit specific States or constituencies through the CSec Schemes. Since the CSec Schemes are directly implemented by the Union government, only ₹60,942 crore is devolved to States under this scheme in 2023-24. The combined allocation for CSS and CSec Schemes in 2023-24 is ₹19.4 lakh crore and only ₹4.25 lakh crore is devolved to States.

Scope for anti-federal fiscal policies

The financial transfers through CSS and CSec Schemes are non-statutory transfers as they are based on neither any legal provisions nor any formula determined by the Finance Commission. This non-statutory grant forms 12.6% of gross tax revenue. Together with statutory grants, the total financial transfers as a proportion to gross tax revenue were only 47.9% in 2023-24. Further, the non-statutory grants are tied grants, i.e., they have to be spent on specific schemes for which the grants are allocated. This reduces the freedom of States in conducting public expenditure. In addition to retaining more than 50% of gross tax revenue, the Union government incurs a fiscal deficit to the extent of 5.9% of GDP. Thus, the Union government wields enormous financial powers with limited expenditure responsibilities.

Further, the Fifteenth Finance Commission noted that the Union government had argued for the downward revision of States' share in Union tax revenue from 42% and the Commission retained the share at 41%. Citing higher expenditure commitments, the Union government may repeat the argument before the Sixteenth Finance Commission. So much for cooperative federalism!



THE SEVERE EROSION OF FISCAL FEDERALISM

On February 8, Kerala Chief Minister Pinarayi Vijayan will lead a protest in New Delhi against the Centre for “placing Kerala on a financial embargo”. The Kerala government has accused the Centre of pushing the State into a severe financial crisis by imposing a limit on its borrowings. Kerala has moved the Supreme Court contending that the Centre’s imposition of a Net Borrowing Ceiling (NBC) on the State, which limits borrowings from all sources, violates Article 293 of the Constitution. The wide array of constitutional issues that are now thrown open point at the severe erosion of fiscal federalism in the country.

What is net borrowing ceiling?

The NBC limits the borrowings of States from all sources including open market borrowings. The Centre has decided to deduct liabilities arising from the public account of the States to arrive at the NBC. In addition, borrowings by state-owned enterprises, where the principal and/or interest are serviced out of the Budget, or through assignment of taxes or cess or any other State revenue, are also deducted from the NBC.

Kerala is particularly agitated by the inclusion of debt taken by state-owned enterprises as the State’s own debt. Major infrastructure projects initiated by the State government are funded by the government statutory body called the Kerala Infrastructure Investment Fund Board (KIIFB), primarily through extra-budgetary borrowings. Since the debt of KIIFB is now included in the NBC, the State government claims that it is not even able to fund pensions and meet expenses for welfare schemes. Is the Centre within its constitutional limits to impose such harsh conditions on the finances of States?

Determining State finances

According to Article 293(3) of the Constitution, the State has to obtain the consent of the Centre to raise ‘any loan’, if ‘any part of the previous loan’ extended by the Centre is outstanding. The imposition of the NBC is done by invoking the powers of the Centre under Article 293(3).

On close scrutiny, the Centre’s decision to include extra-budgetary borrowings by state-owned enterprises in the total debt of the State is constitutionally suspect. The Union Finance Minister justified the decision by relying on the 15th Finance Commission Report, which says, “Governments at all tiers may observe strict discipline by resisting any further additions to the stock of off-budget transactions and contingent liabilities which is against the norms of fiscal transparency and detrimental to fiscal sustainability. One very important purpose of our recommendation for higher borrowing limit to the Union and State Government is to foster transparency and to avoid build-up of non-transparent liabilities.” Notably, the Finance Commission has not called for the inclusion of the debt of state-owned enterprises in the NBC.

Parliament does not have the power to legislate upon the ‘Public Debt of the State’ as this finds place in Entry 43 of the State List of the Constitution. Therefore, the power to make laws on, administer and determine aspects of the public debt of the State falls squarely on the State Legislature.

The State government raises another crucial argument that the balances in the public account of the State should not be included in the NBC. The State relies upon Article 266(2) of the Constitution which indicates that the money collected by the Central or State government, which do not pertain to the consolidated fund, can be brought under the head of ‘public accounts’. Small



savings, security deposits, provident funds, reserve funds and other treasury deposits constitute 'public accounts'. All activities related to public accounts fall within the domain of the State Legislature and the Centre has no power to include the withdrawals from public accounts in the NBC.

State territory

The Kerala Fiscal Responsibility Act, 2003, which is enacted by the State Legislature, spells out the fiscal deficit targets for the State. It says that Kerala shall reduce the fiscal deficit to 3% of the GSDP by 2025-2026. When a State Act provides for budget management and fiscal discipline, it is not desirable to have external supervision on the finances of the State by the Centre. Under Article 202 of the Constitution, it is the State government that is tasked with determining the revenue and receipts and corresponding expenditure and with presenting the Budget of the State before the Legislative Assembly. Budget management of the State is the discretion of the State government. The territory occupied by the State executive and legislature cannot be ceded to the Union executive and Parliament in the name of fiscal management. Even otherwise, Kerala's fiscal deficit is reported to have significantly reduced to 2.44% and revenue deficit to 0.88% of the GSDP. In the Centre's case, the fiscal deficit is estimated to be 5.8% for 2023-2024.

The KIIFB was a novel idea in Kerala to fund infrastructure and development projects through extra-budgetary spending. But the State's responsibility to fund development work cannot come in the way of it delivering justice to pensioners and beneficiaries. If the Kerala Finance Minister is to be believed, not permitting the State to borrow will affect the State's spending on welfare schemes. This can lead to a catastrophic situation in the revenue-scarce State. The character of India's federalism is moving rapidly from cooperative to one that is destructive and annihilative. The borrowing restrictions are an example of 'annihilative federalism' at play.

