



31 October to 5 November 2022

CURRENT AFFAIRS FOR UPSC

DreamIAS





INTERNATIONAL

HOW JIMMY JIMMY, NOW AN ANTHEM IN CHINA AGAINST XI'S ZERO COVID POLICY, HAS BEEN FETED GLOBALLY

In China, where very few dissident movements have been exceptional enough to cause any significant change, a song from India is being used by the people to showcase their dissatisfaction with the Xi Jinping government's stringent zero-Covid policy that is currently burdening the people, causing many to be stuck at home.

The government's crackdown has found unusual competition from disco king Bappi Lahiri's famed composition, Jimmy Jimmy, from Mithun Chakravarty starrer Disco Dancer (1982). It has sneaked into popular Chinese consciousness and become a way to register protest, albeit of a softer kind. In Mandarin 'Jie mi, Jie mi' translates to "Give me rice", and videos of people mouthing the song sung by Parvati Khan along with empty rice vessels, highlighting the shortage of rice and other essentials, have managed to escape the Chinese government and not been taken down.

Most of these are on Chinese social media platform Douyin, another name for TikTok. Many videos have surfaced showing security personnel coming down hard on the people protesting the lockdowns.

Recently, a plethora of workers hired to assemble Apple's newest iPhone walked out from a facility in central China's Zhengzhou due to perilous working conditions.

Even as Covid cases have gone down considerably all over the world, including in China, the country continues to lock down entire neighbourhoods even if a few people are found to be positive. The country is still working with a number of travel restrictions, compulsory testing, and negative Covid tests even to enter restaurants.

What explains the popularity of 'Jimmy Jimmy' in China?

Before authoritarian leader Mao Zedong's death in 1976, the Chinese were cut off from the rest of the world. The media was stifled, crackdowns were rampant, and there was no presence of western goods, culture or information. One of the largest countries in the world at the time, China was starved of any 'western', 'American' or 'capitalist' entertainment and music due to the dominance of the Communist regime. When things began to open up a little post 1976, the Chinese began viewing movies, and listening and grooving to music from the rest of the world.

While Disco Dancer — the rags-to-riches story of a wedding and street singer from Mumbai slums who metamorphoses into Jimmy the disco dancer — found popularity upon release in 1983, the Chinese also heard what Lahiri was doing with the British and American disco trend at the time.

And while they missed the meteoric rise of the British disco kings — Bee Gees, the chart-topping hits of disco queen Donna Summer, and John Travolta lighting up the dance floor with his swagger and spirit — they heard Lahiri's version of disco, which came with glittery bell bottoms, hundreds of twinkling light bulbs, pelvic moves accompanied by synths, horns, rhythm guitars and syncopated basslines.

Jimmy Jimmy may have been a version of the French disco song, You're Ok by Ottawan, but it was the Indian Jimmy, a song crooned by Khan, that took the cake. China loved it then. So its presence



in pop culture at this point is not new. But its use as a protest song is what has never happened before.

Jimmy Jimmy and Russia

Another country that was in awe of Jimmy Jimmy was Russia, which before its disintegration and while going through the Cold War watched Disco Dancer — the highest-grossing foreign film in the Soviet Union.

Even today, Russians know and sing the songs from Disco Dancer. The film's director B Subhash was even invited to the Moscow Film Festival in 1983 for its screening.

According to an 80s tall tale, when then Soviet Union leader Mikhail Gorbachev visited India, Rajiv Gandhi, then Prime Minister introduced him to Amitabh Bachchan as India's biggest superstar. Gorbachev replied, "But my daughter knows Mithun Chakraborty."

The only other actor that the Soviet Union loved like this was Raj Kapoor. Moscow continues to have a karaoke bar as a tribute to the song. It's called Jimmy Poy.

Jimmy Jimmy and rest of the world

While Japan built a statue of Jimmy in Osaka, the song was also used in Adam Sandler-starrer action comedy, You Don't Mess With Zohan (2008). British singer of Sri Lankan origin, Maya Arulpragasam, who goes by the name MIA, released her version of the song in 2007. Separately, Lahiri was honoured by London's World Book of Records in 2018 for his contribution to the popularity of this global hit.

WHAT RUSSIA'S SUSPENSION OF GRAIN DEAL COULD MEAN

Russia has suspended its part of the deal allowing Ukraine to ship grain from its Black Sea ports safely amid a monthslong war, and it appears that the remaining partners are now left to take their chances. On Monday, Ukraine said a dozen ships had sailed despite initially reporting that more than 200 vessels, many loaded and ready to travel, were stuck after Russia's weekend announcement.

Such exports are crucial: Ukraine and Russia are key global suppliers of wheat, barley, sunflower oil and other food to countries in Africa, the Middle East and parts of Asia where many are already struggling with hunger. It's not immediately clear who would take the risk of sailing from Ukraine without Russia's protection after Moscow alleged a Ukrainian drone attack against its Black Sea fleet. Kremlin spokesman Dmitry Peskov said implementing the grain deal is "hardly feasible" in a situation when "Russia talks about the impossibility of guaranteeing the safety of navigation in the mentioned areas." Here is what Russia's decision could mean for a world increasingly worried about food security and high food prices:

What has the deal achieved?

The grain initiative has been a rare example of cooperation between Ukraine and Russia since Russia's invasion in February. Brokered by the United Nations and Turkey, it has allowed more than 9 million tons of grain in 397 ships to safely leave Ukrainian ports. The grain agreement has brought down global food prices by about 15% from their peak in March, according to the U.N., and the U.N. secretary-general had urged Russia and Ukraine to renew the deal when it expires Nov. 19.



Following Russia's announcement, wheat futures prices jumped more than 5% on Monday in Chicago, while key oil futures prices rose in Asian markets. With global markets tight, prices will rise and poorer countries will have to pay more to import grain, said Joseph Glauber, senior research fellow at the International Food Policy Research Institute in Washington. Before the grain deal was brokered, the U.S. and Europe accused Russia of starving vulnerable parts of the world by denying exports. Since the deal, Russian President Vladimir Putin has alleged that most of the exported grain was going to Europe instead of the world's hungriest nations.

The U.N. Conference on Trade and Development, however, said in a report published last week that wheat is mostly going to poorer countries, with nearly 20% of exported wheat going to the least developed nations. Ukraine has said more than 5 million tons have been exported to African and Asian nations, with 190,000 tons of wheat sent to countries that are getting relief from the U.N. World Food Program.

What about the ships still moving?

A ship carrying 30,000 tons of wheat for Ethiopia under that program sailed Monday, Ukraine said, one of a dozen ships with more than 354,000 tons of agricultural products that Ukraine said left port after the U.N. and Turkey agreed on the traffic of ships through the humanitarian corridor.

Ethiopia, along with neighboring Somalia and Kenya, is badly affected by the region's worst drought in decades. The question is if new ships take the risk to sail without Russia's safety assurances, said Glauber, a former chief economist at the U.S. Department of Agriculture. "I suspect the answer is no," he said. For "insurance companies and others who are insuring these boats ... rates are going to go up and likely be prohibitive."

THE SECOND COMING

Three years ago, he was in prison over corruption charges. Today, he is the President-elect of South America's largest country. The story of Luiz Inácio Lula da Silva, a former two-term President of Brazil and leader of the leftist Workers Party (PT), is one of the most astonishing comebacks in contemporary Latin American politics. When 99.5% of votes were counted, Lula, as he is popularly known, had won 50.9% votes, defeating the incumbent Jair Bolsonaro, who got 49.1%. Mr. Bolsonaro, a far-right populist who presided over Brazil's rightward shift in the past five years, had done better than most pollsters expected in the first round. But in the run-off, when the voters were offered two contrasting choices — one representing a cocktail of ultra-nationalism, conservatism and free market policies and the other promising inclusive and sustainable development anchored in social liberalism — they chose the latter. Mr. Bolsonaro has none but himself to blame. An admirer of Brazil's brutal military dictatorship, he oversaw a disastrous governmental response to COVID-19, which caused some 7,00,000 deaths, and shrinking economic opportunities. If Mr. Bolsonaro rose to power attacking Brazil's left, after his five years in power, for many Brazilians, the PT rule was an era of better days. What the Brazilian Left wanted was a leader. And they got one again in Lula, after his corruption convictions were annulled by the Supreme Court.

When Lula was in power between 2003 and 2010, his policies lifted some 25 million Brazilians out of poverty. He focused on growth and welfare and chose a cooperative model that sought coexistence rather than confrontation with the country's aristocracy while pushing for incremental redistribution. As in the past, Lula returns to power when a pink tide is sweeping through the Americas. Most of the major countries in the continent are now ruled by Leftists.



While Lula will find a favourable regional environment, his biggest challenge would be to live up to the expectations of Brazilians. He will inherit a different Brazil today. The commodity boom that funded his ambitious welfare programme last time is no longer there. The slowdown in China, Brazil's biggest trading partner, has hurt the economy, which is expected to grow only 0.6% next year. This, along with Mr. Bolsonaro's mismanagement and the economic effects of COVID-19, has led to a sharp rise in poverty and hunger, affecting some 33 million people. Lula would also face resistance from a hostile Congress, where conservatives still remain strong. The road ahead is bumpy, but his record shows that he is a clever politician and an able administrator who might well be able to negotiate his way past Brazil's status quoist elites to bring about incremental changes.

LONE EXCEPTION

Denmark's voters defied the recent trend in Europe, of right-wing electoral gains, and rewarded their centre-left Prime Minister Mette Frederiksen in Tuesday's parliamentary elections. Ms. Frederiksen, who was forced to call an early vote under pressure from her coalition partners, secured the best performance for the Social Democrats in two decades with 27.5% votes. The left-wing bloc she leads has won 87 seats in mainland Denmark, and one in Faroe island and two in Greenland, the autonomous Danish territory, taking its strength to 90, the majority needed in the 179-member assembly. The elections took place amid criticism of Ms. Frederiksen's decision to cull millions of minks during the COVID-19 pandemic and pollsters had expected Ms. Frederiksen to suffer a setback. In the neighbouring Nordic country Sweden, and Italy in southern Europe, both of which went to polls in September, the far-right had made rapid gains. While in Sweden, the centre-left government was replaced by a right-wing government backed by a party with neo-Nazi origins, in Italy, a party with direct links to Mussolini's Fascist Party was elected. In contrast, most Danish voters stood firmly behind the Social Democrats, the Green Left and the Social Liberals.

Before the elections, Ms. Frederiksen had said she would form a government with moderate centrist parties transcending the traditional right-left divisions of Danish politics. However, government formation would be the least of her worries. Like most European countries, Denmark is also struggling with a cost-of-living crisis — at 11.1%, Denmark's inflation is higher than the EU average. There are worries about disruptions to gas supplies as the energy situation remains tense in the wake of Russia's Ukraine invasion. Denmark, one of the founding members of NATO, is also under pressure to step up defence spending along with other NATO members, especially after the war broke out. The war came closer for the Danes when the Nord Stream Russia-Europe undersea pipelines were damaged in explosions off the Danish coast in September. And while the left-wing coalition's victory could strengthen Ms. Frederiksen politically, Denmark is not completely immune to the far-right problem. The Denmark Democrats, a new far-right party being led by a former Minister who was in prison for unlawful separation of asylum seekers, entered Parliament with 8.1% of the votes. So, Ms. Frederiksen's task is already cut out. She might look stronger today, but is still vulnerable. For continued political success, she has to begin with easing the cost-of-living crisis, while keeping the effects of the war minimal on the Danish public.

THE RIGHT AND WORSE

Benjamin Netanyahu, after spending 17 months in opposition, has made a stunning comeback with his Likud Party and its right-religious allies taking a solid lead in Tuesday's parliamentary elections. When about 93% votes were counted, his coalition, including the extremist Religious Zionism and ultra-orthodox Shas and United Torah Judaism, is poised to win 65 seats, a



comfortable majority to form a government in the 120-member Knesset. While Likud is set to become the largest bloc with 32 seats, the centre-right Yesh Atid, led by Prime Minister Yair Lapid, the architect of last year's anti-Netanyahu coalition, is projected to win 24 seats. Mr. Netanyahu, Israel's longest serving Prime Minister, was ousted last year when Mr. Lapid and other opposition leaders formed a cross-ideology coalition of right-wing, centrist, centre-left and Arab parties. But the coalition government, led by Yamina Party's Naftali Bennett, eventually fell apart, pushing the country into its fifth election since 2019. For Mr. Netanyahu, who is on trial for three corruption cases, the time spent in the opposition was an opportunity to rebuild his right-religious base. He attacked the "weak" coalition and promised to make Israel "strong again". The results show that his campaign struck a chord.

With a clear majority in the Knesset, Mr. Netanyahu could build a stable government and pass legislation bypassing the Opposition's pressure tactics. But his return would also raise questions on regional peace and Israel's social stability. "The King of Israel" for his loyal supporters, he at best is a divisive leader, whose commitment towards a just solution of the Palestinian question remains doubtful. He had once said that an independent Palestinian state would not be formed under his watch. He has also been known for his hawkish policies towards Iran, which has blamed Israel for a series of subversive attacks inside its territory (which Israel has not denied). While Mr. Netanyahu is seen to be a hardliner, his main coalition partner, Itamar Ben-Gvir of Religious Zionism, is farther on the right. Mr. Ben-Gvir, who in 2007 was convicted of inciting racism and backing a terrorist group, wants to dismantle the Palestinian Authority, the provisional government in the occupied territories, and is staunchly opposed to a Palestinian state. He has also attacked Israel's Arab citizens. While a government of Messrs Netanyahu and Ben-Gvir would be a leap for Israel's right wing, any leader who is invested in the country's long-term interests cannot ignore the growing violence in the occupied lands and widening social disquiet inside Israel proper.

MISSILES FLY OVER KOREAN PENINSULA: WHY TEMPERATURES HAVE RISEN

Tensions escalated in the Korean peninsula on Wednesday (November 2) after North Korea fired at least 20 missiles east and west of its southern neighbour, with one landing near South Korean territorial waters for the first time since the two countries were divided in 1953.

One of Pyongyang's missiles fell 57 km off the South Korean city of Sokcho, while another landed less than 30 km south of the North Limit Line (NLL), a disputed maritime border between the two Koreas, in what South Korean President Yoon Suk-yeol called an "effective act of territorial encroachment," Reuters reported.

The South Korean military's Joint Chiefs of Staff (JCS) said on Wednesday that it had fired three air-to-ground missiles off North Korea's coast in retaliation. President Yoon's office said he had ordered the launch so that North Korea "pays a clear price for its provocation."

Why did North Korea launch the missiles?

The escalation comes after North Korea warned against the recent joint military drills between the United States and South Korea, which it views as provocative and a rehearsal for an invasion.

The US and South Korea began their largest-ever joint drills on Monday, called Operation Vigilant Storm, during a period of national mourning in South Korea, following a deadly crowd surge in Seoul on Saturday in which over 150 people died.



The drills, which are going to continue till Friday, involve hundreds of aircraft from both allied forces conducting mock attacks throughout the week. The US has deployed F-35B stealth jets in the area for the first time, and South Korean F-35A aircrafts will also take part, NK News reported. Around 380 aircraft are expected to perform 1,600 sorties for the exercise.

Pak Jong Chun, secretary of North Korea's ruling Workers' Party, said on the Wednesday that the number of warplanes involved in Vigilant Storm were proof that the drills were "aggressive and provocative," adding that even its name imitated the US-led Operation Desert Storm against Iraq in the 1990's, Reuters reported.

US and South Korean officials have maintained that the military exercises are defensive in nature and that they do not plan to attack North Korea.

The nuclear threat

On Tuesday, after calling on the US and South Korea to stop its military air drills for the second consecutive day, the North Korea Foreign Ministry warned that the two would pay "the most horrible price in history," likely hinting at a nuclear threat. The day before, North Korea had stated that if the US and its southern neighbour would persist in the provocations, the country would take into account its "more powerful follow-up measures."

North Korea has conducted an unprecedented number of weapons tests this year and the country's Supreme Leader Kim Jong Un last month guided exercises that involved ballistic missiles armed with mock nuclear warheads, claiming it was meant to act as war deterrence, state news agency KCNA reported.

US and South Korean officials have claimed that Pyongyang is preparing to conduct its seventh nuclear test, the country's first since 2017. In September, North Korea also passed a new law that allows for preemptive nuclear strikes in order to protect itself and cemented its position as an irreversible nuclear power.

In March, the country also successfully tested its largest intercontinental ballistic missile (ICBM) ever, the Hwasong-17, Reuters reported. South Korean and US officials have disputed it however, claiming that North Korea fired an older ICBM and that some Hwasong-17 tests had failed.

HALLOWEEN CRUSH KILLS 151 IN SEOUL: HOW AND WHY DO CROWD SURGES TURN DEADLY?

It happened at a music festival in Houston, a soccer stadium in England, during a hajj pilgrimage in Saudi Arabia, in a Chicago nightclub, and countless other gatherings: Large crowds surge toward exits, onto playing fields or press up against a stage with such force that people are literally squeezed to death.

And it has happened again, during Halloween festivities in the South Korean capital Seoul, where a crowd pushed forward, the narrow street they were on acting as a vice, leaving more than 140 people dead and 150 more injured. The risk of such tragic accidents, which receded when venues closed and people stayed home due to the COVID-19 pandemic, has returned.

To be sure, most events where large crowds gather happen without injury or death, with fans coming and going without incident. But those that went horribly wrong shared some common traits. Here is a look at why that happens:



How do people die at these events?

While movies that show crowds desperately try to flee suggest getting trampled might be the cause of most of the deaths, the reality is most people who die in a crowd surge are suffocated.

What can't be seen are forces so strong that they can bend steel. That means something as simple as drawing breath becomes impossible. People die standing up and those who fall die because the bodies on top of them exert such pressure that breathing becomes impossible.

"As people struggle to get up, arms and legs get twisted together. Blood supply starts to be reduced to the brain," G. Keith Still, a visiting professor of crowd science at the University of Suffolk in England, told NPR after the Astroworld crowd surge in Houston last November. "It takes 30 seconds before you lose consciousness, and around about six minutes, you're into compressive or restrictive asphyxia. That's a generally the attributed cause of death — not crushing, but suffocation."

