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INTERNATIONAL

WHAT ARE THE RAMIFICATIONS OF THE BIDEN-XI SUMMIT?

U.S. President Joe Biden and his Chinese counterpart Xi Jinping held a virtual summit earlier this week touching upon a range of policy concerns in the bilateral space. The meeting was long overdue given the lack of in-person contact between the two leaders, as Mr. Xi has not travelled outside China since early 2020, the time when Mr. Biden entered the Oval Office, owing to the outbreak of the COVID-19 pandemic. Meanwhile, tensions have soared between Washington and Beijing across issues of global and regional interest, including trade, Taiwan and the South China Sea, and technology, including 5G. At a meeting of senior officials from the two countries in March 2021 in Anchorage, Alaska, a heated exchange followed U.S. Secretary of State Antony Blinken's comment that without the rules-based international order there would be a "much more violent world" and that Chinese activities in Xinjiang, Hong Kong, and Taiwan threaten that order and were, therefore, not internal matters. As a key meeting following that encounter, the latest summit exchange saw the two Presidents articulate their views on each of these subjects; yet there was no breakthrough announcement. This suggests that the task ahead for both nations would be to manage conflicts so that they do not spill over and affect the global economy.

What are the core areas of tension now?

Trade and tariffs are at the top of the agenda of policy matters causing bilateral friction. After the globally damaging trade war with China through 2019 and 2020, a dispute that was exacerbated by former President Donald Trump's tariffs on a vast swathe of Chinese exports — including solar panels, washing machines, steel and aluminium, and numerous food products — a temporary reprieve came with the Phase One Trade Agreement. Under it, China was mandated to buy \$380 billion worth of American goods by the end of 2021, yet has failed to do so, according to analysts, owing to a shortfall in orders from Beijing for Boeing aircraft following the slowdown in commercial aviation during the pandemic. However, unlike the escalating tensions between Beijing and the Trump administration, this time a compromise may yet be hammered out, as U.S. Trade Representative Katherine Tai recently hinted that the exemptions for certain goods from trade tariffs may be permitted. A second key area of tension is the question of Taiwan's independence, a topic that was likely writ large in the discussions between Mr. Biden and Mr. Xi this week. The U.S. post-summit readouts suggests that Washington is holding firm to its long-standing policy on this complex subject, that it acknowledges but does not recognise Beijing's claim to Taiwan under the One China policy. In contrast, the Chinese delegation has indicated that Mr. Xi said, "It is playing with fire, and if you play with fire, you will get burned" — a comment that signals that China will likely respond aggressively to any moves by Western powers seen as strengthening Taiwanese independence, including direct arms sales to Taipei and visits by Western lawmakers to the island territory. A third major bilateral subject that has proved to be contentious is technology. On the one hand, since the administration of Mr. Trump, the White House used the trade war with China to bluntly accuse Beijing of "unfair trade practices for technology and intellectual property", and U.S. policymakers relied on a matrix of export restrictions to target China's semiconductor supply chain in a bid to safeguard critical infrastructure in the telecommunications sector. On the other, the arrest and subsequent release of Meng Wanzhou, CFO of Chinese telecommunications equipment and consumer electronics giant Huawei, after China counter-arrested two Canadian nationals, demonstrated the extent of



suspicion that Western nations have of 5G technology rolled out by China. Such suspicion, overlaid with the string of indictments served to Chinese nationals in the U.S. on allegations of industrial espionage, hint at the deep chasm between the U.S. and Chinese governments on the broad question of technology and surveillance.

What led the two Presidents to engage in a dialogue?

Although the 2021 U.S.-China virtual summit meeting yielded no breakthrough announcement, Beijing wasted little time in claiming a diplomatic victory, with Chinese state media proclaiming, "Biden reiterates he doesn't support Taiwan independence." For Mr. Biden, whose job approval rating has slumped to 36%, according to the Quinnipiac University national poll, a win with China would have gone some way towards uplifting his prospects. But no quick victory has come out of the latest dialogue.

CHINA DOWNGRADES DIPLOMATIC TIES WITH LITHUANIA OVER TAIWAN

China has officially downgraded diplomatic ties with Lithuania, the Foreign Ministry in Beijing said on Sunday, after Taiwan established a de facto Embassy in Vilnius. China baulks at any official use of the word "Taiwan" in case it gives international legitimacy to the island, which Beijing considers part of its territory to be taken one day. "The Chinese government had to lower diplomatic relations between the two countries... to safeguard its sovereignty and the basic norms of international relations," the Ministry said in a statement announcing the downgrade to the charge d'affaires level. "The Lithuanian government must bear all consequences that arise from this." It added that Lithuania had "abandoned the political commitment made upon the establishment of diplomatic relations" with China. It was a reference to the "One China" policy, under which countries officially recognise Beijing over Taipei. Lithuania's Foreign Ministry on Sunday said it regretted China's decision. "Lithuania reaffirms its adherence to the 'One China' policy, but at the same time has the right to expand cooperation with Taiwan," the Ministry said in a statement. Lithuanian Prime Minister Ingrida Simonyte stressed that Taiwan's office in Vilnius does not have diplomatic status. "The fact that Lithuania wants to intensify economic, cultural or scientific ties with Taiwan was announced in our government's programme, so our move should not be very surprising," she said. Chinese state broadcaster CCTV called the move a "solemn warning against the crude provocation of China's core interests".

THE SECRET SPREAD

The revelation that China was constructing a secret military facility at the Port of Khalifa in the United Arab Emirates confirms both Beijing's growing strategic ambition and the stealth and subterfuge with which it is expanding its military footprint beyond its borders. According to a report in The Wall Street Journal, the US government held urgent meetings with the authorities in the UAE after satellite images revealed the surreptitious construction of a military structure earlier this year. The UAE subsequently halted the project and claimed that it did not know about China's military infrastructure development. This supposed ignorance will provide little comfort to New Delhi and others with a stake in Asia and the Indian Ocean Region (IOR). For much of the 20th century, Beijing eschewed foreign military bases in the name of national sentiment and sovereignty. However, in recent years, as China has become more assertive under Xi Jinping, it has used all the tools at its disposal to gain a foothold in strategically significant areas. In 2017, the PLA began operating its first overseas military base in Djibouti. In other locations, it seems to be



employing the so-called “dual use” strategy: From Gwadar and Karachi in Pakistan, to Hambantota in Sri Lanka and through the Belt and Road Initiative, China has established a presence at key points in the IOR through the promise of economic and infrastructure partnerships. As in the UAE, these locations could be used — covertly, or overtly and gradually — for military purposes. While the ongoing protests in Pakistan around Gwadar, and objections in other countries earlier, indicate that Beijing may face some political hurdles, its economic might and ability to co-opt political elites may help it surmount the challenges in host countries. The Khalifa port incident makes it clear that even India’s closest friends have to do business with China, and that Beijing will leverage its economic might for strategic advantage. That Chinese infrastructure projects in the region are now suspect is only a further cause for worry. The US seems to have taken cognisance of Chinese expansionism and Washington’s scrutiny will perhaps keep its friends and allies — like the UAE and Pakistan — on their toes vis-a-vis China. New Delhi cannot compete on an equal footing with Beijing when it comes to economic resources. It must, therefore, use the leverage and resources it has in its immediate neighbourhood as well as work with other concerned powers — such as members of the Quad — to ensure a rules-based order in the IOR and beyond.

CHINESE FIRMS EYE AFGHANISTAN’S LITHIUM

A number of Chinese companies have already begun “on-site inspections” of possible projects to tap lithium deposits in Afghanistan, having received the green light to do so from the Taliban regime, according to a report in the Chinese state media on Wednesday. Lithium is one of many resources in Afghanistan present in large deposits but as yet untapped, largely because of years of political instability and the lack of infrastructure. A Chinese company secured the rights to mine one of the world’s biggest copper reserves in Afghanistan at Aynak more than a decade ago, but has not yet begun work on extraction. While Chinese firms are aware of the risks and pitfalls, they have not wasted time scouting out potential deposits of lithium, a valuable resource for a range of industries from electric cars to energy storage systems. A report on Wednesday in the Communist Party-run newspaper Global Times, citing Chinese businessmen, said, “Representatives of several Chinese companies have arrived in Afghanistan on special visas and are conducting on-site inspections of potential lithium projects, while others have made contacts about such projects.” The visas were obtained from Afghan authorities “after coordination between the China Arab Economic and Trade Promotion Committee in Kabul and Afghanistan’s Mining Ministry” with “representatives of five Chinese companies” arriving in early November “to conduct on-site inspections”, Yu Minghui, who heads the trade promotion committee, told the newspaper. Besides the five companies present in Afghanistan, another “at least 20” state-owned and private firms had made inquiries about lithium projects, the committee said. Mr. Yu said company representatives were “most concerned about basic guarantees of security and social order in Afghanistan”, but also “praised the Afghan Taliban’s friendliness toward Chinese investors”. The Taliban Government has said it would welcome Chinese investment and support President Xi Jinping’s Belt and Road Initiative, and was also open to extending the China-Pakistan Economic Corridor (CPEC) to Afghanistan.

Security situation

The security situation, not to mention a dire economic crisis including food shortages, are among the many challenges. Chinese media reported that on Saturday, a train carrying 1,000 tonnes of humanitarian aid was sent to Afghanistan from China’s western Xinjiang region. “The problem is



to ensure safety,” Zhou Shijian, former vice president of the China Chamber of Commerce of Metals, Minerals and Chemicals Importers and Exporters, told the newspaper. “If safety is not guaranteed, the gain will not be worth the loss.” Last month, Chinese Foreign Minister Wang Yi met with acting Deputy Prime Minister Mullah Abdul Ghani Baradar in Doha, who assured Beijing that “a friendly policy towards China” was “a firm choice” by the Taliban. Mr. Wang “expressed China’s willingness to continue to provide humanitarian aid to Afghanistan within its capacity and work with the international community to help Afghanistan alleviate temporary difficulties and realise economic reconstruction as well as independent development”, the Chinese Foreign Ministry said then. Mr. Wang in September had announced China would “urgently provide 200 million yuan [\$30.96 million] worth of grains, winter supplies, vaccines, and medicines to Afghanistan” as well as 3 million vaccines.

HOW US LOST GROUND TO CHINA IN THE CONTEST FOR CLEAN ENERGY

Tom Perriello saw it coming but could do nothing to stop it. André Kapanga too. Despite urgent emails, phone calls and personal pleas, they watched helplessly as a company backed by the Chinese government took ownership from the Americans of one of the world’s largest cobalt mines. It was 2016, and a deal had been struck by the Arizona-based mining giant Freeport-McMoRan to sell the site, located in Congo, which figures prominently in China’s grip on the global cobalt supply. The metal has been among several essential raw materials needed for the production of electric car batteries — and is critical to retiring the combustion engine and weaning the world off climate-changing fossil fuels. Perriello, a top US diplomat in Africa at the time, sounded alarms in the State Department. Kapanga, then the mine’s Congolese general manager, all but begged the American ambassador in Congo to intercede. “This is a mistake,” Kapanga recalled warning him, suggesting the Americans were squandering generations of relationship building in Congo, the source of more than two-thirds of the world’s cobalt. Not only did the Chinese purchase of the mine, known as Tenke Fungurume, go through uninterrupted during the final months of the Obama administration, but four years later, during the twilight of the Trump presidency, so did the purchase of an even more impressive cobalt reserve that Freeport-McMoRan put on the market. The buyer was the same company, China Molybdenum. But an investigation by The New York Times revealed a hidden history of the cobalt acquisitions in which the United States essentially surrendered the resources to China, failing to safeguard decades of diplomatic and financial investments in Congo. The loss of the mines happened under the watch of President Barack Obama, consumed with Afghanistan and the Islamic State, and President Donald J. Trump, a climate-change skeptic committed to fossil fuels and the electoral forces behind them. More broadly, it had roots in the end of the Cold War, according to previously classified documents and interviews with senior officials in the Clinton, Bush, Obama, Trump and Biden administrations. With the collapse of the Soviet Union, both Democratic and Republican administrations shifted attention away from containing Communism and slashed generous financial aid that had helped American companies do business in Congo, the documents and interviews show. In Africa, in particular, the United States pivoted toward human rights and good-governance issues. And globally, after 2001, the War on Terror became an all-consuming preoccupation. The only serious bidders were Chinese companies, leaving no doubt about the consequences of standing by. “They were able to move swiftly and quicker than anybody else could,” Kathleen L. Quirk, Freeport-McMoRan’s president, said in an interview. “So we got the deal done.” Over the past year, as the clean energy transition has accelerated, the U.S. government and the private sector have moved more rapidly to recover from past mistakes, scouring the world for



new cobalt supplies and deploying cobalt-free batteries in some shorter-range electric cars. But all of that falls far short of Chinese efforts to take over resources critical to a green future, including cobalt, lithium and others. A bill that passed the House last week included tax incentives for buyers of electric vehicles and funding for charging stations across the United States. Separate bipartisan legislation that passed the Senate in June would funnel nearly a quarter-trillion dollars into research and development to compete with China, though none of that would address supply-chain threats like the sale of the Congo mines. The lack of a formal industrial policy for minerals and metals has come at a cost to the United States, diplomats from the last two administrations said. The fallout is now complicating Mr. Biden's push to make electric vehicles a central pillar of his climate change agenda.

KEEPING A CLOSE EYE ON CHINA'S NUCLEAR CAPABILITIES

The only real substantive outcome of last week's virtual summit between Presidents Joe Biden and Xi Jinping has been some unconfirmed reports of the two sides, the United States and China, agreeing to hold strategic nuclear talks sometime in the near future. This development comes against the backdrop of the China Military Power Report (CMPR) recently released by the Pentagon that categorically underscores the growing challenge posed by the increasing capabilities of the People's Republic of China (PRC) and its ambitions across various dimensions of military power. The PRC's nuclear capabilities, in particular, are undergoing a fundamental transformation and a shift seems to be evident in both the quantity and the quality of the PRC's atomic arsenal. Even before the release of the CMPR, there was significant concern globally about the trajectory of China's strategic capabilities. Confirmation provided by the CMPR reveals four specific areas where change is underway — quantitative strength, atomic yield, delivery capabilities and posture. First is the size of the PRC's nuclear arsenal, which is set to increase. Hitherto, the PRC's nuclear arsenal has hovered at roughly 200 nuclear warheads, half of which directed at the United States (U.S.). By 2027, the CMPR estimates that this number is likely to increase to 700 weapons consisting of varying yields which is three and half times the current Chinese warhead strength.

Low-yield weapons, concerns

Second, the PRC is likely to privilege expansion in the direction of low-yield weapons. Low-yield weapons have been an area of interest and development for the PRC. They are weapons meant for battlefield use during conventional military operations and against conventional targets such as concentrations of armoured, artillery and infantry forces. Lower yield warheads help the PRC avoid causing collateral damage. Prior to the release of the CMPR, evidence that the PRC was testing low-yield devices has periodically surfaced in years past. In April 2020, the U.S. State Department's Findings on Adherence to and Compliance with Arms Control, Nonproliferation, and Disarmament Agreements and Commitments drew attention to the PRC's deliberate opacity in the use of explosive containment chambers and excavations at its Lop Nur nuclear facility to test low yield weapons and Beijing's refusal to grant permission to access data from its International Monitoring System (IMS) stations to the Data Centre under the operational authority of the Preparatory Commission for the Comprehensive Nuclear Test-Ban Treaty Organization (CTBTO). Actions of this kind have evoked strategic concern and increasingly confirm that China's atomic arsenal consists of a large number of low-yield weapons ideal for battlefield use. Third, these low-yield nuclear warheads are also likely to find their way into a key delivery capability — the PRC's Dong-Feng-26 (DF-26) ballistic missile. This missile has already undergone deployment at Korla



in the Xinjiang region in Western China. It is an Intermediate-Range Ballistic Missile (IRBM) which is launched from a Transporter Erector Launcher (TEL). Indeed, the DF-26 has featured in extensive training exercises west of Jilantai in inner Mongolia. In addition to the DF-26, China has also developed the JL-2 Submarine Launched Ballistic Missiles (SLBMs) with a range of 7,200 kilometres capable of striking targets across continental Asia.

A key shift

Finally, China's move towards a Launch on Warning (LoW) nuclear posture marks an important shift in the PRC's commitment to ensuring that no adversary doubts its response in the event of a nuclear first strike. A higher alert posture not only risks reducing the threshold for nuclear use in the form of preemption but it could also sow the seeds of miscalculation and unintended nuclear use.