Tamil Nadu Chief Minister M.K. Stalin wrote to his Kerala counterpart Pinarayi Vijayan on Tuesday, appreciating the State for moving the Supreme Court against the Union government's attempts to "stifle State governments" over finances, and further hoped to collaborate to address this "crucial challenge".

A SUNSHINE INITIATIVE

Finance Minister Nirmala Sitharaman's interim Budget day speech reiterated a plan by Prime Minister Narendra Modi to supply power to one crore households in the country using rooftop solar panels. This would help households save ₹15,000 annually, the Minister claimed. What is known so far is that households that have a monthly electricity consumption of less than 300 units a month will be able to install a mid-sized system (1-2 kilowatt) with the government bearing the expense. This could mean a minimum outlay of ₹1 lakh crore. As of today, rooftop solar systems are subsidised up to 40%, with the remainder having to be borne by the consumer. Under the proposed policy, the subsidy will increase to 60% and the rest will be financed by a private developer who is affiliated to a public sector enterprise connected to the Power Ministry. This will ostensibly ensure quality in installation and also reliable service. There is a mechanism of 'net-metering', wherein surplus electricity produced by households can be sold back to the grid to make good the loan, though the actual way in which this is implemented can be quite complex. A monthly consumption of 300 units is paltry in houses where air conditioners and heaters are a given, but by national standards, is a significant metric of consumption. About 80% to 85% of 25 crore to 30 crore households in India use between 100 units and 120 units of power a month on



average. Therefore, finding one crore houses that will be eligible for the plan will not be a difficult task.

The major difference from earlier solar promotion policies is that it is the Centre, as opposed to the State power distribution companies (discoms), that will be pushing for solarisation. India's discoms, most of which are heavily loss making, have had little incentive so far in moving high-consumption customers to decentralised solutions, such as rooftop solar. Given that such discoms have the best granular information about power supply at the household level, by-passing them will not be a successful strategy. The Centre's push to give visibility to a hitherto laggard programme is welcome. After all, the move towards decarbonised power will be half-hearted if it does not involve households. So far, only 12 gigawatt (GW) out of an intended 40 GW of rooftop solar panels has been installed. Here too, household rooftops account for only 2.7 GW with the rest being commercial or building units. The Centre's move can thus galvanise a subsidiary domestic industry of solar panels — the subsidies will not be available for imported panels — and must be tweaked in a way to be more accommodative to States. Else, there is a real risk that much of the challenges that have impeded previous initiatives will resurface.

PRUDENCE PREVAILS

The RBI's Monetary Policy Committee (MPC) has prudently opted to persist with its objective of 'ensuring that inflation progressively aligns to the target' by keeping benchmark interest rates unchanged, and sticking with its stance of 'withdrawal of accommodation'. With a 5-1 majority, it has committed to keeping monetary policy unambiguously disinflationary so as to anchor inflation expectations, especially at a time when 'large and repetitive price shocks are interrupting the pace of disinflation'. On the rationale to leave the repo rate unchanged at 6.5% for a sixth straight meeting, Governor Shaktikanta Das observed that while domestic economic momentum remained strong, uncertainties in food prices continued to impinge on the headline inflation trajectory. The tangible risk that food price pressures could become more generalised and impact broader headline inflation was the main consideration, he explained. That the majority of the MPC was aligned in prioritising the battle against inflation needs to be seen in the backdrop of the recent trends in retail inflation. Headline retail inflation, which had eased from July's 15-month peak of 7.4% to 4.87% in October, however, rebounded to a four-month high of 5.69% in December, with food price gains gauged by the Consumer Food Price Index racing ahead to 9.53%, a sizeable 292 basis points faster than October's 6.61%.

That the uncertainty surrounding food price gains has begun to vex policymakers is reflected in a recent RBI Bulletin article that pointedly sought to find an answer to the question, 'Are Food Prices the 'True' Core of India's Inflation?'. Concluding that there is enough empirical evidence to support an assertion that 'there are times when food inflation mimics core inflation', the officials caution that given food's substantial share in the consumption basket, large and repeated food price shocks have the potential to ripple outward and undermine the goal of price stability by de-anchoring inflation expectations. The MPC's downward revision of its projection for average retail inflation in the January-March quarter to 5.0%, 20 basis points lower than its December forecast, reflects the small comfort policymakers have taken from the improvement in rabi sowing as well as a seasonal correction in vegetable prices. Still, the Department of Consumer Affairs' daily price monitoring dashboard shows the average retail price of more than two-thirds of the key food items it tracks remained higher on a year-on-year basis as on February 8. Policymakers need to stay steadfast in their resolve to durably slow price gains towards the 4% target or risk dampening consumption and thereby undermining the growth momentum.



- The US Federal Reserve held interest rates for the fourth straight review last week, and chairman Jerome Powell was vague about the proximity of much-anticipated rate cuts this year, seeking more data to establish that inflation had been reined in sustainably.
- Finance Minister Nirmala Sitharaman's interim Budget for 2024-25, however, could give the central bank some more room to ease liquidity constraints in the economy. While the government did not provide a prop for weak consumption trends, it is also not adding to inflation pressures. A stronger than expected pursuit of fiscal consolidation in this year and the next, and a promise to lower gross market borrowings from ₹15.4 lakh crore this year to a tad over ₹14 lakh crore in 2024-25, should help. The Minister asserted that this will free up more credit for the private sector now that industry is beginning to invest 'at scale'. Gross market borrowings as a share of the fiscal deficit will also drop below 84% from 89% this year. With foreign capital inflows into Indian government bonds likely to spike following their inclusion in global bond indices, banks which are the major holders of these securities and are facing elevated credit to deposit ratio growth rates, should get more space to lend. Economists expect this to help lower borrowing costs for the entire economy. Yields on government bonds have already dropped from 7.14% ahead of the Budget to about 7.05% and could drop further, even as systemic liquidity has improved a tad. For Mint Street hawks, that is no small comfort.