What is the experience of being swept into a crush of people like?

Survivors tell stories of gasping for breath, being pushed deeper under what feels like an avalanche of flesh as others, desperate to escape, climb over them. Of being pinned against doors that won't open and fences that won't give.

"Survivors described being gradually compressed, unable to move, their heads 'locked between arms and shoulders ... faces gasping in panic,'" according to a report after a human crush in 1989 at the Hillsborough soccer stadium in Sheffield, England, led to the death of nearly 100 Liverpool fans. "They were aware that people were dying and they were helpless to save themselves."

What triggers such events?

At a Chicago nightclub in 2003, a crowd surge began after security guards used pepper spray to break up a fight. Twenty-one people died in the resulting crowd surge. And this month in Indonesia, 131 people were killed when tear gas was fired into a half-locked stadium, triggering a crush at the exits.

In Nepal in 1988, it was a sudden downpour that sent soccer fans rushing toward locked stadium exits, leading to the deaths of 93 fans. In the latest incident in South Korea, some news outlets reported that the crush occurred after a large number of people rushed to a bar after hearing that an unidentified celebrity was there.

But Still, the British professor who has testified as an expert witness in court cases involving crowds, pointed to a variation of the age-old example of someone shouting "Fire" in a crowded movie theater. He told the AP last year that what lights the fuse of such a rush for safety in the U.S., more than in any other country, is the sound of someone shouting: "He has a gun!"

What role did the pandemic play?

Stadiums are filling up again. During the pandemic, as games went forward, teams took some creative steps to make things look somewhat normal. Cardboard figures of fans were placed in some of the seats and crowd noise was piped in — a sports version of a comedy show laugh track.

Now, though, the crowds are back, and the danger has returned.

**EXPRESS VIEW: DAY AFTER THE ATTACK ON IMRAN KHAN**

Shot at while leading a rally of supporters in a “long march” from Lahore to Islamabad, Pakistan Prime Minister Imran Khan narrowly escaped an attempt on his life on November 3. One person who overpowered the assailant on the spot was killed. The Pakistan Tehreek e Insaaf leader, who took a bullet in his leg, was among the seven injured, but he has announced that the march to the capital will continue. Pakistan has a grim history of assassinations, and an even worse record of failure to track down those behind these acts. The likelihood that investigators will establish the truth behind the attack on Khan is, therefore, dim. This can only add to the welter of already existing conspiracy theories, fuelled in no small part by the Army’s and the ISI’s role in Pakistan’s politics, their shadowy deals with the political class, judiciary, religious extremists and terrorist groups. This is the political culture that Khan has successfully exploited, both by being part of it and by attacking it at his convenience, and turned into a tidal wave of support for his movement for “haqeeqi azaadi” or real freedom. It is tempting to think of this as an unprecedented civilian moment in Pakistan. But Khan is not out to repair the civilian-military imbalance for democracy’s sake. He is furious with the Army chief and the ISI for staying “neutral” and not helping him remain in power. His aim, and the reason for this “long march”, is to disrupt the status quo, force an early election and return to power, and to compel the Army and ISI to be supportive of his ambitions, which includes the appointment of a supportive Army chief after the incumbent, General Qamar Javed Bajwa, steps down this month end when he is due to retire.

The Pakistan Army has not been cornered in this manner by a civilian politician since Zulfikar Ali Bhutto. Its responses, such as the press conference by the head of the ISI — a historic first for an organisation that thinks of itself as above questions — have given away its vulnerability. Ironically, however, the politicians, including Imran Khan, are waiting for the Army to intervene to resolve a conflict that now seems intractable. But even if the Army intervenes, there is no guarantee of a negotiated ending to this stand-off. With Khan poised to return if elections are held, it seems the Army’s effort will be to ensure that its next move secures its own interests. On previous occasions when the Army has felt its power and supremacy undermined, it has responded in ways that have shifted the scales firmly back to the military.

The constant churn in India’s western neighbour is destabilising for the region. In the absence of any diplomatic engagement, the rather fragile relations between India and Pakistan are being held up only by means of an unwritten ceasefire that began in 2003, and was salvaged from near breakdown last year. Both the Indian and Pakistan armies must ensure that Pakistan’s political troubles do not impact that achievement, which has kept the peace along the Line of Control for 21 months.



NATION

WHY DELHI IS LUKEWARM TO PUTIN'S PRAISE OF INDIA

Much of what Russian President Vladimir Putin's speech at the Valdai Club, a much awaited annual feature at the Moscow think tank, was along predictable lines. He railed at the West of creating its own rules and trying to impose them on others. He lashed out at the American desire for a unipolar world, and said he was not for unipolarity or even a bipolar world, but a multipolar world in which all would be respected. He alleged that the West was "seeking some kind of nuclear incident" and trying to create a false flag incident with a "dirty bomb" to pin against Russia, and thus to escalate the war. But between the lines, there was also an intriguing outreach to Western Europe — particularly Germany, whose relations with Russia in the post Cold War phase were built on the belief that Moscow could never be isolated in any plan for peace and security in Europe. Putin's appeal to Europe sought to differentiate between the "the genuine traditional West" as opposed to the American-led West in which "even allies are sanctioned" and they "lower their heads and agree to everything". He asked Europe to "rediscover/restore its political and economic independence" as this was the only way to a multipolar world.

Putin's effusive praise for India and its political leadership, in response to a question after his main speech, may have embarrassed Delhi as it tries to walk the tightrope and stay neutral in this war. In another era, Putin's description of Prime Minister Narendra Modi for his "independent" foreign policy, and of India under his watch as an "icebreaker" "moving calmly" towards its chosen destiny would have been received with more enthusiasm in Delhi. But days after high praise for Modi in the West for telling Putin on the sidelines of the Shanghai Cooperation Organisation that "this is not the time for war", the Russian president's remarks sought to throw a very different light on Indian "neutrality". Understandably, Delhi was lukewarm. Despite India's abstentions at the United Nations on resolutions to do with Russia's actions in Ukraine, the Indian establishment's patience with Putin's actions has been wearing thin. In the phone call between the two foreign ministers, Defence Minister Rajnath Singh rightly told his counterpart Sergei Shoigu that the use of nuclear weapons "should not be resorted to by either side" as these weapons go "against the basic tenets of humanity".

It is unfortunate that neither side in this war, which continues to cause real economic consequences across the world, is making efforts to pursue a diplomatic end to this outrageous conflict. Instead, on both sides, the rhetoric is all about escalation.

UNITED AGAINST TERROR

India's decision to host the United Nations Security Council's Counter-Terrorism Committee (CTC) is an important marker of the Government's ongoing effort to highlight terrorism issues at a time the global body has been more focused on the Ukraine war. Held in Mumbai and Delhi, it brought UN officials, and ministers and diplomats from all members of the Security Council (UNSC), to discuss challenges to the global counter-terrorism architecture. In Mumbai, the spotlight was on the 26/11 attacks. Despite the global nature of the terror targets, India has had an uphill battle since 2008 in international cooperation to pursue the case, and in bringing the lone surviving attacker, Ajmal Kasab, through a full trial and execution. After a brief period of information sharing, Pakistan has dragged its feet on prosecuting even LeT commanders Hafiz Saeed, Zaki-ur-Rahman Lakhvi and others that its Federal Investigative Agency held responsible for the attacks. During the UNSC conference, the attendees heard not only from victims of the attacks but also

3RD FLOOR AND 4TH FLOOR SHATABDI TOWER, SAKCHI, JAMSHEDPUR



voice samples of LeT recruiter Sajid Mir directing terrorists during the attacks; even so Mir, now in a Pakistani prison on terror financing charges, after Pakistan's grey-listing at the Financial Action Task Force mandated action, has not been tried. The U.S., which has cooperated in many other ways with India on terrorism, convicted conspirators David Headley and Tahawwur Rana for the attacks, but has refused to extradite them. Meanwhile, China continues to block designating LeT leaders on the UNSC 1267 terror list, a problem External Affairs Minister S. Jaishankar and U.S. Secretary of State Antony Blinken specifically mentioned at the conference.

In Delhi, the CTC focus was on online radicalisation and terror recruitment, terror financing through crypto-currency and virtual assets, and unmanned aerial system use including drones for terror strikes, transporting drugs and arms. The deliberations led to the "Delhi Declaration on countering the use of new and emerging technologies for terrorist purposes". While India has only two months left in its current elected tenure at the UNSC, the Government appears to be making efforts to keep up the momentum from the CTC meet; it will host an international "No Money For Terror" conference (November 18-19), and a UNSC special briefing on challenges to global counter-terrorism efforts (December 15-16). As the Indian experience with 26/11 has shown, the global community has often been long on statements but short on cooperative action, and New Delhi will have to keep pressing the point that terrorism remains, in Mr. Jaishankar's words, amongst the "gravest threats to humanity".

REPORTING RAPE

For a rape survivor, trauma comes in repeat doses. First, there is the gruesome act and then follows the difficult task of reporting the assault. For years, an impediment to coming forward about a sexual offence has been the finger test a survivor is subjected to — a gross violation of privacy, a horror upon horrors. On Monday, the Supreme Court of India moved to make amends, declaring that any person conducting the invasive "two finger" or "three finger" vaginal test on rape or sexual assault survivors will be found guilty of misconduct. Calling it regressive, the Bench led by Justice D.Y. Chandrachud said, "this so-called test has no scientific basis and neither proves nor disproves allegations of rape. It instead re-victimises and re-traumatises women who may have been sexually assaulted, and is an affront to their dignity". The apex court said whether a woman is "habituated to sexual intercourse" or "habitual to sexual intercourse" is irrelevant for the purposes of determining whether there has been a rape under Section 375 of the Indian Penal Code. The test, it said, is based on the incorrect assumption that a sexually active woman cannot be raped; and "it is patriarchal and sexist to suggest that a woman cannot be believed when she states that she was raped".

The Court pointed at a legislative measure of 2013 when Section 53A was added to the Indian Evidence Act which clearly said that the "evidence of a victim's character or of her previous sexual experience with any person shall not be relevant to the issue of consent or the quality of consent, in prosecutions of sexual offences". The Ministry of Health and Family Welfare had issued guidelines, saying the finger test must not be conducted. The Court, upset that the practice still continues, has directed the Union and State Governments to do everything to spread the message, including amending the medical curriculum so that students are aware that the finger test procedure is not to be followed while examining a rape survivor. Despite stringent laws in place after the Nirbhaya rape of 2012, things on the ground have not improved for a survivor who has to battle stigma and many other prejudices, not least the assumption that she is to blame for an assault. Rapes often go unreported, and the conviction rate is low too (28.6% in 2021, according to National Crime Records Bureau data). It is now up to the governments, health centres and police



stations to act with sensitivity and without discrimination and ensure women have access to justice and dignity while reporting rape.

ARE THERE ANTI-SUPERSTITION LAWS IN INDIA?

The story so far:

The brutal murders of two women as part of “ritualistic human sacrifices” in the Pathanamthitta district of Kerala have left the country in shock. Chilling details of the killings have sparked a debate about the prevalence of superstitious beliefs, black magic and sorcery in Kerala. In the absence of a comprehensive law to counter such acts, the call for a strict anti-superstition law has grown louder.

Are such killings common?

As per the 2021 report of the National Crime Records Bureau (NCRB), six deaths were linked to human sacrifices, while witchcraft was the motive for 68 killings. The maximum number of witchcraft cases were reported from Chhattisgarh (20), followed by Madhya Pradesh (18) and Telangana (11). Kerala saw two cases of human sacrifice. In 2020, India saw 88 deaths due to witchcraft and 11 died as part of ‘human sacrifices’, the NCRB report states.

What are the laws in India?

In India, there is no central law that exclusively deals with crimes related to witchcraft, superstition, or occult-inspired activities. In the absence of a nationwide legislation, a few States have enacted laws to counter witchcraft and protect women from deadly ‘witch-hunting’.

Bihar was the first State to enact a law to prevent witchcraft, identification of a woman as a witch and “eliminate torture, humiliation and killing of women.” The Prevention of Witch (Daain) Practices Act came into force in October 1999. Anyone who identifies a person as a “witch” and acts to aid this identification can face a jail term of up to three months, or a fine of ₹1,000, or both. A similar law was passed in Jharkhand in 2001 — the Prevention of Witch (Daain) Practices Act.

Even though Chhattisgarh is one of the worst-affected States in terms of witchcraft-related crimes, the State enacted the Chhattisgarh Tonahi (witch) Pratadna Nivaran Act only in 2005. As per the law, a person convicted for identifying someone as a witch can be sentenced to up to three years of rigorous imprisonment with a fine.

Following the directions of the Odisha High Court to frame a law to deal with rising cases of witch-hunting in the State, the Odisha Prevention of Witch-Hunting Bill was passed by the Assembly in 2013. The bill provides penalties for a witch doctor, or a person claiming to be a black magician.

In Maharashtra, the Maharashtra Prevention and Eradication of Human Sacrifice and other Inhuman, Evil and Aghori Practices and Black Magic Act, 2013 was passed after the murder of anti-superstition activist Dr. Narendra Dabholkar. Rajasthan enacted the Rajasthan Prevention of Witch-Hunting Act in 2015 to “provide for effective measures to tackle the menace of witch-hunting and prevent the practice of witchcraft.”

The Assam Witch Hunting (Prohibition, Prevention and Protection) Act, 2015, which received the President’s assent in 2018, prohibits witch hunting completely. “No person shall identify, call, stigmatise, defame or accuse any other person as witch by words, or by signs or indications or by



conducts or actions or any other manner or instigate, aid or abet such an act or commit witch hunting,” the law states.

The latest law was passed in Karnataka where the Karnataka Prevention and Eradication of Inhuman Evil Practices and Black Magic Act, 2017 came into effect in January 2020 after it was notified by the BJP government— which initially opposed it when it was the Opposition party. The law bans several practices related to black magic and superstition, like forcing a person to walk on fire at religious festivals and the practice of piercing rods from one side of the jaw to the other.

DEMAND GROWS, BUT DNA TESTS FALL UNDER A GREY AREA

DNA tests occupy a grey area in the quest for justice, vacillating between the dangers of slipping into self-incrimination and encroachment on individual privacy and the “eminent need” to unearth the truth. They can be of help as evidence in a criminal case or in proving a claim of marital infidelity or paternity.

More and more complainants are seeking DNA tests — a senior official associated with a government laboratory estimates such requests increasing by around 20% each year.

DNA Forensics Laboratory Private Ltd., accredited with the National Accreditation Board for Testing and Calibration Laboratories (NABL), says it tests 300 to 400 samples a month on private requests and court orders. The numbers were only 30 to 40 till five years ago.

The Supreme Court recently held — in a case concerning a woman known only as ‘XX’ to protect her identity — that compelling an unwilling person to undergo a DNA test would be a violation of personal liberty and right to privacy, turning the spotlight on a technology that aids the cause of justice but violates privacy on the other. But the issue is problematised by the varying stances of both the apex court and High Courts that tend to focus on the particularities of each case.

Women’s rights activists, however, hold that a DNA test is the only tool which can deliver justice in cases of abandonment of mothers and children.

Take the example of Keerti (name changed) from Delhi, who asked for a DNA test to determine the paternity of her child after her husband deserted her making claims of infidelity. Left to fend for herself with a six-month-old child, she knocked on judicial doors after the husband’s family denied the request; the case is pending before the family court.

Precedents set by court

Precedents set by the Supreme Court through the years show that judges cannot order genetic tests as a “roving enquiry” (Bhabani Prasad Jena, 2010) and they must balance “the interests of the parties” (Banarsi Dass, 2005); DNA tests should also not be ordered if there was other material evidence at hand to prove the case. In its Ashok Kumar judgment last year, the court said judges, before ordering a genetic test, should examine “proportionality of the legitimate aims” being pursued. But seven years ago, the court heard a man’s plea for a DNA test. He wanted to prove his wife’s infidelity and the parentage of their child and sought a test to be done on himself and the child in the presence of his wife. The court agreed reasoning there was no other way for him to know. It said the wife could refuse but would risk presumptions being drawn against her. Then again, as the ‘XX’ case demonstrates, there are no easy answers or legal certitudes. DNA tests cannot be ordered as a “matter of course” merely because they are permissible in law.



Divergent views

High Courts have taken divergent views as well, with the Kerala High Court delivering two contrasting verdicts. In a high-profile case last year, it allowed a genetic test to establish that a former Left student leader, Anupama S. Chandran, and her husband Ajith Kumar were the biological parents of a one-year-old baby; the same State saw a 77-year-old man's plea for a DNA test to prove his 68-year-old wife had been adulterous being turned down.

While dealing with claims of infidelity, a request for DNA test also competes with the conclusiveness of Section 112 of the Indian Evidence Act, which presumes that a child born to a married woman is legitimate — the burden of proof is on the person claiming illegitimacy of the child.

While the imperative of justice jostles with that of bodily autonomy, the Constitution Bench judgment in the K.S. Puttaswamy case (2017) recognising privacy as part of the fundamental right to life (Article 21) has only buttressed the privacy argument as the government's bid to pilot the DNA Technology (Use and Application) Regulation Bill, 2019 through Parliament hangs fire.

But while the 3,000-odd DNA tests Indian labs perform annually is minuscule compared to the 70 other countries that rely on DNA technology, the surge of requests belies fears about privacy and concerns about possible abuse of data.

CAN CONVICTED LEGISLATORS BE DISQUALIFIED FROM ASSEMBLY?

The story so far:

Two Uttar Pradesh legislators were convicted on criminal charges in recent days, but only one of them has been disqualified and his seat declared vacant by the State's Legislative Assembly secretariat. Azam Khan, the Samajwadi Party MLA for Rampur, was sentenced to a three-year jail term, for making an inflammatory speech in 2019. As disqualification upon conviction on a criminal charge, accompanied by a prison sentence of two years and more is immediate, the Assembly secretariat declared his seat vacant. However, there has been no such response in regard to Vikram Singh Saini, MLA from Khatauli, after he was sentenced to two years' imprisonment in connection with the Muzaffarnagar riots of 2013.

When does conviction attract disqualification?

