CURRENT AFFAIRS FOR UPSC

6TH TO 11TH FEBRUARY, 2022

INTERNATIONAL

CASTE ON US CAMPUSES

On several American campuses, a new battlefront is emerging: caste is making its way into anti-discrimination frameworks, and drawing Hindu rightwing backlash. After California State University (CSU) announced last month that it had added caste as a protected category against discrimination, a section of the faculty protested, fearing it could be used to target teachers of Indian and South Asian descent. CSU wasn't the first American university to act against caste but its decision carries significant implications, given that it is the largest four-year public university system in the US, with 23 campuses, almost 5lakh students, and 29,000 teachers. Over the last two years, atleast three other institutions — Colby College in Maine, Brande is University in Massachusetts, and the Ivy League Harvard University—have adopted safeguards against caste discrimination. Leading the pushback An American Hindu Right advocacy has led the pushback against CSU. The Hindu American Foundation (HAF) wrote to CSU's board of trustees last month opposing the decision. HAF has said it was approached by "concerned faculty members" at CSU, and is helping teachers to mount a legal challenge against the university. "We are helping concerned faculty explore all legal avenues to ensure their constitutionally guaranteed rights to equal protection and due process are protected," a spokesperson for the foundation told The Indian Express. The HAF says it is not affiliated to any religious or political organisation, but its cofounder Mihir Meghani has been actively involved with the Vishwa Hindu Parishad of America. HAF had opposed the State of California's lawsuit against Cisco Systems Inc., which was a watershed moment in caste conversation in the US. In 2020, the California Department of Fair Employment and Housing had sued Cisco and two of its employees for alleged discrimination against a Dalit engineer. HAF filed a motion to intervene in the case, arguing that the State of California's assertion that caste is "a strict Hindu social and religious hierarchy" is an "inaccurate and unconstitutional definition" that would "perversely lead to increased targeting of and discrimination against Indian origin, and particularly Hindu workers". Criticism and defence Two Indian-origin faculty members, Praveen Sinha and Sunil Kumar, have publicly criticised CSU's decision as "misguided overreach", since American laws already protect against different forms of discrimination. "We cannot but oppose the unique risk that CSU's move puts on us as they add a category that is only associated with people of Indian descent, such as myself and thousands of other faculty and students in the CSU system. It is going to create divisions where they simply do not exist," Sinha, a professor of accountancy at CSU LongBeach, said in a statement released by HAF. According to Kumar, who teaches engineering at SanDiego State University, the policy was changed without referring to any scientifically reliable evidence or data. "Rather than redressing discrimination, it will actually cause discrimination by unconstitutionally singling out and targeting Hindu faculty of Indian and South Asian descent as members of a suspect class because of deeply entrenched, false stereotypes about Indians, Hindus and caste," he said in a statement that was put out by the HAF. Neither Kumar nor Sinha responded to questions emailed by The Indian Express. Vamsee Juluri, a professor of media studies at the University of San Francisco, said he was "disappointed" with the attitude of the American Hindu groups. "There has been too much unnecessary polarisation in the Indian/Hindu/South Asian community as a result of mixing up partisan political interests from India with the realities of life, struggle, and privilege in America," he said. Juluri said he did understand the concerns over the operationalisation of anti-caste policies, "especially given the tendency of some Silicon Valley diversity experts and other racists in America to refer to Indian immigrants as 'parasites'", and the existence of "a lot of anti-Indian and particularly anti-Hindu hatred and ignorance" in the US. While that should be "confronted and

checked", however, "the lasting solution... is not to deny the victims of caste, but to more directly confront the sources of white supremacy and corporate power insecuring appropriate protections", he said. "American society recognises anti-Semitism, Islamophobia, and a range of historic and structural wrongs. If Hindu American groups have failed to persuade a large part of the Indian American community, let alone the broader American society, that they deserve similar protections too for Indophobia/ Hinduphobia from racial and religious supremacists in America, the fault is at least partly their own. They should be...open to the possibility that both Hinduphobia and casteism can be opposed," Juluri said. Student-led push At Colby College, the move to take on caste discrimination was led by teachers Sonja Thomas and David Strohl, who study caste in South Asian Muslim and Christian societies. The action at CSU by contrast, marked the culmination of a long process that was driven by students. In October 2020, Prem Pariyar, 38, then a student at the Social Work department of CSU East Bay, complained of caste discrimination on campus. Pariyar, a Dalit from Nepal who had gone to the US in 2015 to claim asylum from caste atrocities, told The Indian Express: "I found myself bullied by Nepali dominant caste students on campus...and realised the importance of caste protection at the department. I started a conversation with my professors on my experiences in Nepal, while working in the restaurant industry in the Bay Area, and in CSU." His professor Ruvani Fonseka connected him to Thenmozhi Soundararajan, Executive Director at Equality Labs, a Dalit civil rights organisation in the US. Pariyar gave his testimony at a faculty meeting, where Soundararajan did a presentation on caste discrimination in the US. It was decided to add caste as a protected category at the department level, and the Academic Senate subsequently adopted it at the college level. The resolution acted as a template in student groups across CSU campuses, and student governments on two other campuses, Cal Poly San Luis Obispo and Cal Poly Pomona, passed similar resolutions. Student leaders such as Manmit Singh, who was then at San Luis Obispo, worked to mobilise student networks to build a "multi-racial and multi-caste effort". In April 2021, four students including Manmit drafted a resolution that was passed by the California State Student Association (CSSA), a body with representatives from all 23 campuses, after a three-hour hearing. It was decided that CSSA would urge the Chancellor that caste be adopted as a 'Protected Status' category. But there was pushback, too. "I saw when a student would speak about a Dalit issue, saying 'this is what happened' or 'this is what I experienced', immediately someone would come after that and say 'no that doesn't exist', 'that doesn't happen'," said Krystal Raynes, a student trustee on CSU's board of trustees. A meeting with the Chancellor's office followed that summer, and in January 2022, the addition was made to the anti-discrimination policy.

U.S. RESTORES SANCTION WAIVER TO IRAN

The U.S. State Department is waiving sanctions on Iran's civilian nuclear programme in a technical step necessary to return to the 2015 nuclear agreement, a senior official said on Friday. The resumption of the waiver, ended by the Donald Trump administration in 2020, "would be essential to ensuring Iran's swift compliance" if a new deal on controlling Tehran's nuclear programme can be reached in talks in Vienna, the State Department official said. The waiver allows other countries and companies to participate in Iran's civilian nuclear programme without triggering U.S. sanctions on them, in the name of promoting safety and non-proliferation. The civilian programme includes Iran's increasing stockpiles of enriched uranium. "Absent this sanctions waiver, detailed technical discussions with third parties regarding disposition of stockpiles and other activities of non-proliferation value cannot take place," the official said, insisting on anonymity. The Vienna talks, which include Iran, the United States, Britain, China, France, Germany and Russia, are at a key stage where the parties have to make "critical political decisions," a senior U.S. official said last week. "The technical discussions facilitated by the waiver are necessary in the final weeks of

Joint Comprehensive Plan of Action (JCPOA) talks," the State Department official said on Friday. The U.S. official insisted that the move was not "part of a quid pro quo," as the partners in the JCPOA talks await Iran's response .

Not a sweeping measure

State Department spokesman Ned Price insisted this U.S. step is a sanctions waiver for the civilian nuclear programme and not broader sanctions relief. Mr. Price wrote on Twitter: "We did NOT provide sanctions relief for Iran and WILL NOT until/unless Tehran returns to its commitments under the JCPOA. We did precisely what the last Administration did: permit our international partners to address growing nuclear non-proliferation and safety risks in Iran."

THE FRENCH FORMAT

French President Emmanuel Macron's shuttle diplomacy between Russia and Ukraine is one of the most significant interventions in the crisis ever since tensions started soaring in Eastern Europe. Mr. Macron, who has held talks with Russian leader Vladimir Putin in Moscow and Ukraine President Volodymyr Zelensky in Kiev, has said that both sides remain committed to the Minsk accords (2014-15), aimed at ending the violence between Ukraine and Russia-backed separatists in the east; Mr. Putin assured him that Russia would not escalate the crisis. Put together, these statements offer a path towards calming the Russia-Ukraine tensions. Moscow has issued sweeping demands, including rolling back NATO from Eastern Europe, which the West has rejected. But Russia's key concerns are the growing NATO-Ukraine cooperation and the increasing western presence in the Black Sea. The U.S. had earlier offered dialogue on mutually reducing military drills in the eastern flank of Europe. And what Mr. Macron is trying to do now, through the Normandy Format talks (including France, Germany, Russia, Ukraine), is for a Moscow-Kiev dialogue based on the Minsk protocol, which, in theory, was accepted by both sides. The crisis has also laid bare the differences within the western bloc on how to deal with Russia. While the Biden administration has threatened to shut down Russia's Nord Stream 2 pipeline in the event of a Russian invasion, the German leadership has been less specific in its response. Germany has barred Estonia, the tiny NATO member that shares a border with Russia, from supplying arms to Ukraine. Hungary's Prime Minister Viktor Orbán, who met Mr. Putin in the Kremlin earlier this month, has said Russia's demands were reasonable. Turkey's Recep Tayyip Erdoğan, who visited Ukraine last week, has offered to host a peace summit. And now, Mr. Macron, who says the West "must respect Russia", has already moved ahead. These varied responses, despite Joe Biden's assertion of unity, show that Europe has less appetite for conflict with Russia. As a continent that experienced two disastrous World Wars and a Cold War, Europe understandably adopts pragmatic realism. But what needs to be seen is whether France and Germany have the diplomatic muscle to calm Russian nerves without making compromises on the continent's security. A starting point could be reviving the Minsk process. The accords call for a general amnesty for the rebels, constitutional amendments giving the breakaway regions in eastern Ukraine more autonomy and the handing over of Ukraine's borders to its army. None of the clauses in the agreement has been implemented. If the Normandy Format talks could be convened and Russia and Ukraine take steps to revive the agreement, it would be a diplomatic breakthrough.

THE CHINA-RUSSIA RELATIONSHIP

President Vladimir Putin's show of strength with President Xi Jinping in Beijing last week amid the standoff with NATO on Ukraine was intended to demonstrate that Russia and China were on

the same page on the "core interests" of upholding "international equity and justice" in the face of US "unilateralism", and supported each other against "external interference and regional security threats". The joint statement issued after the summit— titled 'International Relations Entering a New Era and the Global Sustainable Development'—hailed the"new inter-State relations between Russia and China [as] superior to political and military alliances of the Cold War era", and said the friendship had "no limits" and no "forbidden areas of cooperation". Despite being together in rejecting US unipolarity, the relationship between Russia and China is complex and layered. Each has its distinct worldview and specific interests in its geographical region, and its own battles to fight.

Mistrust to cooperation

Relations between China and the former Soviet Union were frosty, marked by mistrust and doctrinal differences for most of the Cold War decades. The change came in 1989, when Mikhail Gorbachev became the first Soviet leader to land in Beijing since Nikita Khrushchev in 1958. The visit took place in the midst of the Tiananmen Square student protests, but Gorbachev held off from saying anything that would anger his hosts. Gorbachev and paramount leader Deng Xiaoping declared "mutual respect for sovereignty and territorial integrity, mutual nonaggression, non-interference in each other's internal affairs, equality and mutual benefit, and peaceful coexistence" as the basis of their bilateral relations. A decade after the Soviet Union broke up, disappointed and humiliated by the way the West had downgraded it, and deep in economic crisis, Russia under Putin's first presidency turned to China under President Jiang Zemin. In 2001, the two countries signed the Treaty of Good-Neighbourliness and Friendly Cooperation, paving the way for expanding economic and trade ties, including sales of defence equipment and energy by Russia to China, and Russia's backing for China's position on Taiwan. The George W Bush Administration was not perturbed— and said this was not an alliance against the US. Last June, the two countries extended the treaty at a virtual meeting between Putin and Xi. Putin told Xi that the "Russian-Chinese coordination plays a stabilizing role in world affairs", and China's President said their countries had "set an example for the formation of a new type of international relations".

Together against US

Russia's 2014 annexation of Crimea in Ukraine led to a sharp downturn in Moscow's ties with the US, NATO, and Europe. This was also the turning point in Russia's ties with China, which revealed the possibilities, potential, and the limits of the relationship. When the US, EU, and Australia imposed sanctions on Russia, Putin turned reflexively to Beijing. Over the next year, Russia opened its doors wide for Chinese investments, and struck a $400 billion deal for Gazprom, the Russian state monopoly gas exporter, to supply 38 billion cubic metres (bcm) annually to China for 30 years from 2025. The Power of Siberia pipeline began operations in 2019, and sent 16.5 bcm of gas to China last year. During Putin's visit to Beijing last week, the two countries signed a deal for another pipeline, Power of Siberia 2, which will add 10 bcm of gas to the annual supply for 30 years. Since 2016, trade between the two countries has gone from $ 50 bn to over $147 bn. China is now Russia's largest trading partner. Towards a modus vivendi in Central Asia, the two countries agreed to work towards speeding up the linking of the Russia-led Eurasian Economic Union and the Chinese Belt and Road Initiative. With their ties closer than ever before, the crisis in Ukraine has been an opportunity for each country to express solidarity with the other's grievance against the US. Should the West impose financial and banking sanctions on Russia, Beijing is expected to assist Moscow, perhaps with alternative payment methods. China said during Putin's visit that Russia's "reasonable security concerns should be recognised and resolved", an apparent reference to Ukraine's interest in joining NATO, and the joint statement

backed the Russian opposition to any expansion of the Western military alliance in Europe. Russia reaffirmed support for the One China principle, and opposed any form of independence for Taiwan. The statement also hitout "against the formation of closed bloc structures and opposing camps in the Asia Pacific region" and "the negative impact" of the US's Indo-Pacific strategy.

Different interests

And yet, as several observers have pointed out, the China-Russia compact is not yet a formal security alliance against the West, nor is it an ideological partnership. The joint statement referred to NATO's expansion, but did not mention Ukraine. Back in March 2014, in the vote on UN Security Council resolutions on the referendum in Crimea that was used by Putin as an excuse to annex the Black Sea peninsula, China had abstained — and despite the recent bonhomie, has not recognised Crimea's accession to Russia. China's main security interests lie in Asia; Russia's are in Europe. From Putin's demands in ongoing negotiations with the West, it is clear that he is seeking the restructuring of European security — and if the US wants to link the crisis in eastern Europe with China, it was their problem, not his. Russia, which wants to be recognised as a great power once again, has positions independent of Beijing on many issues — including on the relationship with India. As the smaller economy—its GDP is a tenth of China's — but with a strong memory of its lost superpower status, Russia is loath to become China's junior partner. Its experience with China in 2014 had brought home the reality that friend or not, Beijing drives a hard bargain. The negotiations on the pipeline and gas prices were fraught, and Russia is acutely conscious that its gas exports to Germany and the rest of Europe gets much more revenue — and that China anyway has other pipelines to tap. Also, despite talk of Russia-China co-operation in Central Asia, Moscow still sees the region as part of its sphere of influence. For Beijing, war in Ukraine is the least suitable of options. It would take US military energies away from the South China Sea, but might also stall talks to resolve trade issues. China and the EU are each other's biggest trading partners—China's trade with Russia is small by comparison. Beijing will not fight the war if it breaks out, but it will nonetheless find it messy and complicated to negotiate. As for Ukraine, it is a crucial link in Xi's BRI project. China is also Ukraine's biggest trading partner—and its agricultural exports, particularly corn, have sustained China during its trade war with the US.

View from New Delhi

In this crisis with many moving parts, it is easy to both overstate and under-read the Russia-China relationship. All actors are hedging their bets in ways that are altering the geopolitics of Europe and Asia in real time. New Delhi's best bet would be to treat its relations with both countries and the US separately — or it runs the risk of shrinking its own space. India's relationship with Russia is not what it used to be, but there is much that both sides continue to see as mutually beneficial. The Russia-China statement did not mention China's border dispute with India; it only made a reference to developing cooperation among the three countries. After the Russian-linked Redfish media teased a documentary that drew parallels between Kashmir and Palestine, the Russian embassy clarified that Redfish was not official media, and reiterated that Kashmir was an issue for India and Pakistan to resolve bilaterally. This came a day after Pakistan and China issued a statement expressing concern at India's "unilateral actions" in J&K. As one former Indian diplomat put it, India would restrictits foreign policy choices and undermine its own status as a rising power of global standing by taking sides in a conflict that has nothing to do with it. What else was French President Emmanuel Macron's five-hour meeting with Putin over dinner if not a display of the grand complexity of global politics, the fluidity of the present, and the opportunities in it?

WHEN THE MUSIC STOPS

In the wake of the intensifying 'Partygate' scandal in the U.K., five close aides of Prime Minister Boris Johnson have resigned, putting the Conservative Party and its leadership in a tight spot over their handling of the COVID-19 pandemic and their adherence to the associated restrictions on public gatherings. The five senior members of Mr. Johnson's office, including Chief of Staff Dan Rosenfield quit last week, following an incriminating enquiry into multiple social gatherings that took place at No.10 Downing Street during the early days of the pandemic when tight lockdown regulations had been imposed across the U.K. limiting all such parties. The scandal gained momentum after U.K. media published reports, including photographs, of senior members of Mr. Johnson's team attending several parties held around June 2020, a time when gatherings of more than two people indoors were banned. Following the expected outrage in Parliament and the initiation of a police investigation, last week a report by Sue Gray, Second Permanent Secretary, was published. Her report found that 16 events took place between May 2020 and April 2021 including a drinks event in the Downing Street garden attended by Mr. Johnson on May 20, 2020, and a birthday celebration for Mr. Johnson in the Cabinet Room on June 19, 2020. The scandal has rocked the confidence of Conservative MPs in their Prime Minister's capacity to lead. Even though Culture Secretary Nadine Dorries insisted that a "vast majority" of them still support Mr. Johnson, some, such as Stephen Hammond, have said that they are "considering very carefully" whether he still has confidence in the PM, especially because "telling the truth matters, and nowhere more so than in the House of Commons". Mr. Johnson has written to all Conservative MPs committing to improving "the way 10 Downing Street works". But it appears that MPs are far from convinced that there was sufficient justification to hold these drinking parties at No.10 when the nation was facing lockdowns. Specifically, these events endangered public health, damaged public perception of the government and its commitment to pandemic regulations, and demonstrated failure to explore alternative, pandemic-compliant means to transact business. The most ominous sign of Mr. Johnson's deteriorating prospects of continuing as PM are the MPs who have reportedly submitted a letter of no confidence to Sir Graham Brady, Chair of the 1922 Committee of backbench MPs. If 54 MPs submit such letters to Sir Graham, it will trigger a vote on Mr. Johnson's leadership of the party. Given the progress made by his government in terms of vaccine administration, putting the U.K. at the top of the global vaccination league tables, it would be ironic if Mr. Johnson's time in No.10 was remembered more for drinking parties and lockdown violations.

INDIA'S 'RETURN' TO CENTRAL ASIA

The inaugural India-Central Asia Summit, the India-Central Asia Dialogue, and the Regional Security Dialogue on Afghanistan in New Delhi — all held over the past four months — collectively indicate a renewed enthusiasm in New Delhi to engage the Central Asian region. India has limited economic and other stakes in the region, primarily due to lack of physical access. And yet, the region appears to have gained a great deal of significance in India's strategic thinking over the years, particularly in the recent past. India's mission Central Asia today reflects, and is responsive to, the new geopolitical, if not the geo-economic, realities in the region. More so, India's renewed engagement of Central Asia is in the right direction for the simple reason that while the gains from an engagement of Central Asia may be minimal, the disadvantages of non-engagement could be costly in the longer run.

Great power dynamics

One of the factors driving this engagement and shaping it is the great power dynamics there. The decline of American presence and power in the broader region (due primarily to the U.S. withdrawal from Afghanistan) has led to a reassertion by China and Russia seeking to fill the power vacuum. While China dominates the geo-economic landscape, Russia is the dominant politico-military power in the region. But in the end, geo-economics might gain more traction. A somewhat anxious Moscow considers India to be a useful partner in the region: it helps it to not only win back New Delhi, which is moving towards the U.S., but also to subtly checkmate the rising Chinese influence in its backyard. For the U.S., while growing India-Russia relations is not a welcome development, it recognises the utility of Moscow-New Delhi relations in Central Asia to offset Beijing's ever-growing influence there. As for China, India's engagement of the region and the growing warmth in India-Russia relations are not a cause for concern yet, but they could be eventually. For New Delhi, it's about breaking out of a continental nutcracker situation it finds itself in. In the wake of the U.S. withdrawal from Afghanistan, New Delhi faces a major dilemma in the wider region, not just in the pre-existing theatres like the Line of Control and the Line of Actual Control. There are growing and legitimate concerns within the Indian strategic community that India in the region might get further hemmed in due to the combined efforts by China, Pakistan and Taliban-led Afghanistan. If so, it must ensure that there is no China-led strategic gang up with Pakistan and the Taliban against India in the region, which, if it becomes a reality, would severely damage Indian interests.

Focus on Afghanistan

India's engagement of Central Asia would also help it to consolidate its post-American Afghan policy. U.S. withdrawal from Afghanistan has landed India in a major dilemma – it has very limited space to engage Taliban 2.0 despite the current relationship whose future depends on a number of variables. During the Hamid Karzai and Ashraf Ghani governments, given their proximity to India and the presence of the U.S. forces in Afghanistan, India was able to engage Kabul without too much hardship, despite Pakistani resistance. Now that the Taliban have returned to Kabul, New Delhi is forced to devise new ways of engaging Afghanistan. That's where the Central Asian Republics (CARs) and Russia could be helpful. For instance, given its location bordering Afghanistan as well as its close geographical proximity to Pakistan-occupied Kashmir, Tajikistan holds immense geopolitical significance for India (incidentally, India helps maintain an airbase in the country). One has to wait and see how far India will innovate to engage CARs in pursuit of its interests in Afghanistan. The announcement of a Joint Working Group on Afghanistan during the summit between India and the CARs is surely indicative of such interest. In India's current vision for a regional security architecture, Russia appears prominent. President Vladimir Putin's meeting with Prime Minister Narendra Modi and the earlier meeting between Russian National Security Adviser General Nikolai Patrushev and Mr. Modi are indications of the growing relationship. A cursory glance at the various issues being discussed between the two sides also indicates a new joint thinking on regional security. Of course, New Delhi expects the U.S. to understand that in the wake of the latter's withdrawal from the region leaving India in the lurch, New Delhi has no choice but to work with the Russians. By courting Russia — its traditional partner, also close to China and getting closer to Pakistan — to help it re-establish its presence in the Central Asian region, India is seeking to work with one of the region's strongest powers and also potentially create a rift between China and Russia, to the extent possible. The two countries recently exchanged a 'non-paper' on how to increase their joint engagement in Central Asia. Both India and the CARs use Russian defence equipment, and the non-paper has reportedly explored the possibility of joint Indo-Russian defence production in some of the existing Soviet-era defence facilities in the CARs

to meet local and Indian demands. The non-paper also reportedly discusses potential trilateral defence exercises among India, Russia and the CARs. In any case, joint defence production by India and Russia has been on the rise and the CARs could play a key role in it. This growing India-Russia partnership also explains India's non-critical stance on the developments in Ukraine and Kazakhstan.

Challenges

That said, India's 'return' to Central Asia is not going to be easy. For one, China, which shares a land border with the region, is already a major investor there. China is the region's most important economic partner, a reality that worries Russia and sharpens India's relative irrelevance in the region. An even bigger challenge for India may be Iran. India's best shot at reaching the CARs is by using a hybrid model – via sea to Chabahar and then by road/rail through Iran (and Afghanistan) to the CARs. So, for New Delhi, the ongoing re-negotiations on the Joint Comprehensive Plan of Action (or the Iran nuclear deal) are of crucial importance. If there is a deal, it would bring Tehran back into the Western fold and away from China (and Russia), which will be favourable to India. While Iran getting close to the West is not preferred by Russia (but preferred by India), if and when it becomes a reality, India would be able to use it to its advantage and join Russia in engaging the CARs. India's ongoing outreach to Iran and the now-postponed visit of the Iranian foreign minister to New Delhi help repair some of the damage done to the relationship over the years. But finally, perhaps most importantly, will India walk the talk on its commitments to Central Asia? Does it have the political will, material capability and diplomatic wherewithal to stay the course in the region?

DEATH OF A TERRORIST

The death of Abu Ibrahim al-Hashimi al-Qurayshi, the leader of the Islamic State (IS), has come at a time when the terrorist outfit has been trying to revive its fortunes in Iraq and Syria, its core region. A few weeks earlier, IS militants had carried out an ambitious attack — their largest since the death of Abu Bakr al-Baghdadi, IS founder, in 2019 — on a prison in northeastern Syria's Hasakah, to free thousands of jihadists. But it was a failure as American soldiers joined the Syrian Democratic Forces (SDF), a Kurdish militia, to push back the militants. Qurayshi blew himself up along with his family, like his predecessor did three years ago, when U.S. special forces approached his hideout in Idlib, the province controlled by jihadists linked with al Qaeda. When he became the IS chief, the entity had transformed itself from a 'Caliphate', with control over some key cities in Iraq and Syria, into an underground insurgency with global branches. Under Qurayshi, the IS continued to operate like a loose confederation of autonomous networks. Its Afghan and West African branches expanded operations, while in Iraq and Syria, it staged occasional attacks — a reminder that it is only the physical Caliphate that has been destroyed. It is more than a coincidence that both Baghdadi and Qurayshi were hiding in Syria's Idlib. The Syrian government's efforts to recapture the territory have not been successful as there is strong regional opposition, especially from Turkey which fears another refugee influx. The province is controlled by Hayat Tahrir al-Sham, a globally designated terrorist outfit that was formerly known as Jabhat al-Nusra, the Syrian branch of al Qaeda. Idlib is now run by Abu Mohammad al-Joulani, the al Qaeda militant who was sent to Syria by Baghdadi in 2013, in the early stages of the civil war, to open a branch of his outfit. If a lasting solution to the jihadist control of Idlib is not found, the future Baghdadis and Qurayshis would also take refuge in this region. Another important lesson the IS's recent attacks provides is that the Syrian Kurds remain a key ally in the fight against the IS, as the Hasakah incident has shown. The U.S. should not throw them at the mercy of Turkey —

like the Trump administration once did — once the IS threat is minimised. They should be incorporated into a larger regional counter-terror strategy. Lastly, the IS has learned how to survive these occasional setbacks. It has lost its Caliphate and its top commanders but there are thousands of foot soldiers spread across Iraq and Syria, waiting to strike. The still open wounds of the civil war in Syria and the lingering sectarian sentiments in Iraq have let them survive so far. As long as these geopolitical and sectarian faultlines remain in Iraq and Syria, the IS threat will not vanish.

MYSTERY ILLNESS

A recent U.S. intelligence report says that 'Havana Syndrome' —a collection of symptoms and related brain injuries, reported by U.S. officials, particularly diplomats in embassies —could be caused by pulsed electromagnetic energy or close-range ultrasound. These findings are somewhat different in tone from a Central Intelligence Agency (CIA) report from January, which, in a majority of cases, suggested other causes for the phenomena, such as underlying medical conditions.

What is it?

'Havana Syndrome' is a colloquial name given to a set of symptoms such as dizziness, hearing loss, headaches, vertigo, nausea, memory loss and possible brain injuries first reported by 16 U.S. Embassy staff and their family members in Havana, Cuba, in 2016-17. There have been other instances of the phenomenon, which has mostly impacted U.S. officials. A staffer traveling in India with CIA Director Bill Burns complained of 'Havana Syndrome' like symptoms last September. Officials were reportedly very concerned, as per reports, that an adversary could have obtained a confidential CIA travel itinerary. In August, Vice President Kamala Harris's arrival in Vietnam was delayed after reports of an 'anomalous health incident' or AHI, in Hanoi. Other countries from which American officials have reported AHIs include Colombia, Russia, China and Uzbekistan. Cases ascribed to the 'Havana Syndrome' have also been reported from within the U.S.

What did the latest investigation find?