THE PAYTM PAYMENTS BANK DEBACLE

The story so far:

In a major blow to fintech services provider Paytm, the Reserve Bank of India (RBI) barred its payments bank subsidiary, Paytm Payments Bank Ltd (PPBL) from obtaining further deposits and top-ups in its accounts or wallets from February 29. PPBL was barred from on-boarding news customers back in March 2022. The latest move was after an audit report had revealed "persistent non-compliances and continued material supervisory concerns in the bank".

What has the RBI instructed?

The RBI has disallowed the Paytm subsidiary from accepting further deposits, top ups or credit transactions into its operated wallet or accounts from February 29. This also applies to its prepaid instruments for FASTags and National Common Mobility Cards (NCMC) cards. Present customers would, however, be allowed to use their existing balances to avail the services. The payments bank, according to Macquire Capital, houses the parent company One97 Communication (OCL)'s more than 330 million wallet accounts. In other words, transactional money is held in the wallets of the payments bank.

Further, PPBL has been prohibited from carrying out any banking services (in the nature of services like AEPS, IMPS etc), bill payments and UPI. It has also been directed to "terminate at the earliest", or before February 29, nodal accounts of its parent company and Paytm Payments Services. Nodal accounts are a type of bank account opened by businesses (financial intermediaries) and are used for holding money from participating banks — from the consumer's side, and ultimately remitting to the specific merchant.

Lastly, the regulator has asked the subsidiary to settle all pipeline and nodal accounts transactions by March 29. No further transactions shall be permitted thereafter. Equity researchers at Macquire Capital believe the move may result in revenue and profitability implications in the



medium to long term. “Given the severe restrictions imposed on PPBL, we believe it significantly hampers Paytm’s ability to retain customers in its ecosystem, and accordingly restricts it from selling payment and loan products,” its note read. More importantly, with no near-term solution in sight, the researchers opine the regulator is “indirectly revoking the PPI (prepaid instrument) license of Paytm”.

The parent company expects the latest action would have a “worst case impact” of ₹300 to ₹500 crore on its annual EBITDA (earnings before interest, taxes, depreciation, and amortisation).

How is Paytm looking to transition?

The company informed that it would now be working with other banks and not with PPBL. It further intends to expand third-party bank partnerships for merchant acquiring services (providing essential infrastructure for acquiring merchants for helping them access payments) with other banks. As enumerated by the President and Chief Operating Officer (COO) Bhavesh Gupta, the migration is to unfold in three stages. The first of it would entail finding an interested partner bank to integrate with the necessary Paytm ecosystem. Second, assessing the ensuing commercial viability and finally, facilitating the account-to-account migration which could be time-consuming given, as he stated, “the time is short”.

The other option would be a one-time migration.

What are the concerns?

The first set of concerns relates to its licensing. RBI guidelines for licensing of payments banks stipulate that entities cannot undertake lending activities. PPBL does not lend directly. Instead, it provides credit-dispensing products from third parties. The other issue relates to its governance structure and related party-transactions. For perspective, Paytm owns 49% of PPBL. The remainder is held by founder Vijay Shekhar Sharma. OCL in its initial response put forth that, adhering to banking regulations, PPBL is “run independently” by its management and board. It further argued against having exerted any influence on the subsidiary’s operations other than as a minority board member or shareholder. It further communicated having “reconfirmed” with founder that he has not taken any margin loans or pledged any shares – directly or indirectly owned by him. Researchers at Macquarie observed the bigger issue arose with the company not being in the good books of the regulator. In fact, on Thursday, RBI Governor Shaktikanta Das said regulated entities are initially nudged to take corrective action and are given sufficient time. However, when that does not work, “effective action” is taken, such as “imposing supervisory or business restrictions”. Furthermore, as learnt from sources, Mr. Sharma also met Finance Minister Nirmala Sitharaman recently. Therein too, he was told “in no uncertain terms” to comply with the directives and regulations. Going forward, it held, their lending partners could potentially re-look the relationships. Earlier, the RBI had penalised the subsidiary ₹5.39 crore for flouting KYC norms. Furthermore, news publication NDTV Profit recently learnt that over 1,000 accounts were found to be linked with the same PAN to their accounts. Thus, creating concerns about money laundering. Revenue Secretary Sanjay Malhotra told Reuters that should any fresh charges of money laundering emerge against Paytm from the RBI, they would be investigated by the ED.



SATELLITE-BASED TOLL COLLECTION MAY ROLL OUT BEFORE LS POLLS

The government plans to implement satellite-based toll collection on highways before the Model Code of Conduct for the Lok Sabha election kicks in, Union Road Transport Minister Nitin Gadkari told the Rajya Sabha on Wednesday.

“We are trying to implement satellite-based toll system very soon, perhaps before the Code of Conduct for the Lok Sabha election,” Mr. Gadkari said.

The technology, which has been under the government’s consideration for the past three years, will allow barrier-free movement of vehicles and they will not be required to stop for toll payments, the Minister said.

Will replace FASTags

He explained that the photo of the registration plate of the vehicle will be captured and the toll amount will be debited based on the actual length of the highway traversed by the vehicle.

This will replace the radio frequency identification-based FASTag system that was rolled out in 2016 and made mandatory from January 2021.

A total of 8.13 crore FASTags have been issued and a penetration of 98% has been achieved, according to the Minister.

While the government is in a rush to implement the new toll collection system before the election, an official of the Ministry of Road Transport and Highways said on condition of anonymity that the concept for the technology being used was not yet finalised and was still in various stages of development.