Delhi needs to be cautious

The PRC's nuclear competition with the United States will have a cascading effect. For India there are some serious implications with China's increasingly minatory nuclear military capabilities. First, the size of China's nuclear arsenal complicates the potency of India's nuclear arsenal and it is especially true in the face of the PRC's pursuit of missile defences in the form of the HQ-19 interceptors, which are specifically designed and developed to execute mid-course interception of medium-range ballistic missiles. A significantly larger Chinese nuclear arsenal paired to missile defences will limit damage to the PRC and more menacingly threatens the survivability of the Indian nuclear arsenal. Reinforcing this is Beijing's pursuit of a Launch on Warning (LoW) posture. Such a posture reduces the decision time for any Indian retaliatory nuclear strike in the heat of a war or crisis and places pressure on India to pursue its own LoW. Despite Beijing's pursuit of No First Use (NFU), which is reversible, the PRC could also significantly degrade an Indian retaliatory strike if China chooses to resort to First Use (FU) of nuclear weapons, and even worse outrightly decapitate India's nuclear forces. Indian strategic planners will have to think about the quantitative nuclear balance and India's nuclear posture vis-à-vis the PRC.

Additions, surveys by China

Finally, India must pay close attention to the sub-surface leg of the PRC's nuclear arsenal. Despite the COVID-19 pandemic, the Chinese have added two new Type 094 (Jin class) SSBNs/nuclear-powered ballistic-missile submarines to their existing fleet. The maritime dimension of China's nuclear capabilities might not be an immediate strategic challenge but will potentially become one in the coming years for New Delhi. The Chinese Navy has carried out bathymetric and ocean mapping surveys in the Indian Ocean crucial to the execution of sub-surface military operations. The Bay of Bengal whose sea depth is very conducive for nuclear submarine missions will leave India exposed to a Chinese atomic pincer from the maritime domain in addition to the continental domain. New Delhi will have to specifically watch the pattern in the People Liberation Army Navy's (PLAN) nuclear submarine deployments and address the deficit in its subsurface nuclear delivery capabilities.

CHANNEL DEATHS FUEL U.K.-FRANCE TENSIONS

The deaths of at least 27 people in the English Channel is fuelling tensions between the U.K. and France over how to stop migrants from crossing the world's busiest waterway in small boats.



Despite a pledge from British Prime Minister Boris Johnson and French President Emmanuel Macron that they would “do everything possible” to stop people smugglers from endangering lives, politicians on both sides of the channel are already sniping at their counterparts for failing to prevent Wednesday’s tragedy.

Police patrol

U.K. officials criticise France for rejecting their offer of the British police and border officers to conduct joint patrols along the channel coast with the French police. French authorities say Britain is stoking the crisis because it is too easy for migrants to remain in the country and work if they manage to cross the channel. Amid the finger pointing, British lawmakers on Thursday will debate the soaring number of migrants who are crossing the channel in small boats. Mr. Macron is scheduled to discuss the issue with European Union officials. Meanwhile, migrants are continuing to brave frigid weather in small boats and unseaworthy dinghies in hopes of getting to British shores to seek asylum or better opportunities. More than 25,000 people have made the dangerous Channel crossing so far this year, about triple the total for the whole of 2020. “This tragedy was completely predictable, indeed it was predicted and it was completely preventable,” Zoe Gardner, of the Joint Council of Welfare for Immigrants, told the BBC. “This has to be a time for our government to mark a turning point.” “We need to offer people alternatives to the smuggling boats.”

‘Not enough measures’

Mr. Johnson said on Wednesday it was clear that French operations to stop migrant boats from leaving French shores “haven’t been enough”, despite millions of pounds of support promised by the British Government this summer meant to fund more police patrols on French beaches. But Calais lawmaker Pierre-Henri Dumont told the BBC that more patrols “will not change anything because we have 200 to 300 kilometres of shore to monitor 24/7”. “I think it’s time for both our Governments to stop blaming each other and to try and talk to each other and find real solutions, not a crazy solution such as having more and more people patrolling, sending the British Army to the French shore,” Mr. Dumont said. “That is not acceptable and will not change anything.” On Thursday, Natalie Elphicke, a Conservative member of Britain’s Parliament for Dover and Deal on the southern English coast, said it was “absolutely vital that the French police stop the boats leaving in the first place”. “Rather disappointingly, yesterday we saw the French police in footage standing by while boats got together and migrants got in them and they went off the shore in France,” she told The Associated Press. “Britain has offered to help with people and resources, and I hope the French will now take up that offer and other European countries will come to France’s aid.”

AUSTRALIA SENDS TROOPS TO SOLOMON ISLANDS

Australia announced on Thursday it is sending police, troops and diplomats to the Solomon Islands to help after anti-government demonstrators defied lockdown orders and took to the streets for a second day in violent protests. Prime Minister Scott Morrison said the deployment includes a detachment of 23 federal police officers and up to 50 more to provide security at critical infrastructure sites, as well as 43 defence force personnel, a patrol boat and at least five diplomats. “Our purpose here is to provide stability and security,” he said. Solomon Islands Prime Minister Manasseh Sogavare declared a lockdown on Wednesday after about 1,000 people gathered in protest in the capital, Honiara, demanding his resignation over a host of domestic issues. Tensions

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



between the Government and the leadership of the most populous island of Malaita have been simmering for some time. The premier of Malaita has been outspokenly critical of Mr. Sogavare's 2019 decision to cut the country's diplomatic ties with Taiwan, switching its diplomatic allegiance to China instead. The province has also complained it has been unfairly deprived of Government investment. The protesters on Wednesday breached the National Parliament building and burned the thatched roof of a nearby building, the Government said. They also set fire to a police station and other buildings.

A FOOD CRISIS OF THE GOVERNMENT'S OWN MAKING

There is consensus in the scientific community that organic agriculture could reduce crop yield. Quoting three global meta-data analysis, Meemkem and Qaim (2018) pointed out that on average, the yield reduction in organic agricultural systems could be 19-25%, depending on the crop and agro-climatic region. To switch to 100% organic agriculture, a country must have robust scientific evidence and a meticulously planned methodology along with targeted actions. Otherwise, it will plunge into a food crisis, if food security cannot be achieved by other means.

Organic mania

In May, Sri Lankan President Gotabaya Rajapaksa ordered a halt to importing chemical fertilizers to turn the island nation's agriculture sector fully organic. By that time, the Yala cropping season (May to August) had already started and farmers were using the agro-chemicals available in the market. However, no additional agro-chemicals were to be released in the market. The government stated that if there is any yield loss as a consequence of this decision, the affected farmers would be compensated for it. It is unclear how the government was planning to separate yield loss related to lack of agro-chemicals from yield loss due to natural causes, farmers' attitudes, and so on. It is apparent now that when the Sri Lankan government took this policy decision, it had neither solid scientific information nor a clear action plan. It had taken half-baked advice from some opportunists who regularly state in public that only organic and traditional agriculture is safe to the environment and human beings. Not only did the government seem to believe that there would be little or no yield loss from agriculture that is only organic; it also seemed to think that all plant nutrients could be organically produced in the country by October 2021. If the organic agricultural production system is that simple and straightforward, why is that globally, only 1.5% of farmland is organic? Sri Lanka has been almost entirely reliant on its own rice production since the mid-2000s. Could it not have maintained this? Unsurprisingly, even when the Maha season officially started on October 15, the country was well short of the required quantities of organic fertilizers. As the most critical plant nutrient for higher yields in Sri Lanka is nitrogen (N), the authorities have estimated that for this Maha season, about 0.1 million tonnes of N is required for some major crops including paddy and tea. This is equivalent to about 15 million tonnes of compost. The country produced only around 3 million tonnes of compost by the end of August 2021. Realising that the required quantities of organic fertilizers cannot be produced within five months, the government attempted in September to import solid organic fertilizers. According to the Plant Protection Act, No. 35 of 1999, no organic substance that has harmful organisms can be imported into the country. Moreover, Sri Lanka Standards (SLSI 1704) require all imported solid organic fertilizer to be devoid of any micro-organism. A tender to supply about 0.1 million tonnes of solid organic fertilizer was offered to a Chinese fertilizer company. It was later revealed that two samples provided by this company did not pass the quality standards. This message was conveyed by the authorities to the company. However, due to reasons unknown, the



first load of that solid organic fertilizer is said to have come to Sri Lankan waters and is sailing around still looking for an opportunity to reach the shores of Sri Lanka. Meanwhile, farmers started getting angry as there were no fertilizers to start cultivation. They began to protest, demanding fertilizers to be provided in all major agricultural areas and setting aside preliminary land preparation practices. They did not want to start commercial cultivation without any assurance from the government on the availability of the required fertilizers. Then, the government was advised to purchase a liquid nano-N fertilizer from the Indian Farmer Fertilizer Corporative Limited (IFFCO), which, some said, is organic and 100% efficient. However, according to the IFFCO website, this liquid fertilizer is actually nano-urea and hence cannot be used in organic agriculture as it is chemical in nature. Given the urgency of the situation, the government ordered 3.1 million litres of nano-urea, which has only 4% N, from IFFCO. The first quantity was air-lifted into Sri Lanka and distributed as Nano-Raja among paddy farmers. Farmers were advised to apply 2.5 L of Nano-Raja as a foliar spray. Scientists are sceptical about the efficacy of this fertilizer as there has been heavy rainfall in Sri Lanka over the last few weeks. Nonetheless, even in India, there is limited large-scale evidence on the effectiveness of this product. Not much is known about the health concerns that might arise on long-term exposure to nano-particles. Moreover, 2.5 L of Nano-Raja provides only 100g of N when at least 50kg of N is needed for the paddy crop. The farmers will at most get an additional 5-10kg of N through locally available compost. The quality of these composts, mostly produced using municipal solid wastes, cannot be guaranteed either, as there is no quality control mechanism in place.

Crop decline

Now, even over a month after the season started, only about 25-40% of farmers have started paddy cultivation in Sri Lanka. The distributed quantities of N fertilizers have not been adequate to achieve the expected yield target of the farmers (4-6 tonnes per hectare). Therefore, reduction in national paddy production is an inevitability. The same would be true for other crop sectors as well. Therefore, the government must do something within a very short period of time to provide sufficient quantities of N fertilizer, at least to paddy farmers and tea-growers. Failure to do so will reduce foreign exchange earnings from tea, increase food prices, create food shortage and lead to food imports. The government will have to import food from other countries — food that is produced using agro-chemicals because of the higher price of organic food. This would be ironical as food without agro-chemicals was one of the major policy objectives of the ban on the import of agro-chemicals. The overarching policy document of the government titled 'Vistas of Prosperity and Splendor' promises to provide the nation with safe food and food security. However, the ill-advised policy of banning agro-chemicals, which was based on inadequate scientific evidence and false belief, hit the Sri Lankan agriculture and plantation crop sectors like a cyclone. With a crippling economy thanks to COVID-19, this was uncalled for. On November 24, the Sri Lankan government announced that it would partially lift the ban on chemical fertilizers and permit the private sector to import these fertilizers. However, considerable damage has already been done, with farmers claiming that their crop production has declined, food prices rising, and a food crisis looming.

COUPS UPEND WEST ASIA'S NASCENT DEMOCRACIES

The democratic systems in Tunisia and Sudan constitute the bookends of the Arab Spring uprisings in West Africa and North Africa over the last decade. The uprisings had begun in Tunisia in December 2010 and culminated in the country giving itself a democratic constitution in January



2014. The system worked until July 25 this year when the country's President, Kais Saied, staged a "constitutional coup" by suspending the Constitution and its democratic institutions. Several Ministers, politicians, media persons and activists have been detained, with some being tried in military courts. Sudan's nascent democratic order emerged in 2019, in the second wave of the Arab Spring uprisings, when demonstrators across the country demanded the removal of the entrenched President, Omar al-Bashir. This led to a transitional arrangement in which power would be shared for about four years between the armed forces and the civilian administration, to be followed by free elections and civilian rule. At the head of the country would be a "Sovereignty Council" which, in the first instance, would be headed by the Army chief, General Abdel Fattah al-Burhan, supported by a civilian Prime Minister. On October 25, a month before handing over the council to a civilian leadership, Gen. Burhan declared a state of emergency, suspended the Constitution and the Sovereignty Council, placed the Prime Minister, Abdalla Hamdok, under house arrest and arrested several Ministers and activists. However, a month later, on November 21, in the face of massive public protests, Gen. Burhan released Mr. Hamdok and agreed to restore the transition process, though there are serious concerns across the country about the military's sincerity in implementing this agreement.

The coup in Tunisia

Tunisia's political order has lurched from crisis to crisis over the last few years due to the parlous state of the economy and the mishandling of the novel coronavirus pandemic. The pandemic has wreaked disaster in the country — Tunisia, with a population of 12 million, has experienced 600,000 infections and 18,600 deaths, giving it the dubious distinction of having the highest pandemic-related infections and deaths per capita in Africa. The pandemic has also wrecked the economy; its GDP fell by 8.6% in 2020, compared to the previous year, unemployment went from 15% to 17.8%, inflation is at 6.2% while poverty increased from 14% to 21%. The country needs \$5 billion to finance the estimated budget deficit and repayments (<https://bit.ly/2ZgjSaN>). President Kais Saied had obtained a landslide victory in 2019, but soon began to express his unhappiness with the paralysed political system and his "disgust" at the pervasive corruption among Assembly members, referring to them as "monsters" and "birds of prey". On July 25, the President dismissed the Prime Minister, suspended Parliament, and announced he would rule by decree. The next day, he declared a nationwide curfew for a month. On September 22, he issued a presidential order giving himself full legislative and executive authority, and suspending the Constitution and the Assembly indefinitely. Though the President's coup was initially welcomed, as weeks passed with no initiative to improve economic conditions, the popular mood has turned hostile; opposition parties and trade unions are now organising themselves to take to the streets to restore the revolution and the Constitution.

Sudan takeover

The military takeover in Sudan on October 25 was preceded by increasing concerns among the armed forces about the imminent handover of power to the civilian leadership in November, particularly on account of the agenda being driven by Prime Minister Hamdok. He had spoken of getting the former President, Omar al-Bashir, tried by the International Criminal Court (ICC), where the generals feared their own role in perpetrating human rights abuses in Darfur and during the 2019 uprisings would also be exposed. But the larger issue that agitated them was Mr. Hamdok's insistence that the military give up its control over business — it is believed that the armed forces control about 200 companies, valued at \$2 billion. Some generals, like Mohammed



Hamdan Dagalo, who heads the notorious Rapid Support Forces, are said to control gold mines in Darfur. On November 10, Gen. Burhan announced a new Sovereignty Council headed by him, with General Dagalo as his deputy, signalling the end of Sudan's encounter with a democratic order. However, Gen. Burhan did not anticipate the country-wide popular protests led by civil society organisations whose agitations had brought about the transition arrangements of 2019. These demonstrators braved police bullets, which, over a month, killed 40 of them and injured over 100. Two days after the killing of 15 protesters, Gen. Burhan released Mr. Hamdok from house arrest, on November 21, and, on state television, signed an agreement with him to head a new "technocratic" government. The 14-point deal commits Gen. Burhan to the transition arrangements of 2019 and the release of all political prisoners. Mr. Hamdok has said he had accepted the agreement to end "the bloodbath" of recent weeks, while Gen. Burhan has said it would pave the way towards "a transparent, democratic election [till] total civilian government and total democracy" were realised. Most of the country's activists are not impressed. Given the low credibility of the armed forces, they are insisting on "no negotiation and no partnership, and no legitimacy" for the armed forces. With Gen. Burhan and Gen. Dagalo still controlling the Sovereignty Council, these fears are well-founded.

Role of the Gulf monarchies

Several commentators have seen the hand of Saudi Arabia, the United Arab Emirates (UAE) and Egypt in engineering the overturning of the democratic processes in Tunisia and Sudan, as they view a successful democratic order as an existential threat. Media comment in these three countries has been particularly celebratory: in relation to the Tunisia events, the Saudi paper, Okaz, headlined, "Tunisia revolts against the Brotherhood", while the Egyptian daily, Al Ahran, said that these events were a "loss for the last Brotherhood stronghold in the region". In Sudan, both Gen. Burhan and his deputy, Gen. Dagalo, have been close to the UAE and Saudi Arabia for some years. Gen. Burhan provided Sudanese troops as part of the Saudi-led coalition in Yemen and ensured they were not withdrawn later despite Mr. Hamdok's wishes. Gen. Burhan also backed the UAE's outreach to Israel last year by secretly meeting Prime Minister Benjamin Netanyahu in Uganda in February 2020 and then joining the UAE in normalising diplomatic ties with Israel later that year. In Tunisia, which saw the elevation of the Islamist Ennahda to power, the UAE is believed to have funded social media campaigns to criticise the democratic revolution and back politicians who support the old authoritarian regime. The Saudi and UAE role in undermining the democratic systems in Tunisia and Sudan recalls their similar role in arranging the overthrow of the democratically-elected Morsi government in Egypt in 2013 and the accession of General Abdel Fattah al-Sisi to power. The Egyptian leader now has a more immediate concern as well; one that also agitates his partners in Riyadh and Abu Dhabi — the democratic order in Tunisia and its nascent shape in Sudan have been inspirations for Arab people living under authoritarian rule for several decades. Now, as recent developments in Tunisia and Sudan again entrench autocracy, there are fears that the beacon of reform could be extinguished across the region — for years to come.