A panel, constituted by the Office of the Director of National Intelligence and the CIA, said on Wednesday that some of the 'Havana Syndrome' cases could have been caused by pulsed electromagnetic energy in the radio frequency. The results of the investigation did not point to who may have been behind the phenomenon, nor commented on their motivations. A partially redacted report summary finds that the symptoms of AHI are "genuine and compelling." Some individuals were affected in the same space, and they showed temporary elevations in biomarker levels that are linked to cellular injury. Significantly, the investigation found that a subset of the AHIs could have been caused by external stimuli and could not be explained by known medical and environmental conditions. Psychosocial factors alone do not explain the core characteristics, the report finds, although they may cause other incidents or contribute to long-term effects. These other incidents could occur via hypervigilance or reactions to stress especially among individuals who are security-oriented. The investigation identified four "core characteristics" that describe all AHIs. First, a hearing impact. Second, the existence of other almost simultaneous symptoms such as a loss of balance or vertigo. Third, a "strong sense of locality or directionality." Fourth, the absence of other conditions, medical or environmental, that could have caused these symptoms. The core characteristics could plausibly be explained by pulsed electromagnetic energy, possibly sent using nonstandard antennas and techniques, from as far as "tens of hundreds of metres", including through building materials," the report says. Ultrasound, from a nearby source, could also explain the AHIs, the panel finds, as it rules out biological and chemical agents, ionising

radiation, bulk-heating from electromagnetic energy, and sound of various frequencies as "implausible explanations."

Are the latest results consistent with earlier findings?

The interim results of a CIA investigation into 'Havana Syndrome' were reported by the American press in January. The investigation concluded, for the time being at least, that it was unlikely that a foreign power was attempting, in a sustained manner, to attack U.S. officials and diplomats. The majority of the cases were thought to be caused by medical conditions —including undiagnosed bacterial infections and brain tumours, the Associated Press reported. Only in a "few dozen" cases was the jury still out and foreign interference had not been ruled out in these instances. Lawmakers criticised the CIA for releasing an interim report that was inconclusive. While the panel's investigation does not contradict the CIA's findings, the thrust of it is different, pointing to the plausible involvement of an external frequency source and thereby leaving open the possibility that an actor —such as a country adversarial to the U.S. —might be behind some of the cases.

What happens next?

The publicly available part of the recommendations of the latest study seem to suggest a focus on collecting more data and identifying AHIs more clearly, such as by developing more sensitive and specific tests for biomarkers and rolling out more objective clinical measurements for the incidents. Another recommendation is communicating better to U.S. government employees in order to reduce the impacts of psychosocial factors and neurological disorders, irrespective of their causes. U.S. government bodies, such as the CIA and the State Department, also continue to investigate the source of these possible attacks.

XI FLEXES DIPLOMATIC MUSCLE AT OLYMPICS

Hosting more than two dozen visiting world leaders in a banquet in Beijing on Saturday, China's President Xi Jinping called for countries "to practice true multilateralism" and "uphold the international system centred on the United Nations". Reading between the lines of the message, carefully couched in diplomatic language, was a thinly veiled criticism of the U.S., which China has accused, particularly in the wake of recently deteriorating relations, of practicing "hegemony" and undermining the UN-centred order. That message was conveyed recently in more explicit terms by the country's Foreign Minister Wang Yi, who in his end-of-year review of China's foreign policy contrasted Mr. Xi "pointing out unequivocally that there is but one international order, that is the international system with the UN at its core" with "a certain country's interference in the internal affairs of other countries in the name of democracy and human rights, and the fabrication of false narratives of democracy versus authoritarianism". The banquet for visiting leaders, which followed Friday's opening ceremony of the Winter Olympics, was attended by Russian President Vladimir Putin, Egypt's President Abdel Fattah al-Sisi, Saudi Arabia's Crown Prince Mohammed bin Salman, five Central Asian Presidents, Singapore President Halimah Yacob, and Pakistan Prime Minister Imran Khan. The list of who wasn't present was just as revealing. Ahead of the games, the U.S., U.K., Australia, Japan and Canada were among countries that announced a "diplomatic boycott" — their athletes are participating — citing China's human rights violations in Xinjiang. India initially did not join the boycott and in November expressed support for the Games along with Russia following a meeting of the foreign ministers of Russia, India and China. That changed on Thursday when India said it would not send an official to attend the opening ceremony to protest China's decision to select a PLA regiment commander involved in the June 15, 2020

Galwan Valley clash as one of the Olympic torchbearers. While China has hit out at the U.S. for "politicising" the Games, the event has at the same time offered for Beijing an important diplomatic platform, as Saturday's banquet underlined, after two years of a pause in its diplomatic activity, which was limited to virtual engagements. Mr. Xi has not left China since mid-January 2020, when he visited Myanmar, and there have been no major incoming foreign visits until the Olympics this month. The Chinese state media highlighted that Mr. Putin was the first foreign leader to confirm his attendance at the Games, and the growing closeness in China-Russia ties has been in focus this week. On Friday, Mr. Xi and Mr. Putin in a lengthy joint statement that followed talks outlined a common position on a range of issues from human rights to attacking NATO's "expansionism" in Europe and America's Indo-Pacific strategy in Asia for having a "negative impact" on the region.

THE ECOLOGICAL COST OF CREATING ARTIFICIAL SNOW FOR WINTER OLYMPICS

The cost of the 2022 Winter Olympics in Beijing has been a snow-making operation by China that has highlighted the poor ecological conditions of the area, and massive amounts of water that have gone into the effort. A report released by Sport Ecology Group at Loughborough University and Save Our Winters has looked into the dangers of artificial snow on athletes' bodies and the amount of water used up to produce the snow.

How is artificial snow created?

Snow injected with water to harden it, and then treated with chemicals to keep it in place, is a form of artificial snow recommended for winter competitions. High volumes of water and energy are required to create slopes of artificial snow that are competition-ready. For the Beijing Games, machines from an Italian company, TechnoAlpin, have been creating artificial snow since November 2021. These pump out ice particles and a thin mist of water vapour, which are launched upto 60m in the air where they combine to become snow and fall to the ground. TechnoAlpin has been using 290 snow cannons in Beijing, according to The Sunday Times.

Is this the way in all Winter Games?

For the 2014 Sochi Olympics, Russia used 80% artificial snow. That rose to 90% for the Pyongyang Games. The 2010 Vancouver Games had to use helicopters to fly in snow. The Beijing region is known to below on water and thin on ice, thanks to an over-reliance on groundwater coupled with the melting of glaciers since the 1950s. According to a Greenpeace study in 2018, China's glaciers had melted by 82% and one-fifth of the ice cover had been lost since the 1950s. These Games are estimated to require around 49million gallons of water to be converted into snow. For perspective, that much water would fill 74 Olympic-sized pools.

Where does so much water come from?

According to a New York Times report, Beijing diverted water from Baihebao reservoir to the Guishui river, which is usually dry during the winters. Earlier, water from Baihebao would be directed to households in Beijing. Even before the Games' preparations began, Beijing was facing a water crisis and had to connect a series of waterways that transported trillions of gallons of water from the south of the country to the north. Officials in Zhangjiakou have turned off tens of thousands of acres worth of irrigation water to create artificial snow. Farmers have been resettled in high-rise apartments.

What is the environmental cost?

Another major problem in the region is that its average precipitation over the last four decades periodically is below 8 mm. That combined with dry weather means water gets lost to evaporation and winds during the ice-making process. Therefore, water is being pumped into the soil, which will harden and create a surface where artificial snow will not melt. An experiment by researchers in Switzerland found that atleast 35% of the water used to make artificial snow was lost. The Chinese have said that they would limit the impact of snow-making by reusing this snow to boost groundwater reserves. "We've collected surface water for snow making, and we don't need to tap any underground water. It has no impact on the environment," LiZhenlong, facility manager at the national cross-country skiing centre in Zhangjiakou, told The Sunday Times. An International Olympic Committee evaluation report said mountains in Beijing had "minimal annual snowfall" and the country's hosting was completely dependent on the production of artificial snow.

What is the future of such attempts?

The Loughborough University report states that by 2050, only 10 of the 20 venues that have hosted the Winter Olympics since 1924 will be able to produce an amount of snow that is capable of holding an international-level competition like the Winter Olympics.The survival of the Winter Games is based on the production of artificial snow.

REPORTING ON VEILED PREJUDICE

In 2018, a school in Sri Lanka's Trincomalee district, a multi-ethnic city on the island's eastern coast, grabbed rare national attention. A group of Hindu teachers and parents of children going to the school protested against some teachers wearing the abaya to work. Agitators slammed the teachers for choosing to shift from an earlier practice of wearing the saree along with a headscarf to the full-length, often black, gown that many Sri Lankan Muslim women have been wearing for decades now. I visited the school weeks later, when the tensions had died down a bit, to report on the story. I interviewed the school head, among others, to try and understand how the controversy had erupted. In wearing the abaya to school, did the teachers violate an official dress code? Or was it a convention they were changing? Why were the Hindu teachers and parents so offended by the attire? How did the school management, government education department and the local community respond? The recent hijab controversy in Karnataka, and the rage and violence around it, took me back to this story. School and government authorities, including those who sympathised with the protesters, told me that the Muslim teachers' choice of attire did not violate any rule or official dress code. It merely offended the sensibilities of their non-Muslim colleagues and parents who were used to seeing them dressed differently. In that case, why was it so difficult to resolve the matter? Because the protesters were not opposing just the abaya. The slogans they raised derided the "impure" Tamil spoken by Muslims; claimed that "Hindu schools were only for Hindus" (the originally Hindu institution is now a national school functioning under the Ministry of Education); and accused the Muslim teachers of bringing "racism" into the campus. It was clear that the abaya had now become a symbol of many things "Muslim" that they feared, hated, or both. Interviews with protesters, other residents, and long-time social workers in the area revealed that the attack on the garb had stemmed from a deep-rooted sentiment. This was shaped by people's experiences during and after Sri Lanka's civil war; dynamics of the continuing discrimination against Sri Lanka's Tamils and the growing, targeted violence against Muslims; and the familiar manipulation of these tensions — between the two minority groups, and with the majority Sinhalese community — by the political class for electoral gains. Working on the story also exposed me to diverse opinions that Muslim women hold on why they wear the abaya. Some of

them see it as an important religious convention, while for others it is an easy alternative to the pleated saree. Some said they liked the abaya in black, others in colour. Some wear it at home, others slip it on when they step out. While explaining their everyday attire choice to me, they compared it to more Tamil women wearing the salwar-kameez or trousers instead of the saree in recent decades. Their views brought in exactly the kind of nuance that shrill, social media debates or hasty political statements by leaders often drown out. The insights they shared proved valuable as I covered subsequent controversies around Muslim women's attires – especially after the Easter bombings of 2019, and when the Sri Lankan Cabinet, in April last year, banned all face veils in public, citing "national security" concerns, ironically at a time when face masks were mandated in all public spaces owing to the pandemic. This week, the Trincomalee teacher is back in the news. Despite official directives, she was unable to resume duties in the school, as she was allegedly threatened and assaulted. Determined to secure her right to teach at the school, she has mounted a legal challenge as well. Meanwhile, social media arbiters have begun ruling on the matter. Among them, unsurprisingly, are many men with rather strong and certain views on how women must dress.

NATION

CASE OF MP JUDICIAL OFFICER WHO ACCUSED HC JUDGE

The Supreme Court Thursday ordered the reinstatement of a woman judicial officer in Madhya Pradesh, who had resigned from her job following her transfer after she levelled sexual harassment charges against the then judge of the HC, Justice S K Gangele.

What was the case about?

The complainant was an Additional District and Sessions Judge in Gwalior at the time when Justice Gangele was also the Administrative Judge in the Gwalior Bench of the MP High Court. Gangele was also the Portfolio Judge of Gwalior district and was therefore empowered to supervise the functioning of the District Court, Gwalior. As the Portfolio Judge, he was also in charge of assessing the work of the complainant. It was during this period that he is alleged to have sexually harassed her. The complainant alleged she was transferred to Sidhi on July 8, 2014, when she resisted the harassment, and contended that this was in violation of the transfer policy of MP High Court. She added her representation seeking eight months extension as her daughter, who was in Class 12 had to appear in the board exams was rejected. Following this, she resigned from service on July 15, 2014, and her resignation was accepted on July 17, 2014.

What happened after her resignation?

She then complained to the Chief Justice of India who called for remarks from the Chief Justice of Madhya Pradesh High Court. The MP high court Chief Justice then constituted a two-member committee comprising two senior sitting HC Judges to inquire into the matter and submit a report. Though the committee issued notice to the woman official to appear before it, the complainant in her reply sought clarification on the authority of law under which the panel was constituted and raised questions about the fairness of the inquiry to be conducted by it. The complainant also filed a petition before the SC challenging the constitution of the in-house committee. The apex court disposed of the petition finding fault in the procedure followed by the HC Chief Justice. The CJI then constituted an in-house committee, which concluded that the materials were insufficient to establish the charges.

Proceedings in Rajya Sabha

On March 17, 2015, 58 members of the Rajya Sabha gave notice to the then Chairman Hamid Ansari of a Motion for the removal of Justice Gangele on misconduct charges. Admitting the motion, the Chairman on April 8, 2016, set up a committee comprising then SC judge Justice R. Banumathi, Justice Manjula Chellu, who was the then Calcutta HC Chief Justice, and Senior Advocate K K Venugopal, who is currently the Attorney General for India, to investigate the allegations. The committee examined the complainant, the HC judge and all those concerned. Justice Gangele categorically denied the allegations of sexual harassment levelled against him by the complainant. In its report, the committee said that the four instances of sexual harassment alleged by the complainant "are not proved beyond reasonable doubt". On her transfer, the committee said it "is of the view that there has been a total lack of human face in the transfer" and that "in the interest of justice, the complainant has to be reinstated back in the service, in case, if the complainant intends to re-join service". Regarding her allegations of staff harassment by not giving her a peon, stenographer etc, the committee said the actions complained of "form part of routine district administration/exercise of supervisory power by the High Court under Article 235

of the Constitution of India. The allegation that the respondent judge was misusing his position by using the subordinate judiciary to victimize the complainant in discharge of her duties as judicial officer, is not proved".

Proceedings in SC

On February 13, 2019, the Supreme Court asked the High Court to reconsider the issue of reinstatement of the complainant. But the full court of the High Court rejected the said representation in a meeting on February 15, 2019. The SC had also suggested that she be reinstated and sent on deputation outside the state or she could be adjusted in some other state, but this did not happen either.

WRONG SIGNAL

The Kerala High Court judgment upholding the Government's revoking the broadcasting permission given to Malayalam news channel MediaOne is plainly wrong. The I&B Ministry did not renew the channel's permission to uplink and downlink signals after the Union Home Ministry declined security clearance. The company and some employees challenged the action. The court seems to have endorsed the Government's stand that it was a national security issue and, therefore, there was no need to observe the principles of natural justice. The Government claimed there were sufficient reasons, even though they were not disclosed. It is unfortunate that the court chose to accept the submission of documents in a sealed cover and agree with the authorities that there were intelligence inputs that warranted the denial of security clearance, without the petitioners being shown the contents. The court's decision goes against emerging jurisprudence that any restriction on fundamental rights must not only be reasonable, as permitted in the Constitution, but also withstand the test of proportionality. In this case, broadcasting involves the inter-connected rights concerning media freedom, freedom to disseminate information and the freedom to consume information. All these fall under the framework of freedom of speech and expression. The court seems to have accepted the restriction without examining its reasonableness in any way. It has negated not only the channel's right to broadcast but also its viewers' right to know. It is astounding that the court dismissed the precedent set in a recent case that national security cannot be used as a pretext to avoid any judicial examination of restrictions imposed by the state. Raising the spectre of national security did not give a free pass to the Government, the court had noted in the case involving allegations of the use of Pegasus, a spyware, against citizens. By claiming that it was in a case that involved the 'right to privacy' and not germane to the MediaOne case, the judge seems to have erred. The need for circumspection against the bogey of national security being raised to deny or curtail fundamental rights is a general principle, and not confined to a particular right. Further, it is plainly unacceptable that the much-derided form of 'sealed cover' justice is being used as an aid to adjudication. Even though courts recognise that the scope for judicial review in matters of national security is limited, any claim that a particular action was based on that ground ought to be substantiated by the Government, even if it is reluctant to disclose all details. If this practice of using confidential intelligence claims to revoke the permission given to a channel to operate is encouraged, freedom of the media will be in great peril.

SC TO WEIGH BETWEEN 'NATIONAL SECURITY', JUDICIAL SCRUTINY

The question whether the state can use 'national security' as a ground to limit judicial scrutiny has come up for scrutiny again in the MediaOne TV channel case barely weeks after the Supreme

Court, in its Pegasus case order, observed that the Centre cannot expect a 'free pass' from the courts as soon as it raises the 'spectre of national security'. The government has cited national security reasons in the Kerala High Court for cancelling telecast permission to the Malayalam news channel. "It is a settled position of law that in matters pertaining to national security, the scope of judicial review is limited. However, this does not mean that the state gets a free pass every time the spectre of 'national security' is raised. National security cannot be the bugbear that the judiciary shies away from, by virtue of its mere mentioning. Although this court should be circumspect in encroaching upon the domain of national security, no omnibus prohibition can be called for against judicial review… The mere invocation of national security by the state does not render the court a mute spectator," a three-judge Bench led by Chief Justice of India N.V. Ramana observed in the Pegasus case order in October 2021. The order is a significant one considering the oft-repeated refrain of the government, while banning or curtailing rights of citizens, that it is being done for the sake of 'national security'. One of the major concerns raised by citizens recently is the "chilling effect" such state actions endure to have on free speech, especially in the media. The principle of 'chilling effect' is based on comparative harm. "One possible test of chilling effect is comparative harm. In this framework, the court is required to see whether the restrictions, due to their broad based nature, have had a restrictive effect on similarly placed individuals during the period," the Supreme Court explained in the Anuradha Bhasin case, which concerned Internet restrictions in Jammu and Kashmir in the backdrop of the abrogation of Article 370. In short, the test is whether action of the state on one entity freezes others in their footsteps or deters them from following the same course.

Order backed by reasons

Any order of the state which restricts the fundamental rights of speech or expression should be backed by reasons. The courts should be convinced that the state acted in a responsible manner and did not take away rights in an "implied fashion or a casual or cavalier manner", the Supreme Court has said in its 130-page judgment in the Anuradha Bhasin case. "Democracy entails free flow of information," the Supreme Court had declared. "There is no dispute that freedom of speech and expression includes the right to disseminate information to as wide a section of the population as is possible. The wider range of circulation of information or its greater impact cannot restrict the content of the right nor can it justify its denial," the Supreme Court has observed in judgments like Secretary, Ministry of Information & Broadcasting Government of India v. Cricket Association of Bengal and Shreya Singhal v. Union of India.

DON'T HARASS PEOPLE: SUPREME COURT PULLS UP TRIPURA POLICE

The Supreme Court on Monday pulled up Tripura Police for sending notices to people over their social media posts related to alleged communal violence in the state and warned the force not to "harass" them, failing which the bench said it will summon senior officials. "Inform SP (superintendent of police) to not harass people like this. Everyone shouldn't be made to run to the Supreme Court," the top court told the state, reprimanding police for ignoring SC's previous restraining order. "Otherwise we will call SP to court and make him answerable if we find he's trying to evade compliance. We will ask them to appear, including your (state) Home Secretary. Once we have passed order covering issue you must show responsibility", the two-judge bench of justices D Y Chandrachud and Surya Kant said. The top court was hearing a petition by Samiullah Shabbir Khan, who was issued a notice to appear before Tripura Police under Section 41A (Notice of appearance before police officer) of the Code of Criminal Procedure. Khan's counsel Shahrukh Alam told the court that the police summons was in violation of SC's January 10 order, which

restrained the force from taking any action in connection with the tweets by the petitioner. Alam said Khan – a "socially conscious student" — was summoned on Tuesday, and several other social media users were sent the notices over the issue. "I didn't request for dasti (by hand) notice so physical service is still incomplete. That order (January 10) hasn't reached the Superintendent of Police," Alam told the court, but said that the ruling "was well reported". Justice Chandrachud then turned to the counsel for the Tripura government and directed the state to "communicate a copy of the order and meanwhile don't take action on the notice (to Khan)". The state counsel urged the court to "hold" the matter for two weeks, prompting Justice Surya Kant to say: "What do you mean hold over for two weeks when you have issued notice for today?" "The counsel for the petitioner, states that the order dated 10 January 2022 passed by this court, though reported widely, has formally remained to be served on the superintendent of police. Be that as it may, a notice under section 41 A of the CrPC dated 20 January 2022 was issued... requiring the attendance of the petitioner today," the bench noted in the order. It added that "since petitioner has already been protected, no further steps be taken in pursuance of 41 A notice pending further orders". The court also asked the state counsel to communicate Monday's order and the January 10 ruling to the Tripura Superintendent of Police. The matter is related to social media posts made in the aftermath of alleged communal violence in Tripura in November last year. Vandalism and arson incidents were reportedly triggered in the state after attacks on Hindu communities in Bangladesh. During Monday's hearing, Alam also told the court that other social media users have been sent notices, and some of them have approached SC as well. "Notices have been issued to all. Some of them are already before your Lordships, some have filed writs," Alam had said. The court said it cannot pass an order on those petitions without those being listed, and asked Alam to reach out to court masters and get diary numbers for the petitions so that they can be listed for hearing. To this, Alam said that the "process will become punishment". Addressing the state counsel, Justice Chandrachud told Tripura Police not harass people. "What is this if not harassment, asked Justice Kant. When the counsel for the state government said that he has no instructions in the matter, the bench said, "What else is all this if it is not harassment? It is a very innocuous statement to say you don't have instructions here while you keep doing all this." As the hearing came to an end, Solicitor General Tushar Mehta assured the bench: "I will look into it and I will ensure that the sanctity of your lordships' orders is ensured in letter and in spirit."

LOCAL JOB LAWS THAT RAISE CONSTITUTIONAL QUESTIONS

The Supreme Court of India will soon hear a petition to remove the stay on the Haryana State Employment of Local Candidates Act, or the Haryana Act, that reserves 75% of jobs in the private sector in the State for local residents. The Act applies to jobs that pay up to ₹30,000 per month, and employers have to register all such employees on a designated portal. The Government may also exempt certain industries by notification, and has so far exempted new start-ups and new Information Technology Enabled Services (ITES) companies, as well as short-term employment, farm labour, domestic work, and promotions and transfers within the State. The Act was enacted in February 2021, and brought into effect in January 2022. Last week, the Punjab and Haryana High Court admitted a petition challenging the constitutionality of the Act, and stayed the implementation until it heard the case. The petition in the Supreme Court is by the Haryana government to remove the stay.

At the core of the issue

Other States such as Andhra Pradesh and Jharkhand have passed similar Bills. The Andhra Pradesh legislation has been challenged in the Andhra Pradesh High Court. These Acts raise

several constitutional questions. The Supreme Court will first have to decide whether it will wait for the High Courts to decide the respective cases (and then hear any appeal), or whether it will draw the cases to itself as similar substantial constitutional issues are pending across High Courts. There are at least three important constitutional questions that arise from this Act. First, Article 19(1)(g) of the Constitution guarantees freedom to carry out any occupation, trade or business. There may be reasonable restrictions "in the interests of the general public", and in particular related to specifying any professional or technical qualifications, or to reserve a sector for government monopoly. This Act, by requiring private businesses to reserve 75% of lower end jobs for locals, encroaches upon their right to carry out any occupation. In 2002, in the T.M.A. Pai Foundation case, the Supreme Court stated that private educational institutions have autonomy in their administration and management. In 2005, in the P.A. Inamdar case, it said that reservation cannot be mandated on educational institutions that do not receive financial aid from the state, as that would affect the freedom of occupation. In 2005, the Constitution was amended to allow reservation in private educational institutions for socially and educationally backward classes and Scheduled Castes and Scheduled Tribes. Note that this amendment applies to admissions in private educational institutions and not to jobs in the private sector. Second, the provision of reservation by virtue of domicile or residence may be unconstitutional. Article 16 of the Constitution specifically provides for equality of opportunity for all citizens in public employment. It prohibits discrimination on several grounds including place of birth and residence. However, it permits Parliament to make law that requires residence within a State for appointment to a public office. Note two points here. This enabling provision is for public employment and not for private sector jobs. And the law needs to be made by Parliament, and not by a State legislature.

Point of a 'special case'

There have been several cases related to public employment. For example, the Supreme Court, in 2002, ruled that preference given to applicants from a particular region of Rajasthan for appointment as government teachers was unconstitutional. It said that reservations can be made for backward classes of citizens but this cannot be solely on account of residence or domicile. In 1995, Rules in Andhra Pradesh that gave preference to candidates who had studied in the Telugu medium were struck down on grounds that it discriminated against more meritorious candidates. The third question is whether 75% reservation is permitted. In the Indra Sawhney case in 1992, the Supreme Court capped reservations in public services at 50%. It however said that there may be extraordinary situations which may need a relaxation in this rule. It gave examples of far-flung and remote areas, where the population may need to be treated in a different way. It also specified that "in doing so, extreme caution is to be exercised and a special case made out". That is, the onus is on the State to make a special case of exceptional circumstances, for the 50% upper limit on reservations to be relaxed. This question has arisen in several cases later. Telangana (2017), Rajasthan (2019) and Maharashtra (2018) have passed Acts which breach the 50% limit. The Maharashra Act, which provided reservations for Marathas was struck down by the Supreme Court in May 2021 on grounds of breaching the 50% limit. It stated that the 50% limit is "to fulfil the objective of equality", and that to breach the limit "is to have a society which is not founded on equality but on caste rule".

Affects equality

The Haryana Act does not further "caste rule" as it is for all residents of the State irrespective of caste but it breaches the notion of equality of all citizens of India. Again, note that all these cases relate to either public employment or to admissions to educational institutions, while the Haryana Act is about private sector employment. However, one may contend that any reservation

requirement imposed on the private sector should not be higher than the limits on the public sector. Over the last three years, three States have enacted laws that limit employment for citizens from outside the State. These laws raise questions on the conception of India as a nation. The Constitution conceptualises India as one nation with all citizens having equal rights to live, travel and work anywhere in the country. These State laws go against this vision by restricting the right of out-of-State citizens to find employment in the State. This restriction may also indirectly affect the right to reside across India as finding employment becomes difficult. If more States follow similar policies, it would be difficult for citizens to migrate from their State to other States to find work.

Another fallout

There would be adverse economic implications of such policies. Other than potentially increasing costs for companies, there may also be an increase in income inequality across States as citizens of poorer States with fewer job opportunities are trapped within their States. There may also be serious consequences to the idea of India as a nation. Can people across States imagine themselves as citizens of one nation if they cannot freely find work and settle down across the nation? The courts, while looking at the narrow questions of whether these laws violate fundamental rights, should also examine whether they breach the basic structure of the Constitution that views India as one nation which is a union of States, and not as a conglomeration of independent States.

HARYANA CABINET NOD FOR ANTI-CONVERSION BILL

The Haryana Cabinet on Tuesday approved the draft of the Haryana Prevention of Unlawful Conversion of Religion Bill, 2022, which seeks to prohibit religious conversion effected through misrepresentation, force, undue influence, coercion, allurement or by any fraudulent means or by marriage or for marriage, by making it an offence. According to the draft Bill, the burden of proof "lies on the accused". The draft Bill will now be tabled before the Assembly, an official statement said.

Higher punishment

The Bill, on the lines of recent anti-conversion laws passed in other States, proposes to make conversion by marriage an offence. It also prescribes higher punishment for conversion of minors, women, and members of the Scheduled Castes and the Scheduled Tribes. The draft Bill's statements of objectives and reasons read, "The Constitution confers on each individual the fundamental right to profess, practise and propagate his religion. However, the individual right to freedom of conscience and religion cannot be extended to construe a collective right to proselytize; for the right to religious freedom belongs equally to the person converting and the individual sought to be converted."

'Hidden agenda'

It added that there have been umpteen cases of religious conversions, both mass and individual. "Obviously, such incidents have been hotly debated, more so in a multi-religious society, such as ours. The presence of pseudo-social organisations with a hidden agenda to convert the vulnerable sections of other religions. There have been instances when gullible people have been converted by offering allurement or under undue influence. Some have been forced to convert to other religions." It pointed out that in the recent past, there have been instances where to increase the strength of their own religion by getting people from other religions converted, people marry

persons of other religion by either misrepresentation or concealment of their own religion and after getting married they force such other person to convert to their own religion. "Such incidents not only infringe the freedom of religion of the persons so converted but also militate against the secular fabric of our society that conversion just for the purpose of marriage is unacceptable," the draft Bill said. The burden of proof as to whether a conversion was not affected through misrepresentation, use of force, under threat, undue influence, coercion, allurement or by any fraudulent means or by marriage or for marriage for the purpose of carrying out conversion lies on the accused, it noted. Every individual converting from one religion to another shall submit to the prescribed authority a declaration that the conversion effected through was not misrepresentation, use of force, under threat, undue influence, coercion or by any fraudulent means or by marriage or for marriage and such authority shall make an inquiry in such cases. Besides, the draft Bill provides for declaring marriages null and void, which were solemnized by concealment of religion.