An official of the National Highways Authority of India, which will be implementing the technology, said it has been tested in Delhi and Gurugram and a trial will soon be conducted in Bengaluru too. This will involve every vehicle registering for the Global Navigation Satellite System of toll collection to be equipped with an on-board unit (OBU) that will be linked to a constellation of satellites. The OBU will also be linked with a wallet from which the toll amount will be deducted.

SIGNAL FROM INDUSTRY

On Monday, the Ministry of Statistics and Programme Implementation released the results for the Annual Survey of Industries (ASI) for 2020-21 and 2021-22. These surveys cover factories employing 10 or more workers using power and those employing 20 or more workers without power. As such, they form a critical source of information on the registered organised manufacturing sector in the economy. As both these years — 2020-21 and 2021-22 — were marked by disruptions in economic activities on account of the pandemic, these surveys, by providing granular information, help in understanding how industry fared during those years.

At the aggregate level, gross value added grew by 8.8 per cent in 2020-21 (in current prices), after registering a fall the year before. Growth in value added was driven by a sharper fall in input (at 4.07 per cent) than output (which fell by 1.9 per cent). In 2021-22, as the economy rebounded, value added grew by 26.6 per cent, with output growing at 35.4 per cent. In both these years, the registered organised manufacturing sector grew at a faster pace than the unorganised sector. The



industries that drove growth during 2021-22 were manufacture of basic metal, coke and refined petroleum products, pharmaceuticals, motor vehicles, and chemicals — value added by these industries grew by 34.4 per cent. Profits, which were also depressed in 2019-20, bounced back during this period.

The estimates of employment show that during the first year of the pandemic, total persons engaged fell marginally by 3.2 per cent — from 1.66 crore in 2019-20 to 1.6 crore in 2020-21. Employment picked up thereafter, with total persons engaged rising to 1.7 crore in 2021-22 — an increase of 7 per cent. This pick up in employment is encouraging. However, the pace at which quality jobs are being generated across all sectors at the aggregate all-India level leaves much to be desired. Between 2017-18 and 2022-23, while the labour force participation rate (15 years and above) saw a steady increase, rising from 49.8 per cent to 57.9 per cent, a greater percentage of workers were self-employed, not engaged in regular salaried or casual wage employment, as per the periodic labour force surveys.

The share of workers that were self-employed rose from 52.2 per cent in 2017-18 to 57.3 per cent in 2022-23. Over the same period, the share of workers in manufacturing declined from 12.1 per cent to 11.4 per cent. This jobs dilemma has been, and will remain, the principal policy challenge.

PANCHAYATS EARN ONLY 1% OF THEIR REVENUE THROUGH TAXES

Only 1% of the revenue of panchayats was earned by them, with the rest being raised as grants from the State and the Centre, show data. Specifically, 80% of the revenue was from Central government grants; only 15% was from State government grants. Consequently, the revenue raised by panchayats formed a minuscule share of the States' own revenue.

Panchayats act on three levels — gram sabhas, panchayat samithis, and zila parishads. They are responsible for a variety of tasks including agriculture, rural housing, water management, rural electrification, healthcare, and sanitation. In some cases, zila parishads are also responsible for maintaining schools, hospitals, dispensaries, and minor irrigation projects.

However, due to dependence on the Centre and the State for their funds, most panchayats suffer from interference from the top two tiers of the system, according to news reports. In August last year, several panchayat heads protested in Chennai asking for independence of the Panchayati Raj. A news report from Telangana last year stated that the failure of the State government in releasing funds on time forced sarpanches to use private funds. The Standing Committee on Rural Development and Panchayati Raj said in March last year that 19 out of 34 State/Union Territories did not receive any funds under the Rashtriya Gram Swaraj Abhiyan scheme in FY23. The programme was started for building capacity and training elected representatives.

The recently released report by the Reserve Bank of India on the finances of Panchayati Raj Institutions for 2022-23 argues that one of the ways forward is to promote greater decentralisation and empower local leaders and officials. According to the report, panchayats had recorded a total revenue of ₹35,354 crore in 2022-23. Of this, just ₹737 crore was earned by their own tax revenue. Panchayats can earn this through taxes on profession and trades, land revenue, stamps and registration fees, taxes on property, and service tax.

Panchayats also earned ₹1,494 crore through non-tax revenue, which is mostly earnings from interest payments and Panchayati Raj programmes. In contrast, they earned ₹24,699 crore as grants from the Central government and ₹8,148 crore as grants from the State governments.



In 2022-23, each panchayat earned just ₹21,000 as its own tax revenue and ₹73,000 as non-tax revenue. In contrast, each panchayat earned about ₹17 lakh as grants from the Central government and more than ₹3.25 lakh as grants from the State governments. In essence, just 1% of panchayats' revenue comes from their own revenue.

When we look at the average revenue earned per panchayat in 2022-23, there are wide variations among States. In Kerala, the average revenue raised by each panchayat was over ₹60 lakh in 2022-23. West Bengal came a close second with an average revenue of ₹57 lakh per panchayat. The revenue was over ₹30 lakh per panchayat in Assam, Bihar, Karnataka, Odisha, Sikkim, and Tamil Nadu; and less than ₹6 lakh in Andhra Pradesh, Haryana, Mizoram, Punjab, and Uttarakhand.

Due to meagre revenue raising potential, panchayats' share in the respective State's own revenue was poor. For instance, in Andhra Pradesh, revenue receipts of panchayats formed just 0.1% of the State's own revenue. The revenue of panchayats in Uttar Pradesh formed 2.5% of the State's own revenue, the highest among States.

IRDAI PROPOSES OBLIGATORY INSURANCE COVERAGE IN GRAM PANCHAYATS ACROSS INDIA

Insurance regulator IRDAI has proposed to make insurance coverage, including life, health and motor, obligatory on the part of insurance companies in gram panchayats across the country in order to achieve the objective of "insurance for all".