TRANSITION TROUBLES

Sudanese military chief Gen. Abdel Fattah al-Burhan's decision to reinstate the ousted Prime Minister, Abdalla Hamdok, is a climbdown from his attempt to consolidate power in his hands. On October 25, Gen. Burhan dissolved the Sovereignty Council, in which the military had shared power with civilian leaders, declared a state of emergency and imprisoned Mr. Hamdok,



imperilling the country's painful transition from dictatorship to democracy. But the generals apparently overplayed their hands. Protesters, who toppled Omar al-Bashir's military-backed dictatorship in 2019 and then resisted the military's attempts to seize power, were back on the streets. Despite the military regime's use of force the demonstrations continued, challenging Gen. Burhan's power grab. He also came under heavy international pressure, especially from the U.S., which had removed Sudan from the list of terror-sponsoring countries last year. The Biden administration froze aid worth \$700 million after the coup and made it clear to the generals that any improvement in ties would be linked to the reinstating of Mr. Hamdok. Gen. Burhan finally decided to reinstate him and release all political prisoners arrested after the coup. He also said the military would support the country's transition into democracy and elections, scheduled for July 2023. While the deal points to the limits of the military, it does not necessarily mean that the transition will be smooth. Ever since Mr. Bashir was forced out of power, the military has been reluctant to share power with the civilian leadership. It was forced to make some concessions only because the country's revolutionaries have acquired critical mass support which the generals can no longer ignore. The pro-democracy parties and organisations have already dismissed the deal between the military and Mr. Hamdok, and have vowed to continue the street protests. Mr. Hamdok, a British-educated economist who had worked with the UN, is in an unenviable position. He refused to resign while under house arrest and continued to resist the military coup, which inspired the protests. But his decision to reach a deal with the generals has turned at least sections of the protesters against him. And if street protests continue, it could undermine his government and weaken his negotiating capacity with the generals. To address these challenges, he should first win back the trust of the pro-democracy parties and organisations, and form an independent government with civil society representatives that should put the country's fraught transition process back on track. The military may have taken a step back, but it could try to usurp power again. To prevent any such scenario, Sudan's civilian leaders should stay united and take the country to full democracy and a new constitutional order.

BREAKING THE ICE

On her maiden visit to Asia, U.S. Trade Representative Katherine Tai held bilateral meetings with Commerce and Industry Minister Piyush Goyal and relaunched the U.S.-India Trade Policy Forum (TPF). A lot has transpired in the Indo-U.S. economic partnership in the four years since the TPF was last convened — from machinations towards a free-trade agreement to the failure to even reach a mini-trade deal towards the latter half of the Donald Trump administration days. Instead of progress, there were setbacks, including raised import tariffs and the withdrawal of benefits to Indian exporters under the U.S.'s Generalized System of Preferences (GSP) which triggered retaliatory trade barbs. That marquee American businesses (Harley-Davidson and Ford) have left India has not helped optics, even if their motivations may not have been solely linked to difficult trade norms. With the Joe Biden administration shutting the door on new trade pacts and being cold to restoring the GSP status, India must be ruing the hard stances that scuttled the chances of sealing a deal in the Trump era. Ms. Tai's visit offers a fresh reset chance. GSP restoration, she has said, could be considered, while nudging India to set targets for tariff reductions and easing market access across sectors. The TPF statement also outlines the sectors and goods and services that need quick attention. Whatever misgivings may have existed at the beginning of the Biden administration, Ms. Tai's visit, that follows trips by key U.S. Secretaries, indicates U.S. interest in engaging with India in significant spheres. That it looks at India as a key partner in rebuilding critical supply chains in a post-pandemic world seeking to cut its dependence on China, is clear



from its desire for integration in areas such as health, medical devices and pharma. India's pharma exports account for 40% of the U.S.'s generic drugs supply and Ms. Tai has assuaged its concerns about delays in U.S. regulatory inspections of pharma units. Her plain-speaking that Indo-U.S. trade never really lives up to its potential and references to India's unpredictable regulatory shifts, tariff- and non-tariff barriers as her priorities, suggests these talks have begun from a place more grounded in realism. This should serve as a wake-up call for the Government about its trade posture and spur a more open approach towards a market that will remain the most critical, irrespective of the trade deals it is seeking with other nations. While America's stance on India's proposal on IPR waivers for the COVID-19 vaccine and medicines will be watched at the upcoming WTO ministerial, India must seize this fresh initiative with the U.S. to cement its place in the new supply chains being envisaged. For starters, it must pro-actively steer away from the protectionism that is leading the globalised world adrift.

ON THE BRINK

The massive mobilisation of Russian troops on the Ukraine border and occasional outbreak of violence along the line of contact between the Russia-backed rebels in the contested Donbass region and Ukrainian troops have pushed both countries to the brink of an open conflict. There were similar scenes earlier this year, but Moscow, after U.S. diplomatic intervention, pulled back. This time, however, the more emphatic Russian moves appear to be part of a larger strategy of force-projection across Russia's western perimeter, from the Baltic Sea to the Black Sea. On the EU's Polish border, Belarus, a Russian ally, was blamed for orchestrating a migration crisis. Amid tensions, Russia flew bombers near Poland's borders earlier this month. In the Black Sea, Russian President Vladimir Putin dispatched vessels to shadow U.S. warships. The U.S. has warned its allies of a possible Russian attack on Ukraine. Russia's aggressiveness could have partly been driven by Mr. Putin's assessment that the U.S. was strategically weakened after its Afghan withdrawal and its preoccupation with China's rise in East Asia. This gives him a window of opportunity to reassert Russian primacy in its backyard which has seen significant NATO advances. This makes Ukraine, which Russia sees, according to scholars at Carnegie, "as a Western aircraft carrier parked just across southern Russia", at the centre of Russia's geopolitical tussle with the West. In 2015, an open conflict was averted after the 'Minsk II' peace agreement was signed, under the mediation of France and Germany. It was designed to end the fighting in the rebel regions and hand over the border to Ukraine's national troops. Ukraine was required to delegate more power to the breakaway regions and introduce constitutional reforms, codifying their special status. Russia's nod for the agreement was possibly because it thought that delegation of power to the rebels would enhance Moscow's leverage that it could use to prevent Ukraine's full integration with the West. But Kiev's reluctance to implement the agreement and its growing military, economic and political ties with the West seem to have prompted Mr. Putin to change his approach — to putting Kiev under direct military pressure. Kiev is now in a tough spot. It lacks the military resources to deter its giant neighbour. While it gets military supplies from the West, there is no guarantee that the West would come to its help in the event of a Russian invasion. On the other side, Russia might make tactical gains from an invasion, like it did from the annexation of Crimea in 2014, but such a move could further deteriorate its already ruptured ties with the West. So a practical solution is to revive the Minsk peace process. The West should push both sides to resume talks and live up to their commitments as per the Minsk agreement to restore relative peace on the border.



LIES AND SPIES

John Durham is a U.S. Department of Justice Special Counsel and he is indeed special for his task of investigating another investigation conducted by the U.S. Federal Bureau of Investigation (FBI) and more. The spotlight is on him not for what he is, but what he is investigating. His findings so far have pricked big holes in a story scripted by the FBI and amplified by Democratic partisans and media outlets — that Donald Trump was in cahoots with Russian operatives. The allegations rocked U.S. politics since 2016, and sabotaged the presidency for Mr. Trump even before it began. A Special Counsel, Robert Mueller, could not substantiate the core of the allegation, that Trump advisers criminally conspired with Russian officials to impact the election. But he indicted six Trump advisers on other charges. Mr. Durham's job is to uncover the origins of the FBI's investigation and whether anyone acted unlawfully in launching it or subsequently. He is "authorized to investigate whether any federal official, employee, or any other person or entity violated the law in connection with the intelligence, counter-intelligence, or law enforcement activities directed at the 2016 presidential campaigns, individuals associated with those campaigns, and individuals associated with the administration of President Donald J. Trump, including but not limited to Crossfire Hurricane and the investigation of Special Counsel Robert S. Mueller, III," according to his appointment order. Crossfire Hurricane was the code for the FBI investigation into Mr. Trump's alleged links with Russia. The confusion and controversy over the FBI Russia investigation could be comparable to India's CAG investigations premised on a dubious construct termed 'presumptive loss' to the exchequer. The argument based on a false premise, without evidence, was amplified by 'investigative' reporting, and political campaigning, undermining an elected government in the case of '2G scam' in India. The charges that followed did not stand in courts. All this happened in the U.S., ahead of the 2016 presidential contest between Hillary Clinton and Mr. Trump, and later. Mr. Durham was appointed as a Special Counsel to unravel it all. Over the last two years, he has brought three indictments, but the latest one of a Russian national, Igon Danchenko who lives in the U.S., has so shaken the basis of allegations of Trump-Russia collusion that some commentators say the collusion was between the Clinton campaign and some Russians to implicate Mr. Trump.

Dossier on Trump

Mr. Danchenko's indictment calls into question a dossier on Mr. Trump prepared by former British spy Christopher Steel, which was used by the FBI to obtain permission to spy on the Trump campaign. Mr. Durham's investigations found that Mr. Danchenko was feeding Mr. Steel hearsay about Mr. Trump, which he got primarily from a source who was associated with the Clinton campaign. Mr. Steel's dossier itself was funded by the Clinton campaign. In other words, one Clinton associate was feeding information to a Russian who was feeding it to another Clinton ally, who routed it to the FBI and the media as authentic information based on sourcing from Russia. Mr. Steele actively canvassed the media to publicise graphic details about Mr. Trump's sexual encounters in Russia. Mr. Danchenko has denied charges of lying to the FBI, but what is already embarrassing the anti-Trump segments of the U.S. media is that they were taken for a ride. Mr. Trump and the conservative media are excited about the indictment. The former President has said a lot more will be coming out as the Special Counsel continues his probe. The Washington Post has admitted that the "allegations (against Mr. Danchenko) cast new uncertainty on some past reporting on the dossier by news organisations, including The Washington Post". John Ratcliffe, former Director of National Intelligence who declassified a lot of material related to the Russia probe, said a lot more will be revealed by Mr. Durham. According to Mr. Ratcliffe, the FBI



knew the Clinton campaign was working on creating a false narrative on Trump-Russia collusion. He said he had handed over more than 1,000 classified documents to the Special Counsel — which is being used in the investigation. In all this, Mr. Durham has remained mostly silent.

WILL PAK. LAW ON KULBHUSHAN JADHAV HELP INDIA'S POSITION?

On Wednesday, Pakistan's Parliament passed the International Court of Justice (Review and Reconsideration) Bill, 2021, granting the right of appeal to Kulbhushan Jadhav, former Indian Navy officer on death row on espionage and other charges. India expressed misgivings about the law, saying it still does not fulfil the terms laid down by the International Court of Justice (ICJ) in its July, 2019 ruling which included the provision that India be allowed consular access to Jadhav.

When was he arrested?

Kulbhushan Jadhav was arrested in March 2016 and charged with espionage and sabotage against Pakistan's security installations. The case received attention as it came soon after the January 2016 Pathankot terror strike that India blamed on Pakistan-based terrorists. Pakistan blamed India for sponsoring cross-border terrorism targeting Balochistan. India maintained that Jadhav was a former Navy official and that he had been denied rightful access to legal counsel. The Pakistani law is another episode in the protracted legal process that began when India approached the ICJ.

What had India argued at the ICJ?

India had argued at the ICJ in May 2017 that Jadhav had been denied his rights under the Vienna Convention and Pakistan had "failed to inform" New Delhi about his arrest. The law passed on November 17 at a joint session of the two Houses of Pakistan's parliament is being presented by the Imran Khan government as proof of Islamabad complying with the ICJ ruling.

What did the ICJ rule?

In April 2017, a year after his arrest, Jadhav was sentenced to death by a military court in Pakistan for alleged acts of sabotage. India moved the ICJ and pointed out that Pakistan had failed to provide consular access to Jadhav. In its observations of May 18, 2017, the ICJ asked Pakistan to take "all measures at its disposal" to ensure that Jadhav is not executed pending its final decision. It observed that Pakistan had violated Article 36 of the Vienna Convention by not allowing India consular access to Jadhav and by denying his right to a proper legal representation.

Will this law help Jadhav access his legal counsel?

The law will end up as mere paper work if Pakistan fails to provide verifiable legal access to Jadhav. India has already expressed its misgivings. The Ministry of External Affairs said the law is a repeat of the International Court of Justice (Review and Reconsideration) Ordinance, 2020, that Delhi had rejected as inadequate for meeting the goals stated in the ICJ's observations of July 2019. India said the ordinance did not "create the machinery of an effective review and reconsideration" as mandated by the ICJ. The Ministry of External Affairs pointed out in a statement that the law of November 2021 has actually codified the Ordinance of May 2020 without removing the shortcomings. India maintains that Pakistan cannot provide a "fair trial" for Jadhav.



Why has Pakistan made this move now?

Pakistan's Law Minister Farogh Naseem said Pakistan anticipated that India was planning to go to the ICJ again to file a contempt notice against Pakistan and that this law had averted or pre-empted this possible Indian move. Following this new law, Pakistan is likely to claim that it has not just complied with the verdict of the ICJ but has also enshrined it as a law. Pakistan's former High Commissioner Abdul Basit has pointed out that Pakistan agreed to accept the jurisdiction of the ICJ during the government of Prime Minister Nawaz Sharif of the Pakistan Muslim League (Nawaz) and that the present government of Prime Minister Imran Khan is dealing with a legacy issue. It, therefore, appears that the law is also a move to settle a domestic political discord between Mr. Khan and the principal Opposition party, led by Maryam Nawaz, daughter of Mr. Nawaz Sharif.



DreamIAS



NATION

WANTED: AN INDIAN CHARLESWORTH

The recent election of India's candidate, Bimal Patel, to the United Nation's International Law Commission (ILC) is noteworthy because this is the first time that India has nominated a professor of international law to the ILC, a body responsible for the codification and progressive development of international law. Mr. Patel's predecessor, Aniruddha Rajput, was a practitioner. Before Mr. Rajput's election, for several decades India routinely nominated retired officials from the Legal and Treaties Division (L&T) of the Ministry of External Affairs (MEA), ignoring the talent that existed in international law in academia. According to Syed Akbaruddin, India's former permanent representative to the UN, the L&T Division treated the ILC membership "as its preserve". Before Mr. Patel, the only instance of an Indian academic elected to the ILC was that of Radhabinod Pal in 1958, an iconic judge.

The trend in India

India's habit of nominating retired government officials to international forums is not restricted to the ILC; it is evident in other international judicial bodies too. For instance, besides the former Supreme Court judge, Dalveer Bhandari, who is currently on the bench of the International Court of Justice, three other Indians have been appointed to the world court — Nagendra Singh, B.N. Rau, and R.S. Pathak. Singh and Rau were members of the Indian Civil Services in British India. Pathak, the 18th Chief Justice of India, was an unfamiliar name in the world of international law. Mr. Bhandari is an honourable judge, but his scholarly contributions to the field of international law, before joining the ICJ, are largely unknown. Two Indians who have served on the Appellate Body, the highest judicial organ of the World Trade Organization — Ujal Singh Bhatia and A.V. Ganesan — were generalist bureaucrats. Likewise, the two Indians who have been appointed to the International Tribunal for the Law of the Sea — P.C. Rao and Neeru Chadha — served in the L&T Division. The point here is not the competence of the candidates mentioned, but how international law proficiency outside the government and judiciary has been ignored. India has produced outstanding international law professors like B.S. Chimni, R.P. Anand, and V.S. Mani. Their body of scholarly work in international law is read, cited and critiqued all over the world. Yet, none of them made it to any of these international law institutions. This is unlike the practice in other liberal democracies where leading academicians of international law are routinely nominated to these bodies. For instance, Australian nominee, Hilary Charlesworth, recently elected to the ICJ, is a professor of international law and is globally known for her path-breaking work on feminist approaches to international law. She replaces the late J.R. Crawford, another illustrious Australian professor of international law. Georg Nolte, from Germany, who now serves on the ICJ and was previously a member of the ILC, is a globally renowned international law professor. Likewise, the U.K. has routinely nominated accomplished international law academicians such as Hersch Lauterpacht, Ian Brownlie, and Dapo Akande to these bodies.