RIGHTS OF THE WEAK, DUTIES OF THE POWERFUL

Rights and duties are conceptually linked to one another. There are no rights without duties. If a person has the right to something, it necessarily implies that someone else has a corresponding duty to ensure that it is not violated. For example, if an individual has a right to free speech, then it is the duty of the state to prevent its infringement. Or take the right to religious freedom of, say, American Hindus. Other groups, regardless of numbers or social power, have a duty not to infringe it. If they ever fall short of space for worship, the government should help fix that problem, facilitate its possession or use by Hindus. Isn't it a shame then that in Gurugram only the Sikhs felt duty-bound to help ordinary Muslims offer namaz? If I have rights which impose duties on others, then others also have rights that enforce duties on me. Individuals have as many duties as rights. Any individual who demands a right and expects others to allow or facilitate its exercise must also expect that she is equally duty-bound to reciprocate. This is so simply because, like her, all others have rights too. We are all rights- as well as duties-bearing individuals. I hope it is abundantly clear that rights entail duties, that rights cannot be exercised without the simultaneous performance of duties. Because of their grounding in rights, these (rights-based) duties cannot be pitted against rights. No opposition between them exists. To say here that we must focus on duties rather than on rights makes no sense. What then could be meant by the proposition that we must move away from a rights-based to a duty-based perspective?

Duties against rights

It should be obvious that the framework of rights and duties discussed above is grounded in egalitarian assumptions. However, the moment we drop this assumption, this whole picture of rights and duties is transformed. To be sure, the conceptual relation between rights and duties remains unbroken. Rights continue to entail duties, but in deeply hierarchical, inegalitarian societies, only a few people have rights, while the many have duties to ensure the proper exercise of the rights of these few. In patriarchal families, the father alone has the right to take decisions. This puts all other members under a duty to abide by his decision. Remember Amrish Puri in Dilwale Dulhania Le Jayenge? He decides, without consultation, that Simran, played by Kajol, is to be married to the son of his friend in a Punjabi village. And Simran has no choice but to obey, to leave her home in London and settle in India. The mother, sympathetic to Simran, is also duty-bound not to object to the father's decision. Much the same is true of caste-ridden societies. It is a misconception that the ancient Hindu Varna Vyavastha has only duties and no rights. The duties of Shudras and Ati-shudras to serve people of higher rank flow from rights possessed exclusively

by upper castes. A hierarchical caste system distributes rights and duties unequally. Only a few have the most important rights — the right to be served, for instance; the larger population has corresponding duties to ensure that these rights are exercised without hindrance. Any infringement on the rights of the upper caste, especially the Brahmin, brings heavy penalties to the violator, sometimes even death. Similarly, in many Islamic societies, rights and duties are gender-specific, and unequal. It is the right of men to have their testimony in the court weigh twice as much as that of women who are duty-bound to comply. In absolute monarchies, the King has unrestricted rights and all others have corresponding duties which increase as we go down the ladder of political hierarchy. Those at the bottom have the maximum number of duties towards the maximum number of people, all ranked higher than them. Talk of priority of duties over rights is rampant in inegalitarian societies. When people are asked to forget about rights and think more about duties, the subtext is that they should forget about caring for their own rights and concentrate on their duties to the few. In hierarchical, inegalitarian societies, where power is unevenly distributed, duties are often seen in opposition to rights. Careful attention to the structure of rights and duties in inegalitarian societies reveals its deep connection to social and political power. Those in power have rights; those without it have duties. A transformation from a hierarchical to an egalitarian order does not produce a power-free order. Instead, at least in principle, such change generates a democratic distribution of power. It is this equality of power that ensures a system of equal rights and duties. Indeed, in egalitarian polities, more power means more duties. The powerless have rights, the powerful have duties. For example, it is the duty of the state to ensure that there is no poverty, disease or unemployment. In this context, any move to shift focus from rights to duties, to complain of undue emphasis on rights breeds the suspicion that democracy is being undermined and hierarchy reintroduced through the backdoor.

Duties beyond rights

However, one cannot altogether deny the importance of a moral discourse that asks people to attend to duties. For, quite simply, duties that do not oppose rights exist and they do not flow from rights but go beyond them. Let us take an example. A surgeon performs an operation. He does his job efficiently and believes that once done, he is under no obligation to be present in the hospital or talk to the family of the patient. Now, consider another surgeon who after performing the operation feels compelled to interact with the patient, placate the anxieties of his family. Abandoning an impersonal stance, he brings warmth to his interaction. His act flows from duties that are integral to his character, to the goodness of his heart, to his personal virtues, to his commitment to warm social relationships, and does not flow from any right of the patient. To be sure, the patient and the family have the right to the surgeon's full attention when he is performing the operation. A failure to do so would mean an obvious violation of the patient's right. But no right of the patient or his family is violated if the surgeon does not go that extra mile to personally reassure the patient and his family. A society with people who take such virtue-based, solidarity-infused duties seriously is much better than one where such duties are not valued. If that is the case, it is good to ask people to go beyond rights and to think also of their duties to others, and more generally to society. We all have a duty to build a tolerant society, or to remain vigilant against potential wrongs of our elected rulers. These duties are not antagonistic to rights; they are moral, non-justiciable. Many such duties are mentioned in our Constitution: to preserve composite culture, not destroy natural environment, develop scientific temper, safeguard public property, protect India's sovereignty and integrity. None of them are legally enforceable but they impose an obligation on all citizens, especially on those who occupy public office, to go beyond the call of rights-based duties.

ANGER IN DIPLOMACY

The advent of social media has no doubt changed how diplomacy is conducted between countries. Even so, it was surprising that the MEA and the Commerce Ministry put as much energy as they did into ensuring that several multinational companies retracted social media posts their Pakistani distributors had put out last week. The posts, that appeared to be part of a coordinated exercise sponsored by the Pakistani establishment, were put out on February 5 — marked in Pakistan as "Kashmir Solidarity Day" — and contained what New Delhi termed as highly offensive messages calling for "Kashmiri liberation". The Government's outrage was valid, given that these companies, including Hyundai, Toyota, KFC, Pizza Hut, and pharma major Schwabe, also have flourishing businesses in India, and it was strange that private MNCs would post such politically charged messaging at all. However, where a sharp word or even a short statement of disapproval would have sufficed, the Modi government decided to go the whole distance: even summoning the Korean Ambassador while ensuring that Indian embassies took up the issue with other governments. External Affairs Minister S. Jaishankar also raised the matter with his Korean counterpart, who apologised to the Indian people. Commerce Minister Piyush Goyal added in Parliament that the original apology by Hyundai India was not adequately "forceful or unequivocal", even as social media consumers in India threatened to boycott products made by the companies concerned. While the Government might feel it has achieved its purpose by ensuring the companies and governments involved were contrite about the posts, it must also consider the big picture of how its actions, that appear to be at some variance with those of a secure and powerful global player, are viewed in the rest of the world. India's claims over Jammu and Kashmir are strong, and widely acknowledged, and not so fragile that a few social media posts, that appeared only in Pakistan, can dent in any way. Second, holding foreign governments in democratic countries to account for the actions of the local distributors of their private companies could have unforeseen repercussions. It is also worth considering whether the Foreign Ministry's resources are better spent in furthering India's interests than on expending diplomatic capital on short-lived controversies such as the MEA's objection to pop star Rihanna's posts on the farmer protests last year. The apologies and statements thus extracted may prove to be a pyrrhic victory, if one considers that the intentions of those behind the obnoxious posts in Pakistan, aimed at drawing attention to their propaganda on Kashmir, were also met. A quiet word with the MNCs might have worked better than a public display of diplomatic opposition.

REDRAWING THE ELECTORAL MAP OF THE UNION TERRITORY OF J&K

The three-member J&K delimitation commission, headed by retired Supreme Court (SC) judge Justice Ranjana Prakash Desai, has submitted its interim report to its five associate members, which included three Members of Parliament (MP) of the National Conference (NC) and two MPs of the BJP. This paves way for the winding up of the exercise and likely announcement of elections in J&K, directly ruled by the Centre since the BJP withdrew from the coalition Government with the Peoples Democratic Party (PDP) in 2018.

What is the role of the delimitation commission?

The delimitation commission is an independent body constituted under Article 82 after the Parliament enacted a Delimitation Act after every census. Interestingly, the J&K delimitation commission has not been clear to the associate members about the census report that was made as a base to carve out new constituencies in the Union Territory (UT).

How many seats have been added?

The Commission has, as per the mandate granted under the J&K Reorganisation Act, 2019, added seven assembly constituencies to J&K, increasing its strength from 87 to 90. The interim report proposes an increase of six seats for the Jammu province, taking the number of constituencies to 43, and an increase of one seat in the Kashmir province, taking the seat strength to 47, almost bringing the two regions at par with each other. In Kashmir, Kupwara district has been granted an additional seat and in the Jammu region Kathua district gets one additional seat, Samba gets one, Doda gets one, Rajouri gets one, Kisthwar gets one and Udhampur gets one. Of six seats, three assembly segments are from the Muslim-majority Chenab Valley and Pir Panjal valley, while three are in the Hindu Jammu-Samba-Kathua belt. The Commission has also proposed to reserve seven seats for Scheduled Castes (SCs) Hindus that mainly populate the Samba-Kathua-Jammu-Udhampur belt and nine seats for Schedule Tribes (STs) which will help Gujjar and Bakerwals, mostly non-Kashmiri speaking Muslims inhabiting the Rajouri-Poonch belt in the Jammu province. Prior to the Centre's move to end J&K's special constitutional position on August 5, 2019, the erstwhile State had an 87-member assembly, with 37 constituencies in the Jammu region and 46 in the Kashmir division and four in Ladakh . Besides, 24 seats are reserved and vacant for Pakistan occupied Kashmir (PoK).

Have the constituencies been reconfigured?

The Commission has suggested redrawing of boundaries of most of the Assembly segments in J&K. It has named and reconfigured 28 new constituencies and deleted 19 assembly segments. The Commission has also proposed reframing of Lok Sabha constituencies, with J&K having five parliamentary constituencies, which included three seats from Kashmir and two from Jammu. It has proposed a Lok Sabha seat, disjointed geographically, by merging three districts of south Kashmir and two districts of Rajouri and Poonch in the Pir Panjal valley. It will be named Anantnag-Rajouri seat, which will comprise a significant population of the non-Kashmiri speaking Schedule Tribe assembly segments.

What has been the response from regional actors?

This seat sharing was criticised by regional parties in Kashmir, including the NC and the PDP, on the grounds that the Kashmir province has more population at 68.88 lakhs against 53.50 lakhs in the Jammu province. However, the commission argued that it has taken into account the topography, means of communication and convenience available and not just the population size. According to the NC, whose MPs first boycotted and later joined the delimitation exercise, none of the suggestions made to the commission had been respected. It has maintained that the J&K Reorganisation Act, 2019 was "palpably unconstitutional" and has already challenged the J&K Reorganisation Act in the Supreme Court. The party reiterated that the delimitation be carried out after 2026, as ordered by the Supreme court, after the relevant figures of the census were published. It also questioned the formula applied in case of J&K by the commission. CPI(M) leader Mohamad Yousuf Tarigami termed the Commission's report "an arbitrary overhaul, with no regard for even the terrain, let alone the population that tends to be a basic parameter for redrawing the boundaries of assembly and parliamentary segments.

STRICTER POLICY FOR ACCREDITATION OF JOURNALISTS, AND THE CONCERNS

The government has issued a new policy on accreditation of journalists, introducing an entire section about reasons that can result in the suspension of the accreditation.

What has changed?

The new policy, prepared by the Ministry of Information and Broadcasting (I&B) and issued by the Press Information Bureau, lays down guidelines on how PIB accreditation will be granted to eligible journalists. At the moment there are 2,457 PIB-accredited journalists in the country. For the first time, it specifies conditions that can result in the journalist losing accreditation. If a journalist "acts in manner which is prejudicial to the sovereignty and integrity of India, the security of the state, friendly relations with foreign states, public order, decency or morality or in relation to contempt of court, defamation or incitement of an offence", her accreditation can be cancelled. The previous policy, issued in 2013, had stated, under general terms of accreditation, that accreditation "shall be withdrawn as soon as the conditions on which it was given cease to exist. Accreditation is also liable to be withdrawn/suspended if it is found to have been misused". The new policy has ten points that may result in the accreditation being cancelled, including if a journalist is charged with a "serious cognisable offence".

What concerns does this raise?

One of the core responsibilities of a journalist is to expose wrong doing, whether by public officials, politicians, big businessmen, corporate groups, or other people in power. This could result, at times, in such powers trying to intimidate journalists or to block in formation from coming out. A common tool used by powerful people is filing of defamation cases against journalists and media platforms. Now, defamation has been made one of the provisions that can lead to cancellation of accreditation. Journalists often report on issues and policy decisions that the government may not like. The new policy's provision about acting "in manner which is prejudicial to the sovereignty and integrity of India, the security of the state, friendly relations with foreign states, public order, decency or morality" or "incitement of an offence" can be subjective. The policy is silent on who will decide if a journalist's conduct violates any of these conditions. Any investigative story on sensitive issues could be held to be in violation of any of these provisions.

Who is eligible for accreditation?

There are multiple categories. But a journalist needs to have a minimum five years' professional experience as a full-time working journalist or a camera person in a news organisation, or a minimum of 15 years as a freelancer to become eligible. Veteran journalists, with over 30 years of experience, and who are older than 65 years of age, too are eligible. Accreditation is only available for journalists living in the Delhi NCR region. A newspaper or a periodical need to have a minimum daily circulation of 10,000, and news agencies must have at least 100 subscribers. Similar rules apply for foreign news organisations and foreign journalists. The policy has introduced a provision that journalists working with digital news platforms are also eligible, provided the website has a minimum of 10 lakh unique visitors per month. Applications for accreditation are vetted by a Central Press Accreditation Committee headed by the DG, PIB. After a journalist applies, a mandatory security check is conducted by the Home Ministry, which includes police verification of the journalist's residence.

How does accreditation help?

The policy mentions that the accreditation does not "confer any official or special status" on the journalists, but only recognises them as a "professional working journalist". There are three advantages. One, in certain events where VVIPs or dignitaries such as the President, the Vice President or the Prime Minister are present, only accredited journalists are allowed to report from

the premises. Second, accreditation ensures that a journalist is able to protect the identity of his or her sources. An accredited journalist does not have to disclose who he or she intends to meet when entering offices of union ministries, as the accreditation card is "valid for entry into buildings under MHA (Ministry of Home Affairs) security zone". Third, accreditation brings certain benefits for the journalist and his or her family, like being included in the Central Government Health Scheme, and some concessions on railway tickets.

Have governments tried to put similar curbs earlier?

Several governments have tried, but have had to usually withdraw. In 2018, during its first term, the NDA government introduced Fake News Guidelines, proposing that a journalist's accreditation can be suspended and even permanently cancelled, if media regulatory bodies adjudge that the journalist had propagated fake news. The order was withdrawn. In 2017, the Rajasthan government brought in a Bill to protect state officials from "scurrilous and non-substantiable charges". It entailed a jail term for a maximum of two years and a fine. The Bill was withdrawn. In 2012, during the UPA regime, Congress leader Meenakshi Natarajan wanted to introduce a Private Member's Bill in Lok Sabha, which proposed setting up a media regulatory authority with powers to ban or suspend coverage of an event or incident that "may pose a threat to national security from foreign or internal sources". Eventually Natarajan did not introduce the Bill, and her party too distanced itself from it. Former Prime Minister Rajiv Gandhi, whose government was rocked by corruption allegations, had proposed a defamation Bill in 1988, which would "make publication of imputations falsely alleging commission of offences by any person as an offence." The Bill, eventually withdrawn, proposed a jail term of upto five years for defamation.

MOTION OF ATTACK

With elections in five states beginning in days, grandstanding in Parliament, in these bitterly divided times, is par for the course. Some gloves will be off, some mud will fly. But Prime Minister Narendra Modi's speeches in the debate on the Motion of Thanks to the President's address in Lok Sabha and Rajya Sabha became an all-out attack on the Opposition, primarily the Congress, rather than a response to a range of concerns flagged across the aisle. His takedown of the Congress raised valid points, from its imperious past to its shrinking present, its ideological muddle over business and industry, and the hollow ring of its holier-than-thou sermons on federalism and freedom. Yet, in the manner in which he framed his attack, the Prime Minister's shrill tone betrayed anger, impatience, and irritation with criticism. He was right to say that andhvirodh, blind opposition, is anaadar, disrespect to democracy, but as disrespectful — and corrosive — is for the Government to frame all criticism by the Opposition in terms of an assault on the country and not engage with it. So a complaint about the Centre not listening to states became a sinister plot to light a fire, Tamil Nadu's reservations over the national entrance test, got conflated with the tragic accidental death of India's Chief of Defence Staff, as the Prime Minister accused the Opposition of trying to divide the country (vibhajankari maansikta), called the principal opposition party the leader of the "tukde-tukde gang" and under the influence of "urban Naxals". Both these monikers, by the way, have been invented and weaponised by the BJP to name and shame its critics as seditious, anti-national actors. In his attempt to paint the Congress as a member of the extremist fringe, the PM, perhaps, forgot that his targets include Members of Parliament elected by people and sworn in on the Constitution. They are as much representatives of this nation as the PM and his MPs. To corner the Opposition, the PM offered a narrative on Covid management in the country which flies in the face of facts. He accused Opposition-run state governments of instigating migrant workers to leave the state and thus help spread Covid! The

sudden lockdown which rendered many jobless, the lack of a financial safety net, the fear of the unknown, all worked together to set off a humanitarian crisis with migrants and their families hitting the road to trudge to the familiar assurances of their villages. Thousands of unemployed young men and women in election-bound UP and other states have faced the brunt of Covid distress. For the PM to tell them that the "Opposition's sin" is to blame for their plight is cynical politics and an attempt to brush the second-wave mismanagement under the rhetorical carpet. This, when the success of the vaccine programme is a formidable achievement by Centre and states working together, and the battle against Covid has been and is being fought by both — the PM himself made it a point to mention the 23 meetings he had with CMs. At the end of his speech, the PM tried to reach out to the Opposition with a pitch to "move in harmony, speak in one voice, let minds be in agreement" (samgacchadhwam samvadadhwam/ sam vo manamsi janatam). Eloquent words, but given the tone of what preceded them, they are unlikely to resonate beyond the thumping of desks in the Treasury benches.

POLITICS AND HISTORY IN GOA

PM has raked up a 6-decade-old debate on Nehru's decisions during Portuguese rule to accuse Congress of apathy towards Goa. What happened during Goa's liberation struggle, and in what national & global context?

WITH GOA going to polls on Monday, it is time for politics to confront history again, and Prime Minister Narendra Modi has set the tone.

"Goa was liberated 15years after India attained freedom. Pandit [Jawaharlal] Nehru felt that if he launched a military operation to oust the colonial rulers from Goa, his image as a global leader of peace would be impacted," he said in Rajya Sabha on February 8.

Modi quoted from Nehru's 1955 Independence Day speech, holding the nation's first Prime Minister guilty of leaving satyagrahis in the lurch, refusing to send the Indian Army to liberate Goa, even after 25 of them were shot dead by the Portuguese Army on the Goa Maharashtra border.

The following day, Home Minister Amit Shah and Defence Minister Rajnath Singh said in campaign speeches that if he wanted, Nehru could have liberated Goa in 1947 itself, and local BJP units circulated social media posts amplifying the message.

On Thursday, the Prime Minister during a brief campaign in Goa repeated his attack on Nehru, painting him and the Congress as callous and uncaring in their attitude towards the state and its people.

Goa's freedom movement

Goa became a Portuguese colony in 1510, when Admiral Afonso de Albuquerque defeated the forces of the sultan of Bjiapur, Yusuf Adil Shah. The next four and a half centuries saw one of Asia's longest colonial encounters —Goa found itself at the intersection of competing regional and global powers and religious and cultural ferment that would lead eventually to the germination of a distinct Goan identity that continues to be a source of contestation even today.

By the turn of the twentieth century, Goa had started to witness an upsurge of nationalist sentiment opposed to Portugal's colonial rule, in sync with the anti-British nationalist movement in the rest of India. Stalwarts such Tristão de Bragança Cunha, celebrated as the father of Goan

nationalism, founded the Goa National Congress at the Calcutta session of the Indian National Congress in 1928. In 1946, the socialist leader Ram Manohar Lohia led a historic rally in Goa that gave a call for civil liberties and freedom, and eventual integration with India, which became a watershed moment in Goa's freedom struggle.

At the same time, there was a thinking that civil liberties could not be won by peaceful methods, and a more aggressive armed struggle was needed. This was the view of the Azad Gomantak Dal (AGD), whose cofounder Prabhakar Sinari is one of the few freedom fighters still living today.

As India moved towards independence, however, it became clear that Goa would not be free any time soon, because of a variety of complex factors. The trauma of Partition and the massive rupture that followed, coupled with the war with Pakistan, kept the Government of India from opening another front in which the international community could get involved. Besides, it was Gandhi's opinion that a lot of groundwork was still needed in Goa to raise the consciousness of the people, and the diverse political voices emerging within should be brought under a common umbrella first.

There were also questions with regard to the mode of protest to be followed. In her thesis 'Goa's Struggle for Freedom,1946-61: The Contribution of National Congress Goa and Azad Gomantak Dal', historian Dr Seema Risbud highlighted the dichotomies within the groups fighting for freedom in Goa, and argued that satyagraha had its limitations against a totalitarian regime. This point appears to have been validated by the success of the militant role played by the AGD in the liberation of Dadra and Nagar Haveli, another Portuguese enclave (albeit with the covert support of Indian authorities, as some have suggested).

Nehruvian dilemma

It was apparent that Nehru was prepared for the long haul in Goa, perhaps trying to exhaust all options available to him given the circumstances that India was emerging from, and where he was headed in shaping India's position in the comity of nations. Portugal had changed its constitution in 1951 to claim Goa not as a colonial possession, but as an overseas province. The move was apparently aimed at making Goa a part of the newly formed North Atlantic Treaty Organisation (NATO) military alliance — so the collective security clause of the treaty would be triggered in the event of an attack by India or any other nation—but this was not acceptable to other NATO member countries.

Nehru saw it prudent to pursue bilateral diplomatic measures with Portugal to negotiate a peaceful transfer while, at the same time, a more 'overt' indigenous push for liberation — one that would strengthen India's moral argument—gathered momentum. His 1955 Independence Day speech—cited by Modi in Rajya Sabha — criticising the satyagrahis who were trying to cross the border did demoralise the diverse pan India group of liberation fighters comprising socialists, communists, and the RSS. But the firing incident also provoked a sharp response from the Government of India, which snapped diplomatic and consular ties with Portugal in 1955.

The obvious question that arises is, if things had reached such a stage in 1955,why did Nehru wait until December 1961 to launch a full-scale military offensive, even though India continued to raise the issue of Goa at various levels and fora?

DP Singhal, who was apolitical scientist at the University of Queensland at the time, provided a clue in his paper 'Goa: End of An Epoch', published in The Australian Quarterly in March 1962. With India firmly established as a leader of the Non Aligned World and Afro Asian Unity, with

decolonisation and anti-imperialism as the pillars of its policy, it could no longer be seen to delay the liberation of Goa. An Indian Council of Africa seminar on Portuguese colonies organized in October 1961 heard strong views from African delegates who argued that India's policy of going slow on the Goa question was hampering their own struggles against the ruthless Portuguese regime. The delegates were certain that the Portuguese empire would collapse the day Goa was liberated.

The rest, as they say, is history. Goa was liberated on December 19, 1961 by swift Indian military action that lasted less than two days.

The debate in 2022

Politics needs to be charitable to history, because at some point it would be put to the same scrutiny and judgment as it becomes history itself.

Sinari, the lone surviving member of the AGD, whose sense of history and political instincts have not been blunted by age and failing health, says attempts at political pointscoring around incidents that took place in a certain historical context more than six decades ago, only diverts attention and focus from pressing current issues.

Goa has seen 60 years of eventful liberation and successful amalgamation in the Indian Union. It is more important for it to look ahead to its future than to rapidly receding, increasingly dim images in the rear-view mirror.

GOVERNOR'S POWERS, FRICTION WITH STATES, AND WHY THIS HAPPENS OFTEN

Last week, West Bengal Chief Minister Mamata Banerjee blocked Governor Jagdeep Dhankhar on Twitter. She said she was "forced" to do so because of his "unethical and unconstitutional" statements and accused him of treating government officials like "his servants". Dhankhar responded with a series of tweets on the "essence and spirit of democracy" and saying the CM's move was "against constitutional norms". Days earlier, the TamilNadu government had taken exception to Governor R N Ravi's Republic Day speech articulating the benefits of NEET, the medical entrance exam. Tamil Nadu has passed a Bill to exempt the state from NEET; Ravi has sent it back to the state. These are two of many examples of bitterness between states and Governors.

What is the law on 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, or determining the time needed for a party to prove its majority, or which party must be called first do so, generally after a hung verdict in an election. There are, however, no provisions laid down 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 have been the friction points?

In recent years, these have been largely about the selection of the party to form a government, deadline for proving majority, sitting on Bills, and passing negative remarks on the state administration. In November 2018, then J&K Governor Satyapal Malik dissolved the Assembly amid indications that various parties were coming together to form the government. This paved

the way for the Centre to later bifurcate state into two Union territories, by considering the Governor as the government. In November 2019, after a hung verdict in Maharashtra, Governor Bhagat Singh Koshiyari quietly invited BJP leader Devendra Fadnavis and administered him oath as CM. This government lasted just 80 hours. Six months later, Koshiyari refused to nominate CM Uddhav Thackeray to the Legislative Council, leading Thackeray to meet PM NarendraModi to resolve the issue. In West Bengal, Dhankhar has often commented on law and order and political violence. Ravi, in his previous stint as Nagaland Governor, had criticised affairs of the state and allegedly interfered in administration. In December 2020, Kerala Governor Arif Mohammed Khan turned down a request to summon a special sitting of the Assembly to debate the three central farm laws. Following the Karnataka polls in 2018, Governor Vajubhai Vala invited the BJP to form the government and gave B S Yeddyurappa 15 days to prove majority. Challenged by Congress and JDS in the Supreme Court, it was reduced to three days.

Is such friction recent?

Allegations of the Centre using the Governor's position to destabilise state governments have been made since the 1950s. In 1959, Kerala's E M S Namboodiripad government was dismissed based on a report by the Governor. Several state governments have been dismissed since then, including 63 through President's Rule orders issued by Governors between 1971 and 1990. These have include the Birender Singh government in Haryana (1967); Virendra Patil government in Karnataka (1971); M Karunanidhi government in Tamil Nadu (1976); B S Shekhawat government in Rajasthan and SAD government in Punjab (1980); Janata Party governments in UP, Odisha, Gujarat and Bihar (1980); N T Rama Rao government in Andhra in (1984); and Kalyan Singh governments in UP (1992,1998). These became less frequent during the coalition era at the Centre and the emergence of strong regional parties.

Why does this happen?

"Because Governors have become political appointees," said NALSAR chancellor and constitutional expert Faizan Mustafa. "The Constituent Assembly envisaged governor to be apolitical. But politicians become Governors and then resign to fight elections." Constitutional expert Alok Prasanna of Vidhi Centre for Legal Policy said: "The CM is answerable to the people. But the Governor is answerable to no one except the Centre. You can sugercoat it with ideas of constitutional morality and values, but the truth is there is a fundamental defect in the Constitution." There is no provision for impeaching the Governor, who is appointed by the President on the Centre's advice. While the Governor has 5-year a tenure, he can remain in office only until the pleasure of the President. In 2001, the National Commission to Review the Working of the Constitution, headed by retired CJI M N Venkachaliah and set up by the Atal Behari Vajpayee, said, "...because the Governor owes his appointment and his continuation in the office to the Union Council of Ministers, in matters where the Central Government and the State Government donot see eye to eye, there is the apprehension that he is likely to act in accordance with the instructions, if any, received from the Union Council of Ministers... Indeed, the Governors today are being pejoratively called the 'agents of the Centre'." In the Constitution, there are no guidelines for exercise of the Governor's powers, including for appointing a CM or dissolving the Assembly. There is no limit set for how long a Governor can withhold assent to a Bill.