The minimum number of lives to be covered by all life insurers in all gram panchayats in the country should be 30 per cent in each gram panchayat subject to a minimum of 25,000 gram panchayats as driven by lead insurer in the first year, IRDAI has proposed. This increases to 40 per cent lives subject to a minimum 50,000 gram panchayats and 50 per cent lives subject to a minimum of 75,000 gram panchayats in year 2 and 3 respectively, IRDAI said in its draft Rural, Social Sector and Motor Third Party Obligations Regulations, 2024.

The same formula will be applicable in the case of dwellings under fire insurance, motor (comprehensive and third party) and lives under health and personal accident insurance.

Over 40 crore people still don't have health insurance coverage in India. On motor third party insurance, the obligations are specified for goods carrying and passenger carrying vehicles as nearly 50 per cent of the vehicles in these 2 categories are uninsured.

These vehicles are important segments of the motor insurance business and widely exposed to third party claims. "Every general insurer is therefore required to underwrite at least 20 per cent increase over total number of goods carrying and passenger carrying vehicles as compared to what was covered in the last financial year or 20,000 vehicles under these categories or 10,000 vehicles in each category, whichever is higher," the draft norms said.

Motor TP obligation fulfilment should be contributed by renewal of the existing vehicles and uninsured vehicles that are insured provided the gap in insurance is at least 30 days, it said. Every new insurer should underwrite a minimum of 10,000 goods carrying and 10,000 passenger carrying vehicles in the first financial year of its operations, the regulator said.

The insurers are allowed to buy and sell the obligations from out of the surplus to the extent of 20 per cent. The insurer who has sold the obligations will continue to be the insurer and should be responsible for servicing the insurance policy and settling claim under it.



Insurance business pertaining to Government social security schemes such as Pradhan Mantri Awas Yojana, Pradhan Mantri Suraksha Bima Yojana (PMSBY) and Pradhan Mantri Jeevan Jyoti Bima Yojana (PMJJY) where total or partial premium is paid by the government, with or without any contribution from the members/ beneficiaries covered should be considered for rural and social sector obligations. BPL cardholders, MNREGA cardholders, eShram cardholders, DBT beneficiaries, Ayushman Bharat cardholders, Pradhan Mantri Mudra Yojana beneficiaries, Jan Dhan account holders, beneficiaries of PM Kisan Samman Nidhi Yojana and PM Viswakarma Yojana would qualify for Social Sector Obligation, IRDAI said.

According to the IRDAI, insurance penetration increased from 2.71 per cent in 2001-02 to 4.2 per cent in 2021-22. Insurance density has increased from US \$ 11.5 in 2001-02 to \$ 91 in the year 2021-22. Total insurance premium increased from Rs 62,818 crore in 2001- 02 to Rs 9.17 lakh crore in 2021-22, registering a growth of 14.34 per cent.

Claims increased from Rs 25,425 crore in the year 2001-02 to Rs 6.42 lakh crore in 2021-22. Assets under management increased from Rs 2.18 lakh crore in 2001-02 to Rs 54.37 lakh crore in 2021-22 and insurance distribution network/ points increased from 8.26 lakh in 2001-02 to around 52.65 lakh in 2021-22.

The Standing Committee on Finance of the Lok Sabha recently recommended that insurance companies should be allowed composite licensing which will enable an insurer to offer both life and non-life insurance products, including health, motor and term policies. The committee has also proposed a reduction in GST rates from the current level of 18 per cent in the case of health insurance and term policies.

WHAT ARE THE REGULATIONS WITH RESPECT TO RICE PRICES?

The Indian government recently made it mandatory for all traders, wholesalers, retailers, and millers to declare their respective rice stocks. The government has also announced the launch of "Bharat rice" to bring down rice prices in the market. However, millers and traders feel these are not enough to control prices.

What about paddy production?

In the year 2022-2023, India produced 135 million tonnes of rice, which is 62.84 lakh tonnes higher than the previous year. However, the year 2023-2024 is seeing multiple estimates coming in. The southern States, which are also the major rice consuming States, are said to have suffered a drop in paddy production because of inadequate rainfall. In Tamil Nadu, the production may drop by almost 30% and in Karnataka, there is almost 25% decline, claim traders and farmers. However, in the north, trade sources say, rice production (basmati and non-basmati) is up 15%. The Union government said that there are ample stocks with the Food Corporation of India and that Kharif crop is good. For the Rabi crop, area under paddy as of February 2, is 39.29 lakh hectares compared to the 40.37 lakh hectares last year.

What about rice prices?

The retail price of rice has increased by 14.51% in the last one year. While Basmati rice prices are said to have dropped 15% in the last one month, paddy prices are up in the southern States. The prices of some varieties increased by more than ₹10 a kg between November 2022 and November 2023. Of the nearly 430 varieties of rice produced in the country, the rice inflation is high in the



varieties that is largely preferred by consumers. In States such as Tamil Nadu, farmers who have the capacity to hold stocks and sell to private traders, are expecting better prices this year.

What are the measures taken so far?

The government has asked traders, wholesalers, retailers, chain retailers and millers to report the stocks online in the categories of broken rice, non-basmati white rice, par-boiled rice, basmati rice, and paddy. It has also launched the retail sale of 'Bharat Rice' to general consumers at ₹29 per kg. Moreover, in September 2022, the export of broken rice was banned, and a 20% duty was imposed on par-boiled rice. Non-basmati white rice exports was also put under the prohibited category from July 2023. The government has procured 600 lakh tonnes of paddy during the current Kharif marketing season, starting October 1, 2023. With this, the central pool has 525 lakh tonnes of rice as against the annual requirement of almost 400 lakh tonnes for welfare schemes. Till the end of January this year, the government has sold 1.66 lakh tonnes of rice in the open market.

Why are prices increasing?