No transparency in nominations

Moreover, no one knows how the Indian government selects candidates for nominations to these international law bodies. The lack of transparency in the selection process gives rise to speculations of favouritism and nepotism. For instance, when Mr. Rajput, a young practitioner, was nominated to the ILC, it was alleged that India backed his candidacy due to his ideological



proximity to the ruling establishment. Such accusations not only undermine the candidate's legitimacy but also generate misgivings about the fairness of the system. There is an urgent need to establish a transparent mechanism in making these nominations, such as setting up an independent search-cum-selection committee to recommend meritorious candidates. The committee should invite applications from qualified candidates, screen them based on their noticeable expertise and professional reputation in international law, and then make recommendations publicly. Capability in domestic law should not be mistaken as expertise in international law. The MEA could anchor this process. Since India devotes considerable diplomatic energy in getting its candidate elected to these bodies, it is in its national interest to nominate the brightest available talent in international law, rather than letting these bodies be used as post-retirement parking slots for bureaucrats and judges. The appointment of Mr. Patel to the ILC heralds a new era in which the government does not overlook expertise in international law outside the corridors of power.

FLAWS IN THE SYSTEM

The transfer of Chief Justice Sanjib Banerjee from the Madras High Court to the Meghalaya High Court has given rise to a controversy over the question whether judicial transfers are made only for administrative reasons or have any element of 'punishment' behind them. In 2019, Justice Vijaya K. Tahilramani, another Chief Justice of the Madras High Court who was transferred to Meghalaya, chose to resign.

What does the Constitution say on the transfer of judges?

Article 222 of the Constitution provides for the transfer of High Court judges, including the Chief Justice. It says the President, after consultation with the Chief Justice of India, may transfer a judge from one High Court to any other High Court. It also provides for a compensatory allowance to the transferred judge. This means that the executive could transfer a judge, but only after consulting the Chief Justice of India. From time to time, there have been proposals that one-third of the composition of every High Court should have judges from other States.

What is the Supreme Court's view on the issue?

In *Union of India vs. Sankalchand Himatlal Sheth* (1977), the Supreme Court rejected the idea that High Court judges can be transferred only with their consent. It reasoned that the transfer of power can be exercised only in public interest; secondly, the President is under an obligation to consult the Chief Justice of India, which meant that all relevant facts must be placed before the Chief Justice of India; and thirdly, that the Chief Justice of India had the right and duty to elicit and ascertain further facts from the judge concerned or others. In *S.P. Gupta vs. President of India* (1981), also known as the 'Judges' Transfer Case' and, later, the First Judges Case, the Supreme Court once again had an opportunity to consider the issue. Among other issues, it had to consider the validity of the transfer of two Chief Justices as well as a circular from the Law Minister proposing that additional judges in all High Courts may be asked for their consent to be appointed as permanent judges in any other High Court, and to name three preferences. The Minister's reasoning was that such transfers would promote national integration and help avoid parochial tendencies bred by caste, kinship and other local links and affiliations. The majority ruled that consultation with the Chief Justice did not mean 'concurrence' with respect to appointments. In effect, it emphasised the primacy of the executive in the matter of appointments and transfers. However, this position was overruled in the 'Second Judges Case' (1993). The opinion of the Chief



Justice of India, formed after taking into the account the views of senior-most judges, was to have primacy. Since then, appointments are being made by the Collegium.

What is the current procedure for transfers?

As one of the points made by the 'Second Judges Case' was that the opinion of the Chief Justice of India ought to mean the views of a plurality of judges, the concept of a 'Collegium of Judges' came into being. In the collegium era, the proposal for transferring a High Court judge, including a Chief Justice, should be initiated by the Chief Justice of India, "whose opinion in this regard is determinative". The consent of the judge is not required. "All transfers are to be made in public interest, i.e., for promoting better administration of justice throughout the country." For transferring a judge other than the Chief Justice, the Chief Justice of India should take the views of the Chief Justice of the court concerned, as well as the Chief Justice of the court to which the transfer is taking place. The Chief Justice of India should also take into account the views of one or more Supreme Court judges who are in a position to offer their views in the process of deciding whether a proposed transfer should take place. "In the case of transfer of a Chief Justice, only the views of one or more knowledgeable Supreme Court judges need to be taken into account." The views should all be expressed in writing, and they should be considered by the Chief Justice of India and four senior-most judges of the Supreme Court, which means, the full Collegium of five. The recommendation is sent to the Union Law Minister who should submit the relevant papers to the Prime Minister. The Prime Minister then advises the President on approving the transfer.

What makes transfers controversial?

Transfer orders become controversial when the Bar or sections of the public feel that there is a punitive element behind the decision to move a judge from one High Court to another. As a matter of practice, the Supreme Court and the government do not disclose the reason for a transfer. For, if the reason is because of some adverse opinion on a judge's functioning, disclosure would impinge on the judge's performance and independence in the court to which he is transferred. On the other hand, the absence of a reason sometimes gives rise to speculation whether it was effected because of complaints against the judge, or if it was a sort of punishment for certain judgments that inconvenienced the executive.

POCSO SHOCKER

The recent Allahabad High Court verdict that a penetrative sexual assault on a 10-year-old boy by an offender did not amount to an aggravated form of the crime appears to be per incuriam, that is, a ruling handed down without due regard to the law and facts. The offence that was proven in the trial, and endorsed without demur by the High Court, involved the child being made to perform an oral sexual act. The Court agrees that it was a "penetrative sexual assault" as defined by the Protection of Children from Sexual Offences (POCSO) Act, as the accused had put his member into the victim's mouth. However, it did not amount to "aggravated penetrative sexual assault", a crime punishable with a minimum prison term of 10 years that can go up to life, Justice Anil Kumar Ojha has said. Instead, it was punishable under Section 4 of POCSO, which prescribes a minimum seven years. Accordingly, he reduced the trial court sentence of 10 years in jail to seven years. The High Court is palpably in error, as it failed to note that a sexual offence takes the character of an aggravated form of the same offence in certain circumstances under POCSO. The main circumstances involving aggravation given in Section 5 are where the offender is a police officer, a member of the armed forces, a public servant or someone on the staff of a jail, remand home,

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



hospital, educational or religious institution, or any place of custody or care and protection. However, these are not the only circumstances. Where the crime involves a group of offenders, or is done repeatedly, or when it pertains to the use of deadly weapons or causes grievous harm or injury, or leads to physical or mental incapacitation, pregnancy, or disease, it is also an aggravated form of the offence. Significantly, Section 5(m) adds “whoever commits penetrative sexual assault on a child below 12 years” to this list. The High Court seems to have missed either this legal provision while reducing the sentence, or the fact that the child was about 10 years old when the offence took place. The fact that the convicted person will stay in jail for seven years will not obviate the deleterious effect of the ruling — that a particular act, amounting to a penetrative sexual act, does not attract the punishment prescribed for its aggravated form — will have on lower courts trying similar cases. It is a matter of coincidence that this ruling came from the Allahabad High Court on the same day as the Supreme Court’s judgment underscoring the importance of not diluting the gravity of an offence against a child by ignoring the plain meaning of POCSO’s provisions. The verdict in *Sonu Kushwaha vs State of U.P.* is a fit case for review, as it seems to be based on an error of law.

NO IMPUNITY

The operation by the Army and police in a Srinagar locality that ended in the killing of four people, including three civilians, and one person who is allegedly a Pakistani militant, should set off alarm bells at the highest levels of the Jammu & Kashmir administration and the Indian Army. From the 1990s, security forces have battled, with a high sense of duty and commitment, an insurgency in Kashmir that has been fuelled by proxy forces sent by Pakistan over the Line of Control. In the process, many have made the supreme sacrifice. But as those who hold the monopoly over the use of violence, the security forces undermine that legitimacy each time they use it wrongly, to hurt or take the life of an innocent. One of the many challenges of fighting a militancy is to know the distinction between insurgents and the people, and do everything to maintain this difference. In recent times, painting someone as an “OGW” (overground worker for militants) or “hybrid militant” has served to blur the difference, at times expediently. At Hyderabad, it seems this blurring took place, again. This time, however, it was more quickly exposed. The J&K administration appeared to acknowledge that a dreadful wrong had been committed when it decided to exhume the bodies of two of the men — the owner of the premises where the operation was staged, and his tenant — from a graveyard where security forces had interred the four, and gave the remains back to their families for an honourable burial. This was a wise decision. But it is hardly enough. A magistrate’s enquiry has been ordered in the incident. But the track record does not inspire confidence that, if wrongdoing is established, those responsible for this operation will be brought to book. Two enquiries, one by the Army and another by the police, ordered last year into the killings of three men in Amshipora in Shopian, found that the men, daily wagers from Rajouri district who were looking for work in the Valley, were shot dead in cold blood by an Army captain and a JCO, in association with two civilians, and wrongly portrayed as terrorists, in order to claim reward money. The police filed a chargesheet against the captain, and the two civilians. The Army, which found in its enquiry that its officials had exceeded the powers granted to them under the Armed Forces Special Powers Act, said it would take over the case against the captain from the civilian court. The trial in the civil court has not progressed, and the Army has not provided information on how it has proceeded against the captain and the JCO. Things have not changed significantly even after a 2019 Supreme Court order that “there is no concept of absolute immunity from trial by criminal court”. The Court said a thorough enquiry should be conducted



into every “encounter” killing in disturbed areas as the “alleged enemy is a citizen of our country entitled to all fundamental rights including under Article 21 of the Constitution”. It also said that before a person is branded a militant or a terrorist, “there must be commission or some attempt or semblance of a violent overt act”. The leadership of the security forces must ensure that their personnel follow the court’s directions, in letter and spirit.

INDIAN AGRICULTURE NEEDS A VERGHESE KURIEN

Many wish for legendary “Milk Man of India” Verghese Kurien’s presence in our midst today as the conflict between the Central government and the farming community on the issue of the farm laws appears to be still unresolved. November 26, 2021 was also Kurien’s 100th birth anniversary. Kurien’s deep understanding of Indian farming and the trust he earned from the farming community could have helped to find a possible solution to the current crisis. His widely cited observation, that “India’s place in the sun will come from the partnership between the wisdom of its rural people and the skill of its professionals”, captures the essence of his life and mission. There was a time when Kurien seemed to be an improbable architect of a rural revolution that would eventually transform the lives of millions of farmers in Gujarat. There were many who saw him as an outsider to that world. He hailed from distant Kerala, belonged to an upper middle-class Christian family, and was educated in a western university in a subject like metallurgy which is far removed from agriculture.

Only as a cooperative model

Yet, quietly and with self-confidence, Kurien won the farmers over with his professional integrity and his vision of a central role for farmers in India’s journey of development. It is on that foundation that Kurien went on to design his idea of Amul as a co-operative, turned it over the years into a global brand, and later launched the White Revolution that would make India the largest milk producing nation in the world. It was all a well-knit plan. Central to Kurien’s vision was the co-operative model of business development. He decided that Amul would grow and establish its identity neither as a public sector undertaking nor as a private corporate entity. The co-operative model, he felt, was in the best interests of Gujarat’s milk producers. Kurien had a deep distrust of India’s bureaucracy. He saw it as a leftover of the colonial mindset and the product of a western lifestyle. Equally, he had reservations about the social objectives of the private sector. Much of the corporate sector, he felt, was led more by a profit motive than by public good. Kurien’s fascination for the co-operative model was also influenced by Gandhian thinking on poverty alleviation and social transformation. He viewed co-operatives as the closest embodiment of Mahatma Gandhi’s powerful insight that “what the world needs is not mass production, but production by the masses”.

Charting a path and questions

Notwithstanding his reservations, it must be said to Kurien’s credit that he saw a great deal — that he could borrow from the ideas and the practices of the corporate world. In areas such as innovations in marketing and management, branding and technology, the private sector excels and sets benchmarks for businesses across the world to follow and adopt. At the same time, Amul was steadily emerging as a laboratory, developing significant innovations and evolving technologies of its own, and these have strengthened its competitive power against multinational corporations. Its biggest success came when under the leadership of H.M. Dalaya, a distinguished dairy engineer, Amul achieved a breakthrough in converting buffalo milk into skim milk powder

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



and condensed milk. It was one single innovation that gave Amul a distinct competitive advantage and profoundly changed the lives of milk producers in Gujarat and beyond. Two questions are central to evaluating Verghese Kurien's legacy and his contributions to India's growth story. One, how has Amul performed in the years after its iconic founder left the world in 2012? Second, how far has the cooperative movement in general met its professed objective of an economic transformation at the grass-roots level. Amul has grown steadily on the strong foundation laid by its visionary leader, diversifying its product range and adding new ones. Amul continues to remain one of India's best-known food brands and is an inspiration to other dairy cooperatives such as Nandini in Karnataka, Aavin in Tamil Nadu and Verka in Punjab.

Focus on digital revolution

Sadly, Amul's success has not been the catalyst for similar movements across other agricultural commodities in India. For millions of farmers, life is still a struggle for survival. India's digital revolution has bypassed the agriculture sector. India talks about smart cities, not smart villages, nor even liveable villages. Farmers' suicides are not uncommon, weighing heavily on the nation's conscience. The cooperative movement in India is in a state of flux. It has suffered due to lack of professional management, adequate finance and poor adoption of technology. In the meantime, the pandemic has deepened the urban-rural divide. While the corporate sector is reaping billions on the crest of a stock market boom, incomes are drying in rural India and the nation seems to be facing a grave human tragedy. This is truly a moment to reflect on Verghese Kurien's remarkable legacy and the unfinished task he has left behind.

A CLOSE READING OF THE NFHS-5, THE HEALTH OF INDIA

The national health and demographic report card is finally completely out. The results from the first phase (conducted between June 2019 and January 2020) of the fifth round of the National Family Health Survey (NFHS-5) were released in December 2020. We now have the key results from the second phase (conducted between January 2020 and April 2021). How did India fare? It is a mixed verdict, containing both cheer and alarm in abundant measure. Before going into details, we should note that the results of the NFHS are worthy of our attention because it is not a hastily put together state-of-health index. Together, the two phases provide a detailed, comprehensive, multi-dimensional report card on the state of India's demographic and health trajectory.

Population has stabilised

There are many pluses in the report card. A comparison of NFHS-5 with NFHS-4 (2015-16) reveals improvement in several dimensions such as educational attainment, institutional deliveries, vaccinations, infant mortality and much more. We can debate later whether the improvements are good enough given the scale and depth of what needs to be done. For now, we need to appreciate the progress, especially given the abysmal state of India's health infrastructure, which has been tragically apparent since the COVID-19 pandemic hit. Given how little India spends on health and education as a share of GDP, these improvements are particularly remarkable. The biggest positive headline news from NHFS-5 is that the total fertility rate (TFR), which is the average number of children born to a woman during her lifetime, has been falling over time and is now just below the replacement rate of 2.1. This is true across all States of India. This means that the total population has stabilised. Therefore, politicians can strike one thing off their to-do list and devote their energies to urgent health matters, instead of raising the bogey of population



explosion to justify coercive population policies. There is absolutely no evidence to justify tying welfare support measures or holding elected office to the number of children.

Data on sex ratio

Another headline reveals that nationally, there are 1,020 adult women per 1,000 men for the first time. Does this mean that Indian women are no longer “missing”, i.e. does this signal the beginning of the end of another tenacious problem — that of deep-rooted son preference which leads to illegal but pervasive sex-selective abortions as parents repeatedly try for at least one son? To gauge this, the key metric to examine would be the sex ratio at birth (SRB). The natural SRB is 105 boys to 100 girls, which typically stabilises to a 50-50 adult sex ratio. If there are pervasive sex selective abortions, leading to a masculine SRB (i.e., more than 105 boys to 100 girls), a part of this imbalance would carry forward into adulthood. But adult sex ratio is shaped by many factors other than sex selective abortions. In household surveys, the adult sex ratio might also be affected by sampling errors, arising, for instance, from undercounting migrant males. The natural SRB translates to 952 girls per 1,000 boys. Nationally, the SRB has improved from 919 in 2015-16 to 929 in 2019-21, but it is still short of the natural SRB. Major States with low SRBs are spread all over the country: Uttar Pradesh, Haryana, Punjab, Rajasthan, Bihar, Delhi, Jharkhand, Andhra Pradesh, Tamil Nadu, Odisha, Maharashtra. While many States have seen an improvement in their SRBs, some have also witnessed a worsening, e.g. Maharashtra, Tamil Nadu and Odisha. Therefore, we need to recognise that the move to a small family size combined with persistent son preference is likely to impede the improvements in SRB.