Section 8 of the Representation of the People Act (RPA), 1951, contains provisions aimed at decriminalising electoral politics. There are two categories of criminal cases that attract disqualification upon conviction. In the first category are offences that entail disqualification for a period of six years upon any conviction. If the punishment is a fine, the six-year period will run from the date of conviction, but if there is a prison sentence, the disqualification will begin on the date of conviction, and will continue up to the completion of six years after the date of release from jail. Major IPC offences are included under this head: making speeches that cause enmity between groups (Sec.153A) and doing so in a place of worship (Sec.505), bribery and personation during elections and other electoral offences, offences relating to rape and cruelty to women by husband and latter's relatives. Besides, serious provisions of special laws such as the Protection of Civil Rights Act, Customs Act, Unlawful Activities (Prevention) Act etc are among the category of offences that entail disqualification regardless of the quantum of punishment. Laws for prevention of Sati, corruption, terrorism and insult to national flag and national anthem etc are also part of this group. All other criminal provisions form a separate category under which mere



conviction will not entail disqualification. A sentence of at least two years in prison is needed to incur such disqualification.

Is there legal protection for legislators against disqualification?

Under Section 8(4) of the RPA, legislators could avoid immediate disqualification until 2013. The provision said that with respect to a Member of Parliament or a State legislator the disqualification will not take effect for three months. If within that period, the convicted legislator files an appeal or revision application, it will not take effect until the disposal of the appeal or application. In other words, the mere filing of an appeal against conviction will operate as a stay against disqualification. In *Lily Thomas vs. Union of India*, the Supreme Court struck down clause (4) as unconstitutional, thus removing the protection enjoyed by lawmakers.

Can the disqualification be removed?

The Supreme Court has the power to stay not only the sentence, but also the conviction of a person. In some rare cases, conviction has been stayed to enable the appellant to contest an election. However, the SC has made it clear that such a stay should be very rare and for special reasons. The RPA itself provides a remedy through the Election Commission. Under Sec. 11 of the Act, the EC may record reasons and either remove, or reduce the period of, a person's disqualification. The EC exercised this power for Sikkim Chief Minister P.S. Tamang, who served a one-year sentence for corruption, and reduced his disqualification so as to contest a byelection and remain in office.

DMK WANTS TAMIL NADU GOVERNOR GONE: WHAT DOES THE LAW SAY ON HOW A GOVERNOR CAN BE SACKED?

Dravida Munnetra Kazhagam (DMK) leader TR Baalu on Tuesday (November 1) urged "all like-minded MPs" to support a proposal to remove the Tamil Nadu governor, R N Ravi.

The DMK's call for removal comes when Governors in several non-BJP-ruled states, including Kerala and Punjab, have expressed disagreements with the government on various issues.

Can a state government request the removal of the Governor? How is the Governor appointed, and how can she be sacked? We explain.

Governor's appointment, removal

Under Article 155 and 156 of the Constitution, a Governor is appointed by the President and holds office "during the pleasure of the President". If this pleasure is withdrawn before completion of the five-year term, the Governor has to step down. As the President works on the aid and advice of the Prime Minister and the council of ministers, in effect, the Governor can be appointed and removed by the central government.

Thus, a Governor is a representative of the Union government in states. Article 163 of the Constitution says the Governor will normally be aided and advised by the Council of Ministers except in those functions which require his discretion. While the Governor's duties and responsibilities lie in a particular state, there is no provision for impeaching the Governor.

Governor-state relations

Although envisaged as an apolitical head who must act on the advice of the council of ministers, the Governor enjoys certain powers granted under the Constitution, such as giving or withholding



assent to a Bill passed by the state legislature, assenting to the convening of the state legislative assembly, determining the time needed for a party to prove its majority, and which party must be called first do so, generally after a hung verdict in an election.

All these powers have been flashpoints recently — to cite two instances, when the Maharashtra Governor had Devendra Fadnavis sworn in as the chief minister in 2019 amid a hung verdict, only for his government to fall in 80 hours; and when the Punjab Governor in September refused to allow a special session of the Assembly for a vote of confidence in the AAP government.

What happens in case of disagreements

There are no provisions laid down in the Constitution for the manner in which the Governor and the state must engage publicly when there is a difference of opinion. The management of differences has traditionally been guided by respect for each other's boundaries.

What courts have said

Since the Governor holds office “on the pleasure of the President”, questions have been raised time and again on whether the Governor has any security of tenure, and if the President is obligated to show reasons for recalling a Governor.

In *Surya Narain Choudhary vs Union of India* (1981), the Rajasthan High Court held that the pleasure of the President was not justiciable, the Governor had no security of tenure and can be removed at any time by the President withdrawing pleasure.

In *BP Singhal vs Union of India* (2010), the Supreme Court elaborated on the pleasure doctrine. It upheld that “no limitations or restrictions are placed on the ‘at pleasure’ doctrine”, but that “does not dispense with the need for a cause for withdrawal of the pleasure”.

This ruling had come in response to a PIL filed by BJP leader BP Singhal, who had challenged the removal of the Governors of Uttar Pradesh, Gujarat, Haryana and Goa on May 2, 2004 by the President on the advice of the newly formed UPA government.

In its judgment, the Bench, while noting that the President can remove the Governor from office “at any time without assigning any reason and without giving any opportunity to show cause”, the power to remove can't be exercised in an “arbitrary, capricious or unreasonable manner”.

“The power will have to be exercised in rare and exceptional circumstances for valid and compelling reasons... A Governor cannot be removed on the ground that he is out of sync with the policies and ideologies of the Union Government or the party in power at the Centre. Nor can he be removed on the ground that the Union Government has lost confidence in him,” the Bench ruled.

The Bench held that the court will presume that the President had “compelling and valid” reasons for the removal but if a sacked Governor comes to the court, the Centre will have to justify its decision.

After this, in 2014, when the BJP government came to power, it was claimed that the central government was pushing Governors to quit on their own, instead of recalling them. In August 2014, the Supreme Court agreed to examine a petition by then Uttarakhand governor Aziz Qureshi, challenging the NDA government's push to make him quit the post.



What various commissions have said

Over the years, several panels and commissions have recommended reforms in how Governors are appointed and how they function, such as the Administrative Reforms Commission of 1968, the Sarkaria Commission of 1988, and the

National Commission to Review the Working of the Constitution, headed by retired CJI M N Venkatchaliah, in 2001.

The Sarkaria Commission had recommended that Governors are not sacked before completing their five-year tenure, except in “rare and compelling” circumstances. Recommendations have also been made for a provision to impeach the Governor by the Assembly. However, none of these have been implemented.

THE GUN AND THE PEN

Prime Minister Narendra Modi’s recent observations at a conclave of State Home Ministers contained a possibly unintended explanation for why academicians, students and lawyers are languishing in prison on terrorism charges. He called for the elimination of all forms of Naxalism, be it of the gun-wielding variety or the kind that uses the pen “to raise international support” and “to mislead the youth”. The remarks came alongside his emphasis on how the Unlawful Activities (Prevention) Act had given an impetus to combating terrorism. In effect, he has conveyed a disconcerting message that the police would treat armed militants and intellectuals alike, if the Government suspects a concordance in their outlook. Considering that the UAPA has been frequently and even unfairly invoked in cases that appear to have no nexus with terrorism, Mr. Modi’s views raise a question whether his comments are a justification of sorts for the continued incarceration of many who do not seem to have indulged in any particular extremist act. Incitement to violence, especially mobilising support for armed insurgency, is indeed a grave offence, but unless there is a proven connection between the nature of the support given and an actual act of terror or a plot to commit one, it is difficult to treat the two things as one.

Recent judicial orders declining bail to activist Umar Khalid in the Delhi riots case, and Jyoti Jagtap of the Kabir Kala Manch in the Elgar Parishad case are good examples of how the police straddle the huge gulf between the nature of their participation in a protest or an event and an actual act of violence by invoking UAPA, and thus eliminating the need to have concrete evidence to show their involvement in a communal or Maoist plot. While this may highlight the potential for misuse of UAPA and the impediments to liberty found both in the law and in its judicial interpretation, it also has a distinct side-effect: the manipulation of political discourse in such a way that those who question the actions, methods and processes of the state that cause mass resentment are criminalised. It is in such a backdrop that the use of political catchwords such as ‘Urban Naxals’, a term that even Mr. Modi has used recently, should be seen. Far from being linked to any terrorist or Maoist conspiracy, the term is merely used to tarnish those with an alternative point of view. The Government arming itself with more stringent laws is only part of the solution to the threat posed by violent extremism. Looking for remedies to the underlying causes is more important than conjuring up conspiracies in the name of dismantling its support structures.

HEAVY-HANDED HURRY

What happens when there is a grave lapse in editorial judgment and something false gets published? If the report is against someone who wields influence, and the media institution



concerned is a known critic of the Government, the consequences might turn out to be disproportionately severe. Digital publication The Wire finds itself in precisely this predicament after a series of its stories has been discredited due to what it admits is fabricated evidence provided by one of its own consultants. Its reporting relating to the alleged privileges enjoyed by a purported beneficiary of social media giant Meta's 'XCheck' programme — privileges that it claimed included the right to report any post and have it taken down with no questions asked — has turned out to be a major debacle. Amit Malviya, head of the ruling BJP's national IT department, named as the one who had got an Instagram post removed, has filed a police complaint, alleging a conspiracy by The Wire to harm his reputation through forgery. The Delhi Police, with whom The Wire too filed a complaint against its consultant Devesh Kumar for allegedly perpetrating an elaborate hoax by submitting fabricated digital proof, lost no time in searching the residences of its editors and seizing laptops and phones. Even by the set standards of the present regime in dealing with vocal dissenters, the hurry shown and the seizures made by the police are shocking. The effort seems to be to make an example of The Wire.

Despite the element of forgery in this case, one cannot dismiss a possible conspiracy to discredit The Wire. Mr. Malviya has limited his complaint to its founders and the journalists whose bylines appeared in initial reports concerning him. Further, the complaint does not name Mr. Kumar, raising a doubt whether this is intentional. The police should not really be investigating the defamation angle, as Supreme Court judgments are clear that prosecution for defamation should only be at the instance of the aggrieved person, and there can be no police FIR. The case highlights the continuing hazard of having defamation on the criminal statute to be exploited by influential state-backed actors rather than a civil remedy to aggrieved individuals. The Court's refusal to decriminalise defamation does add state power to the armoury of those waiting for occasional lapses in the media. The absence of malice, a key defence in such cases, is quite obvious in The Wire case, as no one would wilfully publish a report based on fabricated proof and fake validation by experts under the clear risk of exposure. At the same time, media outlets should acknowledge the perils of the interplay between editorial laxity and confirmation bias in assessing a potential story.

BURDEN OF TRAGEDY

At least 140 people were killed after a suspension bridge, a tourist attraction in Gujarat's Morbi town, collapsed, sending hundreds of revellers into the Machchhu river below. At least 47 of the dead were children, making it one of India's most horrendous tragedies. Inaugurated in 1879, the bridge was renovated and opened on October 26, four days before the tragedy. This raises several concerns. A company that seems to have had no apparent expertise or track record in the field was awarded the contract. There are questions about the fitness of the bridge; in any case, it was not intended to carry more than 150 people at a time, according to reports. Hundreds were on the bridge when it snapped as there was no crowd control. People were allowed to walk into a death trap. All these point to a major failure of governance at various levels. Gujarat is among the richer States of India, but it has often faced governance challenges — its poor management of the pandemic is a case in point. Human acts of omission and commission often cause tragedies, and significantly change the impact of natural disasters. The police have arrested nine people, including two officials of the company that is now under a cloud, and the government has announced compensation to the kin of the victims. A thorough inquiry and the fixing of accountability must follow quickly. The findings should be made public as soon as possible, and the guilty must face exemplary punishment.



Coming out of the long restrictions on travel necessitated by the COVID-19 pandemic, people all over the world appear to be binging on travel and outings. A stampede in Seoul in South Korea killed 154 people last week. In India also, record numbers of people are thronging tourism and pilgrimage spots. While tourism and travel are powerful engines of the economy, there must be more attention paid to ensure that they are safe and sustainable. Tourist and pilgrimage centres around the country should carry out safety and environmental audits to ensure that crowd management and safety protocols are in place to avoid tragedies such as this. Development of new centres where large numbers of people are expected should account for such contingencies. The rapid pace of road and infrastructure development in ecologically sensitive areas such as the Himalayas should be in accordance with topographic limitations. More must be done to regulate the flow of travellers according to the infrastructure capacity of particular destinations. Tourism promotion campaigns must include creating safety awareness among visitors and local officials.

the bridge

The bridge that collapsed in Gujarat's Morbi on Sunday killing at least 134 people, was a suspension bridge — a type in which the deck is hung below suspension cables on vertical suspenders.

The basic structural components of a suspension bridge system include stiffening girders, two or more main suspension cables, and towers and anchorages for cables at either end of the bridge. The main cables are suspended between the towers and are connected to the anchorage or the bridge itself. The vertical suspenders carry the weight of the deck and the commuter load on it.

The design ensures that the load on the suspension cables is transferred to the towers at the two ends, which transfer them further by vertical compression to the ground by way of the anchorage cables.

All of this balancing has to happen within the permissible weight restrictions for the bridge, given that the deck is hanging in air, supported by the two sets of cables. Given that the most important load bearing members are the main suspension cables, the entire cross-section of the main cable is the mainstay of carrying the load and ensuring that buckling does not happen. But this is subject to two preconditions: there must be no overloading, and no excessive swaying.

The 19th century bridge, which had been reopened days previously after repairs spanning six months, reportedly had over 400 people on it when it collapsed.

What is usually expected in incidents like these is that one or two suspension cables give way, and the bridge breaks and hangs before the rest of the structure collapses. It is a slower process. But the sudden collapse, as seen in the videos, suggest that most or all the suspension cables were weak or corroded. This is possible considering that this was a very old bridge. But we are also being told that it was recently repaired. We will have to wait for details on what kind of repairs or maintenance was carried out. The bridge is owned by Morbi municipality, which had signed a contract with a trust owned by private company Oreva — which makes digital products ranging from Ajanta clocks to battery operated bikes — for maintenance and operations.

Robustness of these bridges

The core design of a bridge determines how it distributes the internal forces of tension, compression, torsion, bending, and sheer. Suspension bridges are among the most robust structures, starting from the earliest ones made of twisted grass. When Spanish conquistadors



made their way into Peru in 1532, they discovered an Incan empire connected by hundreds of suspension bridges spanning deep mountain gorges.

The Golden Gate Bridge and Brooklyn Bridge in the US are examples of suspension bridges. India's longest single-lane motorable suspension bridge — the 725-metre Dobra-Chanti suspension bridge built over the Tehri lake — was inaugurated in November 2020.

Besides suspension, bridges can be arch bridges, beam bridges, cantilever bridges, truss bridges and tied-arch bridges. While beam bridges are among the simplest and oldest bridges, the reason for the enduring design of the suspension bridge is that the supporting cables running horizontally between the two far-flung anchorages provide the counterweight and effectively pass on the entire tensional force to the anchorages.

As a result, suspension bridges can easily cross distances of well over 2,000 metres, beyond the scope of other bridge designs. The Morbi bridge was on the smaller side in terms of span, and was pedestrian-only.

MATHURA-VRINDAVAN AIMS TO BECOME A CARBON NEUTRAL TOURIST DESTINATION BY 2041

Mathura-Vrindavan, one of India's largest pilgrimage centres, aims to become a "net zero carbon emission" tourist destination by 2041, Uttar Pradesh government officials have told The Hindu.

This means that tourist vehicles will be banned from the entire Braj region, which includes famous pilgrim centres such as Vrindavan and Krishna Janmabhoomi. Instead, only electric vehicles used as public transport will be allowed into the area.

All 252 waterbodies and 24 forests in the area will also be revived, officials privy to the U.P. government's draft redevelopment plan said. According to the plan, the Braj region's annual pilgrim-tourist footfall is expected to multiply from the current level of 2.3 crore to six crore by 2041.

While the draft masterplan was submitted in March, the strategy document will be submitted this month after which it will be released for public consultation.

To attain a net zero carbon emission status, greenhouse gas emissions must be reduced to as close to zero as possible, with any remaining emissions re-absorbed from the atmosphere, by oceans and forests for instance. To facilitate this in Mathura-Vrindavan, the plan divides the entire region into four clusters, each containing two of the eight key cities. "The idea is to form small circuits called Parikrama Paths which the pilgrim can undertake either on foot or using electric vehicles," Shubham Meena of Design Associates, the company which has drafted the plan, told The Hindu.

Tourists would park their vehicles outside the cities and use only electric vehicles such as e-rickshaws and mini-buses to travel within these small circuits. The plan envisages three to five charging points for electric vehicles in Mathura and Vrindavan and two each in other key towns. Each Parikrama Path will include water kiosks, centres distributing prasad, dining halls and resting spaces for tourists.

Some of the Paths being planned are in Govardhan, Gokul, Barsana and Vrindavan, all places deeply associated with Krishna devotion.



WHY WAS THE MIYA MUSEUM SEALED?

The story so far:

The inauguration of a museum showcasing the culture of Bengali-speaking or Bengal-origin Muslims in Assam was sealed on October 25 after it sparked controversy. Officials said that the action was taken as a house allotted under the Prime Minister's Awas Yojana-Gramin scheme was converted into a museum in violation of the rules. Leaders of the ruling Bharatiya Janata Party say it was opened to appropriate Assamese culture and intimidate indigenous communities.

What happened?

A private centre showcasing the culture and heritage of Bengal-origin or Bengali-speaking Muslims was inaugurated primarily by members of the All Assam Miya Parishad at Dapkarbhita in the Lakhimpur circle of Goalpara district on October 23. They named it the Miya Museum. The Parishad had on October 17 intimated the district head about the opening of the museum. Some legislators and former MLAs of the BJP interpreted the museum as a cultural aggression and asked the government to pull it down. Chief Minister Himanta Biswa Sarma said the museum was a bid to appropriate Assamese culture and asked the local authorities to take necessary action. The local authorities sealed the museum after BJP's minority morcha leader, Abdur Rahim Gibran filed a complaint against it. According to an official notice, the museum was sealed because Mohar Ali, the chairperson of the Parishad, had established the museum, in violation of the rules, at his house allotted in 2018 under the Prime Minister's Awas Yojana-Gramin.