Traders and millers cite several reasons for the higher retail rice prices. The Minimum Support Price for rice has gone up in the last five years and the cost of transport, storage, etc. are also escalating. In rice consuming States, the varieties consumed in large quantities have seen a drop in production this year. Further, despite government measures, export of non-basmati rice has seen a multi-fold jump during the last three years compared to the previous years. Non-basmati rice exports were 5.1 million tonnes in 2019-2020 which increased to 13.1 million tonnes in 2020-2021, 17.3 million tonnes in 2021-2022, and 16.1 million tonnes in 2022-2023. In April-May 2023-2024, it was 2.8 million tonnes compared to the 2.7 million tonnes for the same period a year earlier. The export duty levied by the government is neutralised by the high international prices, say the traders. Furthermore, the rice consumed in the retail market is of the stock of last season and with a shortfall in arrivals, the prices may go up even more in the coming months.

What should the government do?

According to the millers in the northern States, there is a demand for rice for consumption, ethanol production, and cattle feed. The government should prioritise sale for consumption. The stock data collected by the government is expected to give an indication of the stock levels. It should look at capturing data for the most consumed varieties too before deciding the future course of action.



LIFE & SCIENCE

MORE EVIDENCE

Ground-penetrating radar on board NASA's Mars Perseverance rover has confirmed that the Jezero Crater, formed by an ancient meteor impact just north of the Martian equator, once harboured a vast lake and river delta. Over eons, sediment deposition and erosion within the crater shaped the geologic formations visible on the surface today. The discovery of lake sediments reinforces the hope that traces of life might be found in soil and rock samples collected by Perseverance. The crater filled with water has layers of sediments deposited on the crater floor. The lake subsequently shrank and sediments carried by the river that fed it formed an enormous delta. As the lake dissipated over time, the sediments in the crater were eroded, forming the geologic features visible on the surface today. Perseverance's soil and rock samples will be brought back to Earth by a future expedition and studied for evidence of past life. Between May and December 2022, Perseverance drove from the crater floor onto the delta.

ERGOSPHERE: MAKING A BLACK HOLE WORK

WHAT IS IT?

Rotating black holes (a.k.a. Kerr black holes) have a unique feature: a region outside their outer event horizon called the ergosphere. A black hole is formed when a really massive star runs out of fuel to fuse, blows up, leaving its core to implode under its weight to form a black hole.

The centre of a black hole is a gravitational singularity, a point where the general theory of relativity breaks down, i.e. where its predictions don't apply. A black hole's great gravitational pull emerges as if from the singularity.

The event horizon describes a sphere around the singularity: when anything enters this sphere, it can't escape unless it travels faster than light (which is impossible). Just beyond this sphere, a rotating black hole will also have an ergosphere – a bigger sphere that an object can enter and then leave if it's moving fast enough, but still less than the speed of light.

The label 'ergosphere' comes from 'ergon', the Greek word for 'work'. It is so named because it is possible to extract matter and energy from the ergosphere, but not from beyond the event horizon.

Some scientists have suggested using this possibility to send an object into the ergosphere and allow it to accelerate there along the black hole's direction of rotation, so that it comes out moving faster. This energy 'gain' will translate to the black hole losing some angular momentum.

REDUCING AMMONIA EMISSIONS THROUGH FERTILIZER MANAGEMENT

Based on machine learning, researchers have come up with detailed estimates of ammonia emissions from rice, wheat and maize crops.

The dataset enabled a cropland-specific assessment of the potential for emission reductions, which indicates that effective management of fertilizer in the growing of these crops could lower atmospheric ammonia emissions from farming by up to 38%. The paper was published in the journal Nature.



Challenging action

Atmospheric ammonia is a key environmental pollutant that affects ecosystems across the planet, as well as human health. Around 51-60% of anthropogenic ammonia emissions can be traced back to crop cultivation, and about half of these emissions are associated with three main staple crops: rice, wheat and maize.

However, quantifying any potential reductions in ammonia emissions related to specific croplands at high resolution is challenging and depends on details such as nitrogen inputs and local emission factors.

Optimised strategy

Yi Zheng from the Southern University of Science and Technology, Shenzhen, China and others used machine learning to model ammonia output from rice, wheat and maize agriculture worldwide on the basis of variables that include climate, soil characteristics, crop types, irrigation, tillage and fertilization practices.

To inform the model, the researchers developed a dataset of ammonia emissions from over 2,700 observations obtained via systematic review of the published literature.

Using this model, the researchers estimate that global ammonia emission reached 4.3 teragrams (4.3 billion kilograms) in 2018. The authors calculated that spatially optimising fertilizer management — as guided by the model — could result in a 38% reduction in ammonia emissions from the three crops. The optimised strategy involves placing enhanced-efficiency fertilizers deeper into the soil using conventional tillage practices during the growing season.

The researchers found that under the fertilizer management scenario, rice crops could contribute 47% of the total reduction potential, and maize and wheat could contribute 27% and 26%, respectively.

Without any management strategies, the authors calculated that ammonia emissions could rise by between 4.6% to 15.8% by 2100, depending on the level of future greenhouse gas emissions.

WHAT IS HUMBOLDT'S ENIGMA AND WHAT DOES IT MEAN FOR INDIA?

While we expect diversity to decrease away from the tropics, mountains are an exception. This is the essence of Humboldt's enigma. But scientific evidence has been hard to acquire, requiring the use of complex analytical methods and large datasets, but is still incomplete

Where is biodiversity concentrated?

Explorers and naturalists have been asking this question for centuries. Many have also been curious why some areas are more biodiverse than others.

One of them was Alexander von Humboldt (1769-1859) – a polymath who recorded observations on various natural phenomena across the fields known today as geography, geology, meteorology, and biology.

Once, when exploring South America, he recorded the distribution of plants on a mountain. He also noted how climates were similar across various mountains in different parts of the world – but where specific features occurred on a mountain varied with elevation.