What reforms have been suggested?

From the Administrative Reforms Commission of 1968 to Sarkaria Commission of 1988 and the one mentioned above, several panels have recommended reforms, such as selection of the

Governor through a panel comprising the PM, Home Minister, Lok Sabha Speaker and the CM, apart from fixing his tenure for five years. Recommendations have also been made for a provision to impeach the Governor by the Assembly. No government has implemented any of these recommendations.

AN EXTREME PROPOSITION

Hours after the Budget was presented, Telangana Chief Minister K. Chandrasekhar Rao raised a heated debate by floating the idea of rewriting the Constitution. Mr. Rao has been angry at what he perceives to be "step-motherly" treatment meted out by the Centre to the States. He floated the idea of introducing a new Constitution to remedy the situation as the existing Constitution, according to him, has been unable to do so. Addressing an unusually lengthy press conference, he said there is a Union List, State List, and Concurrent List in the Seventh Schedule of the Constitution. But the party in power at the Centre, whether the Congress or the BJP, is trying to usurp the rights guaranteed to the States. As expected, the idea attracted a lot of criticism. Mr. Rao's comments gave enough ammunition to the Opposition to project the TRS president and his party as "anti-Dalit". BJP and Congress leaders held separate demonstrations in support of the Constitution drafted by B.R. Ambedkar. BJP State President Bandi Sanjay Kumar said charges of sedition should be filed against the Chief Minister as his remarks had the potential of creating "social disorder". Telangana Congress President and MP A. Revanth Reddy said there seemed to be a nexus between the TRS and the BJP as the latter too has been working to change the Constitution for quite some time. There was scope for amending the Constitution, but the proposal to introduce an altogether new one showed Mr. Rao's disrespect for Ambedkar and the sections whose cause he championed, he said. BSP Telangana unit in-charge R.S. Praveen Kumar called the statement irresponsible. He said the formation of Telangana was possible only thanks to the Constitution. The TRS leaders hit back at the Opposition claiming that the thinking was not new. State Planning Board vice-chairman B. Vinod Kumar said that former Prime Minister Atal Bihari Vajpayee had appointed a commission to review the Constitution. Commissions have been formed in the past to examine certain provisions of the Constitution, he said. Former Central Information Commissioner Madabhushi Sridhar Acharyulu said there was nothing wrong with Mr. Rao's idea. Referring to the original draft of the Constitution, he said Ambedkar had made it clear that every Article can be replaced, added or amended. The Constitution drafted by Ambedkar has lost its shape as it has been amended many times. The Centre has been consistently trying to usurp the powers of the State, especially in the last seven years, he said. The gazette notifications issued by the Centre notifying the jurisdiction of the Godavari and Krishna rivers without consulting the riparian States is an example of how the Centre is trying to have its say in the State's affairs, he said. Notwithstanding Mr. Rao's apparent anguish at what he perceives to be overreach by the Centre, it is hardly infrequent to witness Centre-State conflicts of this sort. In recent years, issues such as the 15th Finance Commission, the GST, land acquisition policies and more have emerged as flashpoints between the Centre and States ruled by Opposition parties. The reality is that the Constitution has provided a mechanism for remedy of such conflicts in the form of Article 131, which accords to the Supreme Court original jurisdiction to deal with disputes between the Centre and any States. The application of Article 131 relates to the situation where the rights and power of a State or the Centre are in question. Before reaching for profoundly deep-rooted reform proposals such as the re-writing of the Constitution, Mr. Rao may find it more politically expedient to apply for legal recourse already made available to his government under existing laws.

NEET AND STATES

With the Tamil Nadu Assembly passing once again its earlier Bill seeking to exempt government seats in undergraduate medical and dental courses from the National Eligibility-cum-Entrance Test (NEET), the ball is once again in the court of Governor R.N. Ravi. The Governor had chosen to return to the House for reconsideration the Bill that was passed in September 2021, questioning the tenability of the Justice A.K. Rajan Committee Report that had given its findings in favour of the the passage of such a law. The DMK regime has thrown down the gauntlet as the Constitution is clear as far as the Governor's course of action is concerned. If the Bill is presented to him again, Mr. Ravi is constitutionally bound to grant assent. It is a matter of speculation whether the Bill will obtain presidential nod, but the episode raises a question whether the Governor could not have avoided the current situation by reserving the Bill for the President instead of returning it. After all, this is clearly a Bill that requires the President's acceptance — the exemption from NEET is in conflict with the central law that makes it mandatory and, therefore, can only be saved by the President's assent. Regardless of the Bill's merits, the Governor should delay the matter no further. The original intent of the Constitution makers was that the Governor, under Article 200, ought to have no discretion, save in the case of a law that undermines the position of the High Court, which he is bound to reserve for the President's consideration. However, the Governor's rare use of discretion to question the desirability or validity of a Bill, and ask for reconsideration is now a matter of constitutional practice. Some parts of the Governor's communication to the Legislative Assembly Speaker seem to suggest that Mr. Ravi disagrees with the basis for the Bill, even though he is not wrong in highlighting a Supreme Court decision in favour of NEET. It is not generally desirable for the Governor to seek to match wits with the legislature's wisdom on social inputs that inform policy. It will be useful to recall that the Sarkaria Commission on Centre-State relations observed that the Governor should not act contrary to the advice of the Council of Ministers merely because he did not like the policy embodied in the Bill. The attention will now be on whether the NEET Exemption Bill will pass muster. For one thing, the exemption may not be a solution to the problem of government school students not making it to MBBS courses in sufficient numbers. The situation prior to the introduction of NEET was no better. However, the issue of NEET being a barrier to access is genuine. There is no doubt that the mandatory nature of NEET on a pan-India basis undermines the role of State governments in medical education. As the main deliverers of public health, the States cannot be denied a say in who joins medical courses in government colleges.

COURT RULINGS ON HIJAB

The Karnataka High Court is hearing a clutch of petitions challenging the government order banning the hijab in government educational institutions. In an interim order on Thursday, the Bench led by Chief Justice Ritu Raj Awasthi said that no religious garments must be permitted on campuses until the court reaches a verdict. What are the key issues before the court, and how has the state defended the hijab ban?

What is the government order?

On February 5, the Karnataka government passed an order exercising its powers under Section 133(2) of the Karnataka Education Act, 1983. The provision grants powers to the state to issue directives for government educational institutions to follow. In 2013, under this provision, the state had issued a directive making uniforms compulsory for education institutions. Referring to the 2013 directive, the latest directive specifies that a headscarf is not part of the uniform. It states

that wearing a headscarf is not an essential religious practice for Muslims that can be protected under the Constitution. The order takes refuge in three cases decided by different High Courts to hold that banning the headscarf is not violative of fundamental rights, particularly freedom of religion. The petitioners, however, have argued that the facts and circumstances of the three cases are different and cannot be applied to the Karnataka case. This means that the High Court will have to first decide whether wearing a hijab is an essential religious practice.

What are these three cases?

The three cases cited in the government order are from the Kerala, Bombay and Madras High Courts.

Kerala High Court, 2018: In Fathima Thasneem v State of Kerala, a writ petition had been moved by Mohammad Sunir, the father of two minor girls aged 12 and 8. The petitioner challenged the school's denial of permission to wear full-sleeved shirts and a headscarf as it was against the prescribed dress code. A single-judge Bench of the Kerala High Court ruled in favour of the school which was a Christian Missionary school, a minority educational institution. The court said that "collective rights" of the school must be given primacy over individual rights of the students. In the current case in the Karnataka High Court, senior advocate Devadatt Kamath argued on Thursday that this case cannot be a valid precedent as it refers to a minority education institution as opposed to a government educational institution. Constitutionally, minority educational institutions have greater freedom to regulate their affairs.

Bombay High Court, 2003: In Fathema Hussain Sayed v Bharat Education Society, a minor student had challenged the school's prescribed dress code that did not allow the wearing of a headscarf. Since the minor girl attended an all-girls school, the Bombay High Court ruled against her, despite the argument that wearing a headscarf is an essential religious practice which must be protected under the Constitution. The High Court referred to relevant verses from the Quran and held that the book did not prescribe wearing of a headscarf before other women. "A girl student not wearing the head scarf or head covering studying in exclusive girls section cannot be said to in any manner acting inconsistent with the aforesaid verse 31 or violating any injunction provided in Holy Quran," the court held. In the Karnataka case, the petitioners have argued that even through the state government had cited this Bombay HC case to buttress the point that courts have refrained from interfering with prescribed dress codes for educational institutions, the current case actually supports the cause of the petitioners and not the state. Since the decision is in "the context of Muslim girls studying in an exclusively girls sections", the counsel for the petitioners argued that as a corollary, headscarves must be allowed in a co-education establishment.

Madras High Court, 2004: Sir M Venkata Subba Rao, Matriculation Higher Secondary School Staff Assn v Sir M Venkata Subba Rao, Matriculation Higher Secondary School was a case challenging the dress code imposed by the management of a school on teachers. Although the Madras High Court held that the imposition of the dress code had no statutory backing, it refused to interfere on the grounds that the teachers "should set high standards of discipline and should be a role model for the students". This ruling has no discussion on either wearing hijab or rights under Article 25 of the Constitution which guarantees religious freedom.

What are the other grounds on which the Karnataka government order has been challenged?

The petitioners have argued that wearing a hijab is an expression protected under Article 19(1)(a) of the Constitution which guarantees the right to freedom of speech and expression. Constitutionally, a right under Article 19(1)(a) can only be limited on the "reasonable restrictions" mentioned in Article 19(2). This includes sovereignty and integrity of India, friendly relations with foreign states, public order, decency or morality or in relation to contempt of courts, defamation or incitement to an offence. The petitioners have argued that a student silently wearing a hijab/headscarf and attending class cannot in any manner be said to be a practice that disturbs "public order" and is only a profession of their faith. The petitioners have also argued that the ban on headscarves violates the fundamental right to equality since other religious markers, such as a turban worn by a Sikh, are not explicitly prohibited. Senior advocate Sanjay Hedge, appearing for the petitioners, also argued that the rules prescribed wearing of a dupatta for women and the state cannot dictate the manner of wearing that dupatta if a student wishes to cover her head with it.

MAJORITARIANISM IS WEARING THE VEIL OF DEBATE

Along coastal Karnataka, many colleges have caved in to the demand by right-wing groups, including the Akhil Bharatiya Vidyarthi Parishad (ABVP), the student wing of the Bharatiya Janata Party (BJP), that Muslim women cannot be allowed to enter college wearing hijabs even if the headscarves match the colour of the college uniform. Instigated by the ABVP, Hindu students declared that they would wear saffron stoles if Muslim women wore hijabs. In response, the BJP government of Karnataka banned in campuses "clothes which disturb equality, integrity and public law and order". This decision draws its legitimacy from the Supreme Court's interpretation of Article 25(1) (all persons are equally entitled to freedom of conscience and the right freely to profess, practise and propagate religion) to the effect that "essential practices" of religions are protected from restrictions imposed by the state except to uphold "public order, morality and health". The Kerala High Court had held in Amnah Bint Basheer v. CBSE (2015) that the CBSE could not prevent a Muslim girl from writing her exams while wearing a hijab, on the grounds that the hijab is an "essential practice" in Islam and thus deserving of protection under Article 25 (1). On the other hand, the Kerala High Court, in Fathima Tasneem v. State of Kerala (2018), held that the court could not tell schools to allow Muslim girls to wear hijabs. It conceded that girls do have a fundamental right to wear a hijab, but concluded that their rights serve mere "individual interest", and must thus give way to the fundamental right of the educational institution's management to administer an institution as it wishes, since such a right serves "public interest".

The elephant in the room

These interpretations of "public interest" and "public order" and "essential practices" may not offer the best guidance at this current juncture, since they seem to be shutting their eyes to the elephant in the room: majoritarian Hindu supremacist intimidation which is holding hostage the fundamental rights of Muslim women to education and dignity. Hindu supremacists are achieving their demand that Muslim women can only study with their peers from other religions if they erase any appearance of 'Muslimness'. If Muslim women want to wear hijabs, says the BJP regime and its student stormtroopers, they can study in Muslim-run colleges. How can such an outcome be in public interest? Such an outcome will enable the agenda of segregation and isolation of Muslims and radicalisation of Hindus, which Hindu supremacist groups in coastal Karnataka have pursued for over a decade by violently coming down on interactions between Hindu and Muslim classmates, friends and lovers. Public interest is served here only by nurturing diversity in educational institutions: by allowing Hindu, Muslim, Christian students to learn to look beyond

their superficial differences and form lasting friendships. Majoritarian coercion and state-approved violence is wearing the veil of a "debate" over the "patriarchal" hijab. How hypocritical is it to point an accusing finger at the hijab as an offensive symbol of patriarchy when India's only woman Prime Minister Indira Gandhi as well as the country's only woman President Pratibha Patil both covered their heads in public – presumably in deference to the patriarchal expectations from women in public life in India? Can India's imagination then not accommodate a hijab-wearing Muslim woman as the country's Prime Minister or President? Can we not then unequivocally defend the right of Muslim women to attend college without having to be coercively stripped of the hijab? Whether the hijab is "essential" to Islam or not need not concern us; the fact is that hijabs are widely worn by Muslim girls and women in India and should not be stigmatised or banned. The false equivalence between the ABVP's saffron stoles and the Muslim women's hijabs is dangerous. Muslim women are not wearing hijabs to disrupt colleges or force any other group of students to adopt or give up any dress or practice. They are wearing hijabs with uniforms the same way Sikh men wear turbans, or Hindus wear bindis/tilak/vibhuti with uniforms. The ABVP has never worn saffron turbans to protest against Sikh turbans. They are singling out the Muslim hijab, and their saffron stoles — a political, not religious, garb worn by BJP and RSS followers all over India — are clearly motivated by Islamophobia. The constitutional freedom to practise religion should mean protection for a woman's freedom to interpret and practise her own religion in keeping with her own conscience. Religious institutions cannot be allowed to violate the constitutional rights and liberties of individual citizens in the name of their "freedom to practise religion" (see Sabarimala and instant triple talaq judgments); educational institutions cannot violate the rights of individual students in the name of their right to administer a school or college.

Pressure of patriarchy

Every day, girls and women across communities accommodate their family's patriarchal concerns to go to school or college. "Wear a hijab" is no different from "don't mix with boys, don't fall in love outside the caste or community, dress modestly" – injunctions a young woman will hear from her parents no matter which community she is from. Keeping women wearing hijabs from accessing education does not "empower" them, it only places added hurdles on this already thorny path. All women feel the pressure of patriarchy on their choice of clothing, no matter if it's a hijab or high heels; burqa or spaghetti-strap tops. Supporting the struggle of women in hijabs in Karnataka does not amount to endorsing the patriarchal notion that deems the pallu or hijab to be modest and other clothes to be "immodest". The point is that no institution should be allowed to shame us or discriminate against us for what we wear. Support women's struggles against the Taliban's imposition of the burqa and ban on "western clothes" in Afghanistan; support women's struggles against Hindu-majoritarian bans on the hijab or ban on "western clothes" in India. It is worth recalling here the ABVP's long track record of imposing dress codes on women, forbidding jeans for women and violently harassing couples on Valentine's Day. Its Hindu supremacist fellow travellers attacked women in 2009 for visiting a pub and dancing in "western" clothes. In the past year, they have held online auctions of Muslim women and made speeches at "Hindu nation conventions" calling for mass sexual enslavement and rape of Muslim women. It is a travesty for constitutional arguments of "public order" and "public interest" to be invoked to allow thugs to tell women what to wear. Today they have achieved a ban on the hijab. Tomorrow the government can falsely equate saffron-stole protests and women dancing at pubs or wearing skirts and "ban both" to keep public order.

THE INTERPRETATIVE ANSWER TO THE HIJAB ROW

A number of Muslim girl students in my home town of Udupi, Karnataka, have been refused entry into their college. The administration objects to them covering their heads with a hijab. The girls invoke the protection of the Indian Constitution, whose preceptor Dr. B.R. Ambedkar once wrote, "the world owes much to rebels who would dare to argue in the face of the pontiff and insist that he is not infallible". Udupi has a proud tradition of having rebels who have challenged established norms that have not stood the test of reason. In the 16th century, priests at the Krishna temple in Udupi prevented a lower caste devotee, Kanakadasa, from entering it. He refused to go away and began composing and singing kirtans from the courtyard outside, while waiting to secure a sight of the deity. Even after many days, the priests did not relent but a miracle intervened. The idol of the deity which until then faced eastwards, miraculously turned 180 degrees to face west, and then broke open a rear wall to create a window through which Kanakadasa could have his darshan. Even today all devotees have their first sight of the lord through Kanakadasa's window.

A focal point

Thus, it was only historically apt that one of the first great religious cases interpreted by the new Supreme Court, under the new Constitution, came from Udupi. In the Commissioner, Hindu Religious Endowments, Madras vs Sri Lakshmindra Thirtha Swamiar of Sri Shirur Mutt case, or Shirur Mutt, of 1954, the Court ruled, "....what constitutes the essential part of a religion is primarily to be ascertained with reference to the doctrines of that religion itself." Ever thereafter, the judgment in Shirur Mutt has remained the focal point of constitutional discussion on religious freedoms. The "essential religious practices" test appeased traditionalists by 'assuring them that the Court would be sympathetic to their respective religious faiths. It also supported state-sponsored reform by leaving one agency of the state — the judiciary — with the power to determine and pronounce upon (perhaps, transform) religious practice and belief'.

'Religious practice'

Since it was first propounded, the "essential religious practice" test has been problematic. How is the Court to determine what an 'essential practice' is? Should it 'rely on religious leaders'? Should it 'call for evidence'? Should judges 'pursue these questions on the basis of their own research'? Justice D.Y. Chandrachud in the Sabarimala case, bemoaned, "... compulsions nonetheless have led the court to don a theological mantle. The enquiry has moved from deciding what is essentially religious to what is an essential religious practice. Donning such a role is not an easy task when the Court is called upon to decide whether a practice does nor does not form an essential part of a religious belief. Scriptures and customs merge with bewildering complexity into superstition and dogma. Separating the grain from the chaff involves a complex adjudicatory function. Decisions of the Court have attempted to bring in a measure of objectivity by holding that the Court has been called upon to decide on the basis of the tenets of the religion itself. But even that is not a consistent norm." In the case of the hijab, there is no doubt that an observant Muslim woman might insist that the following verses from the Koran mandate her to keep her head covered. Chapter 33, Verse 59 says "O Prophet! Enjoin your wives, your daughters, and the wives of true believers that they should cast their outer garments over their persons (when abroad): That is most convenient, that they may be distinguished and not be harassed." Chapter 24, verse 31 is more explicit in decreeing, "And say to the believing women that they should lower their gaze...; that they should not display their beauty and ornaments except what (must ordinarily) appear thereof; that they should draw their khimār ... and not display their beauty except to their

husband, their fathers, their husband's fathers, their sons, their husbands' sons, their brothers or their brothers' sons, or their sisters' sons, or their women...."

A possible fallout

Questions of uniforms never troubled my five years of college in Udupi in the early 1980s. There was no requirement of uniforms. Subsequent administrators, in the 1990s, may have decreed uniforms to prevent competition amongst fashion-conscious teenagers. Today, there is no one uniform code which is mandated throughout the State. Individual colleges do decree uniforms, but not necessarily the manner of wearing them. An unfortunate side-effect of the current controversy may well be a State administrative order decreeing uniforms for all college students throughout the State of Karnataka. That to my mind would be a killjoy response of an administration that prioritises uniformity over diversity. In the absence of a statutory uniform code, a court may well ask whether a head covering mandated by some religions, when worn in addition to the uniform, violates any legal tenet. Would the same standards that banish a female hijab apply to a turban worn by a male Sikh student? Can government colleges deny education to students who are seen to be violating a uniform code? Is the hijab or even a full covering in any manner violative of the process of imparting education? Can a government committed to female education deny education to those it deems improperly dressed? Should implementation of a dress code be prioritised over imparting education to all that seek it? These and other like questions will probably soon engage the attention of a constitutional court. That court may do well to heed Justice R.F. Nariman's dictum in the Sabarimala review which says, "... After all, in India's tryst with destiny, we have chosen to be wedded to the rule of law as laid down by the Constitution of India. Let every person remember that the "holy book" is the Constitution of India,... "

Competing rights

The interpretative answer to the hijab row, from the "holy book", might lie in another case from Udupi district. Three years after Shirur Math, in 1957, the Supreme Court, in Sri Venkataramana Devaru vs State of Mysore, had to examine whether the exclusion of a person from entering into a temple for worship is a matter of religion according to Hindu ceremonial law. The Court held "... that the right of a denomination to wholly exclude members of the public from worshipping in the temple, though comprised in Art. 26(b), must yield to the overriding right declared by Art. 25(2)(b) in favour of the public to enter into a temple for worship. But where the right claimed is not one of general and total exclusion of the public from worship in the temple at all times but of exclusion from certain religious services, they being limited by the rules of the foundation to the members of the denomination, then the question is not whether Art. 25(2)(b) overrides that right so as to extinguish it, but whether it is possible-so to regulate the rights of the persons protected by Art. 25(2)(b) as to give effect to both the rights" Venkataramana Devaru points to the Court's endeavour to harmonise competing rights in a way that both were given effect to. In the hijab case, the courts will be called upon to protect an essential religious practice, in a manner consistent with imparting education in an orderly fashion. It is not the domain of this article to prophesy the ultimate outcome of the ensuing legal battle. The protesting girls may, however, take heart from another Kanakadasa-like episode from the late 1970s. Jon Higgins, an American scholar of music, was so proficient in Carnatic music that he was called Higgins Bhagvathar. When he visited the Udupi Shri Krishna temple, he was denied entry because of his white skin. He stood at the gate and sang in chaste Kannada the Vyasatirtha composition, 'Krishna nee begane baro'. He was permitted entry immediately, possibly to avert another intervention from the deity. The moral I take from this episode is that unthinking enforcers of any kind of dogma will have to ultimately yield to a harmonious faith in a "holy book".

A NEW FORM OF UNTOUCHABILITY

Recently, a video, purportedly showing villagers from Surguja district of Chhattisgarh taking an oath to implement an economic boycott of Muslims, went viral on social media. This was not a spontaneous reaction of the villagers to a brawl in the village but allegedly orchestrated by a Hindutva outfit. The Vishva Hindu Parishad (VHP) is known to distribute pamphlets calling for the economic boycott of those it labels "anti-national, anti-Hindu, love jihadists" — all convenient epithets to convey a communal message. These acts are not merely 'expressions of hate'; they can be characterised as the emergence of a new form of untouchability guided by the political imperatives of Hindutva rather than the religious dictates of Hinduism. A progressive re-articulation of the concept of untouchability or a re-reading of the anti-discrimination legislation is required to end this abomination. The hierarchical caste-based Hindu social order was governed by the ideology of purity and pollution. The primary function of the ideology was to maintain ritual hierarchy. Untouchability was a mechanism through which power was exercised over the Dalits and the hierarchy reinforced. One of the most common forms of untouchability was the imposition of social and economic boycott of Dalits if they dared to transgress social norms or exercise their rights. In Ambedkar's opinion, the method of boycott was more effective than even open violence. Collective discrimination, marginalisation and disempowerment was justified as the right of the individual to choose freely in a marketplace. He argued that the boycott was effective for two reasons – one, the Dalits constituted a minority within the village; and two, they were economically weaker and hence, dependent on the 'upper' castes. Therefore, it was of paramount importance to outlaw this 'tyranny of the majority' for their uplift.

Limits of anti-boycott laws

During the freedom struggle, the struggle to eradicate untouchability gained momentum. This struggle found its highest expression in the fundamental rights enshrined in the Constitution under Articles 14, 15 and 17. However, although untouchability was abolished, its definition remained vague. Even during the Constituent Assembly debates, it was argued that the scope of untouchability should be restricted to practices related to religion and caste, lest it be left open to unwarranted tinkering; however, the Assembly voted against such a circumscribed definition. Therefore, the limits of untouchability under Article 17 have been contested. While the conservatives restrict it to caste-based discrimination, the progressives argue that it includes other forms of untouchability as well. However, there is a consensus that only those acts which are motivated by the ideology of purity and pollution are considered within the ambit of untouchability. These include social and economic boycotts. In India, mere provision of rights has proved to be insufficient to prevent marginalisation owing to the practice of untouchability and hence, the legislature and the judiciary have had to make and interpret special laws to that effect. Two laws which explicitly make social and economic boycotts punishable are The Scheduled Castes and the Scheduled Tribes (Prevention of Atrocities) Act, 1989, and Maharashtra Protection of People from Social Boycott (Prevention, Prohibition and Redressal) Act, 2016. However, the scope of both is restricted to criminalising caste-based discrimination and boycotts.

An ineffective approach

The tethering of anti-boycott or untouchability laws to the tenets of purity and pollution and restricting their scope to caste-centric boycotts makes them ineffective to counter the calls of economic boycott of Muslims. Hindutva is using pre-constitutional methods to disempower a community. It is not driven by the motive of maintaining ritual hierarchy but by the political imperatives of exclusion. Its ultimate objective is to ethnicise the Hindu identity. Such public calls

for boycotts are means of constructing such an identity. The act of collectively resolving to boycott Muslims reinforces their 'othering' and re-emphasises the VHP's idea of 'Hinduness'; reconstituting Hinduism, based on caste hierarchy, into a unified, ethnic whole, where the figure of the Dalit is replaced by the Muslim as the significant 'other'. These grave new developments need to be taken into cognisance and an urgent politico-legal response to such public calls for Muslim economic boycott is required as they militate against the principle of fraternity enshrined in the Constitution. This can be done by a progressive redefinition of untouchability or by expanding the scope of the anti-boycott laws to include discrimination against religious communities.

NEW JNU V-C DENIES OWNERSHIP OF CONTROVERSIAL TWITTER ACCOUNT

The newly appointed Vice- Chancellor of Jawaharlal Nehru University (JNU) Santishree Dhulipudi Pandit has distanced herself from a controversial Twitter account in her name a day after her appointment. In a response on Tuesday to The Hindu's query about whether the unverified handle @SantishreeD belonged to her, she said "Not mine". After Dr. Pandit's appointment was announced on Monday, the account, which used her full name and description as a professor, caused widespread outrage on Twitter. Screenshots of tweets using communal language and name-calling students, farmers, politicians and activists went viral on social media. Dr. Pandit did not respond to further queries from The Hindu on whether she was aware of who was using the account and whether she had requested its deletion. The account included tweets referring to a section of JNU teachers and students as "losers" and "extremist naxal groups" who should be banned from campuses. Tweets termed so-called "love jihad" a "terror by other means", Sunni Islam radical. In domestic politics, Congress leader Sonia Gandhi was repeatedly referred to as an "Italian remote control".

UNIVERSALISE MATERNITY BENEFIT SCHEME

The government's recent announcement that the maternity benefit programme which provides ₹5,000 for first child will be extended to cover the second child only if it is a girl has met with sharp criticism from activists who have demanded that it be universalised. The Pradhan Mantri Matru Vandana Yojana (PMMVY), launched in 2017, provides ₹5,000 for the birth of the first child to partially compensate a woman for loss of wages. It also aims to improve the nutritional well-being of the mother and the child. The amount is given in three instalments upon meeting certain conditions. It is combined with another scheme, Janani Suraksha Yojana, under which nearly ₹1,000 is given for an institutional birth, so that a woman gets a total of ₹6,000. "Under the revamped PMMVY under Mission Shakti, the maternity benefit amounting to ₹6000 is also to be provided for the second child, but only if the second is a girl child, to discourage pre-birth sex selection and promote the girl child," Minister for Women and Child Development Smriti Irani told the Lok Sabha last week. "Firstly, to provide maternity benefit only to the mother of the first-born is illegal as the National Food Security Act, 2013 lays down that every pregnant woman and lactating mother are entitled to it. Then to couch it to say that it is to promote the birth of a girl child is nothing but posturing" says Jashodhara Dasgupta, co-convener, Feminist Policy Collective. She says that adding more conditions to the scheme will prove to be a bureaucratic nightmare, which can be overcome if the scheme is universalised. "During COVID-19 in the past two years, ASHA [accredited social health activist] workers have not been giving out contraceptive supplies. When the State has failed to provide contraceptive services, why is it penalising women for having babies," asserts Ms. Dasgupta. "The new announcement implies that women will be able to access the scheme only after the delivery, which will not have any impact on their nutritional uptake

during the course of their pregnancy," says Raghwesh Ranjan, Director, Social and Economic Empowerment, IPE Global. One of the objectives of the scheme is to also improve health seeking behaviour of women and, therefore, the first instalment of ₹1,000 is given after ascertaining early registration of pregnancy and the second instalment of ₹2,000 is given after an ante-natal check after six months of pregnancy and the final instalment of ₹2,000 is given after the registration of the child birth and vaccinations for the newborn. Though the Minister shared the information days after the Union Budget, the allocation for the scheme has not shown a notable increase. The scheme is clubbed with several other programmes under the Samarthya scheme. The allocation of ₹2,522 crore for the umbrella scheme last fiscal was almost the same as the allocation of ₹2,500 crore for the PMMVY alone the year before. For financial year 2022-2023, the umbrella scheme has seen a total increase of ₹100 crore.