Anaemia and malnutrition

A key health indicator that has worsened is the incidence of anaemia in under-5 children (from 58.6 to 67%), women (53.1 to 57%) and men (22.7 to 25%) in all States of India. Anaemia has debilitating effects on overall health, which is why the World Health Organization characterises it as a serious public health concern; 20%-40% incidence is considered moderate. Indian States show variation: from 39.4% in Kerala to 79.7% in Gujarat: but barring Kerala, all States are in the “severe” category. It is tempting to think of the worsening as the COVID-19 effect. However, comparing the changes in anaemia in Phase 1 States (survey done pre-COVID) to Phase 2 States, we see that if anything, the increase in the former (which include Andhra Pradesh, Assam, Bihar, Gujarat, Kerala, Maharashtra, West Bengal, among others) is on average higher than the increase in Phase 2 States (Delhi, Uttar Pradesh, Chhattisgarh, Jharkhand, Rajasthan, Haryana, Tamil Nadu, Madhya Pradesh, Odisha, Punjab, among others). The discrepancy between Phase 1 and Phase 2 could reflect differences in actual incidence or survey-related issues. There are other instances of clear differences between Phase 1 and Phase 2 results. The three indicators of malnutrition: stunting (low height-for-age), wasting (low weight-for-height) and underweight (low weight-for-age): show an overall improvement. These conditions often occur together. Together, these reflect chronic or recurrent undernutrition, usually associated with poverty, poor maternal health and nutrition, frequent illness and/or inappropriate feeding and care in early life. These prevent children from reaching their physical and cognitive potential. However, the overall reduction in national estimates of these three measures masks an anomaly. In Phase 1, several States revealed a worsening in one or more of these, whereas in Phase 2, none of the States showed a worsening. It would be good to understand if the novel coronavirus pandemic affected the survey in Phase 2, leading to undercounting of incidence, or whether by pure chance, all States in Phase 2 happen to be better performers on the malnutrition count (something that could not have been known at the



start of the survey in 2019). Also, along with an improvement in these three indicators, we see an increase in the proportion of overweight children, women and men. Being overweight also reflects malnutrition, with serious health consequences in the form of non-communicable diseases. In addition to anthropometric measures, lack of adequate nutrition is also measured by micronutrient deficiencies, i.e. lack of vitamins and minerals that are essential for body functions such as producing enzymes, hormones and other substances needed for growth and development. While the NHFS does not have data on this, the issue of micronutrients is related to diets. It would be good to note here that Indian diets display a rich diversity. Many traditional diets reflect both local climatic conditions as well as a multiplicity of sources of essential nutrients, such as proteins. Policing of diets, by imposing an unnatural uniformity, and preventing access to animal protein for large sections of Indians that are not traditionally vegetarian is likely to reduce micronutrient diversity and contribute to poor health outcomes.

Notes of caution

Some analyses have suggested that the rate of progress has slowed down, based on comparisons between NHFS-4 and NHFS-5 to the improvements between the two previous rounds. We would not be able to claim this yet, since comparing changes over a 10-year interval (between NFHS-3 in 2005-06 and NFHS-4) to a five-year interval (between NFHS-4 and NFHS-5) is misleading. Some have argued that the poor health outcomes reflect the effect of COVID-19. The data for the second phase of NFHS-5 have been, to a large extent, collected during the highly unusual conditions of the COVID-19 pandemic, but as the evidence on anaemia shows, the deterioration in public health indicators cannot be attributed entirely to the pandemic. COVID-19 might have added fuel to the fire of poor public health, but it did not cause the fire. There is much more in the NHFS-5 survey that needs more than a short piece. The survey focuses on women's empowerment, autonomy and mobility indicators. It shines a spotlight on women's reproductive health, and reveals, for instance, that caesarian births have increased dramatically. In private health facilities, 47.5% births are by C-section (14.3% in public health facilities). These figures are highly unnatural and call into question unethical practices of private health providers who prioritise monetary gain over women's health and control over their bodies. The overall evidence is compelling and clear: health ought to be a matter of concern for all political parties and all governments: national and State. The survey highlights deep inequalities in health outcomes. An action plan to improve India's health needs to be inclusive, firm in its commitment, and backed by solid resources.

CENTRE MULLS NEW TESTING MODES AFTER ANAEMIA SURGE

Concerned at the rise in cases of anaemia in India across the spectrum of its population, as revealed by the National Family Health Survey-5 (NFHS-5), the Centre plans to change the mode of testing for it, along with initiating discussions with the World Health Organization (WHO) on whether "racial characteristics" ought to be accounted for in determining anaemia levels in India. The survey, the full findings of which were made public on Wednesday, found that anaemia in children had increased from 58.6% in the NFHS-4 to 67% in the NFHS-5. The NFHS-4 was conducted in 2015-16 and NFHS-5 in 2019-21. Anaemia in pregnant women increased to 52.2% from 50.4%, and the percentage of women (15-49 years) who were anaemic also increased from 53% to 57%. The percentage of men aged 15-49 who were anaemic also rose from 22.7% to 25%. The Centre has an ongoing programme called Anaemia Mukta Bharat (Anaemia-free India) to reduce the proportion of anaemia among children to 40%, pregnant women to 32% and lactating women to 40% by 2022. The current NFHS shows a lack of progress towards these goals. Anaemia



is commonly characterised by low levels of iron in the body. Anaemia is also believed to result from a lack of nutrition and inadequate intake of fresh fruits and vegetables as well as a deficiency of vitamin B-12. “It was surprising that the proportion of the anaemic increased so significantly between the two editions of the NFHS,” said a senior Health Ministry official. The official said the Government would work with States that showed the most serious deterioration to determine if its ongoing programme of providing folic acid tablets and deworming pills was inadequate. “In the forthcoming NFHS that will begin in 2022 end, we will employ the venous blood extraction method and analyse the results. While our focus will be on improving nutrition and achieving WHO standards, we will also have to see if other factors determine anaemia levels,” the official added.

RELIABLE DATA, GOOD POLICY

When evidence-based policymaking becomes the cornerstone of good governance, it is difficult to overstate the importance of reliable and timely public data. Such data have a direct bearing on the state’s capability to design and implement programmes effectively. Among the emerging economies, India is credited to have a relatively robust public data system generated through its decennial Census and yearly sample surveys on specific themes. The coverage and reporting of Census data have vastly improved since independence. Though errors continue to be higher than in high-income countries, Census data are recognised for their reliability. Nevertheless, certain disquieting trends are visible on this front.

Concerns

One, despite having adopted latest data processing technologies, there has been a growing delay, sometimes by years, in the release of the collected data. This renders such data less useful for policy intervention. The delay also implies less public scrutiny and hence undermines accountability. In an extreme case, the government refrained from releasing the data collected through the Socio-Economic and Caste Census. The second is the issue of comparability. In recent years, the government introduced changes to the estimation of GDP that made comparisons over time impossible. Adjustments to computation and survey methods are always welcome when they are meant to improve accuracy. In this instance, the arguments for revision and the revisions undertaken do not improve the quality of estimates. Therefore, the revisions, some claim, are driven more by political considerations than by the need to improve accuracy. Third, there has been a slippage in the conduct of sample surveys. The statistical bureau has been revising the sample surveys almost every year. One crucial sample survey is the quinquennial ‘Monthly Household Consumer Expenditure’ (MHCE). The MHCE provides the data base to compute the weightage assigned for commodities in the calculation of Inflation Index, the poverty line and poverty ratio, nutritional standards of people based on their consumption of various food items, and consumption expenditure in the national accounts system. The government also uses the poverty estimates to decide on the State-wise allocation of foodgrains to be sold at subsidised prices through the Public Distribution System. Hence, the MHCE is an important policy instrument despite the fact that the data provided through the MHCE surveys have been widely debated. Such debates have, however, led to refinement of the methods of data collection and made the data more robust. The Government of India (GoI) in November 2019 announced that the MHCE data collected in 2017-18 could not be released due to ‘data quality issues’. Though it did not elaborate on what the issues were, it went on to announce that the sample surveys for consumption expenditure will be conducted in 2020-21 and 2021-22. At present, we do not have information



on whether the GoI has conducted these sample surveys. The GoI has further postponed the decennial census in 2021 to 2022 on the grounds that COVID-19 has had a serious impact on migration and livelihood options of the people. It is therefore important that the Census be conducted at the earliest and the results be made available to draw samples for the sample surveys in subsequent years.

Challenges

If digital data collection tools are to be used as announced earlier, several challenges need to be addressed. As mentioned earlier, we have lost a precious data base and more than five years have lapsed since then. This affects the framing of policies relating to food and nutrition security, among others. Given the significance of education and health in sustaining development, and the adverse impacts that the pandemic is likely to have had on these dimensions, such lapses are disconcerting. Moreover, the robust estimation of individual items in the national accounts system also awaits the Census and the subsequent sample survey results. Unless these surveys are completed and the results announced, we will be left with a doctor prescribing medicines without diagnosis. In the absence of timely and reliable public data, users are increasingly relying on data provided through large-scale surveys conducted by the Centre for Monitoring Indian Economy (CMIE). However, users have raised questions about the design and data collection framework of the CMIE's high-frequency household survey. As they take recourse to other metrics for analysis, the onus is on the government to ensure that the data generation possibilities opened up by new technologies are embedded in a robust system of public data production and use.

CAPITAL COST

Two years ago, weeks after winning the Andhra Pradesh assembly elections, Chief Minister Jagan Mohan Reddy announced a rollback of the greenfield capital city, Amaravati, that his predecessor Chandrababu Naidu had launched in 2015, soon after the state lost its capital, Hyderabad, to Telangana after bifurcation. Instead, Reddy mooted a plan to develop three capital cities — a legislative headquarters in Amaravati, a centre for the bureaucracy in Visakhapatnam, and the high court in Kurnool. The move disrupted investment plans running into millions and involving agencies such as the World Bank and triggered protests by farmers who had given land for the capital as per a pooling arrangement with the government. On Monday, the Andhra Pradesh State Assembly passed the Andhra Pradesh Decentralisation and Inclusive Development of All Regions Repeal Bill, 2021, which aims to repeal the earlier laws made by the state legislature to facilitate the three-capitals plan. The Reddy government has declared it will bring in a new bill though it has not yet clarified whether it will stay with the three-capital plan or revert to Amaravati as the sole capital. This is an opportunity for the government to abandon the three-capital plan and focus on building Amaravati. The Reddy government has offered mainly two arguments to support its three-capital plan. One, the Naidu government flouted laws and procedures while acquiring land for the capital city and planning its development. Two, a decentralised model of government alone can address the regional disparities plaguing the new state. In the first case, the administration can surely investigate deficiencies in contracts if there are any, rectify them and move forward. As for the laudable goal of having a decentralised government, it does not call for three capitals, an idea that could lead to wastage of resources and turn into a logistical nightmare. A compact, well-planned capital city with modern infrastructure can help different arms of the state to share resources and maximise use. Prudent disbursement of capital and human resources and decentralised planning with the involvement of local population is sufficient to avoid the perils of over



centralisation of government. The government's present decision presumably has been influenced by two parallel developments: One, the progress of legal cases against the three-capital plan in Andhra Pradesh High Court, and two, an ongoing mobilisation by farmers, who had contributed land for the building of Amaravati. The government must strive for an early closure in the matter so that further cost overruns can be avoided and the state can have a new capital.

THE ROAD TO A HIMALAYAN BLUNDER

The Char Dham road project, inaugurated by Prime Minister Narendra Modi in 2016, is an ambitious attempt to widen nearly 900 kilometres of hill roads at the cost of ₹12,000 crore. The project, which will be executed by the Ministry of Road Transport and Highways (MoRTH), aims to provide all-weather connectivity to the four major shrines of Yamunotri, Gangotri, Kedarnath and Badrinath. In the enthusiasm for an infrastructural project that will increase pilgrimage tourism from the Indian plains and provide attendant local economic dividends, the government has ignored the facts proven by the many tragic incidents in the hills of Uttarakhand over decades. Rampant construction and its complex interaction with climate change has led to massive landslides and floods in the fragile Himalayan range.

Timeline of the case

The project began as a road connectivity project for pilgrim tourists. Now the government argues that it is essential to back up troop and arms movement towards the India-China border. The case is in the Supreme Court. The Attorney General argues that wide roads are necessary for the sake of national security in the Garhwal region. The petitioners, residents of the valleys in the Garhwal region, stress on the need for a regulated and narrower intermediate road width with a walking footpath. Let's look at the timeline of the case. In 2018, the road-expansion project was challenged by an NGO for its potential impact on the Himalayan ecology. The Supreme Court constituted a high-powered committee (HPC) to examine the issues. In an order in September 2020, the Court said that the carriageway width of the roads cannot exceed 5.5 metres. The Court went by March 2018 guidelines issued by the MoRTH for mountain highways, which set a standard specification of a carriageway width of 5.5m with two-lane structures (7m). In doing so, the Court upheld the minority recommendation of the HPC. In November 2020, the Ministry of Defence (MoD) filed an appeal in which, quoting the MoRTH Affidavit, it asked for "a double-lane road having a carriageway width of 7m (or 7.5m in case there is a raised kerb) with 8-10m formation width" to "meet the requirement of the Army". On December 15, the MoRTH amended its 2018 circular and raised the 5.5m width limit to 10m. The new circular read: "For roads in hilly and mountainous terrain which act as feeder roads to the Indo-China border or are of strategic importance for national security, the carriageway width should be 7m with 1.5m paved shoulder on either side." Why did MoRTH amend the circular way beyond the requirement placed by the MoD? These wide roads are being sought to be built in Uttarakhand, which has been a victim of several disasters in the last two decades. It is crucial to note that the terrain of the Himalayas in Uttarakhand is different from the terrain in Ladakh. Valleys in Uttarakhand are narrow and close-ended with steep slopes of 60-70 degrees. On the other hand, the valleys in Ladakh have a slope elevation of 30 degrees. Just this year, we saw how the floods in the Dhaulti Ganga, Rishi Ganga and Alaknanda rivers claimed over 200 lives. During the monsoons, owing to the massive hill-cutting for the Char Dham road project, several landslides have occurred in the region. Such is the condition of the State that the national highways of the Char Dham project, including ones leading to the border, were closed repeatedly and sometimes for months this monsoon season. And so, the question is,



why did the MoRTH enter such a fragile terrain with this massive, ambitious project without even doing a basic environment impact assessment, as is mandated? Violations of the intermediate road width of 5.5m were said to be happening even after the Supreme Court reprimanded the MoRTH. Then, the MoD was brought in to justify the demand for double-lane paved shoulder roads. When reprimanded, the MoRTH informed the Supreme Court that the project had been taken up under a different category which is why the 2018 circular was not being followed. Such a bizarre submission should be — and was — rejected by many. However, some toed the line of the government and agreed to the double-lane paved shoulder road width. Later, it was revealed that the project proponents intend to install toll booths along the Char Dham roads, and that is feasible only with the double-lane paved shoulder road width. Is it the intent of the government to levy a tax on Char Dham yatri? In its November 2020 appeal, the MoD had requested a 7m carriageway width with 8-10m formation width. This was supported by the MoRTH in its affidavit. The petitioners and the small minority within the Supreme Court-appointed committee recommended an intermediate road width of 5.5m tarred surface which facilitates easy bilateral movement, with a 1.5m walking footpath, which pilgrims and residents of the valley need. The formation width of this design is the same as that proposed by the MoD (8-10 m) with the only difference being a walking footpath. What then is the difficulty? When the judges raised this question, the government had no answer. Several violations of the MoRTH came tumbling out and the fact that the MoD was being used to justify the new road width became clear. It is often argued that landslides are a natural consequence of the construction of roads and can be mitigated. Similar arguments were made in court about this project too. However, the rainfall this year showed that the mitigation measures are no match to nature's fury. Prevention and regulation of activities seem to be the only effective way of mitigation in these fragile mountains.

Desecrating the Himalayas

Disaster-resilient, safe and stable infrastructure is the only solution for commuting by road in the hills. But double-lane paved shoulder roads are excessively wide and render the slopes vulnerable. The unique Himalayan landscape with steep slopes and sharp gradients is not amenable to human engineering. Any human-induced change beyond the Himalayas' carrying capacity will have an impact on stream run-offs and erosional or depositional processes. Considering such vulnerabilities, we need to keep the scale of human-induced disturbances to the minimum level possible. The Char Dham project in its current form goes against all environmental safeguards. If the government does not desist from widening the roads under this project, it will be a Himalayan blunder. It will significantly reinforce mass wasting processes and erosion rates given the steepness of the slopes, earthquake activity and erosivity of increased monsoonal precipitation. The Himalayas need to be preserved as a nature reserve for future generations. That is why they are known as the 'abode of Gods'. So, why desecrate them?

REFORMING THE FERTILIZER SECTOR

Since 1991, when economic reforms began in India, several attempts have been made to reform the fertilizer sector to keep a check on the rising fertilizer subsidy bill, promote the efficient use of fertilizers, achieve balanced use of N, P and K (nitrogen, phosphorus and potassium), and reduce water and air pollution caused by fertilizers like urea.