From his various studies, Humboldt suggested there was a relationship between temperature, altitude, and humidity on one hand and the occurrence patterns of species – or their biodiversity – on the other. His example of choice was the Chimborazo mountain in Ecuador, which has today become an important illustration of mountain diversity.

Two centuries later, a group of biogeographers – scientists who explore the relationship of diversity with geography – used modern tools to take another look at the drivers of biodiversity.

Based on their findings, they proposed their own version of the link between biodiversity and mountains and called it Humboldt's enigma.

What is Humboldt's enigma?

The world's tropical areas receive more energy from the Sun because of the earth's angle of inclination. So the tropics have greater primary productivity, which then facilitates greater diversity: more ecological niches become available, creating more complex ecosystems and greater biological diversity.

The proponents of Humboldt's enigma have held that the earth's tropical areas by themselves don't contain all the biodiverse regions, that many areas outside the tropics are highly biodiverse. These places are mountains.

Indeed, while we expect diversity to decrease away from the tropics, mountains have been an important exception. This is the essence of Humboldt's enigma. But scientific evidence has been hard to acquire, requiring the use of complex analytical methods and large datasets of various taxonomic groups – and even then remains an incomplete exercise.

A simple way to think of Humboldt's enigma in India is to consider the biodiversity in our tropical areas, south of the Tropic of Cancer passing through Madhya Pradesh and Chhattisgarh. These areas are supposed to be the most diverse in the country. The Western Ghats plus Sri Lanka biodiversity hotspot lies in this zone.

However, the eastern Himalaya are much more diverse. Some scientists have even suggested this part of the mountain range is the second-most diverse area of perching birds in the world. For river birds, the eastern Himalaya may be the most diverse.

HOW MANY TREES DO WE HAVE?

A detailed analysis of the earth's trees was made a few years ago. The method for this global effort utilised ground-based sample counts extended to calculations on images from satellites, using sophisticated algorithms (Nature, 2015). The study estimated that our planet has about three trillion trees.

The number came as a surprise, as it was much higher than all earlier scholarly estimates. And the satellite images also provided a measure of how these trees are distributed over the earth. The world average works out to a little over 400 trees per human.

South American rainforests contain 15-20% of all the trees on earth. Another large number, mostly conifers, is present in the Boreal forests or Taiga of the Northern latitudes, spread over Canada and Russia. As a result of this profusion of coniferous trees, every Canadian resident has the 'luxury' of nearly 9,000 trees.



In sharp contrast, 15 lakh people who live in the Middle Eastern Island nation of Bahrain make do with just 3,100 trees. About five trees per sq. km.

Other oxygen sources

It should be noted that vast areas of the earth are grasslands with relatively few trees. In all, grasses produce nearly as much oxygen as the trees of the world. Then we have marine cyanobacteria and algae—photosynthesis in these microscopic creatures produces as much oxygen as all the land plants.

Besides producing oxygen, trees play an important role in removing carbon from the atmosphere.

Trees that lived millions of years ago, after being submerged in swamps and buried, slowly turned to coal, thus locking up carbon for a very long time. Of course, you can quickly undo all that effort by burning the coal in a thermal power plant to produce electricity, along with a lot of globe-warming carbon dioxide.

India's forest cover

The estimate for our own country is about 28 trees for every person. A high population density, and a long history of deforestation has led to this number. Bangladesh, where the population density is three times that of India, has six trees per citizen. Both Nepal and Sri Lanka have a little over a hundred trees per person.

The diversity in India's geography results in large differences in natural forest cover. Moist tropical forests, with their dense canopies, high rainfall, and rich biodiversity are seen in the Western and Eastern Ghats, the Northeast, and the Andaman and Nicobar Islands.

Eighty percent of the land area in Arunachal Pradesh is under forest cover; in Rajasthan it is less than 10%.

There is still a long way to go for India's Forest Policy goal of one-third area under forests. Reforestation efforts contribute towards this goal, but of greater importance is the prevention of deforestation. The southern States are faring better at this. The India State of Forest Report (ISFR) 2021 states that the three States with the best improvement in forest cover are Karnataka, Andhra Pradesh, and Tamil Nadu.

THE UNUSUAL CABBAGE MUTATION THAT COULD BOOST CROP YIELD

The males of plants as diverse as cabbage, cauliflower, broccoli, tomato, and rice can be made sterile by deleting a very small part of their genome's DNA. This is the take-home message of a paper published in the journal *Nature Communications* in October by researchers at the State Key Laboratory of Vegetable Biobreeding of the Chinese Academy of Agricultural Sciences, Beijing.

The simple deletion resulting in such a drastic outcome brings to mind the story of a kingdom that was lost for want of a horseshoe nail. But here, instead of loss, the researchers assure us of a gain: that the deletion could lead to an abundant harvest of these plants, thanks to a process called heterosis.



Genes and promoters

The DNA molecule consists of two long strands. Each strand is composed of four compounds called nucleotide bases. They are designated A, C, G, and T for simplicity (for adenine, cytosine, guanine, and thymine respectively). An A on one strand makes chemical bonds, called hydrogen bonds, with a T on the other and a C on one strand makes hydrogen bonds with a G on the other.

The bonds between As and Ts and the bonds between Gs and Cs hold the two DNA strands together. A base-pair, or bp for short, is a single A-T or G-C pair between the two strands, with the dash denoting the bond.

The genome of the cabbage plant (*Brassica oleracea*) consists of around 1.06 billion base-pairs organised in 18 chromosomes, which every cell holds in nine pairs of two each. In each pair of two chromosomes, one chromosome comes from the pollen and the other comes from the egg. The DNA (which is all the base-pairs together) in every chromosome pair share a mostly identical sequence of base-pairs.