WEIGHING IN ON A HEALTH DATA RETENTION PLAN

In a welcome development, the National Health Authority (NHA) — the body responsible for administering the Ayushman Bharat Digital Mission (ABDM) — has initiated a consultation process on the retention of health data by health-care providers in India (https://bit.ly/3uK9buH). The consultation paper asks for feedback on what data is to be retained, and for how long. A simple classification system, as suggested in the consultation paper, exposes individuals to harms arising from over-collection and retention of unnecessary data. At the same time, this kind of one-size-fits-all system can also lead to under-retention of data that is genuinely required for research or public policy needs. Instead, we should seek to classify data based on its use. In this system, health data not required for an identified purpose would be anonymised, or deleted.

The need for such a policy

Whether the state should mandate a retention period at all is an open question. Currently, service providers can compete on how they handle the data of individuals or health records; in theory, each of us can choose a provider whose data policies we are comfortable with. Given the landscape of health-care access in India, including through informal providers, many patients may not think about this factor in practice. Nonetheless, the decision to take choice out of the individual's hands should not be taken lightly. The Supreme Court of India has clarified that privacy is a fundamental right, and any interference into the right must pass a four-part test: legality; legitimate aim; proportionality, and appropriate safeguards. The mandatory retention of health data is one such form of interference with the right to privacy. In this context, the question of legality becomes a question about the legal standing and authority of the NHA. For instance, the consultation paper asks whether the health data retention policy should be made applicable only to health-care providers who are participating in the ABDM ecosystem, or to all health-care providers in general. We believe the answer can only be the former; since the NHA is not a sector-wide regulator, it has no legal basis for formulating guidelines for health-care providers in general.

Balancing benefits and risks

The aim of data retention is described in terms of benefits to the individual and the public at large. Individuals benefit through greater convenience and choice, created through portability of health records. The broader public benefits through research and innovation, driven by the availability of more and better data to analyse. While these are important benefits, they do have to be weighed against the risks. Globally, legal systems consider health data particularly sensitive, and recognise that improper disclosure of this data can expose a person to a range of significant harms. These

could include harms that would be very difficult to make whole, so it is not enough to have penalties for such breaches; every effort must be made to minimise the extent of data collected, and to hold it only for the amount of time needed so as to reduce the likelihood of any breach in the first place. In particular, privacy risks should make us very hesitant about retaining an individual's entire health or medical record on the grounds that they might be useful for research someday. As per Indian law, if an individual's rights are to be curtailed due to anticipated benefits, such benefits cannot be potential or speculatory: they must be clearly defined and identifiable. This is the difference between saying that data on patients with heart conditions will help us better understand cardiac health — a vague explanation — and being able to identify a specific study which will include data from that patient. It would further mean demonstrating that the study requires personally identifiable information, rather than just an anonymous record — the latter flowing from the principle of proportionality, which requires choosing the least intrusive option available. In fact, standards for anonymisation are still developing. In a world of big data, the research community is still to arrive at consensus on what constitutes adequate anonymisation, or what might be considered best practices or methods for achieving it. We are not yet able to rule out the possibility of anonymised data still being linked back to specific individuals. In other words, even anonymisation may not be the least intrusive solution to safeguarding patients' rights in all scenarios.

Possible safeguards

Ultimately, the test for retaining data should be that a clear and specific case has been identified for such retention, following a rigorous process run by suitable authorities. A second safeguard would be to anonymise data that is being retained for research purposes — again, unless a specific case is made for keeping personally identifiable information. If neither of these is true, the data should be deleted. An alternate basis for retaining data can be the express and informed consent of the individual in question. However, there are limits to how consent can apply in the context of health care in India; in general, health care is a field where patients rely on the expertise and advice of doctors, making the idea of informed consent complicated. Further, if consent is made necessary for accessing state-provided services, many people may agree simply because they lack any other way to access that care. Finally, health-care service providers — and everyone else — will have to comply with the data protection law, once it is adopted by Parliament. The current Bill already requires purpose limitation for collecting, processing, sharing, or retaining data; a use-based classification process would thus bring the ABDM ecosystem actors in compliance with this law as well.

HOW THE LOTUS BLOOMS

As the Republic Day celebrations culminated with the Beating Retreat ceremony on January 29, the Rashtrapati Bhavan was illuminated again. Along with North Block and South Block, on either side, a magical screen of myriad hues created a fantastic panorama. Adjectives like "majestic" and "monumental" can do no justice to the grandeur of the building that is at the heart of the Indian Republic. Its history and its role as the seat of power lend majesty to the structure, but even in purely architectural terms, Edwin Lutyens' marvel stands on its own. Woven into his Edwardian Baroque opus are numerous Indian motifs and designs — lotuses and elephants, chhatris (cenotaphs) and chhajjas (roofeaves). The monument has been a witness to the dramatic transformation of India since 1911, when plans for the building as a grand palace for the viceroy was drawn out. The construction was completed in 1929. The tumultuous century left its imprint on the building, too. Like any building nearly a century old, the Rashtrapati Bhavan has endured

the ravages of time and weather. The building and the surrounding estate, spread over 320 hectares, has been central to our national life. It is part of our cultural heritage and efforts have been made repeatedly to preserve it for future generations. Maintaining the building is challenging in terms of civil engineering. With the passage of time, its amenities have to be upgraded, replacing old equipment with modern elements and adding more. Everything has to be done without altering the character of the building which is classified as "Heritage Grade 1". For such buildings, rules prohibit "any intervention on exterior or interior or natural features unless it is necessary in the interest of strengthening and prolonging the life of the building or any part or features". Therefore, it's absolutely essential that minimum changes are allowed, and when they do, that they conform to the original. Preserving this monumental part of our heritage is, thus, a delicate task — more so, since it is not a monument that closes in the evening. The Head of the State lives here and hundreds of people work here. Yet, the building has largely been in good health. However, the chhajja have been a preservation challenge. In the Rashtrapati Bhavan, the chhajja runs a total of 1.2 km along the periphery of the main building. It was built with lime concrete with reinforcement, and located nearly 20m above ground. The bottom of the inclined chhajja has architectural embellishments such as the iconic lotus petal, in a repetitive protrudeing pattern. Due to weathering, the chhajja faces "delamination"—the material fractures into layers — and bending, along its length, at several points. This often necessitates repairs, which used to be done piecemeal. In 2019, however, parts of the chhajja collapsed at a few locations. Such erosions not only affect the aesthetic appeal of the building, but sizeable chunks of lime concrete falling from a height of 20m can be fatal for those below. It was time to tackle the issue in a holistic manner and repair not just parts but all of it. A structural assessment of the chhajja was done. Its condition was worse than it seemed. There were continuous horizontal cracks and significant deflection at several locations. The material quality had deteriorated so much that the lime concrete would detach and fall off even with a slight tap of the hammer. Even as loose concrete was being removed, a span of around 20m length of the chhajja collapsed, exposing the corroded reinforcements. Repairs began in 2020. The biggest challenge was to stop further corrosion of there inforcement. The solution was "cathodic protection", an electrochemical process, which is a "dual-phase hybrid fusion anode system". This is a simple method that connects the protected metal (reinforcement in this case) to the more easily corroded "sacrificial metal" to act as the anode. The sacrificial metal then corrodes instead of the protected metal, and results in an increased lifespan of the structure. Also, casting of the chhajja with commonly available materials such as normal concrete was ruled out as excessive deflection was observed. Finally, structural lightweight concrete (SLWC) was identified as the most suitable material. The restoration plan was in place by now. The entire chhajja portion, extending beyond the fixed end, was to be removed and recasted with SLWC. The lime-concrete chhajja would be supported at the height of 0.5m, 1m and 1.5m from the fixed end before removing the existing concrete to prevent corroded reinforcement from collapsing. Existing reinforcements would be retained and additional reinforcements needed to be provided via lapping or chemical anchoring wherever bars were corroded more than 20 per cent. Then, cathodic protection was implemented verifying the electrical continuity across the entire reinforcement network of the chhajja. Given the Grade 1 norms, the exact form and design of the chhajja had to be recreated. The chhajja follows the steps and curves of the building along its perimeter, retaining a steady declination for rain water run off. This decline made manual plotting of the existing form quite complicated. Advanced computer technology was used. With light detection and ranging (LiDAR) scanning, a three-dimensional model of the whole chhajja was created. Based on the model, the form work with the same feature and design was prepared using fibre-reinforced polymer (FRP) moulding technology. Meanwhile, every lotus petal beneath the chhajja, which forms an integral part, has a unique shape. That pattern had to be recreated, using the FRP-moulded formwork. The use of SLWC also tested the

ingenuity of the team. Premixed off-site, it is brought in bags—negotiating busy vehicular traffic and VVIP movements. Then, it has to be placed at a height of 20m — all within three hours, as the material is highly sensitive to temperature. Also, the work has to go on behind green curtains of camouflaging, not affecting functions inside and outside the building. Currently, the progress is satisfactory. About a quarter of the North Court is complete and the rest will be done by the end of this year. It has been a demanding task, calling for technical skills, innovative thinking and utmost respect for heritage. Paradoxically, the best compliment would be no compliment at all, because nobody, other than experts, can tell the difference.

INDIA'S MRNA VACCINE LIKELY BY APRIL

Data from human trials of India's first homegrown mRNA vaccine against coronavirus are likely to be presented to authorities for evaluation by the end of the month, and company officials are aiming to roll out the product before April, two senior scientists connected to the Department of Biotechnology told The Hindu. The mRNA vaccine being developed by Pune-based Gennova Biopharmaceuticals is currently in phase 2/3 trials to evaluate the safety, tolerability and immunogenicity of the candidate vaccine in healthy subjects. Around 4,000 volunteers have been recruited for the trial. India has so far approved at least six vaccines that can be manufactured locally but only two — Covishield and Covaxin — have been administered to over 99% Indians. Globally, mRNA vaccines have been at the vanguard of inoculation programmes in the U.S. and Europe because they exploit recent advances in molecular biotechnology and are said to be quicker to manufacture than older, well-established vaccine design principles. A limitation of the mRNA vaccines, or those made by Pfizer and Moderna, was that they were required to be stored in sub-zero conditions — a tough proposition in a country where such a degree of refrigeration is limited in availability. However, the prospective Gennova vaccine can be stored in ordinary refrigerators, the makers of Gennova have claimed earlier. The mRNA vaccine, can also purportedly be tweaked to be effective against newer variants, but so far, all the vaccines developed — including the prospective Gennova vaccine — have been customised to the original SARS-CoV-2. Gennova has been funded with ₹125 crore from the Department of Biotechnology (DBT). One official said that the company had faced challenges in recruiting volunteers because, to evaluate the vaccine's efficacy, it would be necessary to find volunteers who had neither been vaccinated nor exposed to the virus. Several serology surveys have shown 70%-90% of adults and children have been exposed to the virus, and hence express antibodies on being tested since March 2020. "From what I know, the company is ready to roll-out the vaccine by March or April and will be approaching the Drug Controller General of India soon," said Govindraj Padmanabhan, who chairs a vaccine committee of the DBT and has closely followed developments in the vaccine space. Sanjay Singh, CEO, Gennova Biopharmaceuticals, did not respond to text messages for comment. As of Wednesday, India has administered over 171 crore doses of COVID-19 vaccines. Health Ministry figures suggest that while 77% of the eligible adult population in India are fully vaccinated, 95% have received at least one COVID-19 jab. Over 65% of adolescents in the 15-18 years category have also received their first dose. In those vaccinated, close to 86% have received Covishield while nearly 14% have availed Covaxin.

IGIB DEVELOPS FUTURE-PROOF PRIMERS, KITS FOR RT-PCR TEST

Using its expertise in genome sequencing and analysis pipeline of genome sequence data, the Delhi-based CSIR lab Institute of Genomics and Integrative Biology (IGIB) has successfully developed a unique pool of primers and kits to be used in RT-PCR testing of SARS-CoV-2 virus. The most distinguishing aspect of the work carried by a team led by Dr. Sridhar Sivasubbu and Dr.

Vinod Scaria at IGIB that was developing primers that will not be affected by mutations seen in SARS-CoV-2 variants. This may allow the primers to detect any new SARS-CoV-2 variants that might emerge immaterial of the novel mutations that the variants might have. The primers developed in a way future-proofs the ability to detect without fail any new SARS-CoV-2 variants that may emerge.

Many mutations

The Omicron variant, for instance, has 32 mutations in the spike protein alone. None of these mutations were seen in other variants that emerged earlier — the Alpha, Beta, Gamma and Delta. Each new variant that emerges develops a unique set of mutations that makes it more transmissible and/or causes severe disease. RT-PCR tests currently available contain primers for two or more genes. The gene targets selected could be a combination of S gene, N gene and E-gene. Based on over 40,000 high-quality SARS-CoV-2 virus genome sequence data available in the public domain including a significant large number of genome sequences from India, Dr. Sivasubbu's team, which includes two PhD students — Paras Sehgal and Gyan Ranjan, was able to identify nearly 80,000 unique variants. The high number of variants seen is because SARS-CoV-2 is a rapidly mutating virus and tends to collect mutations during infection. The SARS-CoV-2 is naturally endowed to collect about one mutation every 10-14 days. "Though the SARS-CoV-2 is a rapidly mutating virus, we found that not all regions of the virus were accumulating mutations at the same rate. There are some regions of the virus which collect mutations at a fast rate while some other regions tend to collect mutations at a slow rate," says Dr. Sivasubbu. "We at IGIB already had an algorithm that allowed us to look at the conserved regions that were not prone to accumulating mutations.. This allowed us to analyse which regions of the virus are conserved and which were not," says Dr. Sivasubbu. Conserved region of a virus contains genes which are very essential and hence either do not undergo any mutations or such mutations happen rarely. In parallel, the IGIB researchers had also collected information about primers used in commercial and non-commercial tests across the world. "Once we had the mutation map of the SARS-CoV-2 virus, and by using the information gathered by studying the primers used across the world, we found that a majority of primers designed and used were overlapping with the regions of the virus collecting significant number of mutations," he says.

Strategic problem

"The primers widely in use have a small strategic problem. We realised that at some point in the future, the existing primers used in RT-PCR test kits for detecting SARS-CoV-2 virus would not be able to bind properly to the genome leading to erroneous results," Dr. Sivasubbu says. The primers were tested to detect all the SARS-CoV-2 variants — the Alpha, Beta, Gamma, Delta and Omicron. Based on the knowledge of the conserved regions in the virus, the team developed a pool of primers that would be future-proof. Each RT-PCR test uses at least two gene targets and each gene target requires a pair of primers. The pool of primers developed by IGIB will allow them to be used in various combinations. "The pool of primers has been developed to target regions of the virus which are unlikely to undergo mutations. So the primers developed for RT-PCR tests will perform very well when new variants emerge," says Dr. Anurag Agrawal, Director of IGIB. The development of the mutation map of SARS-CoV-2 virus and the pool of primers were done in collaboration with Siemens Healthcare Private Limited. The technology has been transferred to the company and the product tested and approved by ICMR and launched on January 25 this year. Siemens will be manufacturing the tests (IMDX SARS-CoV-2 Multiplex ORF1ab/N gene) at its new plant at Vadodara. According to the company spokesperson, the tests have 100% sensitivity and

specificity. The plant has a capacity to manufacture 12 million tests per month. "The company will strive to make it affordable and accessible," the spokesperson said.

Used worldwide

The project began in May–June 2020 when Illumina launched its new Covidseq Next-Generation Sequencing for SARS-CoV-2 virus and the first global field validation was carried out in India at IGIB. Nearly 1,700 genome sequence samples from seven States were sequenced at IGIB using Covidseq Next-Generation Sequencing as part of the field validation. Once the field validation by IGIB was completed, countries across the world started using Illumina's new Covidseq genome sequencing protocol. By the end of December 2020, a large number of SARS-CoV-2 genomes were sequenced across the world, including 7,000 from India. Of the 7,000 genomes sequenced in India, 50% were exclusively by IGIB in collaboration with other entities in India.

THE GAMES EVENTS INDIA'S ARIF KHAN IS TAKING PART IN

INDIAN SKIER Arif Khan has qualified for both the slalom and giant slalom events at the Beijing Winter Olympics. While he isn't the first Indian to take part in either of these two events ar the Winter Olympics, he is the only Indian to have ever qualified for both events together, and is the country's only athlete participating in the Beijing Games.

Before leaving, he said a finish in the top-30 would be quite an achievement. His best position till date at a World Championship has been 45th.

How it's played

Punishing on the knees and rewarding if flexibility is a strongpoint, slalom and giant slalom are two events that require successfully completing an obstacle course in the least possible time possible.

Alpine skiing is made up of five different events–the downhill, Super G, Alpine combined, slalom and giant slalom. Different it erations of the sport have existed in history. The modern-day version of slalom skiing was ratified in 1922 by Arnold Lunn for the British National Ski Championships, and this was brought into the1936 Winter Olympics in Germany.

A cascading slope of snow is fixed with highly flexible plastic poles (gates) in red and blue across a fixed course. The course has between 55-75 gates for men and 40-60 for women. The height from top to bottom of the course is usually between 180-220 cm for men.

Skiers are supposed to start at the top of the hill and, in the shortest time, navigate their way between the poles to reach the finish line. In both events, the skier has a chance to put up a time that enters them into the Top 30 and, after this, gets another chance to put up a winning time. The difference Slalom is the shorter of the two events, but the more technically challenging one since the gates are smaller and skiers have to focus on their zigzagging technique rather than their speed. Usually, that technique depends on tension. Core muscles need to remain tense while the skier flies downhill. The best slalom skiers tend to show extreme discipline with their arms – the less the movement, the more one's body can be streamlined to zigzag through the course.

Giant slalom, on the other hand, combines the technical aspect of slalom but the speed of downhill skiing events. The giant slalom event sees skiers reach up to 80 km/hr. The higher speed means the "gates" have to be larger.

Cross-blocking technique

In slalom skiing, turns are much shorter and therefore skiers get a narrower and direct line to race on. The average slalom skier is much closer to the gates and thus uses their body to push gates out of the way while keeping their line of racing as close to a straight line as possible. This method is called cross-blocking.

In giant slalom, this technique gets marginalised slightly. This is because gates are wider apart and are fewer than in slalom, which is why the event is usually the faster of the two. The average skier therefore uses their shoulder to round up the gate, rather than the outside of their poles.

INDIA'S SONG

The very heart of India throbs in your voice," music composer Naushad once wrote to Lata Mangeshkar. Much of India's population has not lived in a world that did not have her in it. The artist whose voice has been the sound of a nation ever since it gained independence, especially of its women, who expressed themselves in her voice even when they could not find their own, breathed her last in Mumbai on Sunday. With Mangeshkar's passing, India is struck silent, so essential has she been to how it imagines itself through music and song. If there is succour in this moment, it is to be derived from the formidable and multi-hued oeuvre that she leaves behind. It isn't often that musical virtuosity falls in place with lyricism, spirituality, integrity, expression — and soars. Be it the defiant "Pyaar kiya toh darna kya" in Mughal-e-Azam (1960) or the watershed moment of her career, "Aayega aanewala", so hauntingly picturised on Madhubala, or Waheeda Rehman dancing to "Aaj phir jeene ki tamanna hai" in Guide, the anthem and freedom song for a whole generation of Indian women, or the voice of the lovelorn courtesan in Pakeezah who sang "Yoon hi koi mil gaya tha/ sare raah chalte chalte", to one of the most secular and uplifting bhajans from the Indian film industry, "Allah tero naam" (Hum Dono) — Mangeshkar defined the gold standard of playback singing. Female vocalists in the country aspired to sing like her. In recent times, there was "Dil hoom hoom kare" from Kalpana Lajmi's Rudaali (1993), in which Mangeshkar sang of unbearable pain, and upbeat numbers that lifted newer films such as Hum Aapke Hain Koun (1994) and Dilwale Dulhaniya Le Jayenge (1995) off the ground. Through a universe of film songs in a number of languages and a large and varied repertoire of non-film pieces, Mangeshkar gave India not just a song for every mood, moment and journey, she also gave its people a feeling of shared cultural pride they had not known in quite the same way before. India had the Taj Mahal and Lata Mangeshkar, these were the wonders, and only one of them could sing. It isn't often that India and Pakistan, the two peoples and governments, are completely agreed on anything, but there has never been any difference or doubt on Mangeshkar. The tributes that are flowing in from across the borders — from Pakistan and Bangladesh — are emotional and exquisite. At a 1974 concert held at Royal Albert Hall in London, the late actor Nargis Dutt was asked to invite Lata Mangeshkar to the stage. "Yun samajhiye, jaise kisi dargah ya mandir mein jaayen, toh wahaan pahunch kar sar ibaadat ke liye khud-bakhud jhuk jaata hai, aur aankhon se besaakhta aansoo behate hain (As if one goes to a shrine or a temple, where the head bows in reverence and tears roll down from the eyes, of their own accord)". That was Lata Mangeshkar. It is why the stillness that she leaves behind will be broken by her songs that live on.

KHABAR LAHARIYA'S STORY

A film about the grassroots news organisation Khabar Lahariya has become the first from India to be nominated for an Academy Award in the Best Documentary Feature category. This alone is

worth celebrating, considering the challenges of this filmmaking format, especially in India — few resources, low return on investment and, outside of a handful of international platforms, very little recognition. But an additional reason for celebrating the nomination of Writing with Fire is its subject: Directed by Rintu Thomas and Sushmit Ghosh, the film offers a window into the life and work of the Dalit women who run Khabar Lahariya, and the obstacles they overcome — from unhappy husbands and unfriendly crowds to lack of funds and inexperience with technology — as they report on issues that matter the most to the communities they serve. Twenty years after it was born as a newspaper, first published in Uttar Pradesh's Bundelkhand region, Khabar Lahariya continues to challenge popular notions about what journalism in India could and should be and for whom it is meant. The women who work at the organisation— which made a successful digital-first pivot in 2016 — have to wage a constant battle with the prejudices of caste and gender to pursue and bring to light stories of administrative neglect, crimes against women. In doing so, they frequently put their lives on the line — not just for asking tough questions or being out at all hours, often in hostile environments, but also simply for being Dalit women. At a time when even a section of journalists working under relatively easier and more privileged circumstances have turned away from the stories that matter, it is heartening to know that the women of Khabar Lahariya carry on undaunted. Since 2002, they've worked hard to spotlight issues and stories that rarely get attention. That the world should now watch and honour Khabar Lahariya's own story is only right.

THE MISSING GREEN

For decades, environmentalists in the country have been alleging that a large number of infrastructure projects are implemented without mandatory due diligence and green clearance procedures are often riddled with irregularities. Their criticisms have sharpened in the past 15 years because successive governments have diluted ecological safeguards — the public hearing requirement in the Environmental Impact Assessment notification, for instance — under the ruse of streamlining the clearance procedures. Two years ago, an Environmental Performance Index of Yale University ranked India 168 amongst 220 countries. Now an investigation by this newspaper has revealed that six mega initiatives cleared between 2004 and 2020 — the Mopa International Airport in Goa, the Dibang Hydel project in Arunachal, Kulda Coal Mine in Odisha and Tamnar Thermal Project in Chhattisgarh, the Subansiri Hydel Project on the Assam Arunachal border — have failed to fulfil their green commitments. The omissions are particularly glaring because experts had questioned the environmental sustainability of these projects since their inception. At the heart of what has gone wrong is the absence of an effective mechanism to ensure environmental compliance. As the newspaper's investigation revealed, the Ministry of Environment and Forests has less than 80 officials to conduct field visits. The state pollution control boards and environmental tribunals are almost always short-staffed. Instead of strengthening the monitoring mechanism, governments at the Centre and states have been relying on procedures such as post-facto clearances and trying to goad project developers into compliance by giving them incentives — subsidies, for instance — despite Supreme Court strictures. In 2020, for instance, a two-judge bench of the Court called out the practice of allowing project developers to report a violation retrospectively as "a derogation of the fundamental principle of environmental jurisprudence". "Allowing for an ex-post facto clearance would essentially condone the operation of industrial activities without the grant of an environmental clearance (EC). In the absence of an EC, there would be no conditions to safeguard the environment," the court pointed out. As India strives to grow into a $5-trillion economy — the budget presented by the finance minister last week, for instance, talks of rapid infrastructural development — its policymakers will need to ensure that such prosperity doesn't come at the cost

of the environment. This is especially imperative because sites of developmental projects are often located in ecologically fragile zones. Corridors between coal mines and thermal plants — such as the one between Kulda and Tamnar — are known to be rife with pollutants that harm people's health, contaminate water bodies, and impair farm productivity. Obviating such hazards requires strong checks and balances. But environmental experts have often complained that short-shrift is given to the autonomy of institutions mandated to protect the environment in the country. The government must summon the will to apply correctives.

WILDLIFE MIGRATION TO WAYANAD SANCTUARY BEGINS

With the onset of summer, the seasonal migration of wild animals has begun from the adjacent wildlife sanctuaries in Karnataka and Tamil Nadu to the Wayanad Wildlife Sanctuary (WWS). The inflow of wildlife is comparatively low this time owing to better rain in the sanctuary and adjacent tiger reserves, Jose Mathew, Assistant Conservator of Forests, WWS, told The Hindu. However, this would increase considerably by the end of February, he says. The sanctuary is a haven for wild animals during summer owing to the easy availability of fodder and water throughout the year. Nevertheless, officials have made highly structured measures to ensure the availability of fodder and water, apart from other protection measures. As many as 26 new brushwood check-dams have been constructed, and 34 check-dams of 168 dams have been desilted so far to ensure drinking water to the animals, says Mr. Mathew. As part of fodder management, 289 hectares of coarse grasslands have been trimmed to grow soft grass, and weeds removed on 83 hectares of forest land. Sanctuary authorities are also planning to map fields and waterbodies to ensure fodder supply during the dry season. Fire breakers have been erected along 195 km, including a 27-km stretch on the State borders, at a width of 10 metres. "We have conducted four awareness sessions on forest fire to sensitise those residing on the fringes of the forests. We are planning to organise 20 more similar sessions in the coming days," says Mr. Mathew. As many as 160 front-line forest staff, including 130 temporary forest watchers, are deployed for protection with essential equipment and wireless sets. Apart from 24 permanent anti-poaching camps and five watchtowers at strategic points, 15 new treetop machans (temporary watchtowers) have started functioning on the four forest ranges of the sanctuary. This year, the sanctuary authorities have registered 186 phone numbers of forest staff with the Forest Survey of India. The latter would issue alerts on incidences of forest fire to the registered phone numbers so that officials can respond quickly. A round-the-clock control room is set up to issue alerts in case of forest fires. This can be reached at 0493 6223500 and 8547603486.

SARISKA WEARS THE STRIPES OF SUCCESS

The measures for habitat management for tigers launched about six months ago at the famous Sariska Tiger Reserve in Rajasthan's Alwar district have started bearing fruit. The tiger population in the wildlife sanctuary has gone up to 25, while the resources are being provided to create water holes and develop grasslands for ungulates as a prey base.

New tourist route

The forest administration has opened a new route in the tiger reserve's buffer zone, adjacent to Alwar town, for tourists to facilitate better sightings of the big cats. The new Bara-Liwari route, located in the region where a tigress gave birth to two cubs recently, will reduce pressure on the core area and increase livelihood opportunities for the rural population. A foundation established by a private bank has started delivering goods and resources which the Forest Department could

not arrange because of a variety of handicaps. As part of its corporate social responsibility expenditure, the foundation is funding development of grasslands, earthen bunds and water holes for wild animals at 10 locations and making livelihood intervention for the villagers being relocated from the sanctuary. The tiger reserve, spread across 1,216 sq. km, witnessed the first-of-its-kind tiger relocation from the Ranthambore National Park by helicopter in 2008 after the felines became extinct in the sanctuary. Since then, the animal has taken some time in multiplying at its own ease, unlike the Panna tiger reserve in Madhya Pradesh, where a similar aerial translocation was done in 2009.