Why was there controversy?

The genesis of the controversy lies in the politics of polarisation in Assam fuelled by the fear of a demographic invasion by the so-called "illegal immigrants" or "Bangladeshis". Although a respectable form of address across the Hindi and Urdu-speaking belts, 'Miya' is used pejoratively against the Bengali-speaking Muslims and also to sift them from the Assamese Muslims who the BJP have been wooing. The migrant Muslims form the bulk of Assam's Muslims accounting for more than 34% of the State's 3.3 crore people. The BJP has allegedly been pitting Assamese Muslims, considered 'khilonjia' (indigenous), against the Bengali-speaking Muslims and had in July approved the awarding of special status to five groups of indigenous Muslims. This is in line with the BJP's vow to protect the 'bhumiputras' (sons of the soil) from illegal immigrants. The museum was thus seen as a bid to assert the 'Miya' identity and by default, intimidation to the current dispensation.

Has this happened before?

The Bengal-origin Muslim community began promoting 'Miya' culture as a counter-campaign against the exercise to update the National Register of Citizens in Assam. This found expression in Miya literature underlining the plight of migrant Muslims. A section of the indigenous communities found this objectionable.

The issue was stoked before when suspended Congress MLA, Sherman Ali Ahmed sought a Miya Museum in the Srimanta Sankaradeva Kalakshetra, that showcases the cultural heritage of various ethnic groups of Assam. Mr. Sarma, then a Minister in the Sarbananda Sonowal government, said that he would not allow such a museum to be set up. Ironically, Mr. Ahmed had cited the recommendations of the Standing Committee on Art and Culture (which comprised 16 members of which six were BJP legislators) presented to the 126-member Assembly on March 24, 2020. The



committee had proposed a museum in the Kalakshetra “reflecting the culture and heritage of the people living in the char-chaporis (sandbars or river islands) of Assam”. Most char-chaporis are inhabited by the so-called Miyas.

How have other groups reacted?

While distancing itself from the museum, MLA and general secretary of the minority-based All India United Democratic Front, Aminul Islam said that it was the humiliation faced by the community that may have led to the museum. However, the All Assam Minority Students’ Union saw the museum as a bid to polarise ahead of the 2024 Lok Sabha polls. “This was a pre-planned drama to stoke sentiments on both sides of the religious divide. There is no such thing as a Miya community and most of the people behind the museum are not migrant Muslims. Ali, who set up the museum at his house, is a Julha and Rafiqul Islam of Bagh Sena, an associate body of Miya Parishad, is a Deshi. So, there you are,” said Rejaul Karim Sarkar, the Union’s leader. Julha and Deshi are two of the five sub-groups of Assamese Muslims that the BJP government has decided to recognise.

THE AMENDMENTS TO THE IT RULES, 2021

The story so far:

The Ministry of Electronics and IT (MeitY) has notified amendments to the Information Technology (Intermediary Guidelines and Digital Media Ethics Code) Rules, 2021 (IT Rules, 2021) on October 28. In June 2022, MeitY had put out a draft of the amendments and solicited feedback from the relevant stakeholders. The draft generated considerable discussion and comment on the regulation of social media in India.

What are the IT Rules, 2021?

World over, governments are grappling with the issue of regulating social media intermediaries (SMIs). Given the multitudinous nature of the problem — the centrality of SMIs in shaping public discourse, the impact of their governance on the right to freedom of speech and expression, the magnitude of information they host and the constant technological innovations that impact their governance — it is important for governments to update their regulatory framework to face emergent challenges. In a bid to keep up with these issues, India in 2021, replaced its decade old regulations on SMIs with the IT Rules, 2021 that were primarily aimed at placing obligations on SMIs to ensure an open, safe and trusted internet.

What was the need to amend the IT Rules, 2021?

As per the press note accompanying the draft amendments in June 2022, the stated objectives of the amendments were three-fold. First, there was a need to ensure that the interests and constitutional rights of netizens are not being contravened by big tech platforms, second, to strengthen the grievance redressal framework in the Rules, and third, that compliance with these should not impact early stage Indian start-ups. This translated into a set of proposed amendments that can be broadly classified into two categories. The first category involved placing additional obligations on the SMIs to ensure better protection of user interests while the second category involved the institution of an appellate mechanism for grievance redressal.



What are the additional obligations placed on the SMIs?

The notification of the final amendments carry forward all the amendments that it had proposed in June 2022.

First, the original IT Rules, 2021 obligated the SMIs to merely inform its users of the “rules and regulations, privacy policy and user agreement” that governed its platforms along with the categories of content that users are prohibited from hosting, displaying, sharing etc. on the platform. This obligation on the SMIs has now been extended to ensuring that its users are in compliance with the relevant rules of the platform. Further, SMIs are required to “make reasonable” efforts to prevent prohibited content being hosted on its platform by the users. To a large extent, this enhances the responsibility and concomitantly the power of SMIs to police and moderate content on their platforms. This has been met with skepticism by both the platforms and the users given the subjective nature of speech and the magnitude of the information hosted by these platforms. While the SMIs are unclear of the extent of measures they are now expected to undertake, users are apprehensive that the increased power of the SMIs would allow them to trample on freedom of speech and expression.

Second, a similar concern arises with the other newly introduced obligation on SMIs to “respect all the rights accorded to the citizens under the Constitution, including in the articles 14, 19 and 21”. Given the importance of SMIs in public discourse and the implications of their actions on the fundamental rights of citizens, the horizontal application of fundamental rights is laudable. However, the wide interpretation to which this obligation is open to by different courts, could translate to disparate duties on the SMIs. Frequent alterations to design and practices of the platform, that may result from a case-to-case based application of this obligation, could result in heavy compliance costs for them.

Third, SMIs are now obligated to remove information or a communication link in relation to the six prohibited categories of content as and when a complaint arises. They have to remove such information within 72 hours of the complaint being made. Given the virality with which content spreads, this is an important step to contain the spread of the content.

Lastly, SMIs have been obligated to “take all reasonable measures to ensure accessibility of its services to users along with reasonable expectation of due diligence, privacy and transparency”. While there are concerns that ensuring “accessibility” may obligate SMIs to provide services at a scale that they are not equipped to, the obligation is meant to strengthen inclusion in the SMI ecosystem such as allowing for participation by persons with disabilities and diverse linguistic backgrounds. In this context, the amendments also mandate that “rules and regulations, privacy policy and user agreement” of the platform should be made available in all languages listed in the eighth schedule of the Constitution.

What are the newly-introduced Grievance Appellate Committees?

The cornerstone of empowering users of social media platforms is to design a robust grievance redressal mechanism that can effectively and efficiently address their concerns. Prior to the IT Rules, 2021, platforms followed their own mechanisms and timelines for resolving user complaints. The IT Rules uniformed this by mandating that all social media platforms should have a grievance officer who would acknowledge the receipt of a complaint within 24 hours and dispose it within 15 days. However, the performance of the current grievance redressal mechanism has been sub-optimal. First, as evidenced by the transparency reports of SMIs, such as Facebook and Twitter, there is no common understanding of what is meant by resolution of the



complaint. For example, Facebook records only mention the number of reports where “appropriate tools” have been provided. These “appropriate tools” could just mean the automated replies pointing out the tools available on the platform that have been sent to the complainants.

As opposed to this format, Twitter records outline the number of URLs against which action has been taken after the receipt of a complaint.

Furthermore, transparency reports show that the number of user complaints continue to be quite low when compared to the content against which the platform acts proactively or is obligated to remove due to governmental or court orders. This may be because users are either not aware of this facility or find it futile to approach the platform for complaint resolution. It might also be because, even in cases where action has been taken on the content, there is no way to assess whether the complainant has been satisfied with the resolution of the complaint.

Moreover, the extant framework does not provide for any recourse if the complainant is dissatisfied with the grievance officer’s order. Possibly, the only course available to the complainant is to challenge the order under the writ jurisdiction of the High Courts or Supreme Court. This is not efficacious given that it can be a resource and time intensive process.

To remedy this, the government has instituted Grievance Appellate Committees (GAC). The committee is styled as a three-member council out of which one member will be a government officer (holding the post ex officio) while the other two members will be independent representatives. Users can file a complaint against the order of the grievance officer within 30 days. Importantly, the GAC is required to adopt an online dispute resolution mechanism which will make it more accessible to the users.

Interestingly, it is unclear whether this is a compulsory tier of appeal or not, that is will the user have to approach the grievance appellate committee before approaching the court. The confusion arises from the fact that the press note expressly stated that the institution of the GAC would not bar the user from approaching the court directly against the order of the grievance officer. However, the final amendments provide no such indication.

While this makes the in-house grievance redressal more accountable and appellate mechanism more accessible to users, appointments being made by the central government could lead to apprehensions of bias in content moderation.

Further, the IT Rules, 2021 do not provide any explicit power to the GAC to enforce its orders.

Lastly, if users can approach both the courts and the GAC parallelly, it could lead to conflicting decisions often undermining the impartiality and merit of one institution or the other.

The writer is a research fellow at the Centre for Applied Law and Technology Research, Vidhi Centre for legal policy

THE C-295 AND INDIA’S AIRCRAFT INDUSTRY

The story so far:

On October 30, Prime Minister Narendra Modi laid the foundation stone for the C-295 transport aircraft manufacturing facility in Vadodara to be set up by Airbus Defence and Space and Tata Advanced Systems Limited (TASL). This is the first time a private sector company would be



manufacturing a full aircraft in the country. This is a huge step forward for India in the global aircraft manufacturing domain.

What is the C-295MW transporter?

The C-295MW is a transport aircraft of 5-10 tonne capacity which will replace the legacy Avro aircraft in the Indian Air Force (IAF) procured in the 1960s. The Request For Proposal (RFP) was issued to global firms in May 2013 and the sole bid by Airbus and TASL was approved by the Defence Acquisition Council in May 2015. On September 24, 2021 the Ministry of Defence (MoD) signed a ₹21,935 crore contract with Airbus Defence and Space for the acquisition of 56 C-295MW aircraft along with associated equipment.

In the words of N. Chandrasekaran, Chairman of Tata Sons, with the set-up of the final assembly line in Vadodara, the Tata Group will now be able to take aluminium ingots at one end of the value stream and turn it into an Airbus C-295 aircraft for the IAF.

Of the 56 aircraft contracted, 16 will come in fly-away condition from Spain between September 2023 and August 2025. The remaining 40 will be manufactured here to be delivered between September 2026 and 2031 at the rate of eight aircraft per year. Nearly 240 engineers will be trained at the Airbus facility in Spain for the project, the MoD said. The C-295 has very good fuel efficiency and can take off and land from short as well as unprepared runways, according to Air Marshal Sandeep Singh, Vice Chief of IAF. The IAF will base its first C-295 squadron in Vadodara by converting the Avro squadron located there, as the fly-away aircraft start coming in, he stated.

With the procurement of these aircraft, India has become the 35th C-295 operator worldwide. With 285 aircraft ordered and 38 operators in 34 different countries, the aircraft has achieved more than 5,00,000 flight hours. The Navy and the Coast Guard have also expressed interest in the C-295 and it can be used in civilian roles as well as exported in the future. The C-295 is also a potential replacement for the AN-32 aircraft, the workhorse of the IAF with over 100 of them in service. To questions on this Air Marshal Singh said that the AN-32s will be in service upto 2032 and beyond and that they would make a decision on its replacement in five years or so from now.

How will this affect the domestic aircraft manufacturing ecosystem?

Over the last two decades, Indian companies, both public and private, have steadily expanded their footprint in the global supply chains of major defence and aerospace manufacturers supplying a range of components, systems and sub-systems.

For instance, Boeing's sourcing from India stands at \$1 billion annually, of which over 60% is in manufacturing, through a growing network of 300+ supplier partners of which over 25% are micro, small and medium enterprises (MSME). "Boeing has the broadest and most capable engineering teams in the country with over 3,000 employees, and we're investing in a 43-acre, \$200 million centre of excellence to further grow in the years to come," a company statement said. Tata in a joint venture (JV) with Boeing, manufactures aero-structures for its AH-64 Apache helicopter, including fuselages, secondary structures, vertical spar boxes fuselages and vertical fin structures for the 737 family of aircraft. It also makes Crown and Tail-cones for Boeing's CH-47 Chinook helicopters.

Similarly, Lockheed Martin has joint ventures with TASL in Hyderabad which has manufactured more than 180 empennages for the C-130J Super Hercules transport aircraft and delivered 157 S-92 helicopter cabins. The latter facility manufactures aerospace components for commercial



helicopters and aircraft and has expanded to include aircraft engine components for aerospace industry companies as well. One of the JV's also began manufacturing complex fighter wings with over 70% of detail parts produced indigenously. The JVs till date have clocked \$600 million worth of exports and produced over \$200 million in Indian industry revenue.

The U.S. simplifying its export regulations for India, through a series of measures, has added further impetus to this, experts noted. As U.S. and India pursue the Indo-Pacific strategy, India's strengths coupled with U.S. and European technology prowess can be a force for good in the world, noted Kriti Upadhyaya, Founder IndUS Tech Council who works closely with companies in both countries.

The domestic defence manufacturing ecosystem will get a boost with the C-295 project as it will lead to the development of a strong private industrial aerospace ecosystem not only in and around Vadorara but across the country. Bengaluru and Hyderabad already have developed such aerospace and defence domains over the years. The C-295 project is expected to create more than 15,000 skilled direct and indirect jobs across the aerospace ecosystem, with more than 125 suppliers qualified on global quality standards across India. Manufacturing of over 13,400 detail parts, 4,600 sub-assemblies and all the seven major component assemblies will be undertaken in India, along with tools, jigs and testers, Tata said.

Is India's civil aviation sector growing?

India has a much bigger footprint in civil aviation manufacturing than defence, in addition to being a major market itself. Both Airbus and Boeing do significant sourcing from India for their civil programmes.

According to Airbus every commercial aircraft manufactured by them today is partly designed and made in India. "We buy manufactured parts and engineering services worth \$650 million every year from more than 45 Indian suppliers", the company said. Stating that India, which is moving ahead with the mantra of 'Make in India' and 'Make for the Globe', continues to enhance its potential by becoming a major manufacturer of transport planes, Mr. Modi said, "And I can visualise the day when the world's biggest passenger planes will also be manufactured in India and will also carry the tag of 'Make in India'.

Since 2007, Airbus has had a wholly domestic-owned design centre here which has more than 650 engineers who specialise in high-tech aeronautical engineering and work across both fixed- and rotary-wing Airbus aircraft programmes. Airbus which has design, management and training centres in India, added, "Our centres have the capacity to skill more than 8,000 pilots and 2,000 engineers over the next 10 years with plans for further expansion."

Today in India, we have the world's fastest growing aviation sector and we are about to reach the top three countries in the world in terms of air traffic, Mr. Modi said. "Crores of new passengers are going to be air passengers in the next 4-5 years... It is estimated that in the coming 10-15 years, India will need about 2000 more passenger and cargo aircraft."

Another major growing area is Maintenance, Repair and Overhaul (MRO) for which India can emerge as the regional hub, Ms. Upadhyaya remarked adding, "However, the private defence sector is still nascent and a conducive and stable regulatory and policy environment will be an important enabler." This moment is akin to the automobile clusters that have emerged in the country turning India into a major exporter of cars to the world. With the right momentum, a



realistic roadmap and enabling policy framework, a similar story can be scripted to make the country a hub for aircraft manufacturing.

RISAT-2 SATELLITE MAKES RE-ENTRY INTO EARTH'S ATMOSPHERE

The space agency on Thursday said the RISAT-2 satellite, weighing about 300 kg, made an uncontrolled re-entry in the Indian Ocean near Jakarta on October 30.

"Weighing only about 300 kg, the satellite has now made an uncontrolled re-entry into the Earth's atmosphere at the predicted impact point in the Indian Ocean near Jakarta on 30th October 2022 00:06 UTC with an uncertainty of ± 10 minutes," the space agency said.

RISAT-2 was launched by the PSLV-C12 launch vehicle 13 years ago.

ISRO said that though the initial designed life of the satellite was four years, due to proper maintenance of orbit and mission planning by the spacecraft operations team in ISRO and by economical usage of fuel, RISAT-2 provided very useful payload data for 13 years.

"Since its injection, RISAT-2's radar payload services were provided for various space applications. On re-entry, there were no fuel left in the satellite and hence there are no contaminations or explosion by fuel is expected. Studies confirmed that the pieces generated due to aero-thermal fragmentation would not have survived re-entry heating and hence no fragments would have impacted on Earth," ISRO said.

The orbital data available from USSPACECOM were regularly used to predict the re-entry time and impact.

Being monitored

It further said the Indian System for Safe and Sustainable Space Operations Management (IS4OM) facility in ISTRAC, Bengaluru, had been monitoring the re-entry for the last one month with analysis carried out by VSSC and ISTRAC teams through its in-house developed analysis software and tracking the object utilising Multi Object Tracking Radar (MOTR) at SDSC, Sriharikota.

"MOTR tracked RISAT-2 regularly and the data were used for further analysis and orbit determination," ISRO said.

WHY GOOGLE HAS PAUSED ITS PAYMENT POLICY IN INDIA

After a ruling by the Competition Commission of India (CCI), Google has paused the enforcement of its policy that mandated app developers to use its Google Play billing system for in-app purchases. The company said it is reviewing its "legal options" and ensuring it can "continue to invest in Android and Play". The earlier deadline to adhere with the tech giant's policy was October 31.

"Following the CCI's recent ruling, we are pausing this enforcement of the requirement for developers to use Google Play's billing system for the purchase of digital goods and services for transactions by users in India while we review our legal options and ensure we can continue to invest in Android and Play," Google said in a support page on its blog on Tuesday.



The CCI order

The CCI passed two different orders and penalties on Google in two separate cases last month. One of these was a penalty of Rs 936.44 crore on the company for abusing its dominant market position with respect to its Play Store policies. The watchdog issued a cease-and-desist order and directed the tech firm to modify its conduct within a defined timeline, which includes allowing mobile app developers to use third-party payment services on its app store.

According to CCI, Play Store policies require app developers to exclusively and mandatorily use Google Play's billing system (GPBS) not only for receiving payments for apps and other digital products but also for certain in-app purchases. Further, app developers cannot, within an app, provide users with a direct link to a webpage containing an alternative payment method or use language that encourages a user to purchase the digital item outside of the app.