A gene is a well-defined sequence of typically a few thousand base-pairs, or a few kilo base-pairs (kbp), in the DNA molecule. When a gene is expressed, it means a segment of the base sequence on one of its strands is copied into the sequence of bases in a related molecule, called RNA.

DNA and RNA are the master and working copies of a gene. The RNA is loaded into a cellular machinery called the ribosome. The ribosome uses the base sequence of RNA to specify the sequence in which amino acids are linked together to create the protein encoded by the gene.

In short, a gene's DNA sequence defines the amino acid sequence of its encoded protein and the protein's structure. The cell uses the RNA and the ribosome to manufacture this entity.

Pollen loss promotes heterosis

Around 44 years ago, people found a cabbage plant that contained a natural mutation. As a result of this mutation, they found that the plant had lost the ability to make pollen.

At first, scientists didn't know which particular gene in the plant had been mutated. They only named the altered gene, whichever it was, *Ms-cd1*.

The mutation's effect was to make the plant male-sterile, but they had no other defects. In fact, the eggs of the mutant plant could be fertilised by pollen from a normal plant, and the fertilised eggs would go on to make normal seeds.

In other words, all the seeds from the mutant plants were the result of the plants' eggs being fertilised by pollen from plants of other strains – a process called out-crossing. None of their seeds came from self-crossing. (In a self-cross, an egg is fertilised by pollen of the same strain.)

Out-cross seeds – which are also called hybrid seeds – germinate to produce more robust plants than self-cross seeds. This is because of a phenomenon called hybrid vigour or, in technical terms, heterosis.

The missing base-pair

The researchers who conducted the new study showed that seeds from the male-sterile plant consistently made bigger cabbages.



Specifically, they found that the Ms-cd1 mutation was dominant – meaning that if the mutant gene was present in only one of the chromosomes of the pair, the plant wouldn't be able to make pollen. It didn't matter if the other chromosome had a non-mutated gene.

Dominant mutations are relatively rare. Mutations are commonly recessive, meaning the same gene has to be mutated in both chromosomes for its effects to be expressed. Fortunately for us, it is easier to scale up the production of hybrid seeds using dominant male-sterile mutations. One part of this process has to do with fine-tuning protein levels when making pollen.

As it happens, it's not necessary that all of a gene's DNA sequence is copied into RNA. Some sequences aren't copied, and one of them is the promoter. This sequence binds to regulatory proteins that determine when and in which cells a DNA sequence is copied to RNA.

The Ms-cd1 gene of cabbage is about 6 kbp long. Its promoter binds to a regulatory protein called ERF. This binding keeps the Ms-cd1 gene from being expressed.

EXPLAINED: WHAT IS H5N1 AVIAN INFLUENZA, ITS SYMPTOMS, AND HOW FATAL CAN IT BE?

On July 21, an 11-year-old boy died of H5N1 avian influenza in Delhi. This is the first recorded death due to the bird flu in India this year. In January, bird flu was confirmed in several states with thousands of birds, including migratory species, being found dead.

What is bird flu?

Bird flu or avian influenza is a disease caused by avian influenza Type A viruses found naturally in wild birds worldwide. The virus can infect domestic poultry including chickens, ducks, turkeys and there have been reports of H5N1 infection among pigs, cats, and even tigers in Thailand zoos.

Avian Influenza type A viruses are classified based on two proteins on their surfaces – Hemagglutinin(HA) and Neuraminidase(NA). There are about 18 HA subtypes and 11 NA subtypes. Several combinations of these two proteins are possible e.g., H5N1, H7N2, H9N6, H17N10, etc.

Bird flu: Infection in humans

There have been reports of avian and swine influenza infections in humans including A(H1N1), A(H1N2), A(H5N1), A(H7N9), etc. The first report of human H5N1 infection was in 1997 and currently, over 700 human cases of Asian Highly Pathogenic Asian Avian Influenza A (HPAI) H5N1 virus have been reported to the World Health Organisation from 16 countries. The infection is deadly as it has a high mortality rate of about 60%.

The most common route of virus transmission is direct contact — when a person comes in close contact with infected birds, either dead or alive.

Humans can also be affected if they come in contact with contaminated surfaces or air near the infected poultry. There is no sufficient evidence suggesting the spread of the virus through properly cooked meat.

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Symptoms of avian influenza

According to US CDC, the reported signs and symptoms of avian influenza A virus infections in humans have ranged from mild to severe influenza-like illness.

- Fever, cough, sore throat, muscle aches, nausea, abdominal pain, diarrhoea, vomiting
- Severe respiratory illness (e.g., shortness of breath, difficulty breathing, pneumonia, acute respiratory distress, viral pneumonia, respiratory failure)
- Neurologic changes (altered mental status, seizures)

Risk groups

Children and adults below 40 were seen to be the most affected and mortality was high in 10-19 years olds.

Bird flu: Human-to-human transmission



AIIMS chief Dr. Randeep Guleria told PTI that human-to-human transmission of the H5N1 virus was very rare and there was no need to panic. "The transmission of the virus from birds to humans is rare and sustained human-to-human transmission of the H5N1 virus has not yet been established and therefore there is no need to panic. But then people working closely with poultry must take precautionary measures and maintain proper personal hygiene."

A paper published in 2005 in The New England Journal of Medicine, investigated possible person-to-person transmission in a family cluster in Thailand and wrote that the "disease in the mother and aunt probably resulted from person-to-person transmission of this lethal avian influenza virus during unprotected exposure to the critically ill index patient."

Dr Neeraj Nischal, an associate professor in the Department of Medicine at AIIMS, told PTI that Avian influenza or bird flu is predominantly a zoonosis, and there is no evidence of sustained human-to-human transmission so far.

"Although a few isolated family clusters have been reported, transmission in these clusters may have occurred through common exposure and in rare situations a very close physical contact; there is no evidence of human-to-human transmission via small-particle aerosols," he added.

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