Aid for guards

The foundation has distributed 23 motorcycles with helmets to the forest guards in Sariska for monitoring the tiger movement with the pledge that one new motorcycle per new tiger will be given in the future. Tourism & Wildlife Society of India honorary secretary Harsh Vardhan, who has been visiting Sariska for the last four decades, told The Hindu that the forest was now depicting an appropriate balance between the prey and predator. The grassland habitats developed in dry patches of land have helped ungulates to feed better and breed in the areas such as Naya Pani, Dabli and Bhagani, leading to enhanced feed for tigers.

SATKOSIA MAKING FRESH ATTEMPTS TO BECOME A SUITABLE TIGER HABITAT

Fifteen years after declaration as a tiger reserve and failure of revival of big cat population through India's first inter-State tiger relocation programme, the Satkosia Tiger Reserve (STR) in Odisha has started making efforts afresh to re-establish it as a tiger habitat. The State and Forest department are attempting to relocate inhabitants of three villages from its core area to create 500 sq km area of inviolate zone for tigers. "At present, the STR has about 200 sq km area, which does not have any human presence. We need to expand the inviolate zone so that the reserve becomes suitable for tigers," said Akshaya Patnaik, Regional Chief Conservator of Forest, Angul. Mr. Patnaik said, "We are persuading villagers of Rataranga, Asanbahal and Tulka so that they move out from the core area and make way for the tigers. The compensation is attractive and villagers will get a better life outside forest." There were six villages in the STR core area and one of these falls under the administrative jurisdiction of Angul Wildlife Division while rest comes under Mahanadi Division. Raiguda comprising close to 200 villagers, which was under Angul, had already been shifted out of Satkosia's core area. The STR was declared as tiger reserve in 2007. In 2017, the National Board for Wildlife (NBWL) tried to rationalise STR boundary by excluding 104 villages from its STR's jurisdiction. The STR had 963.87 sq km where it was declared as a tiger reserve. Later, forest patches of 172 sq km were proposed to be added to the STR.

Dwindling population

During the past few years, the STR has been in news for all the wrong reasons. At the time of declaration Satkosia as a tiger reserve, it had about 12 tigers. Over the years, the big cat population dwindled. The STR is left with only one tigress. However, the lone big cat has been missing for past two months. STR field staff has been on its trail. "We will install 400 cameras to trace footprints. Other evidences such as cattle kills are also being collected. In the past, a tiger from Satkosia had migrated to areas on the outskirts of Bhubaneswar," said Mr. Patnaik. To revive tiger population in the STR, India's first inter-State tiger relocation programme was launched by way of import of a pair of tiger and tigress from Kanha Tiger Reserve and Bandhavgarh Tiger Reserve in 2018. But, the programme had failed primarily due to hostility of local communities and their intensive use of the tiger reserve resources for livelihoods. While the tiger died in a poacher's trap, villagers

opposed tigress' presence after it strayed into human habitation. The tigress was finally sent back to Madhya Pradesh. According to the National Tiger Conservation Authority, a total of 24 species of ungulates, carnivores, domestic animals, omnivores and galliformes were photo-captured in Satkosia.

BUSINESS & ECONOMICS

NOTES FOR INDIA AS THE DIGITAL TRADE JUGGERNAUT ROLLS ON

Despite the cancellation of the Twelfth Ministerial Conference (MC12) of the World Trade Organization (WTO) late last year (scheduled date, November 30, 2021-December 3, 2021) due to COVID-19, digital trade negotiations continue their ambitious march forward. On December 14, Australia, Japan, and Singapore, co-convenors of the plurilateral Joint Statement Initiative (JSI) on e-commerce, welcomed the 'substantial progress' made at the talks over the past three years and stated that they expected a convergence on more issues by the end of 2022.

Holding out

But therein lies the rub: even though JSI members account for over 90% of global trade, and the initiative welcomes newer entrants, over half of WTO members (largely from the developing world) continue to opt out of these negotiations. They fear being arm-twisted into accepting global rules that could etiolate domestic policymaking and economic growth. India and South Africa have led the resistance and been the JSI's most vocal critics. India has thus far resisted pressures from the developed world to jump onto the JSI bandwagon, largely through coherent legal argumentation against the JSI and a long-term developmental vision. Yet, given the increasingly fragmented global trading landscape and the rising importance of the global digital economy, can India tailor its engagement with the WTO to better accommodate its economic and geopolitical interests?

Global rules on digital trade

The WTO emerged in a largely analogue world in 1994. It was only at the Second Ministerial Conference (1998) that members agreed on core rules for e-commerce regulation. A temporary moratorium was imposed on customs duties relating to the electronic transmission of goods and services. This moratorium has been renewed continuously, to consistent opposition from India and South Africa. They argue that the moratorium imposes significant costs on developing countries as they are unable to benefit from the revenue customs duties would bring. The members also agreed to set up a work programme on e-commerce across four issue areas at the General Council: goods, services, intellectual property, and development. Frustrated by a lack of progress in the two decades that followed, 70 members brokered the JSI in December 2017 to initiate exploratory work on the trade-related aspects of e-commerce. Several countries, including developing countries, signed up in 2019 despite holding contrary views to most JSI members on key issues. Surprise entrants, China and Indonesia, argued that they sought to shape the rules from within the initiative rather than sitting on the sidelines. India and South Africa have rightly pointed out that the JSI contravenes the WTO's consensus-based framework, where every member has a voice and vote regardless of economic standing. Unlike the General Council Work Programme, which India and South Africa have attempted to revitalise in the past year, the JSI does not include all WTO members. For the process to be legally valid, the initiative must either build consensus or negotiate a plurilateral agreement outside the aegis of the WTO. India and South Africa's positioning strikes a chord at the heart of the global trading regime: how to balance the sovereign right of states to shape domestic policy with international obligations that would enable them to reap the benefits of a global trading system.

A contested regime

There are several issues upon which the developed and developing worlds disagree. One such issue concerns international rules relating to the free flow of data across borders. Several countries, both within and outside the JSI, have imposed data localisation mandates that compel corporations to store and process data within territorial borders. This is a key policy priority for India. Several payment card companies, including Mastercard and American Express, were prohibited from issuing new cards for failure to comply with a 2018 financial data localisation directive from the Reserve Bank of India. The Joint Parliamentary Committee (JPC) on data protection has recommended stringent localisation measures for sensitive personal data and critical personal data in India's data protection legislation. However, for nations and industries in the developed world looking to access new digital markets, these restrictions impose unnecessary compliance costs, thus arguably hampering innovation and supposedly amounting to unfair protectionism. There is a similar disagreement regarding domestic laws that mandate the disclosure of source codes. Developed countries believe that this hampers innovation, whereas developing countries believe it is essential for algorithmic transparency and fairness — which was another key recommendation of the JPC report in December 2021.

India's choices

India's global position is reinforced through narrative building by political and industrial leaders alike. Data sovereignty is championed as a means of resisting 'data colonialism', the exploitative economic practices and intensive lobbying of Silicon Valley companies. Policymaking for India's digital economy is at a critical juncture. Surveillance reform, personal data protection, algorithmic governance, and non-personal data regulation must be galvanised through evidenced insights, and work for individuals, communities, and aspiring local businesses — not just established larger players. Hastily signing trading obligations could reduce the space available to frame appropriate policy. But sitting out trade negotiations will mean that the digital trade juggernaut will continue unchecked, through mega-regional trading agreements such as the Regional Comprehensive Economic Partnership (RCEP) and the Comprehensive and Progressive Agreement for Trans-Pacific Partnership (CPTPP). India could risk becoming an unwitting standard-taker in an already fragmented trading regime and lose out on opportunities to shape these rules instead. Alternatives exist; negotiations need not mean compromise. For example, exceptions to digital trade rules, such as 'legitimate public policy objective' or 'essential security interests', could be negotiated to preserve policymaking where needed while still acquiescing to the larger agreement. Further, any outcome need not be an all-or-nothing arrangement. Taking a cue from the Digital Economy Partnership Agreement (DEPA) between Singapore, Chile, and New Zealand, India can push for a framework where countries can pick and choose modules with which they wish to comply. These combinations can be amassed incrementally as emerging economies such as India work through domestic regulations. Despite its failings, the WTO plays a critical role in global governance and is vital to India's strategic interests. Negotiating without surrendering domestic policy-making holds the key to India's digital future.

WHY ARE INDIA'S IMPORTS FROM CHINA RISING?

While many countries, including India, have spoken of the need to reduce reliance on China particularly in the wake of COVID-19 and disruption to supply chains, trade figures released last month showed imports have only continued to surge in 2021, rebounding after a fall in trade in 2020 because of the pandemic. The rising trade comes amid continuing tensions with China along the Line of Actual Control (LAC), where disengagement negotiations have been slow moving. The

rising trade does not, however, suggest a return to normalcy in relations. Other areas, such as investment, remain in a deep freeze amid the continuing chill in bilateral relations.

What did India import from China in 2021?

India's trade with China in 2021 reached $125.6 billion, according to figures released in January by China's General Administration of Customs (GAC). This was the first time that trade crossed the $100 billion mark. India's imports from China accounted for $97.5 billion, while exports reached $28.1 billion, both records. Compared to 2019 —trade declined substantially in 2020 because of the pandemic, which exaggerates the year-on-year increase —imports are up 30%. Exports to China, meanwhile, are up by as much as 56%. The trade deficit, a long-term source of concern for India, is up by 22% since 2019, having declined last year.

What is driving India's imports?

India's biggest imports are electrical and mechanical machinery, a range of chemicals that are intermediate imports used by industries, active pharmaceutical ingredients (APIs), auto components, and since 2020, a large amount of medical supplies. According to figures available with India's Ministry of Commerce, all those key imports continued to rise in 2021. The total value of the top 100 import categories —each of which accounts for more than $100 million in imports —was up by $16 billion in the last year, reaching $45 billion. The top items included both finished goods such as integrated circuits (up 147%), laptops and computers (up 77%) and oxygen concentrators (up four-fold) and intermediate products such as chemicals (of these, acetic acid imports were up eight-fold).

What does the recent trend of trade figures suggest?

Experts say India's dependence on China for finished goods has shown no signs of easing, which is a cause for concern. The rise in intermediate imports is, however, less of a concern as it is a sign of industrial recovery and greater demand for inputs. While Indian exports to China have also grown, up by more than 50% in the last two years, these are mostly raw materials such as ores, as well as cotton and seafood, and not finished products. The five-year trend shows the trade deficit continues to widen. The deficit has grown from $51.8 billion in 2017 to $69.4 billion in 2021.

What are the implications for India-China relations?

While trade continues to boom, other aspects of economic relations have dramatically changed in the past two years. In the wake of the LAC crisis starting April 2020, the message from New Delhi was that it cannot be business as usual while there are tensions along the border. Investments from China in the past year have plunged amid tighter curbs. In the tech and telecom space, the once rapidly increasing Chinese investments in start-ups including from tech giants such as Alibaba and Tencent, has come to an abrupt halt, more than 200 apps remain banned, and Chinese firms have been kept out of 5G trials so far. India has also tightened scrutiny on Chinese firms in India, recently conducting tax investigations into companies including smartphone manufacturer Xiaomi. Those moves last month prompted a statement from China's Ministry of Commerce calling on India to "provide a fair, transparent and non-discriminatory environment for Chinese businesses". While the trade pattern is unlikely to dramatically change in the near future, even as New Delhi considers a long-term plan to reduce some of these import dependencies by either accelerating long-discussed but slow-moving plans to manufacture some of these critical goods in India or source elsewhere, the rest of the India-China economic relationship still remains somewhat in a state of freeze as talks continue to resolve the tensions along the border.

STEP UP AGRI-SPENDING, BOOST FARM INCOMES

While the overall budgetary allocation towards the agricultural sector has marginally increased by 4.4% in the Union Budget 2022-23, the rate of increase is lower than the current inflation rate of 5.5%-6%. The Food and Agriculture Organization (FAO) of the United Nations (UN) report for 2001 to 2019 shows that, globally, India is among the top 10 countries in terms of government spending in agriculture, constituting a share of around 7.3% of its total government expenditure. However, India lags behind several low-income countries such as Malawi (18%), Mali (12.4%), Bhutan (12%), Nepal (8%), as well as upper middle-income countries such as Guyana (10.3%) and China (9.6%).

India is ranked low

The picture changes and rather looks disappointing when we look at the Agriculture Orientation Index (AOI) — an index which was developed as part of the Goal 2 (Zero Hunger) of the 2030 Agenda for Sustainable Development in 2015. The Sustainable Development Goal (SDG) 2 emphasises an increase in investment in rural infrastructure, agricultural research and extension services, development of technology to enhance agricultural productivity and eradication of poverty in middle- and lower-income countries. The AOI is calculated by dividing the agriculture share of government expenditure by the agriculture value added share of GDP. In other words, it measures the ratio between government spending towards the agricultural sector and the sector's contribution to GDP. India's index is one of the lowest, reflecting that the spending towards the agricultural sector is not commensurate with the sector's contribution towards GDP.

A comparison with Asia

Although the AOI has shown an improvement since the mid-2000s, as part of the general revival that took place in several middle-income countries, India's AOI (https://bit.ly/3rBSorH) is one of the lowest in Asia and among several other middle-income and upper-income countries. Asia as a whole performs much better, with a relatively higher performance by Eastern Asian countries. China has been doing remarkably well with an index steadily improving and crossing one. Similarly, in countries such as the Republic of Korea, the value of AOI has been greater than one and greater than two since 2005-06 respectively. Even lower income African countries such as Zambia, have commendable spending in the agricultural sector despite being a landlocked country. India holds only the 38th rank in the world, despite being an agrarian economy wherein a huge population is dependent on the agricultural sector for its livelihood, and despite being among the largest producers of several crops produced and consumed in the world. The enormous spending on the agricultural sector by East Asian countries is also reflected in their higher crop yield. For example, the total cereal yield in India is only around 3,282 kilograms per hectare compared to 4,225 kg per hectare in Asia. Within the Asian region, Eastern Asia has the highest cereal yield of 6,237 kg per hectare. In China, even with an average land holding size of 0.6 hectares, which is much lower than India's average land holding size, the performance of the sector in terms of crop yield is much higher than India. For example, the cereal yield is 6,296 kg per hectare, pulses yield is 1,815 kg per hectare and vegetable crops yield is 25,546 kg per hectare in China; the corresponding figures for India are 3,282 kg, 704 kg, and 15,451 kg, respectively. Both India and China are among the world's largest producers of wheat, rice, cotton and maize. A closer look at the budgetary allocation towards the agricultural sector shows that there has been a drastic slashing of funds toward important schemes such as crop insurance and minimum support price (MSP). Even with an overall increase in budgetary outlays, the allocation towards

Market Intervention Scheme and Price Support Scheme (MIS-PSS) was only ₹1,500 crore. This is 62% less than the previous allocation of ₹3,959.61 crore in revised estimates (RE) of FY 2021-22.

Other significant reductions

Similarly, the Pradhan Mantri Annadata Aay SanraksHan Abhiyan (PM-AASHA) experienced a significant reduction to only one crore as against the allocation of ₹400 crore in 2021-22. It was allocated just ₹1 crore for the year as against an expenditure of ₹400 crore in 2021-22. Both schemes are pertinent to ensure MSP-based procurement operations in the country, especially for pulses and oil seeds. Furthermore, the distribution of pulses to States for welfare schemes has also been reduced to ₹9 crore as compared to the ₹50 crore of FY 2021-22 (revised estimates) and the allocated amount of ₹300 crore in the year 2021-22. Additionally, there is an overall reduction in ₹718.8 crore in total central schemes/projects, which may have serious implications for the performance of the sector. While one can still argue that the capital investment in the agricultural sector is more crucial than price support programmes, there has not been any considerable and commensurate increase in the allocation towards capital investment, especially for promotion of rural infrastructure and marketing facilities. Allocation for rural development was 5.59% in the previous Budget and it has been reduced to 5.23%. The allocation of funds towards schemes such as Pradhan Mantri Kisan Samman Nidhi (PM KISAN), Pradhan Mantri Kisan Maandhan Yojana, though desirable, will not result in long run asset generation.

Measures to implement

The intensification in government spending towards the agricultural sector is the key to attain the sustainable development goals of higher agricultural growth and farm income. The focus on development of irrigation facilities, urban infrastructure and development of national highways must be complemented with an emphasis on the development of rural infrastructure and rural transportation facilities, along with an increase in the number of markets, as suggested by the National Commission on Farmers. These measures will play a crucial role in enhancing farmers' access to markets and integrating small and marginal farmers into the agricultural supply chain to a greater extent.

AN MSP SCHEME TO TRANSFORM INDIAN AGRICULTURE

The ongoing struggle of farmers is not for political power. It is a struggle to transform Indian agriculture and the livelihoods of the farming majority which are in ruins in most parts of the country. The compulsion of our time is to give a new direction to a peaceful peoples' movement to generate momentum in small peasant agriculture, which in turn could give real content to our democracy. Setting aside false promises of doubling the farmers' income by the Government or pretending that market-friendly reforms will do the trick, we propose a different way of designing a minimum support price (MSP).

A background

The massive solidarity (despite deeply divisive social faultlines) seen in the recent farmers' movement has already shaken the Himalayan arrogance of the Government. Maintaining that solidarity is essential, which means MSP must look especially into the requirements of farmers and the landless. MSP could serve, in principle, three purposes — price stabilisation in the food grains market, income support to farmers, and also as a mechanism for coping with the indebtedness of farmers. The price stabilisation policy for food grains in India evolved over time,

first with the Essential Commodities Act in 1955 to counter price rise due to speculative private trading and then MSP in the 1960s. A buffer stock policy with the public storage of food grains for market intervention was developed over time to involve different kinds of mechanisms such as: setting cost-based minimum procurement price; paying the difference between procurement price and market price; storing the procured surplus for sale through the Public Distribution System (PDS) at issue price, and market intervention to stabilise price when deemed necessary. These induced farmers to shift to a high-yielding varieties cropping pattern during the Green Revolution, while ensuring food security for citizens. This task required interlinking procurement, storage and distribution with more centralised investment and control of each of these tasks.

Partial coverage

The procurement and PDS from the Green Revolution period provided assured price incentives for rice, wheat and sugar (the flagships of the Green Revolution), but left out some 20 crops now under discussion for MSP including millets, coarse cereals, pulses and oilseeds. As a result, this partial MSP coverage skewed the cropping pattern against several coarse grains and millets particularly in rain-fed areas. The area under cultivation of rice and wheat from the time of the Green Revolution till recently increased from 30 million hectares to 44 million hectares and nine million hectares to 31 million hectares, respectively, while that of coarse cereals plunged from 37 million hectares to 25 million hectares. Although part of the diet of many people across the country, these left-out crops (grown mostly in rain-fed conditions) were not made available in ration shops. Almost 68% of Indian agriculture is rain fed and the crops grown in these regions are usually more drought resistant, nutritious and staple in the diet of the poorer subsistence farmers. This has been a particularly vulnerable point of our food security system; greater coverage of all 23 crops under MSP is a way of improving both food security and income support to the poorest farmers in rain-fed regions.

Economic cost

The centralised mechanism for ensuring distribution of the procured stock of rice and wheat at MSP entails bringing the procured grains to centralised Food Corporation warehouses. Here they are milled, made ready for consumption and sent back to each district/province, and from there to villages/slums/wards for distribution through fair price (ration) shops at an issue price fixed by the government which is below the market price to make it affordable for poor households. The total economic cost involving subsidy for selling below market price along with procurement costs, distribution costs of freight, handling, storage, interest and administrative charges along with costs borne due to transit and storage losses would be around ₹3 lakh-crore. Sugarcane comes under a separate category because all this is organised through private sugar mills and is often plagued by delays. If price is charged in a range according to harvest conditions, the total economic cost will vary within a price "band".

As a band

MSP has to be conceived as a list of some 23 crops with a more flexible arrangement. Each crop within a band of maximum and a minimum price depending on harvest conditions (i.e. higher price in a bad and lower price in a good harvest year in general) will have its price set in the band. The price of some selected coarse grains can be fixed at the upper end of its band to encourage their production in rain fed areas. In this way, the objectives of income support to farmers, price stabilisation and food security and inducing more climate-friendly cropping patterns can be combined to an extent. Wide coverage of MSP through income support to farmers would generate

massive positive economic externalities through raising industrial demand especially for the unorganised sector. This will help in extending solidarity among farmers and non-farmers while creating a chain reaction of demand expansion through multipliers for the whole economy. For estimating the additional cost of a wider MSP; of the total grains produced some 45%-50% is for farmers' self-consumption and the rest is marketed surplus. This marketed surplus sets the upper bound of total procurement cost from which must be deducted the net revenue recovered through the PDS (if all these crops are sold through ration shops). Our preliminary estimate puts it in the range of ₹5 lakh-crore, far less than the ₹17 lakh-crore estimated by the government. It is of the same order of magnitude as DA to public sector employees (less than 5% of the population, and the total tax break and income foregone announced in the Budget for a handful of industrial houses (₹3 lakh-crore), not to speak of a wilful default of bank loans by a handful of borrowers (well over ₹10 lakh-crore). This expenditure will benefit more than half the population directly and another 20%-25% of the population indirectly in the unorganised sector — over 70% of India's citizens. A real breakthrough in the recurring problem of agricultural debt can be made by the linking of selling of grains under MSP to provision of bank credit particularly for small farmers. The farmer can get a certificate selling grains at MSP which would be credit points proportional to the amount sold; this will entitle them to a bank loan as their right, and calibrate the fluctuations between good and bad harvest years by storing the certificates for later use. This mechanism would go a long way not only in addressing the indebtedness in the farming community but also has the virtue of great administrative simplicity in disbursing bank loans. It needs emphasising that how effectively such an MSP scheme could be implemented would depend largely on decentralising the implementing agencies under the constitutionally mandated supervision of panchayats. The near miracle we have witnessed in organising and unifying the farmers' movement across caste, class and gender through the panchayat and maha-panchayat system in Punjab, Haryana and West Uttar Pradesh raises hope that they will turn their attention to decentralising the MSP implementation mechanism. The movement enabled massive and effective mobilisation through these decentralised bodies. Therefore, they are capable of doing it again.

GRANTS TO DISCOMS BASED ON ACTION PLAN PROGRESS, ALL STATES ON BOARD

All states are on board for the Centre's Rs 3.03-lakh-crore discom reform scheme, Power Secretary Alok Kumar told The Indian Express, noting that the scheme had incorporated learnings from previous schemes aimed at reforming power distribution, which is often termed the weak link of India's power sector. Kumar noted that power distribution companies (discoms) in most states and union territories had submitted their reform plans under the Revamped Distribution Sector Scheme (RDSS) and the government was likely to sanction all plans that are in accordance with the scheme guidelines by the end of the fiscal. The RDSS aims to reduce the aggregate technical & commercial (AT&C) losses across discoms to 12-15 per cent and to reduce the gap between average cost of power supply and average revenue realised to zero by FY25. The targets for the RDSS are largely the same as the targets under the Ujwal Discom Assurance Yojana (UDAY), that was launched by the NDA government in 2016. "We feel this scheme has internalised all the learnings from the past schemes and we should get very good results," Kumar said, adding that the scheme offered flexibility to discoms to create their own action plans. The Power Secretary said that while data from discom performance under previous schemes came with a two-year lag, the RDSS requires disoms to submit audited figures on their performance every year before they get further grants. "... in earlier schemes, the disincentives or incentives were post-dated. That means after the schemes, if you reduce losses you will convert your loan to a grant or we'll give you some incentives; but this (scheme) is concurrent. Every year, they (discoms) have to achieve progress on the action plan, they have to completely meet the pre-qualification condition. Only

then they will get the grant for that year…", Kumar noted. The previous discom reform scheme UDAY was unable to achieve its intended targets. Average AT&C losses at discoms only fell to 20.9 per cent in FY20 from 23.7 per cent in FY16 while the average ACS-ARR gap fell to Rs 0.3 per unit (kilowatt-hour) from Rs 0.48 per unit in the same period. Rating agency Icra has estimated losses of about Rs 90,000 crore for the discom sector in FY21. However, the Centre has called the estimate grossly overinflated but has not provided its own estimate for losses in the fiscal. Inadequate revision of tariffs by state discoms and high dues to discoms from states for the power used by state departments and subsidies are key causes of cash flow issues faced by discoms. Poor billing and collection performance are also some issues discoms face. Kumar said that the issues of timely revision of electricity tariffs and payment of subsidies and dues by state governments were pre-qualification conditions under the RDSS, and that the Centre was going to emphasise prepaid smart metering to address issues of billing and collection in the power distribution sector. India has high transmission and distribution (T&D) losses of 20.66 per cent as of FY19. Its T&D losses are significantly higher than that in other countries. Discoms will be able to access funds under the RDSS to modernise their distribution infrastructure.

CRYPTO RIDDLE: TAX FIRST, RECOGNITION LATER?

In her Budget speech, Finance Minister Nirmala Sitharaman introduced a 30% tax on income earned from transfer of virtual digital assets. The Government is yet to recognise cryptocurrencies, including Bitcoin and Ethereum, but this ambiguity has not stopped people from trading in digital assets in large numbers, which apparently forced the Government's hand in announcing a tax on such transactions. At a press conference after presenting the Budget, Ms. Sitharaman said consultation is underway with stakeholders on digital assets, adding that there is no clarity yet on how the Government of India will regulate cryptocurrencies.

What would be the tax component for income from virtual digital assets?

The Budget has proposed a 30% tax on income from the "transfer of any virtual digital asset." Secondly, except for the cost of acquisition, no deduction will be allowed. Thirdly, losses from such transfers cannot be set off against any income. Fourthly, tax will be deducted at source at the rate of 1%, so as to capture transaction details, thus initiating a tax deducted at source (TDS) mechanism.

What has been India's approach to cryptocurrencies?

The Government and the Reserve Bank of India have in the past cautioned people against considering cryptocurrencies as legal tender. The fact that transactions using such currencies can easily bypass the tax net, and therefore be used for illicit transactions, have been bothering governments across the world. The Reserve Bank of India, in 2018, directed banks not to provide services to the cryptocurrency ecosystem. The Supreme Court set this aside, calling the move disproportionate, given that such currencies were not banned in the country. A law on cryptocurrencies, which was supposed to have been brought in last year, is yet to see the light of day. The broad expectation about the Government's approach to this was set by a 2019 report by an inter-ministerial committee which recommended a ban on all cryptocurrencies. Yet, through all this, cryptocurrency trading has grown in India. In fact, Ms. Sitharaman noted in her Budget speech that "there has been a phenomenal increase in transactions in virtual digital assets. The magnitude and frequency of these transactions have made it imperative to provide for a specific tax regime."

How has the cryptocurrency ecosystem read this move?

All major players have welcomed it. They have understood it as a move that provides clarity and "mainstreams" their industry. Nischal Shetty, the CEO of cryptocurrency exchange WazirX, tweeted that the Government has legitimised the industry. He wrote: "This doubles down on the fact that virtual digital assets are legal in India." The industry is now ready to lobby with the Government to bring down the tax on par with other asset classes.

Does this mean that cryptocurrencies are legal?

Statements by ministers and bureaucrats after the Budget seem to suggest that the legality of cryptocurrencies in the country is still a grey area, never mind the tax. In an interview with Bloomberg TV, Finance Secretary T.V. Somanathan said: "They are in a grey area. It's not illegal to buy and sell crypto." He further said, "We have now put in a taxation framework that treats crypto assets the same way we treat winnings from horse races, or from bets and other speculative transactions." Union Minister Rajeev Chandrasekhar told NDTV a day after the Budget, "Yesterday's Budget has given a direct answer —crypto won't be banned." However, Ms. Sitharaman, in an interview with Times Now, seemed to suggest that the question on the ban hasn't been decided one way or another. She also seemed to divorce the taxability issue from the legitimacy issue. She said, "There is no way anything can stop a sovereign Government from taxing an activity. Banning or not banning will come subsequently when the consultations give me inputs. But would you say till then I do not even tax the huge profits being transacted? I will. Legitimate or not legitimate is a different question, taxing is completely my prerogative." In recent days, experts have pointed out that the legal position is in sync with this thought process. For instance, the verdict in the Commissioner of Income Tax v. Piara Singh in 1980 quoted from the judgment in the Commissioner of Income Tax, Gujarat v. SC Kothari, in which the court had observed that "if the business is illegal, neither the profits earned nor the losses incurred would be enforceable in law. But, that does not take the profits out of the taxing statute."