If the app developers do not comply with GPBS, they are not permitted to list their apps on Play Store and stand to lose out on the vast pool of potential customers in the form of Android users. "Making access to the Play Store dependent on mandatory usage of GPBS for paid apps and in-app purchases is one sided and arbitrary, and devoid of any legitimate business interest. The app developers are left bereft of the inherent choice to use payment processors of their liking from the open market," the CCI had said.

Before that, the antitrust regulator had imposed a penalty of Rs 1,338 crore on Google for abusing its dominant position in multiple categories related to the Android mobile device ecosystem in the country.

Google's inability to implement its payment policy in India

In 2020, Google had said it would enforce its in-app payment method in India by September 2021, which led to significant backlash from the industry, which said Google was abusing its dominance. Prominent Indian internet entrepreneurs including the likes of Paytm's Vijay Shekhar Sharma and BharatMatrimony's Murugavel Janakiraman raised concerns about this with the IT Ministry and, as a result of the pressure, Google had to defer the implementation of the policy in India twice — once to March 2022 and then to October 2022.

As antitrust scrutiny was rising on Google and Apple's app store payment policies, in September, Google said it will allow developers of non-gaming Android apps from several countries, including India, to offer third-party payment options under a pilot project. On these alternate payment systems, developers will see their service fee of 15-30 per cent reduced by 4 per cent.

BAD AIR, AGAIN: DELHI AND PUNJAB GOVTS MUST KEEP THEIR EAR TO THE GROUND, DEVELOP ALTERNATIVES TO STUBBLE BURNING

On October 25, Delhi experienced its cleanest day after Diwali in seven years. But such is the baseline pollution load of the city that the respite for its residents was only in relative terms. It registered poor on the air quality index immediately after the festival — long-term exposure to such air can cause respiratory illness. By the end of last week, all hopes of the smog not keeping its date with the capital had been belied. On October 29, the city's air quality deteriorated to the "severe" category — a level at which even healthy people can fall ill. With only marginal improvement expected this week, the National Capital Region's Commission for Air Quality Management (CAQM) — instituted last year to develop a "holistic approach" to the region's perennial problem — has resorted to emergency measures that were the stock-in-trade of its

3RD FLOOR AND 4TH FLOOR SHATABDI TOWER, SAKCHI, JAMSHEDPUR



predecessor, the Supreme Court-mandated Environment Pollution (Prevention and Control) Authority. Construction activities have been banned, brick kilns shut down and mining activities suspended.

The NCR's pollution problem is a complex interplay of the emissions from tailpipes of vehicles, agricultural activities in neighbouring states, industrial activities and geographical factors such as wind speeds. Winds blowing at around 6-7 kmph on Diwali checked the accumulation of pollutants on the festival day. There are also early indications of a decrease in farm fires in Haryana and Uttar Pradesh. However, stubble burning in Punjab has increased by more than 30 per cent. In the past, Delhi's Aam Aadmi Party (AAP) government has blamed this pollution on the intransigence of its counterparts in neighbouring states. The AAP's assumption of office in Punjab had given rise to hopes of an improvement in NCR's air quality. The new state government did develop a plan for residue management and conducted awareness campaigns. However, the uptake of alternatives to obviate stubble burning has been poor. Four officials of the state's agriculture department have reportedly been suspended for the plan's failure. Such knee-jerk reactions will only lower the morale of the agriculture department's field staff and come in the way of a long-term solution to the problem.

The Punjab and Delhi governments have joined hands in a pilot project to spray the "Pusa biodecomposer" — a microbial solution that can break down stubble — in 5,000 acres of farmland in Punjab. The technology has, at best, received mixed reception so far — the short window between rice harvesting and planting the winter crop makes the decomposer, which requires 30 days to take effect, impractical. The state government must work to fine-tune such alternatives, and keep an ear to the ground.

POLLUTION IS INCREASING, BUT WHY HAS THE GOVERNMENT TARGETED DIESEL VEHICLES ONLY?

The Commission for Air Quality Management (CAQM) on Thursday (November 3) invoked measures under Stage 4 of the Graded Response Action Plan (GRAP) with immediate effect, prohibiting the use of diesel four-wheelers that are not BS-VI compliant, as well as the entry of trucks into Delhi.

There are 3 lakh diesel cars in Delhi that are not BS-VI compliant. Petrol vehicles can ply as usual. What's the problem with diesel?

Why is the government cracking down on diesel specifically?

Around the world, diesel has been seen in recent years as being more environmentally hazardous than petrol. This is why there are tighter restrictions on diesel vehicles in India too.

The National Green Tribunal (NGT) had ordered in 2015 that diesel vehicles more than 10 years old would not be allowed to ply in the Delhi-NCR region; this window was kept at 15 years for petrol vehicles. A challenge to the decision was dismissed by the Supreme Court, and the NGT subsequently rejected appeals for a review.

But wasn't diesel the preferred fuel even in environment-conscious Europe until recently?

Yes. Diesel was promoted as a green-friendly auto fuel as part of the European Union's response to the Kyoto Protocol (1997) to reduce carbon-dioxide emissions. While diesel as a fuel contains



a little more carbon per litre than petrol, diesel engines are more “lean-burn”, which means they use a smaller amount of fuel to produce the same level of performance as a petrol engine.

What is the problem with diesel engines, then?

The issue is not with CO₂ emissions specifically. It is with some other toxic emissions that are harmful to human beings, as well as emission of soot. This is where diesel is worse off than petrol.

When air is heated in an automobile engine, nitrogen oxides (NO_x) are produced — these include nitrogen dioxide (NO₂) which is toxic; nitrous oxide (N₂O), which is a greenhouse gas; and nitric oxide (NO), which reacts with oxygen to form the harmful NO₂. Nitric oxide on its own also increases the risk of respiratory problems in the long run.

In a petrol engine, a three-way catalytic converter reduces these emissions, ensuring that the NO_x emissions are about 30 per cent lower than they would be in a diesel engine on average.

While modern diesel cars are fitted with particulate filters that take care of NO_x emissions (reducing them by 90%, according to some estimates), diesel engines also emit fine particulate matter (PM) in their tailpipe emissions. This is essentially soot, the finest particles of which can be embedded deep in the lungs, and they can cause heart and respiratory problems in the longer term. PM has also been linked to cancer.

And is there a problem specifically with India?

What is also to be noted is that heavier vehicles like trucks and buses, which in India are usually likely to be less well maintained and therefore, more polluting, mostly run on diesel. Also, many trucks are old, and therefore, use older, dirtier technology. Tighter restrictions on diesel in that sense translate into tighter restrictions on these commercial vehicles.

Also, before the decontrol of automobile fuel prices began in late 2014, the price of a litre of diesel was significantly lower than that of the price of petrol — a huge Rs 25 at its peak — which pushed very large numbers of people to buy diesel cars.

In 2012-13, diesel cars accounted for 48% of passenger vehicle sales in the country. Following the decontrol, as the prices of the two fuels came much closer, diesel cars accounted for just about 22% of overall passenger vehicle sales in 2018-19, less than half the share that they had five years previously.

ELA BHATT: A GANDHIAN AT HEART AND IN HER WORK

Ahmedabad-based activist Ela Bhatt, who died on November 2 at the age of 89, had long believed in the power of the anecdote to convey ideas. One such story was about the time she asked a gathering of women working in the informal sector what the word “freedom” meant to them. Some women said that it was the ability to step out of the house, others said it was having their own money, or a mobile phone or even fresh clothes every day. Then one woman, she recalled, stepped forward and said that freedom meant “looking a policeman in the eye”.

For the founder of the Self-Employed Women’s Association (SEWA), this story held the key to empowering workers in the informal economy, especially women — self-respect. This was the idea of empowerment that Elaben, as she was popularly called, worked towards, pioneering microfinancing for women and helping them organise and unionise in pursuit of better work, better wages and better lives. A lawyer by qualification, Bhatt was introduced to the power of the

3RD FLOOR AND 4TH FLOOR SHATABDI TOWER, SAKCHI, JAMSHEDPUR



collective at the Textile Labour Association (TLA) — set up by Gandhian labour activist Anasuya Sarabhai in 1920 — where she worked along with husband Ramesh Bhatt. SEWA grew out of the women's wing of the TLA, and became one of the biggest and most influential women-led cooperatives in the country.

A self-described “organiser”, who responded to problems by mobilising on the streets, Bhatt had grown up steeped in Gandhian ideals. To her, putting these ideals into practice meant staunch adherence to non-violence and making self-reliance the chief pillar of her work with the least privileged in society. She helped women overcome deep-rooted social and economic barriers to lift themselves out of poverty and debt and realise, as she put it, that “poverty is not a destiny”.

JAMSHED J IRANI: STEEL MAN OF INDIA WHO ‘REINVENTED’ TATA STEEL, DIES AT 86

Jamshed J Irani, the “Steel Man of India” who “reinvented” Tata Steel and made it the “lowest-cost steel producer in the world” competing in the international market, died in Jamshedpur on Monday night, the company said in a statement on Tuesday. He was 86.

Irani, conferred with the Padma Bhushan in 2007 for his contribution to industry, retired from the board of Tata Steel in June 2011, leaving behind a legacy of 43 years. He is survived by wife Daisy Irani and three children: Zubin, Niloufer, and Tanaaz.

Irani also received an honorary knighthood from Queen Elizabeth II in 1997 for his contributions to India-British trade and cooperation.

In Jharkhand, and especially Jamshedpur, where Irani spent much of his working life, and beyond, business leaders recalled his ability to help local entrepreneurs grow as ancillary units.

Ashok Bhalotia, former president of Singhbhum Chamber of Commerce and Industry, one of the oldest industry associations that represents nearly 600 MSMEs, said Jamshedpur and neighbouring districts are hub of ancillaries units, helping Tata Steel and Tata Motors, the two industrial behemoths based out of Jamshedpur, thanks largely to Irani. “Irani-ji wanted to grow local entrepreneurs and favoured giving work orders locally, rather than source it from outside the state. This had a lot of impact on companies such as mine — our company now employs 500 people,” said Bhalotia, chairman, Bhalotia Group of Companies, whose units focus mainly on auto and spare parts.

Bhalotia recalled that Irani, whom he met thrice, “always welcomed suggestions”. “After economic liberalisation (in 1991), with Irani at the helm of affairs, a work culture of 8-hour shifts began at Tata Steel. It set a benchmark for other companies on worker welfare.”

Most local entrepreneurs fondly recall what they call the ability and enthusiasm Irani possessed to help locals.

His contribution to the development of Adityapur Industrial Area in Jamshedpur was “tremendous, and he was always happy to help MSME grow in this area”, Adityapur Industrial Area president Santosh Khetan told PTI.

Industrial associations used to call Jamshedpur a “dead city” due to lack of new investment after liberalisation but Irani’s policies helped Tata Steel sail through that phase, Confederation of All India Traders’ national secretary, Suresh Sonthalia, told PTI.

“We will always remember him as a great corporate leader with vision,” Khetan added.

3RD FLOOR AND 4TH FLOOR SHATABDI TOWER, SAKCHI, JAMSHEDPUR



Calling Irani a “quintessential Tata man”, N Chandrasekaran, chairman, Tata Sons, said in a statement, “He was a towering corporate personality whose contribution to the steel industry was immense. Dr Irani will be deeply missed by all of us at Tata Group...”

Born on June 2, 1936 in Nagpur to Jiji and Khorshed Irani, Irani completed BSc from Nagpur’s Science College in 1956 and MSc in Geology from Nagpur University in 1958. Thereafter, he went to UK’s Sheffield University as a ‘J N Tata scholar’ and secured a Masters in Metallurgy in 1960, and a PhD in Metallurgy in 1963.

Irani started his professional career with British Iron and Steel Research Association in Sheffield in 1963 and returned to India five years later to join the then Tata Iron and Steel Company (TISCO, now Tata Steel) in 1968 as an assistant in the company’s R&D wing, according to a release from Tata Steel. He went on to become president of Tata Steel in 1985 and retired in 2001 as its managing director.

A keen sportsman who played and followed cricket till his last, Irani had a passion for stamp and coin collection, and his love for Jamshedpur has led to several key developments in the city, the release stated.

SEEING THE PAST FROM THE PRISM OF THE PRESENT

In times when even teasers of films are reviewed and recommended by media organisations, a controversy erupted when the 1.46-minute promotional video of Om Raut’s Adipurush failed social media scrutiny. Touted as a grand retelling of the Ramayana for the young and digitally mobile, a section of the audience found the representation of Ravana and Hanuman so off the mark that petitions have been filed in Delhi and Jaunpur courts demanding a stay on the release of the film because the promo allegedly hurt the religious sentiments of Hindus.

The plaintiffs claim the depiction of Ram, Hanuman and Ravana doesn’t go with their looks described in the epic texts. Apart from Ram’s moustache and aggressive demeanour and Hanuman’s leather jackets, what irked the trolls the most was the representation of Ravana as an “Islamic invader”. For them, the get-up of Saif Ali Khan, who plays the part, evokes memories of Allauddin Khilji, Babur, and Aurangzeb. Perhaps, the only possible connecting link is the beard and the haircut that the self-anointed critics found more Islamic than Hindu.

The makers of the film defended the representation by pointing out the Hindu symbols that Ravana is seen sporting and pleaded that the critics should wait for the film to release. However, Manoj Muntashir, the lyricist and one of the proponents of ‘nationalist’ cinema, said in an interview that both Ravana and Khilji represent the evil of different eras. “Even if they look similar, what’s the harm.”

Stark resemblance

Perhaps, the representation reflects a continuity that we missed and that Raut is getting the taste of the narrative that he himself flaunted before where the past is not seen from the prism of Ganga-Jamuni tehzeeb (syncretic culture). Raut’s previous film Tanhaji: The Unsung Warrior also had a problematic representation of the villain Udaybhan Singh Rathod, a general of Mughal emperor Aurangzeb who fought against Tanhaji who represented Chhatrapati Shivaji in the Battle of Kondhana. While both the generals were Hindus, unlike Tanhaji, Udaybhan was shown without any religious markers and his get-up and food habits reflected the stereotyped version of a Muslim villain.



But the little-known Udaybhan doesn't hold in front of Ravana, whom the faithful see as a brilliant Brahmin, a Shiva devotee who could not control his desires. Over the years, the face of evil has been an interesting subject for filmmakers to explore. In Mani Ratnam's *Raavan* (2010), a modern-day adaptation of the Ramayana, Beera is many shades lighter than the popular image. He is shown as a social outcast who is out to avenge the injustice done to his sister and by the end, the lines between Ram and Ravana blur.

In Johnny Bakshi's *Raavan* (1984), starring Smita Patil and Om Puri, myth and reality intertwine as a village doesn't burn the effigy of Ravana on Dussehra because years before a girl transformed a Ravana into Ram.

Similarly, Hardik Gajjar's *Bhavai* (2021), originally titled *Ravan Leela*, captures the unsaid between Ravana and Sita, how the epic is being used for political gains, and in the process expects the audience to appreciate the difference between the character and the actors playing them.

The idea of interpretation is not exactly new. From Kamban to Tulsidas — who lived in the times of Mughal emperor Akbar — Valmiki's Ramayana is one story that has inspired writers over generations. The basic storyline remains the same but they have taken creative liberties according to the times they lived in and their own lived experiences. For instance, the depiction of Lakshman Rekha changes from Valmiki Ramayana to Tulsidas' version to Ramanand Sagar's literal interpretation in the television serial. Similarly, the Uttara Kand is depicted differently in different versions. The way poet Kalidasa has described clouds in *Meghaduta* reads like a tribute to Valmiki's description of the atmosphere when Ram was made to wait at the sea by the rain gods before crossing over to Lanka. When Akbar ordered the illustrated version of the Ramayana, the artists had little for reference. Many paintings are innovations of the Mughal period. Interestingly, Ram is shown without moustache in the miniatures.

However, in the recent past, an attempt is being made by creatives close to the ruling dispensation to blur the lines between literature and history. Perhaps, it helps because, in the real world, the followers of sage Valmiki are yet to be fully integrated into the Hindu fold. Characters like Kevat and Shabri are invoked during election speeches to underline an egalitarian past. Plus, a sense is being generated that we have been focusing too much on the calm face and are overlooking the weapons in the hands of our gods.

Reducing past to a binary

In *Ram Setu*, the writers make a clear push for considering literary texts as historical evidence. Some of the arguments do sound compelling but the moment you reduce the past to a binary, you tend to stifle the imagination of the next writer. So, in *Adipurush*, when the audience finds Hanuman's portrayal different from what they have read in *Hanuman Chalisa* and watched in Ramanand Sagar's version, they feel offended.

At the same time, those who know the Marvel universe better than Hindu mythology and are finding faults with the special effects of *Adipurush* should appreciate that technology is just one aspect of storytelling. From the outside, the *Ramleela* that plays out at New Delhi's Shri Ram Bharatiya Kala Kendra seems technically much superior to the traditional *Ramnagar Ki Ramleela* in Kashi, enacted without any appendages of artificial lights and other paraphernalia. But both are equally popular and profound in their own way.

Sculptor Naresh Kumawat, who has sculpted figures of Ram, says the reference point for artists is Raja Ravi Varma's iconography of Hindu gods and goddesses that emerged in the late 19th century



through calendar art. “It has been etched in the public imagination and any deviation from that hurts their sentiments.”

Popular writer Amish Tripathi, who has just released his fourth book in the Ram Chandra series, says Indians have a big heart. “They are ready to see a different truth but as long as it is shown with respect.” He reminds us that if you tell somebody that there is a scene in the film where someone breaks the foundation of a shivling and lifts it up on his shoulder and takes it to a waterfall, he could feel offended but the way Rajamouli picturised it in Bahubali, it didn’t lead to any controversy because the director’s interpretation came from a space of respect. Similarly, Ramanand Sagar took creative liberties but the audience could see that it is the work of a true devotee.

And, he adds, sometimes, the controversy is created by the makers themselves because it makes it easier to compel the media to talk about it. “Otherwise, you have to arrange a dozen interviews and three-four events.”