Increase in subsidy

The Economic Survey of 1991-92 noted that fertilizer prices remained almost unchanged from July 1981 to July 1991. The Union Budget of July 1991 raised the issue prices of fertilizers by 40% on average. But from August that year, this was reduced to 30%, and small and marginal farmers were exempted from the price increase. The Economic Survey further noted that even with this 30% increase, fertilizer subsidy remained substantial and needed to be reduced further. Due to opposition to increase fertilizer prices, the increase in the price of urea was rolled back to 17% a year later over the pre-reform price. This change disturbed the relative prices of various fertilizers and resulted in a big shift in the composition of fertilizers used in the country in favour of urea and thus N. The ratio of use of N:P:K increased from 5.9:2.4:1 in 1991-92 to 9.7:2.9:1 in 1993-94. Farmers tended to move towards balanced use, but policy and price changes reversed the favourable trend a couple of times in the last three decades. Thus, little success has been achieved on any of the three fronts. Rather, there has been an uncontrolled increase in subsidies on urea, due both to almost freezing the MRP of urea in different time periods and its rising sale leading to an increase in indiscriminate and imbalanced use of fertilizers. Concerned with the adverse environmental impact of certain chemical fertilizers, some sections of society suggest the use of organic fertilizers and biofertilizers instead. There is a growing demand to provide subsidies and other incentives for organic fertilizers and biofertilizers to match those provided for chemical fertilizers. Fertilizer subsidy has doubled in a short period of three years. For 2021-22, the Union Budget has estimated fertilizer subsidy at ₹79,530 crore (from ₹66,468 crore in 2017-18) but it is likely to reach a much higher level due to the recent upsurge in the prices of energy, the international prices of urea and other fertilizers, and India's dependence on imports. In 2019-20, fertilizer use per hectare of cultivated area varied from 70 kg of NPK in Rajasthan to 250 kg in Telangana. This gap was much wider at the district level. Further, composition of total plant nutrients in terms of the N,P,K ratio deviated considerably from the recommended or optimal NPK mix. It was 33.7:8.0:1 in Punjab and 1.3:0.7:1 in Kerala. This also has implications for inter-State disparities in fertilizer subsidy due to high variations in subsidy content, which is highly biased towards urea and thus nitrogen. As a result, the magnitude of fertilizer subsidy among the major States ranges in the ratio of 8:1. The government introduced the Nutrient Based Subsidy (NBS) in 2010 to address the growing imbalance in fertilizer use in many States, which is skewed towards urea (N). However, only non-nitrogenous fertilizers (P and K) moved to NBS; urea was left out. The total demand for urea in the country is about 34-35 million tonnes (mln t) whereas the domestic production is about 25 mln t. The requirement of Diammonium Phosphate (DAP) is about 12 mln t and domestic production is just 5 mln t. This leaves the gap of nearly 9-10 mln t for urea and 7 mln t for DAP, which is met through imports. The use of Muriate of Potash is about 3 mln t. This is entirely imported. In addition, consumption of complex fertilizers (NPK) is about 12-13 mln t, which is largely produced within the country and so the import requirement is only 1 mln t. The international prices of fertilizers are volatile and almost directly proportional to energy prices. Besides, cartels of major global producers have a strong influence on prices. Of late, there has been a surge in international prices with urea prices rising to a record level of over \$900 per metric tonne (mt) in November 2021 from nearly \$270 per mt in September 2020. Likewise, the international prices of DAP have risen from about \$360 per mt in September 2020 to about \$825 per mt in November 2021. These extraordinary price rises are on account of a sharp upsurge in international energy prices and supply constraints in major producing countries due to robust domestic demand, production cuts and export restrictions. This also coincides with the peak demand for the Rabi season. In order to minimise the impact of rise in prices on farmers, the bulk of the price rise is absorbed by the government through enhanced fertilizer subsidy. This is likely



to create serious fiscal challenges. In the last 20 years, the price of urea has increased to ₹5.36 per kg in 2021 from ₹4.60 in 2001. In the same period, the Minimum Support Price of paddy increased by 280% and that of wheat by 230%. In other words, in 2001, 37.7 kg of wheat was required to buy one bag of urea (50 kg), which has now reduced to 13.3 kg. At current prices, farmers pay about ₹268 per bag of urea and the Government of India pays an average subsidy of about ₹930 per bag. Thus, taxpayers bear 78% of the cost of urea and farmers pay only 22%. This is expected to increase and is not sustainable.

The way forward

In order to address the multiple goals of fertilizer policy, we need to simultaneously work on four key policy areas. One, we need to be self-reliant and not depend on import of fertilizers. In this way, we can escape the vagaries of high volatility in international prices. In this direction, five urea plants at Gorakhpur, Sindri, Barauni, Talcher and Ramagundam are being revived in the public sector. Two, we need to extend the NBS model to urea and allow for price rationalisation of urea compared to non-nitrogenous fertilizers and prices of crops. The present system of keeping the price of urea fixed and absorbing all the price increases in subsidy needs to be replaced by distribution of price change over both price as well as subsidy based on some rational formula. Three, we need to develop alternative sources of nutrition for plants. Discussions with farmers and consumers reveal a strong desire to shift towards the use of non-chemical fertilizers as well as a demand for bringing parity in prices and subsidy given to chemical fertilizers with organic and biofertilizers. This also provides the scope to use a large biomass of crop that goes waste and enhance the value of livestock byproducts. We need to scale up and improve innovations to develop alternative fertilizers. Though compost contains low amounts of nitrogen, technologies are now available to enrich this. Finally, India should pay attention to improving fertilizer efficiency through need-based use rather than broadcasting fertilizer in the field. The recently developed Nano urea by IFFCO shows promising results in reducing the usage of urea. Such products need to be promoted expeditiously after testing. These changes will go a long way in enhancing the productivity of agriculture, mitigating climate change, providing an alternative to chemical fertilizers and balancing the fiscal impact of fertilizer subsidy on the Union Budgets in the years to come.

BIHAR'S REBID FOR GLORY IS WITHIN THE REALM OF POSSIBILITY

News of Shubham Kumar from Bihar topping the Union Public Service Commission (UPSC) civil services examination 2020 has been welcomed with enthusiasm. But contrast this with a recent report by the Reserve Bank of India which published economic statistics including GDP for the States from 1997 onwards, which makes sombre reading.

A widening gap

Bihar had the lowest per capita income of ₹4,014 at current prices in 1997-98 (31.58% of the country's average); in 2019-20, it remains at the lowest at ₹45,071 (33.58% of the country's average), moving only two percentage points in the last 22 years. Significantly, the gap between Bihar and the better-off States has increased over the years. Goa's per capita income, in 1997-98, was around eight times more than Bihar's; 22 years later, it is 10 times more. Sikkim, the second richest State in per capita terms, had three times more per capita income than Bihar's in 1997-98; currently it is over nine times more. The gap from Kerala has gone up from 3.62 to 5 times during this period. Similar is the case vis-à-vis Maharashtra and other better-off States. In terms of



progress towards Sustainable Development Goals, as in a NITI Aayog report released this year, Bihar scored 52 out of 100 against the average of 66 and is ranked last among the States of India. Its ranking was the same even last year. Kerala, the topper, secured 75 out of 100.

Once the centre of attention

The relative decline is a post-Independence phenomenon. It is clearly a fall from grace for Bihar which used to be the centre of glory, grandeur, knowledge, wealth and power in ancient India of the Maurya and Gupta Ages. Even during periods of occupation by the Moghuls and the British, Bihar was among the better-off provinces. In the period immediately following India's Independence, Bihar's per capita income was around 80% of India's average. Today, it has slid to one third. And the irony is that the relative deterioration happened post-Independence when the government is of and by the people. MLAs and MPs are the guides of the people. The better they are in terms of character, calibre and commitment, the better will be the course of prosperity. So, what is the score in this regard? Bihar is much ahead in matters of criminality among elected 'rulers' and the criminality is on the increase of late. An analysis of the reports of the Association for Democratic Reforms would indicate that 68% of the newly elected MLAs in Bihar had pending criminal charges, and 51% had serious charges which including rape and murder. In the country as a whole, out of 3,980 MLAs, 40% had criminal cases and 26% had serious criminal cases. In the previous Bihar Assembly in 2015, 58% MLAs had criminal cases against them and 40% had serious criminal charges; 50% of MPs from Bihar elected to the Lok Sabha in 2014 faced serious criminal charges.

Liberalisation era

Some of the key issues where commitment to the cause of Bihar by the elected representatives would have made a difference merit attention. While liberalisation of the 1990s spurred domestic and external investment which accelerated India's growth, States such as Bihar remained left out. In the case of Bihar, its landlocked geography, poor infrastructure and poor governance environment were obvious handicaps. In view of its poor fiscal base and overwhelming dependence on Centre for its budgetary needs, Bihar demanded Special Category Status from the Centre, even through unanimous resolutions in the State Assembly. This would incentivise investment. But the Centre has not found it possible as Bihar does not fulfil the criteria of having hilly terrain, low population density and sizeable tribal population to qualify for such a status. Bihar may not fulfil these criteria, yet it is poorer than the hill States. The stated national objective of 'balanced regional development' remains largely on paper. If all the 40 MPs from Bihar are determined on this issue irrespective of party affiliations, the Government of India will have to find a way to incentivise investment by way of Special Category status or otherwise.

On infrastructure

Bihar has the highest population density of 1,102 people per square kilometres (in 2019) which is around three times the average India's density. And its rate of population growth is highest in the country, at 18.16% during 2011-21 as against India's 12.56%. Therefore, human resource development sectors of education, health and skills ought to be the highest priority. While there has been good progress in matters of roads (third position in India after Kerala and West Bengal) and electricity (almost universal like many other States), provisioning for health such as beds and medical professionals per lakh of population is among the worst in India. While infrastructure for education has improved, quality improvement measures cry for attention. Institutions such as



Patna College, Patna Science College, Patna Medical College Hospital which were among the best in India during the British Raj, have suffered decadence. Bihar faces substantial migration of students and patients along with labour. Development and investment would also be deterred by adverse governance environments. Bihar witnesses, on average, nine murders a day and the criminal justice administration would take years, at times decades, to bring culprits to book if at all. Therefore, political reforms to elect the right representatives will lead to the right policy priorities and implementation environment. It would make a tremendous difference if political parties, voluntarily or compelled by law, avoid fielding candidates with criminal antecedents. But in a democracy, the behaviour of the MLA or MP will be influenced by expectations of reward or punishment from the voters. If voter behaviour is not determined by 'development' but other issues such as caste, religion or emotional subjects, growth will take a back seat. It will again be a chicken and egg story. But as the Bhagavad Gita says: "Whatever a leader does, so do other people. Whatever standard he sets, others follow." Obviously, the quality score of elected leaders has to improve if development and income grades of Bihar are to improve.

THE ROAD TO DATA PROTECTION LAW

On Monday, the Joint Parliamentary Committee (JPP) on the Personal Data Protection Bill of 2019 is said to have adopted the final draft. The Bill is slated to be tabled in the Winter Session.

Why does India need a data protection law?

Amid the proliferation of computers and the Internet, consumers have been generating a lot of data, which has allowed companies to show them personalised advertisements based on their browsing patterns and other online behaviour. Companies began to store a lot of these datasets without taking the consent of the users, and did not take responsibility when the data leaked. To hold such companies accountable, the government in 2019 tabled the Personal Data Protection Bill for the first time.

What is said to be in the final draft?

One of the major changes that the final draft of the PDP Bill is believed to have pushed for is to include non-personal data within its ambit, which changes the nature of the Bill from personal data protection to just data protection. The final draft is also said to have sought additional compliance for companies that deal exclusively with children's data, by asking them to register with the Data Protection Authority — a regulatory body that will have powers to decide on implementing the law's various provisions. A third key aspect that the committee is said to have pushed for is to consider all social media companies as publishers, and to hold them accountable for the content on their platform if they are not acting as intermediaries. It is said to have recommended that no social media company be allowed to operate in India unless the parent company handling the technology sets up an office in India. Other aspects such as setting up of an indigenous architecture, which can be an alternative to the internationally accepted SWIFT payment system, are also said to have been suggested. A key suggestion said to be made by the JCP, which also received the most dissent from members, is wide-ranging powers for the government such as exempting any agency from application of the law.

When will it be tabled?



Since the final draft has been adopted by all members of the JCP, it is likely to be tabled during the Winter Session. However, some of the JCP members have dissented to certain aspects, so some changes are possible before the Bill is tabled in Parliament.

How long has it taken to complete the draft?

First proposed by the government in 2018, the Bill has been pending for close to three years now. It has seen several changes to the original draft drawn by retired Supreme Court Justice B N Srikrishna, who has said that the revised Bill was “a blank cheque to the state”. The Bill, which is said to contain 98 clauses, was referred to the JPC headed by BJP MP Meenakshi Lekhi in December 2019. Lekhi was replaced as chairperson with another BJP MP, P P Chaudhary, earlier this year. The 30-member panel got extensions in March and September 2020 as well as a final extension in February 2021. Officials from the Ministries of IT, Law and Home Affairs, the Unique Identification Authority of India, National Investigation Agency, Narcotics Control Bureau and the Reserve Bank of India, among others, have deposed before the panel. From the private sector, executives from Visa, MasterCard India, Google India, PayTM, Facebook India, Twitter India, Amazon Web Services as well as Amazon India, among others, have made submissions to the panel.

What were their submissions?

In their meeting with the JPC, Google’s representatives had said India should avoid making data localisation a requirement, which had upset the members of the committee. Paytm, on the other hand, had said data generated in India should be parked in the country. Cab aggregators such as Ola and Uber, whose representatives appeared before the JPC earlier this month, have supported data localisation norms. In November last year, before the JPC had started a clause-by-clause consideration of the Bill, several tech policy groups had written to then chairperson Lekhi, seeking wider consultations on the various aspects of the Bill. The committee, however, went ahead with these deliberations. Companies, tech policy groups and even JCP members had also called for reconsideration of the one-size-fits-all approach based on binary age threshold for children, given the vast geographic and cultural diversity of children across the country and their varying maturity levels and needs. Companies and policy groups had also expressed apprehensions about the possible inclusion of certain clauses related to non-personal data and had told the JPC that it carried a very high risk of re-identification and may lead to legal complications for stakeholders. Policy groups had repeatedly objected to the blanket exemptions to the central and state governments along with allied agencies. “We are hoping that these provisions have been relooked, especially in the absence of a comprehensive surveillance framework, to introduce some element of oversight,” said Kazim Rizvi, founder of public policy group The Dialogue. Rizvi said that as per the 2019 draft, the Data Protection Authority had been entrusted with a wide variety of functions ranging from standard-setting to adjudication, which would end up “overburdening” the architecture. “The functional and structural independence of India’s first data regulator is a key aspect considering the crucial role it plays as the mediator between all vested stakeholders that is citizens, businesses and the government themselves,” Rizvi said.

SCORPENE CLASS SUBMARINE INS VELA JOINS NAVY

The fourth Scorpene class conventional submarine, INS Vela, was commissioned into the Navy in the presence of Chief of the Naval Staff Admiral Karambir Singh at a ceremony in Mumbai on Thursday. “Vela has taken the ‘Make in India’ spirit a notch higher with the fitment indigenised battery cells, which power a very silent permanently magnetised propulsion motor,” the Navy said

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in a statement. Construction of the submarine commenced with the first cutting of steel on July 14, 2009 and it was launched and named Vela on May 6, 2019. With this, the Navy currently has 16 conventional and one nuclear submarines in service. It includes eight Russian Kilo class submarines, four German HDW submarines, four French Scorpene submarines and the indigenous nuclear ballistic missile submarine INS Arihant. Vela is named after a type of Indian fish belonging to the stingray family, and the crest depicts the fish swimming across the blue seas. The submarine's mascot is the Sub-ray which is an amalgamation of the submarine and the stingray which symbolises the metamorphosis of the submarine's character with the qualities of a stingray, the Navy said. The new INS Vela carries forward the legacy of its namesake, the erstwhile Vela which was commissioned on August 31, 1973 as the lead boat of Vela class submarines and was decommissioned on January 25, 2010.

Navy's Project-75

Six Scorpene submarines are being built under Project-75 by Mazagaon Dock Ltd. (MDL), Mumbai, under technology transfer from Naval Group of France under a \$3.75-bn deal signed in October 2005. The first submarine INS Kalvari was commissioned in December 2017, second submarine INSKhanderi in September 2019 and third one INS Karanj in March 2021. The fifth submarine, Vagir, was launched in November 2020 and is undergoing sea trials while the sixth one Vagsheer is in advanced stage of outfitting. The Navy has drawn up plans to install Air Independent Propulsion (AIP) modules on all Scorpene submarines as they go for their refit beginning with INSKulvari in 2023 to enhance their endurance. That hinges on the successful fitment of the indigenous AIP module developed by the Defence Research and Development Organisation on board a submarine. The land-based prototype has recently undergone successful trials. In parallel, the Navy recently issued the Request For Proposal for procurement of six advanced submarines under Project-75I. The Navy has a 30-year submarine building programme and after the P-75I, the Navy intends to design and build conventional submarines indigenously. "This is going to be may be the last time (P-75I) that we will take any outside assistance; henceforth we will design and build our own submarines," Navy Chief Adm Singh told The Hindu recently.