RBI EXTENDS LIQUIDITY WINDOW FOR HEALTHCARE

The Reserve Bank of India (RBI) on Thursday proposed to extend the term-liquidity facility of ₹50,000 crore offered to emergency health services by three months till June 30. Last year in May, RBI had announced an on-tap liquidity window of ₹50,000 crore, at the repo rate with tenors of up to three years, to boost provision of immediate liquidity for ramping up COVID-19-related healthcare infrastructure and services in the country. Banks were incentivised for quick delivery of credit under the scheme through extension of priority-sector classification to such lending up to March 31, 2022. "In view of the response to the scheme, it is now proposed to extend this window up to June 30, 2022 from March 31, 2022 as announced earlier," the RBI said in a statement on development and regulatory policies on Thursday. Under the scheme, banks were expected to create a COVID-19 loan book.

FROZEN BY UNCERTAINTY

The Monetary Policy Committee's decision to leave interest rates unchanged and retain its "accommodative" policy stance, albeit with one member dissenting over the stance, shows a central bank frozen into inaction by the "Knightian" or unquantifiable uncertainty surrounding the pandemic-hit economy. In sticking with the status quo, the RBI's policymakers have underscored that they find themselves trapped in a no man's land. On the one hand, both the global and domestic economy have suffered a loss of momentum in the wake of the Omicron wave and

prognosticating prospects for the recovery has become even more risky in the face of the uncertainty shrouding the pandemic. In India, private consumption, which is the mainstay of domestic demand, shows little signs of regaining traction. Add to the mix the persistent increase in international commodity prices, a surge in volatility in international financial markets and global supply bottlenecks, and the risks to the outlook are further heightened. The most telling manifestation of the RBI's prognosis for growth is its forecast for GDP expansion in 2022-23 — a markedly lower 7.8% when compared with the 8.0%-8.5% projection made in the Economic Survey. With the contact-intensive components of the services sector and private investment also becalmed, the central bank in fact expects growth in the next fiscal to sharply tail off over the course of the year: slowing from a 17.2% expansion in Q1, to 4.5% in Q4. Nor is there any respite on the price stability front, the RBI's brave attempts at downplaying the risks notwithstanding. Consumer Price Index-based inflation is seen peaking in the current, fourth fiscal quarter and averaging 5.7% after 'moving close' to the upper tolerance threshold of 6% in January, according to RBI Governor Shaktikanta Das. And disconcertingly, even as Mr. Das acknowledges that the hardening of global crude oil prices poses a major upside risk to the outlook for price gains, monetary authorities appear to have plumped for backing their own optimistic assumptions. An expected softening in vegetable prices on account of winter arrivals, and the improving prospects for foodgrains production have prompted them to posit that the "improving inflation outlook" gives them comfort to continue to keep policy 'growth supportive'. With the MPC's forecast for inflation to average 4.5% over 2022-23 predicated on another significant uncertainty, a normal monsoon, the RBI's rate setting panel has risked forsaking its primary mandate of ensuring price stability at the altar of imparting a monetary impetus to the economy. At a time when inflation is at multi-decadal highs in a number of countries, prompting several major central banks including the Federal Reserve in the U.S. to start normalising policy, there is a real danger of the RBI falling behind the curve.

THE JOBS CRISIS INDIA'S

IN AN ATTEMPT to counter the Opposition's claims on the politically sensitive issue of unemployment, Finance Minister Nirmala Sitharaman argued in the Lok Sabha on Thursday that unemployment in the country had actually declined to pre-pandemic levels. As per the periodic labour force survey, urban unemployment during January-March 2021 had declined to the pre-Covid level of around 9 per cent, after peaking at 20.8 per cent during the first wave. Various other estimates also seem to suggest that the level of unemployment in the country has in fact fallen back to pre-Covid levels. As per CMIE, the unemployment rate in January 2022 stood at 6.57 per cent, down from the peak of 23.52 per cent in April 2020. It had stood at 7.76 per cent in February 2020 prior to the pandemic. However, does this fall in the unemployment rate indicate an easing of the labour market distress? Does it reflect an expansion of more productive forms of employment? And if so, does it suggest a healing of the scars induced by the pandemic?

The employment crisis in India predates Covid. However, several fault lines have been deepened by the pandemic. First, India has witnessed a decline in the labour force participation rate. This implies that many have simply opted out of the labour force, perhaps put off by the absence of jobs. Second, unemployment rates are significantly higher among the youth, and the more educated sections. As per surveys, the unemployment rate in the 15-29 age group stood at 22.9 per cent in January-March 2021. Third, while there are signs pointing towards an increase in the formalisation of the labour force (though this employment is more likely to be concentrated among low-income jobs in the larger industrial regions), there is also the casualisation of employment to contend with. Casual wage labour employment lacks the social security

framework that formal employment provides. Fourth, considering current per capita income levels, few can afford to stay unemployed for long. Many will simply opt for less productive jobs at lower wages. This implies that a downward trending unemployment rate may not be an accurate gauge of labour market distress. The heightened demand for work under MGNREGA, despite large parts of the economy having recovered to their pre-pandemic levels, suggests continuing economic distress.

The recent protests in the states of Uttar Pradesh and Bihar, by those who had appeared for the non-technical popular categories exam conducted by the Indian Railways, are indicative of this growing mismatch between the demand and supply of jobs. So are the demands by various caste groups for increasing reservation in public sector employment and expanding their scope to encompass the private sector. At their core, they indicate the lack of adequate and remunerative employment generation in the country, and the inability of the government to facilitate the creation of a labour-intensive manufacturing sector that can absorb the surplus labour force in agriculture and the millions entering the labour force each year. This is the biggest issue confronting the government.

EPFO INTEREST RATE AND ITS AGENDA FOR GUWAHATI MEETING

The Employees' Provident Fund Organisation will meet on March 4-5 in Guwahati to decide on the interest rate for its subscribers for the financial year 2021-22. The Finance Investment & Audit Committee (FIAC) will be meeting on Wednesday to discuss the Board's accounts and earnings from investments so far.

Interest rate

The EPFO Board had in March last year finalised a recommendation of 8.5 per cent interest rate for the previous financial year 2020-21. This rate, the same as last year's, was the lowest offered by EPFO in eight years. The Fund had started crediting the interest rate for FY21 for its subscribers. "23.59 crore accounts have been credited with an interest of 8.50% for the FY 2020-21," it had said in a tweet on December 20. The EPFO has an active subscriber base of more than 6.7 crore and 6.9 lakh contributing establishments. For FY2021, the EPFO had decided to liquidate investment in equity and the interest rate recommended was a result of combined income from interest received from debt investment as well as income realised from equity investment. The recommendation is then ratified by the Finance Ministry. The EPFO had retained the interest rate on PF deposits for 2020-21 at the same rate as in 2019-20 despite the substantial withdrawals in the wake of Covid's impact on people's financial resources. The retirement fund body saw high withdrawals and lower contributions in the aftermath of the Covid-19 pandemic. Until December 31, the EPFO had settled 56.79 lakh claims worth Rs 14,310.21 crore provided under the advance facility. Financial year 2021-22 will be the first year when the government's proposal to tax interest on higher contributions to the EPF will come into place. The Budget for 2021-22 had proposed interest on provident fund contributions exceeding Rs 2.5 lakh per year effective April 1, 2021. The Budget proposal had noted that the government has found instances where some employees are contributing high amounts to these funds and are getting the benefit of tax exemption at all stages — contribution, interest accumulation and withdrawal. With an aim to exclude high net-worth individuals (HNIs) from the benefit of tax-free interest income on their higher-than-designated contributions, the government had proposed to impose a threshold limit for tax exemption.

FIAC meeting on Wednesday

The investment committee under the EPFO will discuss the Board's earnings. They will submit a recommendation for the interest rate closer to the CBT meeting next month, a Board member said. It will also further discuss the Board's approval for investment of up to 5 per cent of its annual deposits in new asset classes of alternative investment funds (AIFs), including infrastructure investment trusts (InvITs), which the Board had given initial approval in its previous meeting in November. The Board had empowered the FIAC to decide upon the investment options, on a case-to-case basis, for investment in all such asset classes. The EPFO would go for investments in public sector bonds. At present, the National Highways Authority of India (NHAI) and Power Grid Corporation (PGCIL) have launched public sector InvITs. In April last year, the Labour Ministry notified changes in investment options to include units issued by Category I and Category II AIFs regulated by the Securities and Exchange Board of India (Sebi). The EPFO can invest up to 15 per cent of investment in equity, as per the pattern of investment notified by the central government and the internal guidelines of the EPFO approved by the CBT. It had invested Rs 7,715 crore in equity till June 30 this year.

A SELF-RELIANT PHARMA INDUSTRY

The pharmaceuticals industry is a key sector for the Atmanirbhar Bharat programme. The objective of the Phase-I Production-Linked Incentive (PLI) scheme in this sector was to reduce import dependence on active pharmaceutical ingredients (APIs), drug intermediates (DIs) and key starting materials (KSMs). This scheme was expected to attract a lot of interest as countries had begun to adopt measures to reduce their dependence on China for APIs. However, the response to this scheme did not meet expectations. A total of 239 applications were received in two rounds from an industry of over 3,000 firms. Of these, 61 were selected. As 11 beneficiaries withdrew from the scheme, the number reduced to 50 as on December 9, 2021, against the maximum number of 136 beneficiaries as mentioned in the guidelines. No beneficiary was identified in five of the 41 products notified for the scheme.

Creating confidence among investors

A recent study conducted by us on this scheme, published as a working paper of the Institute for Studies in Industrial Development (ISID), shows that India needs a strategy, not just a scheme, to realise the objective of reducing import dependence. There are three areas where this PLI scheme requires modifications. Other complementary measures also need to be put in place for India to become self-reliant in APIs, DIs and KSMs. Firms will invest in production in India if they see a prospect of producing at prices cheaper than the cost of imports. As cheaper imports from China are critical for maintaining their global competence in the export of formulations, investors will face an investment uncertainty if the proposed measures do not ensure the price competitiveness of domestic production. More than half the turnover of this industry is from exports. Imports from China are reported to be cheaper by 35–40% compared to indigenously produced products. So, any strategy aimed at achieving self-reliance should focus on achieving price competency in production. Technology plays a very crucial role in reducing import dependence as Indian producers have constraints in overcoming some of the advantages of Chinese producers such as scale of operations. Without appropriate technology, APIs/DIs/KSMs manufacturers in India will not be in a position to beat their Chinese counterparts in pricing. This PLI scheme doesn't have a technology component. Two, this scheme also insists on new manufacturing facilities, which doesn't make business sense for firms which have idle capacities. Many firms used to produce these products and have wound up production as cheaper imports began to flow from China.

Permission to utilise existing but inoperational or underutilised facilities for production would have elicited a better response. Three, the history of development of the indigenous pharmaceutical industry in India shows the significance of an industrial policy that is in tandem with trade and science and technology policies. This PLI scheme remains a standalone measure; it is not connected to other relevant policy measures. Nearly three-fourth of the production of pharmaceuticals in India is by MSMEs. Historically, large private sector firms have been interested in formulations, not APIs. As APIs are sold with their chemical names and without branding, large firms have no interest in their production. The production of APIs by large firms, if at all, is largely for captive consumption. The focus of the PLI Phase-I scheme, however, is on large firms. The data we obtained for 13 of the beneficiary firms shows that all of them are large firms, if the definition of MSMEs that existed at the time of announcement of the scheme is used. If the new definition is used, all except one are large firms. It seems like policymakers are interested in taking advantage of efficiencies associated with the scale of operations by encouraging large firms. But it is equally important to include smaller firms which are into the KSMs/DIs/APIs business in a major way.

Involving public sector enterprises

In spite of the two rounds of applications, no beneficiary was identified (or no application was received) in five products, which are all antibiotics. It appears from our interactions with the industry that four of the five products — Neomycin, Gentamicin, Tetracycline and Clindamycin base are APIs that are not used much by the industry. This may be one of the reasons for the lack of enthusiasm by the industry. However, we should note that such APIs may be of great significance for public health. In such cases, public sector enterprises (PSEs) should be tasked with the production of APIs and their KSMs and DIs. The lead role that PSEs had played in the development of an indigenous pharmaceutical industry in India can never be forgotten.

WHEN WILL NEW VANDE BHARAT TRAINS BE LAUNCHED?

Finance Minister Nirmala Sitharaman has in the Union Budget for 2022-2023 proposed the development and manufacture of 400 new Vande Bharat trains in the next three years. In her speech, Ms. Sitharaman said these would be “new generation” trains with better energy efficiency and passenger riding experience.

What is it?

The Vande Bharat train is an indigenously designed and manufactured semi high speed, self-propelled train that is touted as the next major leap for the Indian Railways in terms of speed and passenger convenience since the introduction of Rajdhani trains. These trains, dubbed as Train 18 during the development phase, operate without a locomotive and are based on a propulsion system called distributed traction power technology, by which each car of the train set is powered. The Vande Bharat coaches incorporate passenger amenities including on-board WiFi entertainment, GPS-based passenger information system, CCTVs, automatic doors in all coaches, rotating chairs and bio-vacuum type toilets like in aircraft. The first Vande Bharat was manufactured by the Integral Coach Factory (ICF), Chennai, in about 18 months as part of the ‘Make in India’ programme, at a cost of about ₹100 crore. The current version of the train has 16 coaches with 14 ordinary chair cars and two executive class chair cars. The train has a passenger carrying capacity of more than 1,100 people. It can achieve a maximum speed of 160 kmph due to faster acceleration and deceleration, reducing journey time by 25% to 45%. It also has an intelligent braking system with power regeneration for better energy efficiency thereby making it cost, energy and environment efficient. The Vande Bharat was India’s first attempt at adaptation

of the train set technology compared with conventional systems of passenger coaches hauled by separate locomotives. The train set configuration though complex is faster, easier to maintain, consumes less energy, and has greater flexibility in train operation, according to the Indian Railways.

How many Vande Bharat trains do the Railways currently operate?

Currently, two Vande Bharat Expresses are operational —one between New Delhi and Varanasi and the other from New Delhi to Katra. Following this, the Railways had issued a more than ₹2,000 crore contract for making 44 more such trains. However, the first tender was cancelled and reissued to align it with the 'Make in India' policy. For the first time, the tender required a minimum 75% local content requirement of the total value of the tender. In August 2020, Hyderabad-based Medha Servo Drives Ltd. won the contract for designing and manufacturing the propulsion, control and other equipment needed to make the 44 train sets. The rakes or train sets, the Railways had announced, would be manufactured at three of its production units— 24 rakes at ICF, Chennai and 10 rakes each at the RCF Kapurthala and at the Modern Coach Factory, Raebareli. On the delivery schedule of these rakes, the Railways had said that the first two prototype rakes would be delivered in 20 months (or by March-April 2022), thereafter on successful commissioning, the firm would be delivering an average of six rakes per quarter.

What is the current status of the programme?

Speaking to reporters after the Budget announcement, Railways Minister Ashwini Vaishnaw said that designing for version 2.0 of these trains had been completed and that testing was expected to commence from April onwards, while serial production for these rakes was likely to begin by September. On the 400 new trains, Mr. Vaishnaw said the announcement had given the Railways a target of coming out with an even better version. The design updates in the upcoming trains would focus on safety and comfort of the passengers, including reduced noise and vibration levels. The Railways is also said to be considering the use of aluminium instead of steel in the construction of the coaches as this would help make the trains much lighter thereby improving energy efficiency, and also making the trains faster.

ONLY 1 IN 4 IN UDAN ROUTES SURVIVED AFTER 3 YEARS, DATA SHOW

Only one out of four routes under the low-cost flying scheme called UDAN have survived after completing the government's subsidy period of three years, according to information shared by the Ministry of Civil Aviation before a parliamentary panel. "Of the 94 RCS-Udan routes that have completed 3-year tenure till 30.11.2021, only 22 routes are in operation," the Ministry told the Parliamentary Standing Committee on Transport, Tourism and Culture which tabled its report in Parliament last week. Nearly five years ago, Prime Minister Narendra Modi launched the first flight under Ude Desh Ka Aam Nagrik (UDAN) scheme, also known as regional connectivity scheme (RCS). The aim of the scheme was to take flying to the masses and improve air connectivity to tier-2 and -3 cities. Under the scheme, airlines have to cap fares at ₹2,500 per seat per hour of flight for 50% of the seats in a plane for which they receive a viability gap funding (subsidy) from the government along with some other benefits. The government expected that after the expiry of the three-year subsidy period, airlines would be able to sustain the routes without outside support. The scheme document says the key guiding principle is to encourage "sustainability of operations under RCS in the long term — such that the connectivity established is not dependent on VGF in perpetuity". It also recognises that select areas may need funding support for longer periods. While some airlines like the Hyderabad-based TruJet have approached the government for an

extension of the subsidy period, their request has been declined but the government has offered to extend certain benefits for one year, the Ministry told the parliamentary panel. It is learnt that these benefits include parking and landing charges, electricity charges, and route navigation and facilitation charges on a discounted bases.

Bidding rounds

Since 2017, there have been seven rounds of bidding for routes during which 948 have been awarded to airlines and helicopter operators. Of these 403 routes have commenced operations. Of the 154 unconnected airports (including 14 water-aerodromes and 36 heliports have been identified for operation of RCS flights) planned to be revived, 65 have resumed flights. The government has also told the committee that 300 routes "have been affected due to poor demand on account of COVID-19 pandemic situation". Officials of the Ministry of Civil Aviation say this means that the routes have seen demand plummet in view of which the government has allowed airlines to reduce their frequency to 60%, on the condition that the subsidy too will be cut proportionately.

FIXING FREQUENCIES FIRST

Finance Minister Nirmala Sitharaman's Budget announcement that the Government proposes to conduct the "required spectrum auctions" in 2022 to facilitate the roll-out of 5G mobile phone services in fiscal 2022-23 has understandably triggered speculation including about the feasibility of the timeline. The Government's keenness to expedite the roll-out was framed by Ms. Sitharaman as being propelled by an appreciation of the latest generation telecommunication technology's ability to serve as an enabler of economic growth and job creation. Commenting on the Budget announcement, Communications Minister Ashwini Vaishnaw said TRAI was expected to submit its recommendations on the spectrum to be set aside for 5G by March, adding that the auction for the airwaves would be held soon after. While last week's flurry of announcements have raised the possibility that the next auction of telecom spectrum may be held within the next few months, there is little clarity on the approach the Government plans to take with regard to the crucial issues surrounding the introduction of 5G services. Foremost are questions around the particular frequencies the regulator is likely to recommend, the Government's plans on pricing the spectrum, and most crucially, the very viability of the new technology, both for the telecom companies and the economy as a whole. With the financially stressed private telecom service provider industry now reduced to a near duopoly, as Vodafone Idea continues to bleed losses and subscribers and even plans to convert some of its outstanding interest dues to the DoT into an equity stake that will make the Union government the largest shareholder, the sector's appetite for the highly capital intensive 5G technology is unlikely to be substantial at the moment. That 5G represents an exponential leap in technology is beyond doubt. However, most countries that have commercialised 5G so far largely find the technology still predominantly deployed as an upgraded replacement for 4G in terms of end use, with the industrial and public utility applications envisaged still at least a few years away. Also, for the new technology to work at its optimum potential the Government would need to not only offer the key operational frequencies including the below 1 GHz, the C-Band frequencies around 3.5 GHz, and the higher 26 GHz but also crucially enable the transport or backhaul of signals between the base stations and telecom operator's core network by offering no- to low-cost E-Band airwaves. With the COVID-19 pandemic having shown up the existing mobile networks' inadequacies in terms of reach, especially in enabling the delivery of education to remote and rural students, it may make the most sense to delay the introduction of 5G until policymakers are sure its economic payoff will outweigh the high cost.

PENALISING EXPORT-IMPORT DATA PUBLICATION: GOVT SAYS TO PUNISH 'ILLEGAL SHARING'; EXPERTS FLAG LACK OF CLARITY

The government has, in the Budget 2022-23, proposed making publishing of export-import data from the country — unless required by law — by a person as a punishable offence, with imprisonment of up to six months. As some Opposition leaders and industry players raised concerns about the penal provision, government officials and agencies on Saturday tried to address the concerns by stating that it's meant to only punish the unethical and illegal sharing of such data. "The aggregate data on exports and imports will actually be published by the Department of Commerce and by all the agencies, there is no issue on that. The problem that we are facing was that some of the exporters and importers came to us and told us that our data is being stolen and is being shared on the Dark Net and is also being shared otherwise, and this is illegal. We don't want somebody to know at what price did I buy my product and from whom did I buy my product, it's a competition advantage that I have or it's a privacy issue that I have. So what we are saying is that people who are going to violate the law, who are going to use this information to sell it to others, we want to punish or we want to make a deterrent for it," Revenue Secretary Tarun Bajaj said while addressing the CII National Council post-Budget meeting on Saturday. The Finance Bill has proposed inserting a new Section 135AA in the Customs Act which proposes: "if a person publishes any information relating to the value or classification or quantity of goods entered for export from India, or import into India, or the details of the exporter or importer of such goods under this Act, unless required so to do under any law for the time being in force, he shall be punishable with imprisonment for a term which may extend to six months, or with fine which may extend to fifty thousand rupees, or with both". Some industry experts raised concerns about making publishing of export data a punishable offence as the amendment does not define the exact category of data which if published will become an offence or not. Some experts also said it was not clear if this includes publishing of aggregate trade data by other agencies. For instance, some agencies such as Office of Textiles and Apparel (OTEXA) under the US Department of Commerce and China General Administration of Customs regularly update countrywide export-import data, including trade data of other countries with India. Sources at the Commerce Ministry clarified that the amendment is aimed at addressing concerns of individual exporters and importers, and would not affect individuals or organisations publishing aggregate data. "This has been done to stop publication or use of individual importer/exporter data or information," said an official who did not wish to be quoted, noting that the new section would not impact the publishing of aggregate level data. "The proposed clause will only criminalise the illicit publication of personalised, transaction level information by private entities, which affects the competitive position of Indian businesses in international trade and compromises their data privacy," the Central Board of Indirect Taxes and Customs (CBIC) tweeted. Experts noted that exporters have been facing the issue of private players selling commercially sensitive data about individual exporters. Ajay Sahai, director general & CEO, Federation of Indian Export Organisations, said the new section addresses "concerns raised by exporters as few private people are publishing commercially sensitive information about exporters and their foreign buyers." He added that such players were selling data, including prices at which goods are exported, and that this was resulting in unethical competition and cost-cutting by other exporters to take orders and "thereby depriving the country of better export value".

WHY TESLA'S TAX BREAK PROPOSAL FOUND NO TAKERS WITHIN THE GOVT

The government has turned down a proposal for tax breaks by US-based Tesla Inc., given the lack of a coherent plan by the electric vehicle maker for domestic manufacture of cars. Senior government officials said the view was taken as the car manufacturer is demanding a tax cut only for importing cars into the country with fully assembled units, without any immediate or firm proposal to set up a domestic manufacturing facility in India.

Why has the proposal for import duty cut not been accepted for Tesla by India?

Senior government officials told The Indian Express that the firm in its proposal did not detail any setup for manufacturing the electric vehicles. The government's primary concern was that the firm is seeking duty cuts and then proposing domestic manufacturing conditional to the sales response in the country. The tax cut demand hence did not find favour as it was also felt that other firms may seek similar concessions.

What was the proposal for the import duty cut by Tesla? How did state governments respond to it?

Tesla had last year written to the ministries seeking a reduction in import duties on fully assembled cars. At present, customs duty ranging from 60 to 100 per cent is levied on cars imported as completely built units (CBUs), depending on the engine size and cost, insurance and freight (CIF) value less or above $40,000. Last month, following Tesla founder Elon Musk's tweet that challenges with the Indian government were proving to be a hindrance in the launch of Tesla's electric cars in India, several state government representatives invited the billionaire to set up shop in their respective territories. The day after that, Telangana Cabinet minister KT Rama Rao also tweeted: "Hey Elon, I am the Industry & Commerce Minister of Telangana state in India. Will be happy to partner Tesla in working through the challenges to set up shop in India/Telangana. Our state is a champion in sustainability initiatives & a top notch business destination in India". Same day, West Bengal's Minister of State for Minority Affairs & Madrasah Education tweeted: "Drop here, we in West Bengal have best infra & our leader @MamataOfficial has got the vision. Bengal means Business…" The next day, Maharashtra's Cabinet minister Jayant Patil, also quote-tweeting Musk, wrote: "Maharashtra is one of the most progressive states in India. We will provide you all the necessary help from Maharashtra for you to get established in India. We invite you to establish your manufacturing plant in Maharashtra".

NIMBUS HEALTH DEAL: WHY DRL IS EYEING MEDICAL CANNABIS MKT

In a bid to strengthen its position in the global medical cannabis industry, Indian pharmaceutical major Dr Reddy's Laboratories has said that it will acquire German firm Nimbus Health. Nimbus has been a major player in the field of cannabis-based medicines.

What are Dr Reddy's plans with the acquisition?

The company said that the acquisition will allow it to build on Nimbus Health's offerings and introduce cannabis-based medicines as a promising treatment option for patients. The company will be operating under the brand Nimbus Health and as a wholly-owned subsidiary of Dr Reddy's. The two companies did not disclose financial details of the deal, but Dr Reddy's said it will acquire Nimbus Health for an upfront payment, plus performance and milestone-based earn-outs over the next four years. "Cannabis is increasingly used to address and treat high unmet medical needs, especially in pain management and CNS. Further, with numerous studies being conducted to

leverage and introduce medical cannabis, we believe this is a must-be field for future healthcare delivery," said Patrick Aghanian, the Head of European Generics at Dr Reddy's.

What is the global demand of medicinal cannabis globally?

In Germany, Dr Reddy's claimed that the demand for medical cannabis has increased over the past few years following its legalisation in 2017. It said that the medical cannabis market in Germany witnessed a growth of about 25 per cent in 2021 when compared to 2020, and a CAGR of close to 55 per cent since 2017, making it one of the largest markets in Europe. Globally, the legal cannabis market is expected to reach an estimated valuation of $146.4 billion by 2025-end. A recent report by ResearchAndMarkets.com pegged the market size of medical cannabis at $176 billion by 2030 as various countries are considering legalising it.

What are some of the challenges and opportunities in this segment?

While countries are legalising the use of medical cannabis, varying rules and regulations present hurdles for companies in building a global market. Further, some regulators have also given a cold shoulder to such treatment protocols because many players rely on experimental approaches for administration of cannabis products. However, involvement of major pharmaceutical and biotechnology players in this segment is expected to bring in the necessary muscle to deal with regulatory hindrances.

What is the status of medical cannabis in India?

In India, while trade and consumption of cannabis is banned under the Narcotic Drugs and Psychotropic Substances (NDPS) Act of 1985, calls for legalising its use for medicinal purposes have grown stronger over the years. In January this year, the government had informed the Delhi High Court that cannabis is not completely prohibited in the country as its medical and scientific use is allowed after obtaining necessary permissions from state governments. In 2018, Uttarakhand had become the first state in the country to allow commercial cultivation of hemp crops. A year later, the Madhya Pradesh government also did the same.

LIFE & SCIENCE

EARLIEST SOLAR STORM

Through analysis of ice cores from Greenland and Antarctica, a research team has found evidence of an extreme solar storm that occurred about 9,200 years ago. What puzzles the researchers is that the storm took place during one of the sun's more quiet phases — during which it is generally believed our planet is less exposed to such events. It is currently believed that solar storms are more likely during the so-called sunspot cycle. Research now shows (Nature Communications) that this may not always be the case for very large storms. “We have studied drill cores from Greenland and Antarctica, and discovered traces of a massive solar storm that hit Earth during one of the Sun’s passive phases about 9,200 years ago,” Raimund Muscheler, geology researcher at Lund University says in a press release. The researchers scoured the drill cores for peaks of the radioactive isotopes beryllium-10 and chlorine-36. These are produced by high-energy cosmic particles that reach Earth, and can be preserved in ice and sediment. Cosmogenic radionuclides, such as carbon-14, beryllium-10 and chlorine-36, are produced within the Earth’s atmosphere as a result of the interactions of galactic cosmic rays (GCR) with its constituents and are modulated by the solar and the Earth’s magnetic fields. The enhanced flux of relatively lower energy particles during a solar energetic particle event (SEP) can trigger additional production of cosmogenic radionuclides, leaving an imprint in environmental archives.