Does this mean only a devotee could touch a mythical story? We know how the Academic Council of Delhi University had decided to drop the essay, Three Hundred Ramayanas: Five Examples and Three Thoughts on Translations in an apparent response to Hindutva activists who called the piece blasphemous. The essay describes 300 different retellings of the epic by communities across India and in other parts of Asia. And multiple cases were filed against an OTT series for allegedly denigrating Lord Shiva. People have found the depiction of Ravana’s Pushpak vimana in Adipurush inaccurate, but Amish has mentioned the use of glass in Ravana’s famed plane used to carry Sita to Lanka.

Amish feels glass was present in ancient India, but is not sure whether it was in use 5,000 years back. His point is the Indian audience could see through the intentions. “In some countries, people feel that there is only one truth, and if you deviate from that truth, you will burn in hell for eternity. In India, we don’t have such concepts.”

The response to a 106-second teaser, however, shows that some are keen on the idea of one truth. And those petitioners who miss the calm image of Ram and Hanuman have perhaps missed the Raudra (angry) version of the lovable Hanuman that has appeared on stickers pasted on cars and motorbikes in the last few years.

THE NEW HYBRID VARIANT OF MUSTARD

The story so far:

The Genetic Engineering Appraisal Committee (GEAC), India’s apex regulator of genetically modified plants and food products, has approved the environmental release of Dhara Mustard Hybrid-11 (DMH-11), a genetically-engineered variant of mustard. If approved for commercial cultivation it would be the first genetically modified food crop available to Indian farmers.

What is DMH-11?

DMH-11 is a hybrid variant of mustard developed by researchers at The Centre for Genetic Manipulation of Crop Plants, at the University of Delhi. Deepak Pental, who has led the efforts to develop hybrid mustard at the Centre for decades and was a former Vice-Chancellor of the University, began with DMH-1, a hybrid variant that was developed without transgenic technology. DMH-1 was approved for commercial release in northwest India in 2005-2006 but



scientists have said that this technology wasn't bankable enough to consistently produce hybrid mustard. While India has several mustard varieties, it is a self-pollinating plant and therefore a challenge for plant-breeders to cross different mustard varieties and induce desirable traits. Being able to turn off this self-pollinating trait to enable such crossings and then restoring the trait, to enable seed production, is how the mustard plant's genes are to be manipulated. DMH-11 is a result of a cross between two varieties: Varuna and Early Heera-2. Such a cross wouldn't have happened naturally and was done after introducing genes from two soil bacterium called barnase and barstar. Barnase in Varuna induces a temporary sterility because of which it can't naturally self-pollinate. Barstar in Heera blocks the effect of barnase allowing seeds to be produced. The result is DMH-11 (where 11 refers to the number of generations after which desirable traits manifest) that not only has better yield but is also fertile. DMH-11 is a transgenic crop because it uses foreign genes from a different species.

Are hybrid mustard varieties better ?

Trials conducted over three years by the Indian Council of Agricultural Research (ICAR) suggest that DMH-11 has 28% higher yields than its parent Varuna and was 37% better than zonal checks, or local varieties that are considered the best in different agro-climatic zones. These trials were conducted at eight locations over three years. DMH-11 rather than being an end in itself signals the proof of success of the barnase-barstar system that can act as a platform technology to develop newer hybrids. Scientists say that having better hybrids is necessary to meet India's rising edible-oil import bill. Mustard (*Brassica juncea*) is cultivated in 6-7 million hectares during the Rabi winter season predominantly in Rajasthan, Haryana, Punjab and Madhya Pradesh. India imports anywhere from 55-60% of its domestic edible-oil requirement. In 2020-21, around 13.3 million tonnes of edible oil were imported at a cost of ₹1,17,000 crore according to the National Academy of Agricultural Sciences. This is primarily due to low productivity — of about 1-1.3 tonnes/hectare — that has been stagnant for over two decades. On the other hand, hybrid mustard and rapeseed are the dominant form of oil seeds in Canada, China and Europe. So, proponents say, the only way to improve India's productivity is to have more mustard hybrids.

Why is it controversial?

There are two main reasons why transgenic mustards are a topic of debate. The use of genes that are foreign to the species is one and secondly, the preparation of mustard hybrids require the use of another gene, called the bar gene, that makes it tolerant to a herbicide called glufosinate-ammonium. Activist groups allege that the GM mustard hasn't been evaluated as a herbicide tolerant crop posing potential risks. Finally, they allege, GM mustard plants may dissuade bees from pollinating the plant and this could have knock-off environmental catastrophes. Activist groups have also been supported by the Swadeshi Jagran Manch, an Rashtriya Swayam Sevak Sangh affiliate, who have consistently opposed GM crops.

What next for GM mustard?

This isn't the first time that the GEAC has cleared the environmental release of GM mustard. In 2017 too, the apex body had cleared it but the process got stalled after a case was lodged in the Supreme Court. The government, or specifically the Environment Ministry, hasn't officially supported GM mustard despite the GEAC being a body under it. Bt Brinjal, the first transgenic food crop, too was cleared by the GEAC in 2009 but was put on hold by the then-UPA government on the grounds that more tests were needed. Currently the only transgenic crop grown in India is Bt-cotton. The GEAC go-ahead only allows DMH-11 to be grown in fields under the supervision of the



ICAR. The Indian Agricultural Research Institute has said that the crop would be commercially available after “three seasons” now that they can be grown in large quantities for evaluation.

INVASIVE TREE SPREADING IN MUDUMALAI TIGER RESERVE

An invasive species, *Senna spectabilis*, an exotic tree, has taken over between 800 hectares and 1,200 hectares of the buffer zones of the Mudumalai Tiger Reserve (MTR) in the picturesque Nilgiris hill district. The Forest Department is coming up with a comprehensive strategy to tackle the invasive species, which continues to spread rapidly in the buffer zone.

Introduced as an ornamental species and for use as firewood from South and Central America, the species has become highly invasive in the Sigur plateau in both the core and buffer zones of the MTR.

Native species hit

Over the last few years, its bright yellow flowers have become more visible across the Tiger Reserve. Conservationists say the invasive weed has a negative effect on local biodiversity, crowding out native species and limiting food availability for wildlife.

According to P. Arunkumar, Deputy Director, MTR (Buffer Zone), the Forest Department estimates that the species has spread over 800-1,200 hectares of the buffer zone.

Local residents said the species seemed to be spreading faster over the last five years. The Forest Department is still demarcating areas where the species is spreading. According to officials, policy-level discussions are under way on Tamil Nadu Newsprint and Papers Limited (TNPL) plan to use wood from *Senna spectabilis* from the MTR for paper-making. They said the funds so raised would be used in eco-restoration to bring back native species.

Mr. Arunkumar said the Forest Department was also formulating a 10-year-plan to systematically remove *Lantana camara*, the other major weed that poses a threat to biodiversity in both the core and buffer zones of the Tiger Reserve.

Senna spectabilis, along with *Lantana camara*, is among five major invasive weeds that had taken over vast swathes of the Nilgiris, with wattle being the other major invasive species. Eucalyptus and pine, though exotic, do not spread as quickly as the other species and are considered easier to manage, Forest Department officials said.

Officials also stated that the Madras High Court was hearing petitions seeking the removal of exotic species, and that judges had inspected the Tiger Reserve this year to monitor the work in this regard.

CURIOUS COLLAGE SHOWS RHINO HORNS ARE SHRINKING

The horns of rhinoceroses may have become smaller over time from the impact of hunting, according to a recent study which analysed artwork and photographs of the animal spanning more than five centuries.

The study, published in the latest edition of *People and Nature* by the British Ecological Society, relied on a repository of images maintained by the Netherlands-based Rhino Research Center (RRC).



“We found evidence for declining horn length over time across species, perhaps related to selective pressure of hunting, and indicating a utility for image-based approaches in understanding societal perceptions of large vertebrates and trait evolution,” said the study, authored by scientists from the Universities of Helsinki and Cambridge, as well as the RRC.

Five species face threat

Rhinos have long been hunted for their horns. The five surviving rhino species are threatened by habitat loss and hunting.

The study found that the rate of decline in horn length was highest in the critically endangered Sumatran rhino and lowest in the white rhino of Africa, the most commonly found species in the wild and in captivity.

This observation follows patterns seen in other animals, such as tusk size in elephants and horn length in wild sheep, which have been driven down by directional selection due to trophy hunting, the study said.

The RRC’s repository holds a collection of more than 4,000 rhino images, including artistic portrayals from 1481 and photographs, of which the earliest was taken in 1862. The scientists used this for two research approaches.

They studied 3,158 images to assess the changes in representations of rhinos and human interactions with the animal over 500 years. They identified 80 images of all five rhino species, to analyse changes in horn length over time, extracting morphological data from photographs.



DreamIAS



BUSINESS & ECONOMICS

INDIA-U.K. FTA WILL TIGHTEN SCREWS ON GENERIC DRUGS: MSF

The proposals on intellectual property (IP) rights in the draft India-U.K. Free Trade Agreement (FTA) will hurt the global supply of generic medicines, Doctors Without Borders (Médecins Sans Frontières or MSF) warned on Wednesday. In a press note, the international organisation said the intellectual property chapter of the India-U.K. FTA contains “harmful IP provisions”. The IP-related chapter, leaked on October 31, showed the controversial provisions tabled by the U.K. to “tighten the screws on producing, supplying and exporting affordable generic medicines from India”.

“Given the disastrous consequences this leaked IP chapter could have on the global supply of generic medicines, the U.K. government should withdraw it completely,” Leena Menghaney, South Asia head of MSF’s Access Campaign, said.

In a “Fact Sheet”, MSF has argued that the demand for “harmonisation” of Indian patent law with the U.K.’s laws will lead to dilution of important provisions in the Indian patent system necessary for manufacturing generics.

“Article E.10 of the leaked IP chapter stipulates that both parties “shall not” make patent opposition proceedings available BEFORE the grant of a patent. In effect, this provision applies only to India as the U.K. does not have a pre-grant opposition system — this goes directly against the current Indian patent law, which allows patent opposition proceedings both before and after the grant of a patent,” the MSF.

A U.K. government spokesperson said they would not comment on the “alleged leaks” and will sign “a deal that is fair, reciprocal, and ultimately in the best interests of the British people and the economy.”

HAZY SIGNALS

October saw the Goods and Services Tax (GST) yield the second-highest gross monthly revenues — a tad short of ₹1.52 lakh crore. This marks the eighth successive month of GST collections exceeding ₹1.4 lakh crore, including the record ₹1,67,540 crore kitty in April. The Finance Ministry emphasised that domestic transactions also contributed the second-highest taxes in the month. Underpinning October’s GST flows, 8.3 crore e-way bills were generated in September, which the Ministry said was ‘significantly higher’ than the 7.7 crore bills of August. The festive season’s onset surely boosted consumption as well as stocking up by sellers. The Government, which has routinely held up GST revenues as a yardstick of strong post-pandemic economic activity, had ample cause to talk up the latest numbers. April’s record revenues, for instance, were said to be reflecting a faster recovery, and when revenues dipped sequentially in May, the Government contended that the financial year ending in March had boosted April’s tax kitty. Some of the bump up in October revenues may likely be similarly attributable to taxpayers filing quarter-ending returns.

It is noteworthy that no such commentary was included in the latest GST revenue statement, which has raised eyebrows for what it has chosen to leave out than disclosed. The Ministry has omitted basic routinely shared data, such as the year-on-year growth rate for overall collections, and an explicit break-up of the growth in revenues from domestic transactions (usually clubbed



with taxes levied on services imports) and imports of goods. These numbers can be deduced to some extent. Imports of goods appear to have grown at a far lower pace than in recent months going by Integrated GST and the GST Cess collections on them, rising 13% and 18%, respectively — a great sign for an economy seeking to rein in a runaway import bill. Maybe the fact that overall revenues grew 16.6% from October 2021 — the lowest growth rate since April's record kitty — prompted this reticence. But as economists point out, growth rates will moderate owing to simple base effects. Another factor may have been the tepid 2.7% sequential growth in revenues despite a 7.8% rise in e-way bills month-on-month. But if inflation is eating into consumption, it will show up one way or another. Instead of splicing data, the Government would be better served by expediting reforms to shore up revenues. The GST Council, which was to take up some of these reforms in early August, must be convened quickly. Demurring over the big picture helps no one.

FEDERAL RESERVE HIKES RATES AGAIN: WHAT IT MEANS FOR INDIAN MARKETS, INVESTORS

On Wednesday, the US Federal Reserve announced its fourth consecutive 75 basis point interest rate hike, which brought the benchmark federal funds rate to the range of 3.75% to 4%. The Fed also delivered a sharp tone in favour of over-tightening rather than under-tightening in a bid to contain inflation, triggering a fall of 1.55% in the benchmark Dow Jones Industrial.

Other global indices — Hang Seng (- 3.1%), Dax (- 0.95%), CAC 40 (- 0.56%) and FTSE 100 (- 0.7%) — also fell. Indian markets remained resilient, however — the Sensex at the BSE fell only 0.1 per cent on Thursday.

Fed move and outlook

The US central bank has said supply-demand imbalances are causing inflation. However, it only has the tools to control the demand side — which it is using to bring inflation in line with its mandate of 2%. The Fed seems inclined to hold these rates for several quarters while it watches job openings come in line with unemployment, and the movement of GDP and the rate of inflation.

It would rather err on the side of over-tightening, leaving itself room to loosen later if required, than under-tighten, in which situation it could end up fighting an entrenched inflation level for a long time.

The Fed has said the battle against inflation would require borrowing costs to rise further, pointing to the fact that it may be nearing an inflection point in what has become the swiftest tightening of US monetary policy in 40 years. The pace may, however, be tempered in December and beyond.

Akhil Mittal, senior fund manager, Tata Mutual Fund, said: “The market was expecting a slightly dovish tone from the Fed...but the tone was not hawkish either. It might not deliver 75 bps moves going forward — however, the pivot might shift to 5% instead of 4.5%-5%.”

Will Fed hike nudge RBI?

It's not necessary that the RBI will blindly follow the Fed and other central banks in raising rates. The RBI considers domestic factors, especially retail inflation, while reviewing the interest rates. However, high imported inflation has added to the retail inflation in India, and RBI has already raised the repo rate by 190 bps over the last six months.



The RBI's Monetary Policy Committee met on Thursday to discuss its report to the government on its failure to meet the inflation target (4% plus/minus 2%) for three quarters in a row. Retail inflation accelerated to 7.41 per cent in September.

Bankers expect more rate hikes this year. "We expect another 60 bps hikes in this fiscal, driven by the need for price stability, to anchor inflationary expectations, and backstop rate differentials to support the currency. Into FY24, the policy committee is expected to draw a pause," Radhika Rao, senior economist, DBS Bank, said.

HOW RBI FELL BEHIND THE CURVE ON CONTAINING INFLATION

On Thursday, the Monetary Policy Committee (MPC) of the Reserve Bank of India (RBI) will convene to formulate its response to the Government of India about the high rate of inflation in the country.

The RBI is by law responsible for maintaining price stability. Under the "inflation-targeting" regime that began in 2016, the central bank is required to target an inflation rate of 4 per cent, with a leeway of 2 percentage points on either side. Thus, for any given month, RBI's comfort zone for inflation lies between 2 per cent and 6 per cent.

What has triggered this meeting?

Retail inflation for September was 7.4 per cent — which means the price level for retail consumers last month was 7.4 per cent higher than what it was in September 2021. This also means that retail inflation — which is calculated using the Consumer Price Index (CPI) — has been outside the RBI's comfort zone for three consecutive quarters beginning January.

Under the RBI Act, 1934, if the central bank fails to meet the inflation target for three consecutive quarters, it is required to provide the following information to the government:

reasons for the failure to achieve the inflation target;

remedial actions proposed to be taken; and

an estimate of the time period within which the inflation target shall be achieved pursuant to timely implementation of the proposed remedial actions.

How does the MPC target inflation?

The MPC has six members including the RBI Governor — three each nominated by the RBI and the government. The MPC meets every two months — that is, six times a year — in February, April, June, August, October, and December to evaluate the current status and outlook for inflation and economic growth. Based on that assessment, it tweaks the repo rate, which is the interest rate at which the RBI loans money to the banking system. It is for this reason that movements in the repo rate influence the overall interest rates in the economy.

Typically, when the MPC wants to contain inflation, it raises the repo rate. Such a "dear money" policy makes all types of borrowing — both for consumers (say, car loans) and producers (say, fresh business investments) — costlier and effectively slows down economic activity in the economy.



When inflation outlook is benign but growth is stalling, the RBI can choose to lower the repo rate and promote economic activity; such a “cheap money” policy incentivises people to spend money instead of saving it.

How did RBI fail to check inflation?

RBI’s response to the government — which it must provide by November 12 — will be privileged communication. However, reading previous MPC statements and comparing them to India’s inflation can provide clues on where RBI fell behind the curve. Note, however, that the MPC’s knowledge of inflation typically lags by two months — which means as it deliberates in October, it works with data until August.

The latest surge in inflation began from October 2021. This is what the MPC said after meetings since then:

OCT 2021: “The inflation trajectory is set to edge down during Q3:2021-22 (October to December)... The CPI headline momentum is moderating with the easing of food prices which, combined with favourable base effects, could bring about a substantial softening in inflation in the near-term.”

However, Prof Jayanth R Varma, one of the government-nominated members, “expressed reservations” about the RBI’s continued “accommodative” stance. Varma flagged rising “core” inflation, which is the inflation rate without the effect of fuel and food prices, which often fluctuate wildly. Core inflation is a more stable measure that rises and falls more gradually than the headline number.

This was a clear red flag. It underscored India’s vulnerability to sudden spikes in inflation if either food or fuel prices went up. However, the RBI kept the repo rate unchanged at 4 per cent. In the limited context of what happened later in 2022, this was the first point where RBI fell behind the curve.

DEC 2021: By this time, RBI knew that core inflation in October had inched further up to 5.9 per cent. But it still chose to not raise interest rates. “...The MPC decided to keep the policy repo rate unchanged at 4 per cent and to continue with an accommodative stance as long as necessary to revive and sustain growth on a durable basis,” it said.