THE COMEDIAN FROM TWO INDIAS

On November 15, Vir Das, a comedian and actor, released a six-minute video in which he spoke of "Two Indias". In the monologue, delivered to an audience at a sold-out show at the Kennedy Centre in Washington DC, Mr. Das, 42, spoke of many contradictions in India on issues varying from women's safety to tackling COVID-19 and politics. "I come from an India where we worship women during the day and gang rape them at night," he said. "I come from an India where we take pride in being vegetarian, and yet run over the farmers who grow our vegetables." The video, uploaded on YouTube, went viral and triggered a storm of responses, with both supporters and critics peddling the "Two Indias' memes on social networks. Mr. Das released a statement on Twitter, explaining his stand. "There has been a sizeable reaction to a video I posted on YouTube. The video is a satire about the duality of two very separate Indians that do different things. Like Any Nation has light and dark, good and evil within it. None of this is a secret," it read. "The video appeals for us to never forget that we are great. To never stop focusing on what makes us great. It ends in a gigantic patriotic round of applause for a country we all love, believe in and are proud of. That there is more to our country than the headline, a deep beauty. That's the point of the video and the reason for the applause." But the clarification did little in calming the storm. A Mumbai-based advocate, who is a legal adviser of Maharashtra's Bharatiya Janata Party (BJP), filed a



complaint with the Mumbai police against Mr. Das for “defaming India and Prime Minister Narendra Modi”. In Delhi, a police complaint was lodged against the comedian by a BJP member for allegedly using derogatory statements against women and India.

Apology sought

Madhya Pradesh’s Home Minister and BJP leader Narottam Mishra said Mr. Das could not perform in the State “until he apologises”. Abhishek Singhvi, a former spokesman for the Congress Party, joined the narrative. “Vilifying the nation as a whole in front of the world is just not done!” he posted on Twitter. Not everybody is angry with Mr. Das, though. Filmmaker Hansal Mehta tweeted in support of him. “I was very moved by Vir Das. I come from an India where it needs courage for a Vir Das to say this, I come from an India where many of us admire this courage yet choose to remain silent.” Comedian Munawar Faruqui, who was jailed earlier this year over a joke, has said, “I come from Two India: 1947 and 2014.” The Dehradun-born Mr. Das was the first Indian comedian to be on Netflix and has acted in many Bollywood films like *Namaste London*, *Love Aaj Kal* and *Delhi Belly*. He was raised in Nigeria and studied at Lagos. Graduated from the Knox College, Illinois, in Economics and Theatre, Mr. Das started his career on Zoom TV. His YouTube channel, ‘Vir Das Comedy’ is one of the most popular comedy platforms in the country with some 674,000 subscribers. He runs India’s first and foremost Comedy Consultancy called ‘WierdAss Comedy’.

Offensive jokes

This is not the first time Mr. Das is courting a controversy. In August 2021, he made offensive jokes about the transgender community on his #TenOnTen series on YouTube. After receiving a lot of flak for his comment on social media, Mr. Das apologised and said, “I got the joke wrong.” In July 2020, Mr. Das had uploaded a video on Twitter, saying: “I do not condone offensive jokes. Stop offensive and abusive comedy. It is not easy to take a stand against a community of peers I love, but comedy has become way too offensive.” Nine months ago, Mr. Das landed himself in trouble for cracking jokes on former President A.P.J. Abdul Kalam. In 2016, after the film *Mastizaade* was released, an FIR was filed against him and actor Sunny Leone for promoting condoms inside a temple in a vulgar manner. Last year, while talking about self-censoring his content, Mr. Das said in an interview: “I have performed for the biggest people in the country and I am a very small fish in their pond. The guy who gets upset is never the politician or the businessman, it is the guy who loves the politician or businessman.” The show in Washington, however, seems to have upset both of them.

SHORE UP THE LIFELINE

After reports clearly indicated that the States had run out of funds for expenditure on wages and materials for the MGNREGS, the Government announced ₹10,000 crore in additional funds as an interim measure. Though allocated on November 5, the scheme’s financial statement as on November 25 still showed a negative net balance of ₹9,888 crore indicating that the balance sheets were in the red in 24 States and Union Territories. This means that the fund crunch suffered by the scheme due to high demand and a low budgeted outlay in the Union Budget for this financial year, continues. The high demand is an indication of the extended effects of the pandemic in rural areas, and a continuing lack of funds will hurt any further demand for work in such areas besides of course delaying payments for those who have already completed work. The impact of the lockdowns during the pandemic has continued to depress employment levels and rural wage



incomes, which is why the MGNREGS has proven to be a popular avenue for employment and wages. In fact, even during the economic crisis during the pandemic, the rural sector sustained the poor by providing them guaranteed work through the scheme. The delays in payments and the lack of funds have contributed to an estimated unmet demand to the tune of 20% in Bihar, Telangana and Gujarat, according to activists tracking the implementation of the scheme. As the scheme guarantees income for 100 days of work, many households get a reduced number of workdays for which they are paid — a situation that should not be tenable. The budgeting for the scheme by simply fixing a nominal increase from the original Budget estimate in previous years is a flawed method. If anything, the outlay must be tied to revised/actual estimate of expenditure for the scheme each year — in the case of 2021-22, the total allocations were ₹73,000 crore, much lower than the ₹1,11,500 crore as revised estimates in expenditure in 2020-21. Nearly a quarter of the allocation for the current financial year was also tied to meeting the liabilities from previous years. Clearly, the scheme suffers from a budgeting problem that has hampered its proper implementation despite its popularity, and this needs to be rectified. The Union Government has done the right thing in continuing till March 2022, its free foodgrain ration scheme, the Pradhan Mantri Garib Kalyan Anna Yojana, that was launched as part of the COVID-19 relief packages — the fourth such extension. This was an acknowledgment of the need for the scheme to support poor families in a recovering economy. Considering that the MGNREGS acts as a robust lifeline as well, it will be prudent for the Government to make up the shortfalls in the allocations quickly.

WHY MEAT-EATING CANNOT BE BANNED IN 'VEGETARIAN STATE' GUJARAT

In his 2017 Budget speech, then Chief Minister Vijay Rupani had declared that Gujarat would be a “vegetarian state”. The announcement coincided with his government adding more teeth to the cow slaughter law, which now awarded a life term to offenders, and came a few months ahead of the Assembly elections that year. After the lockdown forced many restaurants to shut in cities such as Ahmedabad, some that reopened dropped the red dot from their menu, and others turned into cloud kitchens, largely because of the economics. Events over the last two weeks, however, show how unlikely it is that meat-eating can be banned in the state. BJP functionaries of municipal corporations in four major cities — Rajkot, Vadodara, Bhavnagar and Ahmedabad — declared a crackdown on carts selling non-vegetarian food on the streets. State BJP president C R Paatil had to hush up the city unit leaders, and assert that there was no ban on meat eating and that people had a “right” to eat what they want.

The myth & the reality

In 2003, when Gujarat was recovering from the previous year's riots, then BJP MLA Bhavin Sheth from Ahmedabad's Ellisbridge constituency, under the watch of then MoS (Home) Amit Shah (now Union Home Minister), forced shut food carts selling non-vegetarian fare from the street outside IIM-A, which was part of his constituency. Those food carts have not yet returned. Sheth is a Jain, a community declared as a minority, and an influential community in Ahmedabad occupying powerful political positions. Gujarat's image of being vegetarian takes from this impression about Ahmedabad where you can even get pizza and vadapav in categories called 'Jain' (no onion, garlic or tubers) and 'Swaminaryan' (without onion or garlic), the latter taking from the large following of the Swaminaryan sect. Marketing about Gujarat also has focused solely on its vegetarian fare. The recipes for the local spicy mutton curry, prawn and fried paaplet (pomfret), largely remain a secret preserved in private kitchens or innocuous non-vegetarian dhabas along the state highway. Sociologists and historians assert that the belief that Gujarat is a vegetarian state is a myth. As per



the Sample Registration Survey of 2014, Gujarat has a 40 per cent meat eating population, which is even higher than in Punjab and Rajasthan. And these are not just Muslims, Christians and Parsis, but also OBCs, Dalits and Tribals. Gujarat is also a major fish producer, contributing 17 per cent of the country's marine produce. The Kharwa and Koli OBC communities of Saurashtra and South Gujarat, are largely into fish production. However, fish-eaters in Ahmedabad, who would depend on the fish sold from mobile vans of the government-supported Gujarat Fisheries Central Co-operative Association Ltd, near IIM-A, for quality products, have had to look for other sources after the association suspended the sale in 2014 because of "protests from locals", say officials. Ahmedabad has low tolerance for non-veg food being sold or consumed in the open. Most egg- and chicken-eating members of vegetarian Gujarati families consume it outside of their homes.

BJP's balancing act

When the BJP has planned a conscious outreach to OBCs with Prime Minister Narendra Modi's new ministry inducting a number of OBC ministers, and when Uttar Pradesh, where more than half the population is non-vegetarian, is going to polls, the party brass has realised that upping the ante on meat-eaters would upset the election math. With the presence of Gujaratis in the central decision-making dispensation growing, the party had to make the right noises to assert that what happened in Gujarat was not reflective of its overall mindset. It might also have dawned on the party leadership that criminalising meat consumption was not the same as criminalising cow slaughter or alcohol consumption. While the latter two positions could win over Hindus and prohibition voters, the BJP could lose a large chunk of votes by declaring a ban on meat itself. All this was evident in the party's starkly contradictory positions at the state and city levels last week. Beginning with the Rajkot Municipal Corporation which is home to Rupani, the issue went into a tailspin through Vadodara, Bhavnagar and Ahmedabad, where BJP mayors, standing committee chairpersons or civic committee heads announced drives against carts selling non-veg food for reasons ranging from "hurting religious sentiments of those following Hinduism (Rajkot) to "the sight (of non-veg food)" not being pleasing" foul smell, and "leaving negative impact on minds of young children". Junior BJP leaders might have imagined the issue would win over Hindus, but it ended up sending a scare among migrants as well — many of whom made a living out of selling egg dishes on handcarts, and many for whom this was the only affordable nutritious meal. But Paatil, in a media interaction in Rajkot on Saturday, reiterated how everyone in this country "has the liberty to decide what to eat. It is not appropriate to remove a person selling non-vegetarian food from a cart. There is no such provision in the law either. People are free to sell anything which is not prohibited. So, there is no question of removing carts (from roads)," he said. He added that all mayors had been instructed not to take any such action against non-veg food carts. While Rupani, a Jain, could get away with declaring Gujarat "vegetarian", Paatil, who has roots in Maharashtra, could not risk the decision being attributed to him. Surat, his home city, and Navsari, his constituency, have a large traditionally non-vegetarian population, which also includes upper caste Hindus, Parsis, and migrants from many states. It was also the only city that did not add decibel to the noise against non-vegetarianism.

MAKING AYURVEDA A REAL SCIENCE

Ayurveda has gained popularity in recent years, but a lot is still to be done to ensure that it stands the scrutiny of science. The COVID-19 pandemic has been a major challenge for science in general and hence, 'How did Ayurveda deal with the pandemic?' becomes a pertinent question to ask. In the following paragraphs I share my views as a teacher of Ayurveda with 20 years of experience.

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Rampant misinformation

During the pandemic, we encouraged self-medication among the public by advocating preparations like decoctions. Thus, the message that unscrupulous, excessive and prolonged use of any medicine could be harmful was lost. We did not educate the public on the identification of the correct herbs, though we encouraged their consumption. For example, Giloy (*Tinospora cordifolia*) and Dalchini (*Cinnamomum zeylanicum*) are two plants where correct identification matters. Sometimes, *Tinospora crispa* and Cassia cinnamon are mistakenly identified as Giloy and Dalchini, which could be harmful. Almost every Ayurveda physician came up with his/her own formulations as a purported cure for COVID-19. Many lab reports suggesting clinical improvements with Ayurveda interventions were shared on different social media platforms. However, most of them could not make it to peer-reviewed journals. Thousands of COVID-19 cases treated by Ayurveda physicians could have provided good data that could have been further analysed. Even though the Ministry of Ayush came up with an online case registry, our fraternity could not make any meaningful use of it. Many clinical trials for testing Ayurveda interventions came up for COVID-19 and a few even got published. To show the efficacy of a new intervention in a condition where spontaneous recovery is more than 95%, one needs a large sample size and a robust study design. In most of these trials, the Ayurveda interventions were either in addition to Indian Council of Medical Research (ICMR) protocols or, when used as independent interventions, they were administered in mild to moderate cases only. Even governmental agencies widely publicised a few patent and proprietary formulations that were tested insufficiently, and drew flak from the scientific community for doing so. Scientifically speaking, 'immune boosting' is a vague and potentially misleading term. During the pandemic, every other Ayurveda pharmacy came up with its own patent and proprietary formulation that supposedly boosted immunity. The common public was made to believe that Ayush interventions were safe, of preventive value, and effective in treating the disease. But most of these claims lacked credible evidence. In my view, the Ayurveda sector should not have succumbed to the pressure to show that Ayurveda works in the treatment of COVID-19. Instead, the sector could have been visualised as a potential workforce. People could have been roped in for managing various tasks such as telephonic triaging, teleconsultations and counselling, monitoring home-quarantined patients, and coordinating referral services. Though some Ayush hospitals were converted into COVID-19 care centres, most of these facilities managed only mild to moderate cases. This is where a collaboration was required, between Ayush and conventional healthcare professionals. The protocols of ICMR and Ayush were disconnected and this is one of the reasons why there was no coordination. Moreover, this workforce could have been used to address the needs of non-COVID-19 patients who suffered the most because of various restrictions.

Questions to be asked

A group of scientists and physicians has recently started a social media campaign calling all Ayush systems 'pseudoscience'. These activists conduct chemical analysis of many Ayush formulations and demonstrate that many of these products contain high doses of unwarranted constituents such as antibiotics, corticosteroids and heavy metals. They also share publicly the scanned images of the unscientific and outdated content in the textbooks of Ayush graduate programmes. They also publish and share various clinical case reports where adverse events are reported after exposure to Ayush interventions. These activities are crucial and need the support from at least those who believe in rational Ayurveda. This would make Ayush academicians and policymakers introspect seriously about the current system. Academia, at present, has made Ayurveda a



pseudoscience by teaching the young students that whatever is written in ancient texts is the ultimate truth and cannot be challenged. This non-falsifiability renders the system unscientific. The only way to make Ayurveda a real science is to present evidence before the scientific community showing that it works. Absence of uniform protocols either for diagnosis or for interventions make Ayurveda too subjective and diverse. An objective evaluation of complex Ayurveda practices is very difficult in the standard accepted format of 'double blind randomised controlled trials'. The practical alternative is to go for longitudinal observational studies. Initially, around 20 different clinical conditions involving different organ systems can be identified, which practitioners are confident of treating. A large sample size with a long-term follow-up in a multi-centric design would go a long way in establishing the usefulness of Ayurveda. Most of the knowledge we now have about ischemic heart disease comes from a single longitudinal study going on since 1948, which demonstrates the value of observational studies.

Need for regulation

Formally, we never teach our graduates patent and proprietary formulations. However, as these graduates set up their clinical practice, they start prescribing these formulations. Most of these products are not backed by reliable trials or even pre-clinical and toxicity data. The number of pharmacies that manufacture classical formulations has reduced to a bare minimum over the years, which shows how commercialisation has taken over the sector. This aspect needs to be regulated to ensure that such products go through robust pre-marketing studies. Even classical formulations that contain toxic substances such as heavy metals need to be regulated. Further, maintaining only a manageable number of colleges is essential to ensure that all students get good clinical exposure. The indiscriminate growth of new Ayush colleges is another matter of concern.

'GO BACK TO COMMITTEES' IS THE FARM LAWS LESSON

The Prime Minister's apology to the nation for not being able to convince a section of the farming community about the real intent of the Government in enacting the farm legislations is unprecedented. But it is not clear why it was an apology to the nation when only a section of the farmers could not be convinced. And then the apology is not for enacting the three farm laws or causing enormous suffering to the farmers. In any case it appears that the farmers have clearly understood the intent; and that is the reason why they did not go back to their farms until the laws are repealed. Now that the Prime Minister has informed the nation that the Government is going to repeal these laws, the farmers are understandably jubilant over their victory. This victory indeed takes India's politics to a new phase — a phase of robust non-political movements with a certain staying power. We do not know ultimately what transformation it will bring to India's jaded politics. But one thing becomes clear. The prolonged non-violent agitation by the determined farmers and the final capitulation by a very powerful Government augur well for India's democracy.