11 MW IN 5 SEC: BREAK THROUGH IN NUCLEAR FUSION, AND WHY IT IS SIGNIFICANT

SCIENTISTS IN the United Kingdom have managed to produce the largest amount of energy so far from a nuclear fusion reaction, the same process that makes the Sun, and all other stars, shine and emit energy. This result is being seen as a major breakthrough in the ongoing global efforts to produce a fusion nuclear reactor.

All current nuclear reactors are based on the fission process, in which the nucleus of a heavier atom is split into those of lighter elements in a controlled manner. This process is accompanied with the release of large amounts of energy. Fusion is the opposite process, in which nuclei of relatively lighter atoms, typically those of hydrogen, are fused to make the nucleus of a heavier atom.

Much more energy is released in the fusion process than in fission. The fusion of atoms of two heavier isotopes of hydrogen — deuterium and tritium — for example, to form a helium nucleus produces four times as much energy as is released during the fission of a uranium atom, the kind of which we see in our nuclear reactors.

Quest for fusion energy

Trying to harness energy from fusion reaction is not a new endeavour. Scientists have been making efforts to build a fusion nuclear reactor for several decades, but the challenges are high. Fusion is possible only at very high temperatures, of the order of a few hundred million degrees Celsius, the kind of temperature that exists at the core of the Sun and the stars. Recreating such extreme temperatures is no easy task. The materials that will make up the reactor, too, need to be able to withstand such huge amounts of heat.

There are several other complications. At such high temperatures, matter exists only in the plasma state, where atoms break up into positive and negative ions due to excessive heat. Plasma, which has a tendency to expand very fast, is extremely difficult to handle and work with.

But the benefits of fusion reaction are immense. Apart from generating much more energy, fusion produces no carbon emissions, the raw materials are in sufficient supply, produces much less radioactive waste compared to fission, and is considered much safer.

Over the years, scientists have been able to draw up the plan for a fusion nuclear reactor. It is called ITER (International Thermonuclear Experimental Reactor) and is being built in southern France with the collaboration of 35 countries, including India which is one of the seven partners, along side the European Union, the United States, Russia, Japan, South Korea and China.

Several small-scale fusion reactors are already being used for research. The one that produced this week's new record in energy generation is based at the Culhum Centre for Fusion Energy, just outside of Oxford in England. During the record-breaking experiment, the reactor produced 11 megawatts of energy over a five-second period.

The ITER project

Fusion is considered to be the future of energy. It is supposed to liberate the world from the perennial quest for more and more efficient sources of energy. A very small amount of raw material — deuterium and tritium nuclei to begin with — can produce very large amounts of energy in a clean manner. It is also being seen as an answer to the problem of climate change.

In fact, in its early stages, fusion was also seen as an answer to the problem of climate change because it produces zero emissions. The climate crisis, however, has deteriorated rapidly and needs urgent attention, while a practical fusion reactor is still decades away.

Building a fusion reactor has not been easy. The ITER project began in1985 and the deadline for its first experimental run has been extended several times. According to the current time line, it is expected to become operational only in 2035. Right now, the reactor is in the machine assembly phase. Over ten million parts, being manufactured and tested in the seven member countries, have to be transported, assembled and integrated.

Still, ITER is only an experimental project. The energy it will produce—about500MW —would not be in the form of electricity that can be used. It will be a technology demonstration machine that will enable the building of futuristic fusion devices that can be run as normally as the fission reactors today. The deployment of fusion energy for electricity generation for our everyday needs might take another few decades after ITER becomes operational.

India joined the ITER project in 2005.The Institute for Plasma Research in Ahmedabad, a laboratory under the Department of Atomic Energy, is the lead institution from the Indian side participating in the project. As a member country, India is building several components of the ITER reactor, while also carrying out a number of experiments and R&D activities related to the project.

GEOMAGNETIC STORM THAT KILLED STARLINK SATELLITES

Elon Musk's Starlink has lost dozens of satellites that were caught in a geomagnetic storm a day after they were launched on February 3. Up to 40 of the 49 satellites were impacted, Starlink said,

causing them to fall from orbit before they could be commissioned. "(Rocket) Falcon 9's second stage deployed the satellites into their intended orbit, with a perigee of approximately 210 km above Earth, and each satellite achieved controlled flight. Unfortunately, the satellites deployed on Thursday (February 3) were significantly impacted by a geomagnetic storm on February 4," Starlink said in a statement on Tuesday. The satellites were designed to burn up on reentry into the Earth's atmosphere, and did not create debris in space. However, the loss of 40 satellites — most of a launch batch — in a single solar event has been described as "unheard of" and "huge".

Solar storms/flares

Solar storms are magnetic plasma ejected at great speed from the solar surface. They occur during the release of magnetic energy associated with sunspots ('dark' regions on the Sun that are cooler than the surrounding photosphere), and can last for a few minutes or hours. The solar storm that deorbited the satellites occurred on February 1 and 2, and its powerful trails were observed on February 3. "The emerging data suggest that the passing of the latter part of the storm, with its high density core, possessed speeds higher than what was recorded during the storm's arrival — something we did not expect," said physicist Prof Dibyendu Nandi, head of the Centre of Excellence in Space Sciences India (CESSI) at the Indian Institute of Science Education and Research (IISER), Kolkata. The storm was unusual, an unexpectedly extended event and of a kind not seen in the recent past, Prof Nandi said.

Effect on Earth

Not all solar flares reach Earth, but solar flares/storms, solar energetic particles (SEPs), high-speed solar winds, and coronal mass ejections (CMEs) that come close can impact space weather in near-Earth space and the upper atmosphere. Solar storms can hit operations of space-dependent services like global positioning systems (GPS), radio, and satellite communications. Geomagnetic storms interfere with high-frequency radio communications and GPS navigation systems. Aircraft flights, power grids, and space exploration programmes are vulnerable. CMEs, with ejectiles loaded with matter travelling at millions of miles an hour, can potentially create disturbances in the magnetosphere, the protective shield surrounding the Earth. Astronauts on spacewalks face health risks from possible exposure to solar radiation outside the Earth's protective atmosphere.

Predicting solar storms

Solar physicists and other scientists use computer models to predict solar storms and solar activities in general. The February 1-2 phenomenon that knocked out Starlink's satellites was predicted on January 29. Certain orientations of the magnetic field can produce a more intense response from the magnetosphere, and trigger more intense magnetic storms. With the increasing global dependence on satellites for almost every activity, there is a need for better space weather forecasts and more effective ways to protect satellites.

A QUANTUM SOLUTION TO A 243-YEAR-OLD MATHS PROBLEM

A famous problem that has perplexed mathematicians since 1779 has been settled, but with a quantum twist, by a collaboration of six Indian and Polish researchers, two of whom are from Indian Institute of Technology (IIT) Madras. The researchers have solved using matrix methods, the quantum equivalent of the classical problem. This could potentially be used in quantum secret sharing protocols – which will be useful when quantum computers come into play; parallel

teleportation, which is a way to transferring information across distances; and even perhaps may come in useful in solving the problem of quantum gravity.

Long-lived puzzles

Numerical puzzles often appear simple when phrased but can occupy mathematicians for hundreds of years. The 36 officers puzzle was first posed by Swiss mathematician Leonhard Euler. The puzzle can be described as follows: There are six regiments, each containing six officers of six different ranks. The question is, can you place the 36 officers in a square arrangement with six rows and six columns such that no row or column repeats an officer's rank or regiment? This puzzle was guessed to be unsolvable by Euler in 1779 and proven to be so by the French amateur mathematician G. Tarry in 1901. Squares such as this are often encountered in Sudoku and other magic squares of size n. Euler's 36 officers problem (for which n=6) and generalisations of it to other values of n = 2,3, etc are examples of Orthogonal Latin Squares (OLS). In this case, OLS solutions exist for all values of n except 2 and 6.

A quantum solution

Now Tarry had explicitly shown that n = 6 (36 officers puzzle) has no solution. But suppose the officers were not classical objects but were quantum entities, would this still be true? This is what physicists who joined the group of problem solvers started asking. Classically, this problem cannot be solved, but what if the officers were quantum entities? Here, it is necessary to understand "quantum entanglement". To get an idea, take 2 boxes, one in Chennai and other in Shopian, one containing a red (R) cube and other a blue (B) one. We think of the state as RB or BR depending on if the Chennai box contains a red or blue cube. A quantum entangled state, is a weird "superposition" of these two which physicists represent by RB+BR. The strange thing about this state is that opening the Chennai box can randomly reveal it to contain a blue or red cube and the nature of entanglement is to ensure that the other distant box contains a cube of the opposite colour. Repeating the experiment with an identical set of boxes, can result in the reverse colours immediately. This leads to what is popularly known as ``spooky action at a distance", and maximal entanglement leads to perfect correlation. Another famous example is that of Schrodinger's cat.

TAKING A BYTE OUT OF CYBER THREATS

Cyber attacks may be a relatively new phenomenon, but in a short time frame have come to be assessed as dangerous as terrorism. The world was possibly made aware of the danger and threat posed by cyber weapons with the advent of the Stuxnet Worm in 2010, which resulted in large-scale damage to Iran's centrifuge capabilities. Two years later, in 2012, a bank of computers belonging to the Saudi Aramco Oil Company were targeted, reportedly by Iranian operatives, employing malware that wiped out data on 30,000 computers. A few weeks later, Iran was again believed to have been behind a targeted attack on the Qatari natural gas company, RasGas. The string of instances appear to have provoked then United States Defence Secretary, Leon Panetta, to utter the warning that the world had to prepare for a kind of 'cyber Pearl Harbour', highlighting a new era of potential vulnerabilities.

Static response

In the decade that followed, and while preparing for a 'potential Pearl Harbour' type of strike, including seeking ways and means to retaliate in the eventuality of such attacks, the West seemed to lose its way on how to deal with the emerging cyber threat. Each succeeding year, despite an

increase in cyber threats, witnessed no change in the method of response. The years 2020 and 2021 have proved to be extremely difficult from the perspective of cyber attacks but no changes in methodology have been seen. In 2021, cyber attacks that attracted the maximum attention were SolarWinds and Colonial Pipeline in the U.S., but these were merely the tip of a much bigger iceberg among the string of attacks that plagued the world. Estimates of the cost to the world in 2021 from cyber attacks are still being computed, but if the cost of cyber crimes in 2020 (believed to be more than $1 trillion) is any guide, it is likely to range between $3trillion-$4 trillion. What is not disputed any longer is that soon, if not already, cyber crime damage costs would become more profitable than the global trade of all major illegal drugs combined.

Sectors that are vulnerable

As 2022 begins, the general consensus is that the cyber threat is likely to be among, if not the biggest, concern for both companies and governments across the globe. In the Information age, data is gold. Credential threats and the threat of data breaches, phishing, and ransomware attacks, apart from major IT outages, are expected to be among the main concerns. Results are also likely to far eclipse the damage stemming from the COVID-19 pandemic or any natural disasters. A little publicised fact is that the vast majority of cyber attacks are directed at small and medium sized businesses, and it is likely that this trend will grow.

According to experts, among the most targeted sectors in the coming period are likely to be: health care, education and research, communications and governments. Health-care ransomware has been little publicised, but the reality is that ransomware attacks have led to longer stays in hospitals, apart from delays in procedures and tests, resulting in an increase in patient mortality.

Far more than merely apportioning costs linked to cyber crime is the reality that no organisation can possibly claim to be completely immune from cyber attacks. While preventive and reactive cyber security strategies are needed — and are essential to mitigate cyber risks — they are proving to be highly illusive in an increasingly hyper-connected world. Comprehending the consequences of this reality could be devastating.

For instance, despite all talk about managing and protecting data, the reality is that ransomware is increasing in intensity and is tending to become a near destructive threat, because there are many available soft targets. Statistics in this regard are also telling, viz., that new attacks are taking place every 10 seconds. Apart from loss of data, what is also becoming evident is that ransomware criminals are becoming more sophisticated, and are using ransomware to cripple large enterprises and even governments. Talk of the emergence of 'Ransomware as a Service' (RaaS) — a business model for ransomware developers — is no mere idle threat.

The huge security impact of working from home, dictated largely by the prevailing novel coronavirus pandemic, must again not be underestimated as it is likely to further accelerate the pace of cyber attacks. A conservative estimate is that a rash of attacks is almost certain to occur on home computers and networks. Additionally, according to experts, a tendency seen more recently to put everything on the Cloud could backfire, causing many security holes, challenges, misconfigurations and outages. Furthermore, even as Identity and Multifactor Authentication (MFA) take centre stage, the gloomy prognostication of experts is that Advanced Persistent Threats (APT) attacks are set to increase, with criminal networks working overtime and the Dark web allowing criminals to access even sensitive corporate networks.

Scant clarity

Unfortunately, and despite the plethora of such evidence, cyber security experts appear to be floundering in finding proper solutions to the ever widening cyber threat. There is a great deal of talk among cyber security experts about emerging cyber security technologies and protocols intended to protect systems, networks and devices, but little clarity whether what is available can ensure protection from all-encompassing cyber attacks. Technology geeks, meanwhile, are having a field day, insisting on every enterprise incorporating SASE — Secure Access Service Edge — to reduce the risk of cyber attacks. Additional solutions are being proposed such as CASB — Cloud Access Security Broker — and SWG — Secure Web Gateway — aimed at limiting the risks to users from web-based threats. Constant references to the Zero Trust Model and Micro Segmentation as a means to limit cyber attacks, can again be self-limiting. Zero Trust does put the onus on strict identity verification 'allowing only authorized and authenticated users to access data applications', but it is not certain how successful this and other applications will prove to be in the face of the current wave of cyber attacks. What is most needed is absent, viz., that cyber security experts should aim at being two steps ahead of cyber criminals. This is not evident as of now.

Unique challenges

Missing from the canvas is that cyber technology presents certain unique challenges which need particularised answers. Instead of attempting to devise standard methodologies, and arrive at certain international norms that govern its use, a decade of misplaced effort by the West in preparing for a 'potential Pearl Harbour type of strike' has enabled cyber criminals to gain the upper hand. While the West focused on 'militarization' of the cyber threat, and how best it could win with its superior capabilities, valuable time was lost. It led to misplaced ideas and erroneous generalisations, resulting in a decade of lost opportunity.

This situation needs to be reversed. A detailed study of the series of low- and medium-level proactive cyber attacks that have occurred during the past decade is clearly warranted. It could reinforce the belief that when it comes to deterrence in cyber space, what is required is not a piece of 'grand strategy': low and medium tech, low and medium risk targeted operations could be just as effective. A related aspect is to prevent individual companies from attempting their own tradeoffs — between investing in security and maximising short-term profits. What many companies and even others fail to realise is that inadequate corporate protection and defence could have huge external costs for national security, as was evident in the SolarWinds attack.

Defence and backup plans

Nations and institutions, instead of waiting for the 'Big Bang cyber attack', should actively prepare for a rash of cyber attacks — essentially ransomware — mainly directed at available data. The emphasis should be on prioritising the defence of data above everything else. Consequently, law enforcement agencies would need to play a vital role in providing effective defence against cyber attacks.

On the strategic plane, understanding the nature of cyber space is important. While solving the technical side is 'one part of the solution, networks and data structures need at the same time to prioritise resilience through decentralised and dense networks, hybrid cloud structures, redundant applications and backup processes'. This implies 'planning and training for network failures so that individuals could adapt and continue to provide service even in the midst of an offensive cyber campaign'.

The short answer is to prioritise building trust in systems — whether it is an electrical grid, banks or the like, and creating backup plans including 'strategic decisions about what should be online or digital and what needs to stay analogue or physical, and building capacity within networks to survive' even if one node is attacked. Failure to build resilience — at both the 'technical and human level — will mean that the cycle of cyberattacks and the distrust they give rise to will continue to threaten the foundations of democratic society'. Preventing an erosion of trust is critical in this day and age.

THE TUMBLING OF META PLATFORMS' SHARES

The shares of Meta Platforms, the parent company of social media giant Facebook, crashed by as much as 25% on Thursday, wiping out over $200 billion from the company's market value. The crash came after Meta on Wednesday announced its earnings results for the fourth quarter of 2021 which did not impress investors. The 25% crash in Meta shares is its biggest fall since its debut in 2012.

Why do shares move up or down?

The price of a share generally reflects the expectations of investors regarding the future cash flow that they can earn from the share. This is the reason why shares of even loss-making companies can appreciate significantly if investors expect these companies to earn significant profits in the future. At the same time, established companies earning billions in profits for their shareholders can still see their stock prices tank if investor expectations regarding the future earnings of these companies begin to sour. Since expectations about the future earnings of a share can change within a matter of just a few seconds or less, share prices are prone to sudden jumps or falls, as in the case of Meta's stock last week.

Why exactly are investors concerned about Meta's future earnings?

Meta's quarterly earnings statement last week informed investors that Facebook lost half a million active users during the fourth quarter. This is the first time that Facebook has witnessed a drop in its active user base, leading analysts to believe that its long growth story may be over. Meta CEO Mark Zuckerberg, who lost around $20 billion of his personal wealth due to the crash, noted that the company's rival TikTok was a growing threat to its business. There have also been concerns around the demography of Facebook users as younger users prefer other competing platforms over Facebook. Meta earns most of its revenues through advertising and the fall in the number of active users of Facebook is seen as a huge red flag. It should be noted that Meta reported an overall increase in active users, thanks to the popularity of its other platforms such as Instagram and WhatsApp. But analysts believe that it will be much harder for Meta to monetise its user base through these new platforms. Another area of concern for investors has been the sustainability of Meta's advertising revenues. Of late, changes to Apple's privacy policy have given iPhone users the choice to opt out of being tracked by sites like Facebook. This has made it harder for Facebook to learn more about what its users do online and make money using this information by showing them targeted ads for which advertisers want to pay. It is expected that Meta will lose about $10 billion in revenue in 2022 due to Apple's new privacy policy. Investors have also been uncertain about the future of Meta as the company tries to reinvent itself. In fact, it was only last year that Facebook renamed itself as Meta Platforms to highlight its change in focus, from offering users the traditional social media experience to offering them a new immersive virtual experience through the metaverse. However, the success of the company's new pivot is far from certain and is expected to take years to come into fruition and will cost billions of dollars. The shaky confidence

of investors, some say, was reflected in Meta's stock price even before Thursday's crash. Meta's shares have fallen by almost 40% since the peak that they hit in September last year.

What lies ahead?

No one knows for sure what lies ahead for the company. Meta invested over $10 billion in developing the metaverse last year and only time will tell whether this investment is justified. As the company adjusts this investment as an expense against its current revenues, its profits are likely to be adversely affected in the short-term and weigh on the price of its share. It should also be noted that the technology business with its low barriers to entry has traditionally witnessed a lot of churn with giant companies which once seemed to enjoy a strong monopoly getting uprooted by new, more agile entrants. Facebook, for instance, came to be the most popular social networking site by killing Orkut which was once very popular among internet users. Google's complete obliteration of Yahoo! from the search engine business is another example of creative destruction that is widespread in the technology market. Gyrations in the price of Meta shares will likely reflect all these uncertainties in the coming days.

LUC MONTAGNIER, NOBEL-WINNING CO-DISCOVERER OF HIV, DIES AT 89

Luc Montagnier, a French virologist who shared a Nobel Prize in 2008 for discovering the virus that causes AIDS, died Tuesday in the Paris suburb of Neuilly-sur-Seine. He was 89. The town hall in Neuilly confirmed that a death certificate for Montagnier had been filed there. For all the glory Montagnier earned in helping to discover the virus, today known as HIV, in later years he distanced himself from colleagues by dabbling in maverick experiments that challenged the basic tenets of science. Most recently he was an outspoken opponent of coronavirus vaccines. The discovery of HIV began in Paris on January 3, 1983. That was the day that Montagnier (pronounced mon-tan-YAY), who directed the Viral Oncology Unit at the Pasteur Institute, received a piece of lymph node that had been removed from a 33-year-old man with AIDS, or acquired immune deficiency syndrome. Dr Willy Rozenbaum, the patient's doctor, wanted the specimen to be examined by Montagnier, an expert in retroviruses. At that point, AIDS had no known cause, no diagnostic tests and no effective treatments. Many doctors, though, suspected that the disease was triggered by a retrovirus, a kind of germ that slips into the host cell's DNA and takes control, in a reversal of the way viruses typically work; hence the name retro. From this sample Montagnier's team spotted the culprit, a retrovirus that had never been seen before. They named it LAV, for lymphadenopathy associated virus. The Pasteur scientists, including Dr Françoise Barré-Sinoussi, who later shared the Nobel with Montagnier, reported their landmark finding in the May 20, 1983, issue of the journal Science, concluding that further studies were necessary to prove LAV caused AIDS. The following year, the laboratory run by American researcher Dr Robert Gallo, at the National Institutes of Health, published four articles in one issue of Science confirming the link between a retrovirus and AIDS. Gallo called his virus HTLV-III. There was some initial confusion as to whether the Montagnier team and the Gallo team had found the same virus or two different ones. When the two samples were found to have come from the same patient, scientists questioned whether Gallo had accidentally or deliberately got the virus from the Pasteur Institute. And what had once been camaraderie between those two leading scientists exploded into a global public feud, spilling out of scientific circles into the mainstream press. Arguments over the true discoverer and patent rights stunned a public that, for the most part, had been shielded from the fierce rivalries, petty jealousies and colossal egos in the research community that can disrupt scientific progress. Montagnier sued Gallo for using his discovery for a US patent. The suit was settled out of court, mediated by Jonas Salk, who had years earlier been involved in a similar battle

with Albert Sabin over the polio vaccine. Montagnier and Gallo shared many prestigious awards, among them the 1986 Albert Lasker Medical Research Award, which honoured Montagnier for discovering the virus and Gallo for linking it to AIDS. And in 2002 they appeared to have resolved their rivalry when they announced that they would work together to develop an AIDS vaccine. Then came the announcement of the 2008 Nobel Prize for Medicine or Physiology. Gallo had long been credited with linking HIV to AIDS, but the Nobel Committee for Physiology or Medicine singled out its discoverers, not him, in awarding half the prize jointly to Montagnier and Barré-Sinoussi. (The other half was awarded to Dr Harald zur Hausen of Germany "for his discovery of human papilloma viruses causing cervical cancer.") Last May, he added fuel to the spread of false information about Covid-19 vaccines by claiming, in a French video, that vaccine programs were an "unacceptable mistake" because, he said, vaccines could cause viral variants. And in January, in an opinion article in The Wall Street Journal written with Yale law professor Jed Rubenfeld, he criticised President Joe Biden's vaccine mandates.

EVEREST'S HIGHEST GLACIER COULD DISAPPEAR THIS CENTURY

Researchers in Nepal on Tuesday warned that the highest glacier on the top of Mount Everest could disappear by the middle of this century as the 2,000-year-old ice cap on the world's tallest mountain is thinning at an alarming rate. The International Centre for Integrated Mountain Development (ICIMOD) here said that Everest has been losing ice significantly since the late 1990s, citing a latest research report issued here. The Everest Expedition, the single most comprehensive Scientific Expedition to Everest, conducted trailblazing research on glaciers and the alpine environment, the ICIMOD said. A recent article published in the Nature Portfolio journal reported that the ice on Everest has been thinning at an alarming rate. The multidisciplinary team comprised scientists from eight countries, including 17 from Nepal. Three of the co-authors of the study were affiliated with the ICIMOD. It has been estimated that the ice in the South Cole glacier located at an elevation of 8,020 metres is thinning at a rate of nearly two-mitre per year, the report said. The findings were based on data from a 10-metre-long ice core obtained from South Col Glacier (in the Nepalese side of the Everest) at an elevation of 8,020 metre and meteorological observations from the two highest automatic weather stations in the world located on the southern slopes of Everest at 7,945 and 8,430?metre. The researchers, on the basis of radiocarbon dating, estimated the age of ice in the glacier to be 2,000-year-old. They warned that the highest glacier could disappear by the middle of this century. The rate of ice loss measured is more than 80 times faster than the 2,000 years it took to form this thickness of ice. "The long-term effect on the availability and stability of these water towers which will impact downstream communities is of major concern," the ICIMOD said in the statement. Glaciers in the Himalayas make a significant contribution to water resources for millions of people. The research finding states that the change in ice cover in the Everest could have been triggered by climate change. In December 2002, China and Nepal announced that the world's highest peak is now taller by 86 centimetres after they remeasured Mt Everest at 8,848.86 metres, over six decades after India conducted the previous measurement in 1954. The revised height of Mt Everest put an end to the decades-long dispute between the two neighbours on the height of the world's tallest mountain that straddles their shared border.

ANTARCTIC MICROBES MAY HELP IN PLASTIC CLEAN-UP

A team of Argentine scientists is using microorganisms native to Antarctica to explore the idea of cleaning up pollution from fuels and, potentially, plastics in the pristine expanses of the white continent. The tiny microbes munch through the waste, creating a naturally occurring cleaning

system for pollution caused by diesel that is used as a source of electricity and heat for research bases in the frozen Antarctic. The continent is protected by a 1961 Madrid Protocol that stipulates it must be kept in a pristine state. The research on how the microbes could help with plastic waste could have potential for wider environmental issues. "This work uses the potential of native microorganisms - bacteria and fungi that inhabit the Antarctic soil, even when it is contaminated," said Dr. Lucas Ruberto, a biochemist. "What for us is a contaminant, for them can be food." Ruberto said that the team helped the microbes with nitrogen, humidity and aeration to optimise their conditions. "Basically with that we get the microorganisms to biologically reduce, with a very low environmental impact, the level of contaminants," he told Reuters by Zoom. The team has now started to research how the microbes could help clean up plastic waste elsewhere. "This year we incorporated as one of the group's projects the search for indigenous microorganisms that are capable of degrading plastic," said Nathalie Bernard, a biochemist and specialist in plastic biodegradation. The researchers collect samples of plastic from the Antarctic seas and study to see if the microorganisms are eating the plastics or simply using them as rafts. "If we find that it is indeed degrading plastic, the next step would be to understand how it does that, so that in the long-term we could find a way to put together a biotechnology process for low-temperature polymer degradation," Bernard added.

MEET INDIA'S NEWEST MAMMAL: WHITE CHEEKED MACAQUE

Scientists from the Zoological Survey of India (ZSI) have found a new mammal species in the country — the White Cheeked Macaque. While the Macaque was first discovered in China in 2015, its existence was not known in India before this — it is only now that Indian scientists have discovered its presence in the remote Anjaw district in central Arunachal Pradesh. That is barely 200 km aerial distance from where it was first spotted in China — in Modog in Southeastern Tibet. The discovery has been published in the February 3 issue of international journal 'Animal Gene'. "The discovery was entirely accidental. We were not looking for the White Cheeked Macaque; we had received a grant of Rs 10 crore for a project to study Himalayan species — this involved exploring biodiversity of the Himalayas and studying large threatened species in the region," ZSI scientist Dr Mukesh Thakur, also the lead author of the study carried out under recently retired director of ZSI, Dr Kailash Chandra. Thakur said they were tracking the Red Panda and the Arunachal macaque in the eastern Himalayas. "One of my students, Avijit Ghosh, was tracking the Arunachal macaque that we have been studying. He collected faecal and skin samples of the macaque and when we carried out DNA sequencing at ZSI lab, expecting it to be the Arunachal macaque, we realised it was actually the White Cheeked Macaque." Taken aback by the results, Thakur said the team carried out DNA sequencing a second time around. Only to reconfirm that the ZSI had indeed stumbled upon the White Cheeked Macaque in India. Since then, ZSI has carried out several confirmations — through more testing and camera trapping of the animal. They even discovered a juvenile White Cheeked Macaque, which had been captured and held in the house of a local villager — the tribespeople inhabiting Anjaw are traditional hunters. Thakur called the discovery in both China and India as "breakthrough discoveries". "It is very rare nowadays to discover new mammal species," he said. "As taxonomy scientists, we do describe new species of smaller animals, amphibians and insects. But large animals are very rare." The latest discovery, Thakur said, takes India's mammal count from 437 to 438. The White Cheeked Macaque has distinct white cheeks, long and thick hair on the neck and a longer tail than other Macaque species. It is the last mammal to have been discovered in Southeast Asia. Both the Arunachal macaque as well as the White Cheeked Macaque exist in the same biodiversity hotspot in the eastern Himalayas.