FEB 2022: By this time, headline and core inflation were converging at the 6 per cent level. But the MPC still refused to raise interest rates, stating that “inflation is likely to moderate” between December 2021 and September 2022. Prof Varma again expressed reservations with the accommodative stance. As it happened, Russia invaded Ukraine later in February and crude prices went shooting up.

APR 2022: It was clear that inflation was unlikely to “moderate”, and the MPC recognised it formally by sharply raising the inflation forecast for the current financial year from 4.5 per cent to 5.7 per cent. And yet, it did not actually take action to raise interest rates.

In April the retail inflation rate came in at 7.8 per cent, the highest since the Narendra Modi government took charge in 2014, and almost double the mandated target rate. The MPC was forced to call an emergency meeting in May to raise the repo rate. Rates have since gone up by 190 basis points, including three consecutive 50 bps increases in June, August, and September.



DEPOSIT GROWTH LAGS BEHIND CREDIT OFFTAKE

The banking system has witnessed a lower growth of 4.9 per cent in deposits in the current financial year so far while credit offtake surged by 8.1 per cent since April 2022.

Deposits of banks rose by Rs 15.17 lakh crore since April 2022 to Rs 172.72 lakh crore, according to the latest RBI data. The deposit growth in the same period of last year was Rs 14.53 lakh crore. “The lower growth in deposits when compared to the higher credit offtake indicates that competition will hot up among banks to garner deposits at a time when interest rates are on the rise,” said a senior banking source.

On a year-on-year basis, credit offtake rose by 17.9 per cent as against 6.5 per cent a year ago. On the other hand, deposits rose by 9.6 per cent as compared to 10.2 per cent on a year-on-year basis.

According to a Bank of Baroda report, with a changing financial landscape, volatility in the interest rate regime and risk taking appetite increasing, there has tended to be a change in the pattern of deployment of financial savings. RBI’s recent report on financial assets of households show that there has been a shift in pattern, where mutual funds and equity witnessed sharp increase in FY22 with shares of 6.3 per cent and 1.9 per cent in overall financial assets respectively (ratio was 2.6 per cent and 1.1 per cent in FY20), while share of bank deposits declined to 25.5 per cent in FY22 from 34.4 per cent in FY20.

However, it must be pointed out that the quantum of bank deposits is much larger, about 4.1 times than that of mutual funds denoted by AUM (assets under management).

RBI TO KICKSTART E-RUPEE PILOT IN G-SECS TODAY

The Reserve Bank of India (RBI) on Monday announced that the first pilot in the Digital Rupee, or e-rupee, in the wholesale segment (e?-W) will commence in government securities from November 1, 2022.

Nine banks — State Bank of India, Bank of Baroda, Union Bank of India, HDFC Bank, ICICI Bank, Kotak Mahindra Bank, Yes Bank, IDFC First Bank and HSBC — have been identified for participation in the pilot, the RBI said.

According to the RBI, the use case for this pilot is settlement of secondary market transactions in government securities. “Use of e?-W is expected to make the inter-bank market more efficient. Settlement in central bank money would reduce transaction costs by pre-empting the need for settlement guarantee infrastructure or for collateral to mitigate settlement risk,” the RBI said. “Going forward, other wholesale transactions, and cross-border payments will be the focus of future pilots, based on the learnings from this pilot,” the central bank said.

The first pilot in Digital Rupee – Retail segment (e?-R) is planned for launch within a month in select locations in closed user groups comprising customers and merchants. The details regarding operationalisation of e?-R pilot will be communicated in due course, it said. On October 7, 2022, the RBI had announced that it will soon commence pilot launches of Digital Rupee (e?) for specific use cases.

The central bank says e-rupee, or CBDC, can be structured as token-based or account-based. A token-based CBDC would be a bearer instrument like banknotes, meaning whosoever holds the tokens at a given point in time would be presumed to own them. In a token-based CBDC, the



person receiving a token will verify that his ownership of the token is genuine. A token-based CBDC is viewed as a preferred mode for CBDC-R as it would be closer to physical cash.

An account-based system would require maintenance of record of balances and transactions of all holders of the CBDC and indicate the ownership of the monetary balances. In this case, an intermediary will verify the identity of an account holder. This system can be considered for CBDC-W, the RBI said.

There are two models for issuance and management of CBDCs under the RBI's consideration — direct model (single tier model) and indirect model (two-tier model). In the direct model, the central bank will be responsible for managing all aspects of the digital rupee system such as issuance, account-keeping and transaction verification.

An indirect model would be one where the central bank and other intermediaries (banks and any other service providers), each play their respective role. In this model, the central bank will issue CBDC to consumers indirectly through intermediaries and any claim by consumers will be managed by the intermediary. E-rupee is the same as a fiat currency and is exchangeable one-to-one with the fiat currency. Only its form is different. It can be accepted as a medium of payment, legal tender and a safe store of value. The digital rupee would appear as liability on a central bank's balance sheet.

ONE NATION, ONE ITR FORM? HOW WILL CBDT'S NEW PROPOSAL HELP TAXPAYERS?

The Central Board of Direct Taxes (CBDT) has proposed a single income tax return (ITR) form for all taxpayers. A draft form has been released, to which all stakeholders can provide inputs up to December 15.

How many kinds of ITR forms are there now?

There are seven kinds of ITR forms, which are used by different categories of taxpayers. They are as follows:

- * ITR Form 1, called 'Sahaj', is for small and medium taxpayers. Sahaj forms can be filed by individuals who have an income up to Rs 50 lakh, with earnings from salary, one house property/ other sources (interest etc).
- * ITR-2 is filed by people with income from residential property.
- * ITR-3 is intended for people who have income as profits from business/ profession
- * ITR-4 (Sugam) is, like ITR-1 (Sahaj), a simple forms, and can be filed by individuals, Hindu Undivided Families (HUFs) and firms with total income up to Rs 50 lakh from business and profession.
- * ITR-5 and 6 are for limited liability partnerships (LLPs) and businesses respectively.
- * ITR-7 is filed by trusts and non-profit organisations.

So what is the change that has been proposed?

According to the proposal, all taxpayers, barring trusts and non-profit organisations (ITR-7), will be able to use a common ITR form, which will include a separate head for disclosure of income from virtual digital assets.



“The proposed draft ITR...proposes to introduce a common ITR by merging all the existing returns of income except ITR-7,” the CBDT said.

Does this mean ITR-1 (Sahaj) and ITR-4 (Sugam), used by most individual taxpayers, will be withdrawn?

No, says CBDT. “The current ITR-1 and ITR-4 will continue. This will give an option to such taxpayers to file the return either in the existing form (ITR-1 or ITR-4), or the proposed common ITR, at their convenience,” it has said.

Sandeep Jhunjhunwala, Partner at Nangia Andersen LLP, said the new ITR form would be available alongside the old forms ITR-1 and ITR-4, but taxpayers filing ITR-2, ITR-3, ITR-5 and ITR-6 would not have the option to file the old forms.

What is the point of doing all this?

“The proposed draft ITR takes a relook at the return filing system in tandem with international best practices, CBDT has said. The draft form aims to make it easier to file returns, and to considerably reduce the time taken for the job by individuals and non-business-type taxpayers, it said.

“The taxpayers will not be required to see the schedules that do not apply to them. It intends the smart design of schedules in a user-friendly manner with a better arrangement, logical flow, and increased scope of pre-filing. It will also facilitate the proper reconciliation of third-party data available with the Income-Tax department vis-à-vis the data to be reported in the ITR to reduce the compliance burden on the taxpayers,” the CBDT said.

The proposed ITR form would be customised for taxpayers with applicable schedules, based on certain questions answered by them. Once the common ITR form is notified, after taking into account the inputs received from stakeholders, the online utility will be released by the Income Tax department. “In such a utility, a customised ITR containing only the applicable questions and schedules will be available to the taxpayer,” it said.

CENTRE ‘DOUBLES’ FERTILIZER SUBSIDY AS PRICES SEE A SURGE

Considering the huge increase in the prices of fertilizers in global market, the Centre has “doubled” the fertilizer subsidy for this rabi season. A meeting of the Union Cabinet here on Wednesday approved a subsidy of ₹51,875 crore for nitrogen, phosphorus and potash (NPK) and sulphur for phosphatic and potassium fertilizers for the ongoing rabi season.

From the budget estimate of ₹21,000 crore of nutrient-based subsidy, the amount has been more than doubled, said Union Minister for Fertilizers and Chemicals Mansukh Mandaviya. Briefing media persons after the meeting, he said the Centre had revised the subsidy keeping the increasing market prices in mind.

‘Highest so far’

He said the total fertilizer subsidy for the rabi season, including ₹80,000 crore for urea, would be ₹1,38,875 crore and for both the rabi and kharif, the subsidy amount would be ₹2.25 lakh crore. “This is the highest subsidy so far. Last year it was ₹1.65 lakh crore,” Mr. Mandaviya said and added that as commercial prices had doubled due to the Ukraine-Russia conflict and the logistics issues due to pandemic the Centre decided to double the subsidy component too.



LIFE & SCIENCE

RECALLING TOP DOG LAIKA, 65 YEARS AFTER PATHBREAKING SPACE FLIGHT

On November 3, 1957, the Soviet Union launched 'Sputnik 2' and made history — for carrying the first-ever living creature to orbit the Earth, a dog named Laika. The flight, which was meant to test the safety of space travel for humans, ended up as a one-way trip for Laika.

Sixty-five years later, here's a look-back at why Laika was chosen for the mission, why the Soviet Union sent an animal to space, and if there have been more incidents of animals being sent to space post the Sputnik 2 mission.

Who was Laika and why was she chosen?

Laika was a stray dog picked up from the streets of Moscow just a week before the launch of Sputnik 2. According to NASA (National Aeronautics and Space Administration), Laika was a female part-Samoyed terrier originally named Kudryavka (Little Curly). She was later renamed Laika, which is Russian for "Husky" or "Barker." In the US, she was eventually dubbed "Muttnik." She weighed about 6 kg.

According to a report by Associated Press, the dog was promoted to cosmonaut (a term referring to an astronaut in the Soviet or Russian space program) based on her 'small' size and 'calm' demeanor. The mission wanted female dogs as they were considered anatomically better suited for close confinement. But why did the Soviet Union want to send animals to space?

It was not just the Soviet Union that experimented with animals. Before humans actually went to space, one of the theories was that humans might not be able to survive long periods of weightlessness. According to US space agency NASA, "American and Russian scientists utilised animals — mainly monkeys, chimps, and dogs — in order to test each country's ability to launch a living organism into space and bring it back alive and unharmed."

Soviet rocket scientists wanted to send dogs to space to understand microgravity and other aspects of what spaceflight might do to a human body. "The contenders also had to be female (easier to rig up) and brightly colored (so video footage of them would be clearer)," NASA reported.

According to Smithsonian Magazine, rocket engineers selected the animals most obedient and most tolerant of loud noises and air pressure changes for the experiment.

Was Laika the first animal to be experimented with?

Interestingly, it was not, though it is often claimed to be. That distinction goes to some fruit flies that the US launched on a mission in February 1947.

Despite Laika's fame, she also was not the first dog in space, as the Soviet Union had launched two dogs named Dezik and Tsygan in 1951 before that. However, the dogs before Laika were used only during sub-orbital launches.

The United States launched rhesus monkeys, mice, fruit flies, and rats during the second world war, with the Soviets keeping close tabs on what the rival was doing with their V-2 and Aerobee missile projects (which sent rhesus monkeys).



Soviet rocket scientist Sergei Korolev, along with his team, used research from the American Biomedical research to experiment on mice, rats, and rabbits as one-way passengers. “They needed to gather data to design a cabin to carry a human being into space. Eventually they chose small dogs for this phase of testing. Dogs were chosen over monkeys because it was felt that they would be less fidgety in flight. A test with two dogs would allow for more accurate results. They chose females because of the relative ease of controlling waste,” NASA’s research revealed.

Before Laika, there were 36 dogs the Soviets sent into space.

Yuri Gagarin became the first human to orbit Earth.

What was Sputnik 2 and what happened during the mission?

Sputnik 1, which launched on October 4, 1957, was a beach-ball-size sphere that just emitted beeps as it circled Earth. A month later, Sputnik 2 was launched.

The engineers had planned it after Soviet Premier Nikita Khrushchev requested a flight to coincide with the 40th anniversary of Russia’s Bolshevik Revolution. Smithsonian Magazine said that the engineers learned from Sputnik 1 and created the second one with a compartment for a flying dog.

At this time, the Soviet Union was leading the way in space exploration while the United States lagged. When Laika’s vessel, Sputnik 2, shot into orbit, the US fell even further behind.

Laika was placed inside a pressurised cabin, which allowed her room to lie down or stand. There was an air regeneration system that provided oxygen, food, and water dispensed in a “gelatinised form.” NASA said that Laika was fitted with a harness, a bag to collect waste, and electrodes to monitor vital signs. Initially, when the mission began, it was indicated that Laika was agitated but was eating her food.

“There was no capability of returning a payload safely to Earth at this time, so it was planned that Laika would run out of oxygen after about 10 days of orbiting the Earth. Because of the thermal problems she probably only survived a day or two,” it said.

Smithsonian Magazine said that the noises and pressures of the flight had terrified Laika, making her heart rate increasing to triple in the morning, and her breath rate quadrupled. The magazine said that Laika reached the orbit alive and circled the Earth in about 103 minutes. They said that the heat shield made the temperature in the capsule rise, taking its toll on Laika. She died “soon after launch,” Russian medical doctor and space dog trainer Oleg Gazenko revealed in 1993, the magazine reported.

Some say that the temperature inside the spacecraft after the fourth orbit registered over 90 degrees and there was no expectation that she made it beyond that. Eventually, without its passenger, Sputnik 2 continued to orbit for five months. The mission ended up providing scientists with the first data on the behavior of a living organism orbiting in the space environment.

Has there been more testing post Laika?

Yes, there has been. Over the past 50 years, American and Soviet scientists have used animals for testing in space, proving valuable data to scientists, despite the losses.

“Without animal testing in the early days of the human space program, the Soviet and American programs could have suffered great losses of human life. These animals performed a service to



their respective countries that no human could or would have performed. They gave their lives and/or their service in the name of technological advancement, paving the way for humanity's many forays into space," NASA said.

NASA'S IMAGES OF THE SUN: EXPANDING OUR IMAGINATION OF THE SOLAR SYSTEM

India's seasonal pollution might appear to have dimmed its radiance, but the Sun will let us know it is the original super star. An image shared by NASA on its Instagram page on Halloween shows it in all its ghoulish splendour — burning gashes for eyes and a blazing half-moon of a smile, so sinister it could give Pennywise the chilling clown in Stephen King's *It* (1986) a run for its money.

The solar jack-o-lantern, captured by NASA's Solar Dynamics Observatory (SDO) in October 2014, illumines active regions of the celestial body — places where the disturbance in the Sun's network of magnetic field spawns greater solar activity, including coronal mass ejections and solar flares, and, as a result, generate more light and energy in comparison to their surroundings. The dark patches on the Sun are coronal holes seen in ultraviolet light, from where solar wind surges into space.

While the mysteries of the solar system are nowhere near complete revelation, remarkable insights have been gleaned over the last decade. Since its launch in 2010, the SDO, part of NASA's Living with a Star Program, has been analysing solar activity and its impact on Earth. In December 2021, NASA announced a "giant leap for solar science" — a spacecraft, Parker Solar Probe, had flown through the Sun's upper atmosphere for the first time ever, getting up close to the magnetic fields that make up the Sun's corona. Yet, beyond all the scientific advancement, the massive spinning heart of the solar system also occupies a central role in our imagination — as a bestower of light, life and perspective, of course, but also, as the recent post showed, as the stuff of banter and eerie thrills.

CHINA'S HOME-GROWN BEIDOU SATELLITE SYSTEM EYES GLOBAL FOOTPRINT

China on Friday outlined plans to further expand the global reach of its home-grown Beidou satellite navigation system, billed as its alternative to the U.S.'s Global Positioning System (GPS).

A white paper released by the Chinese government said Beijing is "strengthening regional cooperation with organisations such as ASEAN, the African Union, the League of Arab States, and the Community of Latin American and Caribbean States".

Beijing has, since 2020, also made an outreach to South Asia and is already working, or in discussion with, a number of countries in the region, including Pakistan, Nepal, Bangladesh and Sri Lanka, over adopting the Beidou satellite (BDS) navigation system. "The Belt and Road (BRI) countries are our priority," Ran Chengqi, Director of the China Satellite Navigation Office, said at Friday's launch of the white paper.

Mr. Ran said the BDS, which now has a "constellation" of 30 satellites in orbit, began its international outreach once the set up was finished in 2018. It is now in use "in more than half of the world's countries". China is also helping several BRI partners, including Pakistan and Sri Lanka, launch communication satellites.

"Saudi Arabia is using Beidou in surveying and mapping, positioning people and vehicle in the desert," he said. "Tajikistan is using BDS to monitor dams and lakes with precision. Lebanon is



using BDS at Beirut port for marine survey and construction. In Burkina Faso, it is being used for survey and construction of hospitals”.

Pakistan and Russia are two significant Beidou hubs. Mr. Ran said China and Russia have signed a strategic framework on their two navigation systems, taking forward a 2015 deal on interoperability between Beidou and GLONASS

Pakistan in 2014 became the first foreign country to set up a Beidou network. South Asia and Southeast Asia — both of which are key BRI regions — are a current focus of expanding Beidou’s presence.

CLIMATE DIPLOMATS AT COP-27 MUST ADDRESS CHALLENGES UNLEASHED BY THE UKRAINE CONFLICT

The 27th Conference of Parties (COP) of the United Nations Framework Convention on Climate Change (UNFCCC) that begins on November 6 was not slated to be a major milestone in the Paris Pact’s calendar. However, several developments have combined to make the nearly two-week-long meet at Sharm El-Sheikh in Egypt crucial for the agreement’s success. The Ukraine conflict has led to diplomatic realignments that have major implications for cooperation between nations — a key requisite for the success of the Paris processes. It has pushed nations to redraw their energy plans, the implications of which for decarbonisation remain unclear. In the near term, the crisis seems to have jeopardised one of COP 26’s major achievements — the near-global consensus to cut down coal use.

COP 26 in Glasgow was the first test for the Paris Pact’s ambition upscaling mechanism. In the run-up to the summit, a number of studies revealed that the emission cuts proposed after the landmark deal would be insufficient to prevent temperatures from rising beyond the 1.5 degree Celsius threshold set at Paris. Ratcheting up the climate ambitions of nations was one of the contentious issues at Glasgow — it remained an unfinished task. A year later, only 24 countries have submitted updated climate action plans. The UNFCCC’s latest assessment reveals that the total mitigation commitments — if implemented — will increase emissions by 10.6 per cent by 2030 — according to the Paris Pact, a 45 per cent emissions reduction is required to align with the 1.5 degree Celsius goal. The current pledges put the world at risk of a 2.5-degree Celsius temperature rise by the end of the century. On the agenda at Sharm El-Sheikh is forging consensus on a “mitigation programme” to keep the 1.5 degree target within reach. If the history of the UNFCCC processes is anything to go by, this is not going to be an easy task.

Climate tragedies in the past six months, including the devastating monsoon floods in Pakistan, have pushed countries with negligible GHG footprints to demand compensation for damages. Finance has been a consensus breaker at most climate summits and in a world roiled by economic uncertainty, the possibility of rich countries loosening their purse strings does not appear to be bright. That said, post-Paris, there seems to be a better understanding of shared global warming vulnerabilities. Will the climate compact, already fragile, hold up in the face of challenges posed by the Ukraine conflict? Climate diplomats will have much work to do in the next two weeks to make sure that it does.

WHERE MAUNA LOA, HAWAII’S BIGGEST VOLCANO, WILL ERUPT FROM

The ground is shaking and swelling at Mauna Loa, the largest active volcano in the world, indicating that it could erupt. Scientists say they don’t expect that to happen right away but

3RD FLOOR AND 4TH FLOOR SHATABDI TOWER, SAKCHI, JAMSHEDPUR



officials on the Big Island of Hawaii are telling residents to be prepared in case it does erupt soon. Here are some things to know about the volcano.

Where is Mauna Loa?

Mauna Loa is one of five volcanoes that together make up the Big Island of Hawaii, which is the southernmost island in the Hawaiian archipelago. It's not the tallest (that title goes to Mauna Kea) but it's the largest and makes up about half of the island's land mass. It sits immediately north of Kilauea volcano, which is currently erupting from its summit crater. Kilauea is well-known for a 2018 eruption that destroyed 700 homes and sent rivers of lava spreading across farms and into the ocean. Mauna Loa last erupted 38 years ago.

In written history, dating to 1843, it's erupted 33 times. The Big Island is mostly rural and is home to cattle ranches, coffee farms and beach resorts. It's about 200 miles (320 kilometers) south of Hawaii's most populous island, Oahu, where the state capital Honolulu and beach resort Waikiki are both located.

Will Mauna Loa erupt like Kilauea?

Mauna Loa's eruptions differ from Kilauea's in part because it is taller. Its greater height gives it steeper slopes, which allow lava to rush down its hillsides faster than Kilauea's. Its enormous size may allow it to store more magma, leading to larger lava flows when an eruption occurs. Frank Trusdell, research geologist at the Hawaiian Volcano Observatory, which is part of the U.S. Geological Survey, said data indicates that Mauna Loa has a much larger magma reservoir than Kilauea, which may allow it to hold more lava and rest longer between eruptions than Kilauea.

Where will Mauna Loa erupt from?

Scientists won't know until the eruption begins. Each eruption since 1843 started at the summit. Half the time, the volcano later also began erupting from vents at lower elevations. The other half of the time it only erupted in the summit caldera. Scientists can't tell far in advance when and where Mauna Loa will open new vents and erupt. Vents generally form along the volcano's rift zone.

That's where the mountain is splitting apart, the rock is cracked and relatively weak and it's easier for magma to emerge. An eruption from vents on the southwest rift zone could hit residential communities, coffee farms or coastal villages on the west side of the island. Lava could reach homes in just hours or days.

Will Mauna Loa explode like Mount St. Helens?

Fifty-seven people died when Washington state's Mount St. Helens erupted in 1980 and blasted more than 1,300 feet (400 meters) off the top of the mountain. Steam, rocks and volcanic gas burst upward and outward. A plume of volcanic ash rose over 80,000 feet (24,384 meters) and rained down as far as 250 miles (400 kilometers) away. Hawaii volcanoes like Mauna Loa tend not to have explosion eruptions like this.

That's because their magma is hotter, drier and more fluid, said Hannah Dietterich, a research geophysicist at the U.S. Geological Survey's Alaska Volcano Observatory. The magma in Mount St. Helens tends to be stickier and traps more gas, making it much more likely to explode when it rises.



The gas in the magma of Hawaii's volcanoes tends to escape, and so lava flows down the side of their mountains when they erupt. Hawaii's volcanoes are called shield volcanoes because successive lava flows over hundreds of thousands of years build broad mountains that resemble the shape of a warrior's shield.

Shield volcanoes are also found in California and Idaho as well as Iceland and the Galapagos Islands. Alaska's Wrangell-St. Elias National Park has eight shield volcanoes including Mount Wrangell. Volcanoes like Mount St. Helens are called composite or stratovolcanoes. Their steep, conical slopes are built by the eruption of viscous lava flows and rock, ash and gas. Japan's Mount Fuji is another example of a composite volcano.

How do scientists monitor Mauna Loa?

The Hawaiian Volcano Observatory has more than 60 GPS stations on Mauna Loa taking measurements to estimate the location and the amount of magma accumulating beneath the surface. Scientists use tiltmeters to track long-term changes in the tilting of the ground, helping them identify when the ground is swelling or deflating.

A rapid change in tilt can indicate when an eruption will occur. There's also a thermal webcam at Mauna Loa's summit that will identify the presence of heat. And satellite radar can keep track of ground swelling and deflation.

MARK ZUCKERBERG'S METAVERSE BUFFERS AS META SHARES BURN

The early 90s ushered in the Internet era which enabled people to access content remotely from the world wide web. In the initial days, to do so, they had to set up a dial-up connection. The network used to take a few minutes to load before a local computer could access a public switch telephone network. Once a connection was established, people could browse 'the net' and access largely text-based content. Loading a web page with a dial-up connection would take a while. At times, you could make a cup of tea and return to your computer monitor, and the page might still be only half-way ready. The process of loading the webpage to show content is called 'buffering'. It simply meant that the to-be-displayed data is being pre-loaded in a certain area of the computer's memory. Facebook co-founder Mark Zuckerberg's metaverse adventure is in some ways similar to the roughly three-decades old dial-up modem. His version of the metaverse seems to be currently buffering.

Manufacturing virtual reality

About a year ago, in an effort to push away the spotlight from whistle-blower Frances Haugen and her allegations on how Facebook contributed to harms ranging from misinformation on the platform to impacting teenagers' mental health, the social media firm said it was moving on to the next big thing in tech: metaverse. The company's plan was to stitch together disparate digital worlds into one single tapestry. In fact, Facebook was already making investments in virtual reality (VR) as early as 2014, long before the company got involved in the Cambridge Analytica scandal. With the \$2 billion acquisition of Oculus, the social media company was gearing up to become the world leader in immersive VR tech. At that point, Oculus had already built strong interest among developers and had received over 75,000 orders for development kits of its Oculus Rift headsets. These headsets were however, largely used for VR-specific gaming.



Expensive transition

Zuckerberg's vision of a metaverse was far grander and partly stemmed from Neal Stephenson's three-decade old novel Snow Crash in which the protagonist goes back and forth between dystopian Los Angeles and a digital world. To make that vision a reality, the company has been doubling down on investments in VR. According to estimates by Bloomberg Intelligence, the metaverse could be an \$800 billion opportunity by the end of 2024. But the cost of transition for Facebook was high, as it blew \$10 billion in its Reality Labs division to build the business of the metaverse. In January, for the first time when Meta revealed the numbers for its hardware division, which includes the Oculus VR headsets, it showed a drop in quarterly profits by as much as 8% in the three months ending in December, compared to a year earlier.

At that point, the company was also buffeted by a change in Apple's iOS software that made it hard for Facebook to sell targeted ads. The high cost of switching to the metaverse and the effect of the iPhone maker's software changes made the transition difficult for the social media company. Investors were not happy as stocks tumbled nearly to a fifth during after-hours trading. The company's shares have been down since then. In June, Zuckerberg briefly spoke about challenges in building a VR headset as it required addressing retinal projection, depth perception and high dynamic range (HDR) imaging. He moved on to note that Meta would 'soon' roll out a headset capable of projecting holographic images. Three months later, on October 11, he unveiled a \$1,500 VR headset that was nowhere close to his idea of a virtual world seeing gadget. About the expensive goggles, a New York Times reviewer wrote, "Yes, the best [VR headset] is already here, and has been for quite some time." And its use case continues to be confined to gaming.

A solution waiting for a problem

Meta investors are unhappy as they see the company's boss diving deeper and deeper into the metaverse without a clear path for return on investments. This has already sent the stock down by over 60% this year. The company's market value has collapsed by a whopping \$676 billion, removing it from the ranks of the 20 largest U.S. companies, according to a report by Bloomberg.

The real challenge with Zuckerberg's idea of the metaverse is that it still remains a niche offering, unlike his foray into social media, which was a problem waiting to be solved. When he built the social network from his Harvard dorm room, it was the product for a time when people wanted to find newer ways to stay connected as they travelled farther away from each other. With the metaverse, it feels like a solution looking for a problem. In a parallel to the dial-up modem days, the metaverse is buffering, and it is unclear in what shape or size the page will load.

A BIRD IN THE HAND

Of all the social media behemoths today, Twitter, Inc. is a curious creature. It has nearly 240 million "daily access" users, which includes political and corporate leaders besides personalities who command an immense following. Twitter's unique selling point is its provision to not only put up 280-character messages but also be a platform featuring the dissemination of information, as breaking news, debates, discussion and even for the mobilisation of people. Yet, financially, Twitter has posted losses in eight out of the last 10 years, with its market value never managing to reach the heights of peers such as Meta's Facebook and Instagram or even Tiktok. By selling the company to the world's richest man, Elon Musk, for a whopping \$44 billion after a few shenanigans, Twitter's shareholders finally made a killing even as Mr. Musk, in his first post-acquisition actions, fired some top executives. But the question on everyone's minds is about what



might happen to the platform as a free speech vehicle under a truly maverick owner. Mr. Musk, who has made most of his money as the owner of electric vehicle company Tesla and spacecraft and exploration venture SpaceX, could provide business ideas that could secure the firm's finances. Yet, as a Twitter user with the third highest number of followers, he has been prone to erratic outbursts, silly posturing and crass remarks, and frowning upon regulation by the company of its content in the past, begging the question whether the ownership change will lead to a deterioration in content standards.

Twitter, like other social media giants, has faced difficulties in ridding its platform of disinformation, harassment through trolling, hate speech and calls for violence. Recently, it blocked former U.S. President Trump, a popular yet incendiary user, and started flagging select posts for misleading content or propaganda. For Indian users, the aforementioned challenges have been exacerbated by the Government seeking ways to control content, a scarier proposition, through changes to Internet intermediary rules. While Mr. Musk has argued for a freer space with little regulation, he has, since his purchase, tempered those views in favour of better and cleaner moderation of content, ostensibly to not lose advertisers wary of lending their brand to problematic content. While it remains to be seen if this is merely yet another instance of Mr. Musk's posturing, the larger question of whether Twitter will remain a relevant brand will be answered in the manner in which the world's richest man will treat governments and establishments in keeping reasonable and free speech intact on the platform and not subsume it to his business interests.

DISCOVERING INDIA, AND THE WORLD, WITH IAN JACK AND GRANTA

Ian Jack was a modern-day miniaturist, achieving in words what the Mughal-era artists did to cram rich details into a small frame. The columnist and author, known for his incisive writing on India for three decades and who died late last month at the age of 77, somehow brought together the best of American and British journalism. His profiles combined the thoroughness of American journalism—doing multiple interviews with confidantes and experts rather than just interviewing the subject of a profile as is often the case in Indian or British newspapers—with the very British gift for the pithy one-liner that sums up a politician or a businessman.

Jack first came to India in the 1970s as a foreign correspondent at large for the Sunday Times before writing regular articles about the country for Observer and Vanity Fair. He was that rare journalist, who was both a superb reporter and stylist as well as an inspiring manager and editor. He became a champion of what is called long form journalism, a jargony term he disliked, as editor of Granta, (where he edited a couple of very special issues on India). To re-read him, circa 2022, is to experience a form of time travel to another India while also marvelling at his prescience and his ability to capture important shifts in Indian society and journalism.

A CHANCE TO EXPAND THE WORLD'S BIOSPHERE FOOTPRINT

November 3 will be the first 'The International Day for Biosphere Reserves', to be celebrated beginning 2022. The World Network of Biosphere Reserves (WNBR) was formed in 1971, as a backbone for biodiversity conservation, ecosystem restoration, and living in harmony with nature. There are now 738 properties in 134 countries, including 12 in India, four in Sri Lanka, and three in the Maldives.

Bangladesh, Bhutan, and Nepal do not have biospheres as yet, but help is on its way: The 'South and Central Asia MAB Reserve' Networking Meeting (where MAB stands Man and the Biosphere)

3RD FLOOR AND 4TH FLOOR SHATABDI TOWER, SAKCHI, JAMSHEDPUR



is planned for 2023, to advance biosphere reserve establishment, and management. UNESCO is ready to assist in carrying out a professional potentiality analysis. In addition, an expert mission has been planned for spring 2023 — to Bhutan, India's north-east and the Sundarbans in Bangladesh.

An ideal platform to network

The WNNR, an amazing network of sites of excellence, is a unique tool for cooperation through sharing knowledge, exchanging experiences, building capacity and promoting best practices. Its members are always ready to support each other. This kind of help extended through the network is of great importance because the ecological carrying capacity of the planet earth has been exceeded. We have to revert to living in harmony with nature — to breathe clean air again, have access to enough good water, eat nutritious and affordable food, and live in dignity.

Our planet has been set up uniquely in the solar system so that ecosystems can function and provide a home for all living creatures. From whatever vantage point we look at nature conservation — an environmental, cultural or even a religious point of view — it is our responsibility to respect nature.

The best concept for 'Living in Harmony with Nature' that exists in the United Nations system, is the WNNR, making these places more important today than ever before, where humans are thriving and relearning how to live with nature.

Opportunities in South Asia

In South Asia, over 30 biosphere reserves have been established. The first one was the Hurulu Biosphere Reserve, in Sri Lanka, with 25,500 hectares of tropical dry evergreen forest. In India, the first biosphere reserve was designated by UNESCO in 2000, namely, the blue mountains of the Nilgiris stretching over Tamil Nadu, Karnataka and Kerala. India's network of reserves has gone from strength to strength. Considering the massive long-term threats to human survivability (besides pandemics and armed conflicts), such as biodiversity loss, climate change, pollution and population dynamics, accelerated by the blind belief in technological solutions for all problems, we need many more biosphere reserves globally. South Asia offers countless options.

India is a vast sub-continent, an emerging superpower of unlimited opportunities. It has become an important global player on environmental sustainability issues. India is likely to become the world's most populated country in 2023.

Spain, with a landmass of 506,000 km², and a population of 47.4 million is one of the lead participating WNNR countries globally, with 53 properties. In a comparison with the surface size of Spain to India (ca. 3.3 million km²), and India's human population of ca. 1.4 billion people, it appears a good idea to carry out a potentiality analysis of biosphere reserves in India, with a focus on the seven sisters in north-east India.

South Asia has a very diverse set of ecosystems, with Bhutan, India, and Nepal combined having thousands of glaciers, surrounded by lakes and alpine ecosystems.

As an article by Eric Falt highlights, biosphere reserves have all developed science-based management plans, where local solutions for sustainable human living and nature conservation are being tested, and best practices applied. Issues of concern include biodiversity, clean energy, climate, environmental education, and water and waste management, supported by scientific research and monitoring.



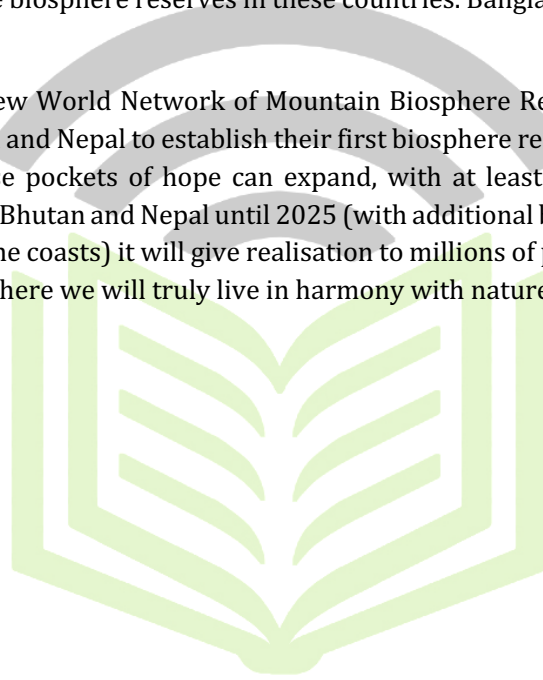
All biosphere reserves are internationally recognised sites on land, at the coast, or in the oceans. Governments alone decide which areas to nominate.

Before approval by UNESCO, the sites are externally examined. If approved, they will be managed based on a plan, reinforced by credibility checks while remaining under the sovereignty of their national government.

A perspective

Some of the countries in South Asia do not yet have any or enough biosphere reserves. In most, if not all cases, the political will is certainly there, but there is a lack of know-how and financial resources. Of course, more financial support from the richer nations and the private sector would be desirable to advance biosphere reserves in these countries. Bangladesh, Bhutan, and Nepal are on our priority list.

The existence of the new World Network of Mountain Biosphere Reserves provides a welcome opportunity for Bhutan and Nepal to establish their first biosphere reserves and participate in the world network. If these pockets of hope can expand, with at least one biosphere reserve per country in Bangladesh, Bhutan and Nepal until 2025 (with additional biosphere reserves in India's North-East and along the coasts) it will give realisation to millions of people that a better future is truly possible — one where we will truly live in harmony with nature.



DreamIAS