Trajectory and intent

The trajectory of the three farm laws clearly shows the real intent of the Government. These were brought in first as ordinances which was quite perplexing. First, these laws have a far-reaching impact on the farmers and it was very improper and quite unwise to push them through without taking the farmers into confidence. Second, under Article 123 of the Constitution the President can legislate on a matter when there is great urgency in the nature of an emergency and the sitting of Parliament is quite some time away. Farm laws which make radical changes in the farm sector



and affect the life of farmers in very significant ways do not have the kind of urgency which necessitates immediate legislation through the ordinances. Obviously, someone not very familiar with the working of Parliament must have advised the Government to take the ordinance route in order to avoid the standing committees' scrutiny. It is a wrong impression that Bills which are brought to replace the ordinances are not or cannot be referred to the standing committees of Parliament. There is no such restriction. The Speaker/Chairman has the authority to refer any Bill except a money Bill to the standing committees.

It was being adventurous

These farm Bills should have been referred to the standing committee on agriculture for a detailed scrutiny. The committee could have held comprehensive discussions with the farmers. They would have thus got an opportunity to present their views before the committee and Parliament. In fact, their main complaint was that they were not consulted at any stage before the ordinances were issued. Radical changes in the farm sector without having any kind of consultation with the farmers was nothing short of adventurous. Parliament is a kind of shock absorber. Its systems have been designed to address issues with a cool head and find solutions. The committees take the heat off the issues and deal with them in a mature manner by listening to all stakeholders. Parliament and its systems require men who govern, not to bypass it.

House wisdom is invaluable

The English monarchs of the 13th century, powerful and arrogant though they were, felt the need to consult the commoners for running the realm because they became wiser after many battles and wars. Parliament emerged from these consultations. Consultation with Parliament and its time honoured system is a sobering and civilising necessity for governments howsoever powerful they may feel. The accumulated wisdom of the Houses is an invaluable treasure. It is very surprising why important Bills which are coming before Parliament are not being referred to the committees. The experience of centuries shows that scrutiny of Bills by the committees make better laws. The case of the farm laws holds an important lesson for this Government or any government. A series of missteps led to avoidable sufferings to the farmers who do not normally leave their farms and trudge along hundreds of miles to agitate. They lost 700 of their brothers after being exposed to the harshness of the summer, winter and monsoon for almost 14 months. Instead of using water cannons and barricades, had Parliament been allowed to intervene, the head of the Government would not have had to apologise to the nation. However, now that the Government has decided to repeal the farm laws, it will be widely welcomed no matter what political calculations have gone into it.

These may be tactical moves

What next is an interesting question because the farmers seem to have decided to wait and watch. They will wait till Parliament repeals these laws in the winter session that commences on November 29. A tone of scepticism could be detected in their reactions presumably because the Government has not taken the position that these farm laws are wrong or harmful to the farmers. In fact the Government is of the view that these laws are necessary for reforming the farm sector. The public apology has not changed that position. So the apology and the repeal of laws may be tactical moves by the Government to tide over the emerging political situation in certain regions of the Indo-Gangetic Plain. Repealed laws can be brought back in future may be with certain modifications. There are no legal hurdles in that. The basic approach to corporatisation of the farm



sector has not been abandoned. A proper parliamentary scrutiny of pieces of legislation is the best guarantee that sectoral interest will not jeopardise basic national interest. Protection of farmers is an essential part of national interest. So, in any future legislation on farmers it is absolutely necessary to involve the systems of Parliament fully so that a balanced approach emerges. We must not forget that the farm Bills were not referred to either the standing committee or a joint select committee of both Houses of Parliament as has been the practice earlier.

A missed step

In fact, available data shows that Bills are very rarely referred to the committees these days. House rules have vested the discretion in the presiding officers in the matter of referring the Bills to committees. No reasoned decisions of the presiding officers for not referring them are available. Since detailed examination of Bills by committees result in better laws, the presiding officers may, in public interest, refer all Bills to the committees with few exceptions. Although the relevant rule is not happily worded, the intent is clear, namely, that the committee should examine all the important Bills. In the light of the horrendous experience of the Government over the farm laws, the present practice of not referring the Bills to committees should be reviewed. Speaker Om Birla has spoken about strengthening the committee system in the recent presiding officers' conference. One way of strengthening it is by getting all the important Bills examined by them. The farmers had to wage a prolonged struggle because the systems of Parliament were bypassed by the Government. A government elected by the people can function only in a democratic way. Other options are not available to it. The farmers who sat at the Delhi border for 14 months, braving heat and cold and death and conducting themselves in the most democratic way, have once again proved that.

SIFTING THE PILE

In what is turning out to be a predictable sequence in the annual 'Swachh Survekshan' awards, Indore was ranked the cleanest city for the fifth year, followed by Surat and Vijayawada. Chhattisgarh was the cleanest State, for the third time, in the category of 'States with more than 100 urban local bodies'. Prime Minister Narendra Modi's constituency, Varanasi, won for the cleanest 'Ganga city'. The organiser, the Ministry of Housing and Urban Affairs, surveyed 4,320 cities for nearly a month and solicited feedback from 4.2 crore people. The metrics (cities) were garbage disposal, open defecation-free ratings, functionality and maintenance of community toilets and safe management of faecal sludge. The 'Survekshan' awards have a wide range of categories that segregates cities based on their population. While they attempt to capture the diversity of urban agglomerations on the other, it is hard to deflect criticism: every State has at least a few participants who will top one category or the other, thus making the process a giant appeasement scheme. Along with a category such as 'States with over 100 urban local bodies (ULB),' where Maharashtra and Madhya Pradesh were ranked second and third, respectively, there was also a top ranker for 'State with less than 100 ULBs' where Jharkhand was judged the cleanest. Then there was a category for a 'Ganga' city and separate population-wise categories. This year there was a novel 'Prerak Daaur Samman' that saw Indore, Surat, Navi Mumbai, New Delhi Municipal Council and Tirupati categorised as 'divya' (platinum). They were assessed for solid waste management. Unsurprisingly, these were entities that had already topped ranks in other categories. Rankings serve two broad purposes: a publicity boost and recognition for the other winners but also motivation to climb higher on the totem pole. Though the number of cities surveyed has increased since the first edition of the survey in 2016, it appears that the same cities



— Indore, Surat, for instance — keep topping the list. Six years is a good time to take stock of what the ranking programme intends to achieve: is it motivating cities to significantly allocate resources towards improving sanitation? Are cleaner cities cleaner because they are better positioned to access State funds and thus able to pull further away from other cities? Do States focus their energies and funds in keeping some cities clean to avail of a rank in any of the wide number of categories? Reducing a metric as complex as sanitation and cleanliness to blunt rankings can often induce a false sense of progress. Both at the regional level and at the Centre there should be more qualitative analysis of whether India's cities are getting cleaner in the aggregate or if numbers are hiding inequity.

INDORE KEEPS CLEANEST CITY TAG FOR FIFTH YEAR

Indore was on Saturday ranked the cleanest city for the fifth consecutive year by the Union Ministry of Housing and Urban Affairs in its annual cleanliness ranking. The Swachh Survekshan Awards, 2021 handed out by President Ram Nath Kovind included the cleanest State honour for Chhattisgarh for the third time, in the category of States with more than 100 urban local bodies. Prime Minister Narendra Modi's constituency, Varanasi, won the award for the cleanest "Ganga city". In his speech, Mr. Kovind said sanitation workers had worked throughout the pandemic. He said the Government was committed to the safety of workers. Housing and Urban Affairs Minister Hardeep Puri said the Swachh Bharat Abhiyan had become a mass movement. Among cities, Surat and Vijayawada secured the second and third place, respectively. The Ministry said the survey was carried out in 4,320 cities over 28 days, where feedback from 4.2 crore persons was recorded. Of States with over 100 urban local bodies (ULBs), Maharashtra and Madhya Pradesh were ranked second and third respectively. Jharkhand was judged the cleanest State with less than 100 ULBs, followed by Haryana and Goa. Among cities with population over 1 lakh, Indore, Surat, Vijayawada, Navi Mumbai, New Delhi, Ambikapur, Tirupati, Pune, Noida and Ujjain were the top 10, in that order. Lucknow stood at 25 out of such cities. Of cities with population less than 1 lakh, Maharashtra's Vita was the cleanest, followed by Lonavala and Sasvad. The New Delhi Municipal Council's area was ranked the cleanest in the category of cities with 1-3 lakh population. Noida was named the cleanest among medium-sized cities, that is with 3 lakh to 10 lakh population. Among the big cities with population of 10 lakh to 40 lakh, Navi Mumbai was ranked the cleanest.

CAN THIS PORTABLE ROBOT END SEPTIC TANK DEATHS ONCE IT IS DEPLOYED?

A statement by the Social Justice and Empowerment Ministry in the Lok Sabha, which was reported in The Hindu, conveyed that in the five years till December 31, 2020, there have been 340 deaths due to manual scavenging in sewers and septic tanks in 19 States and Union Territories, with Uttar Pradesh (52), Tamil Nadu (43) and Delhi (36) leading the list. Maharashtra had 34 and Gujarat and Haryana had 31 each, according to the statement. This is despite bans and prohibitory orders. A group from Mechanical Engineering Department and Center for Non-Destructive Testing (CNDE) of IIT Madras has developed a robot that can, if deployed extensively, put an end to this practice of sending people into septic tanks. The robot, named HomoSEP ("homogeniser of septic tanks") has taken the group about three years to develop.

Inverted umbrella

HomoSEP has a shaft attached to blades that can open like an inverted umbrella when introduced into a septic tank. This is helpful as the openings of the septic tanks are small and the tank interiors



are bigger. The sludge inside a septic tank contains faecal matter that has thickened like hard clay and settled at the bottom. This needs to be shredded and homogenised, so that it can be sucked out and the septic tank cleaned. The whirring blades of the robot achieve precisely this. Further, the latest version of the robot is a lightweight model that can be attached to a tractor and wheeled off to remote and inaccessible areas. The robot is attached to the axis of the tractor and can be run using the power from the tractor's engine. When needed, it can be detached from the tractor. "The first version [of the robot] was very bulky and entirely made of steel. It was also a stationary unit and needed external power... from the mains or a battery source. It had to be lifted using a fork lift, placed on top of a tank and then you could perform the operation," says Divanshu Kumar, an alumnus of the Mechanical Engineering group of IIT Madras and CEO of Solinas Integrity Private Limited, which is a startup that develops the robot. "At the time, we did not understand about the nature of the contents of the septic tanks so the blade profile was quite simplistic."

Key innovations

Over the three years since 2019 and the pandemic with its associated hurdles, the group worked on this zeroth model, honing its properties, spiralling from concept to computer design, to simulation, to trials and back to the drawing board, until they developed the latest version. "We made some significant innovations to the first proof of concept model: we first improved the blade design to suit the fluid in the septic tank; then we achieved a miniaturisation so that just two people can carry the robot; lastly, we integrated it with a tractor so that it can be portable and run using the power of the engine," says Prabhu Rajagopal, from the Department of Mechanical Engineering at IIT Madras and the Principal Investigator who has anchored the development of the robot.

Feedback and validation

To mimic the qualities of the contents of the septic tank, they generated material with similar properties which they tested with the help of Prof. Abhijit Deshpande of the Chemical Engineering Department. In the process of development, they also took along with them members of Safai Karamchari Andolan, asking for feedback and validation. The present model has been tried in a set of septic tanks near the department, in a campaign of field trials in March. One more set of field trials is due, after which plans are afoot to deploy the robot following a pilot testing by the workers themselves. The project has been carried out with Corporate Social Responsibility funding from GAIL foundation, CapGemini, WIN foundation, and more recently from National Stock Exchange foundation. The researchers plan to distribute eight units in Tamil Nadu, and are in touch with Safai Karamchari Andolan to identify the locations. They are also considering locations in Gujarat and Maharashtra. "Many people ask me why manual scavenging is still there 70 years after independence... It is not sufficient to sit in your homes and wish it will go away. Pious intentions are good, but beyond that we need someone to actually do the work of developing a solution, and people who will support those who do this.," says Prof. Rajagopal. "I am not saying our group will solve the problem. Our country is too vast and the challenges are too many. But what I hope is to set an example." "It may not win rewards in the short term, such as a paper in Nature, or being feted for groundbreaking technology, but this is a problem that needs people to stick their neck out and develop a practical, viable technological solution. It is a question of intention," he concludes.



A PILGRIM CORRIDOR ACROSS A BLEAK LANDSCAPE

Right by the Ravi river-bed in Pakistan's Narowal district of Punjab, with hardly a building in the distance on any side, the three-storey Kartarpur Sahib Gurdwara is a lonely and unique structure. In 2018, sleepy hamlets nearby awoke to the furious sounds of construction, as Pakistan's then newly elected Prime Minister Imran Khan accepted an old Indian proposal, revived by Prime Minister Narendra Modi, to open a "pilgrim corridor" between the two countries. The corridor would connect the Indian town of Baba Dera Nanak in Gurdaspur district, where the Sikh founder Guru Nanak spent much of his life and the Kartarpur Sahib Gurdwara built originally on the spot where he meditated, less than five kilometres away, that had been divided by the thoughtless pen of imperial British officers who wrought India's partition in 1947. For more than 70 years, pilgrims would line up at the last border point on the Indian side, to climb a rickety watch-post and view Kartarpur Sahib through a telescope lens. With the number of Sikhs in Pakistan dwindling, and access to Kartarpur quite rough compared with the gurdwara at Guru Nanak's birth place at Nankana Sahib, the shrine had fallen into disuse. While Sikh "jathas" or groups are given visas as part of an agreement for Hindus and Sikh to religious sites in Pakistan, in exchange for visits by Muslim groups to various mosques and shrines in India, these are hard to come by. This was also true for the larger non-Sikh population that venerates Guru Nanak, a Hindu born in 1469, who brought Hindu and Muslim followers together to found Sikhism with the message of "Ik Onkar" (One God) that he spread in travels far and wide until his death in 1539. The Gurdwara, small in comparison to the scale of more modern Sikh shrines, has immense spiritual importance, say historians. The idea of the organised Langar, or communal kitchen where rich and poor alike of all faiths can come together to cook, serve and eat a meal, which is a distinctive tradition of the Sikh faith, is believed to have been started here. The shrine is the repository of one of the last copies of the original Guru Granth Sahib, the holy book. In his book (Sketches from a Howdah: Lady Canning's Tours 1858-1861), Pakistani historian Fakir Syed Aijazuddin recounts how a visiting British dignitary, Lady Canning, was shown the Granth, possibly a first for an outsider in three centuries, which she described it in detail in her 1860 journal as "a thick quarto -sized (approximately 10"X 8") book written in a peculiar character and language". According to legend, the original gurdwara by the river also housed a Hindu 'samadhi' and a Muslim 'grave' of Nanak, as final gesture to uniting his followers who belonged to both faiths and followed in his path as the first Sikhs. In 1947, when Pakistan was carved out of India, the location of the Ravi river decided the gurdwara's fate was in Pakistan, and Sikhs living in Baba Dera Nanak spoke about how they had to flee their homes on the Pakistani side, not realising that they may never be able to visit their beloved shrine again for decades.

Suicide attack

Back to 2019, and between the decision to lay the foundation stone for the restoration of the 500-year-old gurdwara, the construction of a massive compound around it on the Pakistani side, the departure and arrival building on the Indian side, and the building of a road to carry pilgrims on both sides of the border, a near-conflict broke out between both countries. After a massive suicide bomb attack that killed 40 CRPF soldiers in Pulwama in February 2019, India carried out air strikes on the Pakistani town of Balakot, leading to counter-strikes by Pakistan along the Line of Control. A few months later, the Modi Government amended Article 370 and bifurcated the State of Jammu and Kashmir into two Union Territories, triggering a series of diplomatic measures by Pakistan, including the recall of High Commissioners, cancelling all trade links and closing its airspace. Conquering the rancour between India and Pakistan was a near impossible feat, and the

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future of the Kartarpur project, due to be inaugurated in November to mark the 550th birth anniversary of Guru Nanak seemed dim. However, just a few months after exchanging volleys at the UN that year, Mr. Modi and Mr. Khan decided to persevere with the project, and the Kartarpur Corridor was inaugurated on November 9, 2019, allowing the first group of 550 Indian pilgrims to cross over into Pakistan. The pilgrims did not need a visa, and were allowed into Pakistan by a special arrangement that registers them on the Indian side, and lets them visit Kartarpur for the day. Such international human corridors normally work when there is a natural disaster, a conflict where civilians are caught or a refugee crisis, but Kartarpur is a rare peacetime, pilgrim corridor. Inaugurating the integrated check post at Baba Dera Nanak, Mr. Modi thanked Mr. Khan and likened the opening of the corridor to the fall of the Berlin Wall, leading many to believe Kartarpur would mark the beginning of other new initiatives between India and Pakistan, rolling back the break in ties. That was not to be. The inauguration of the Gurdwara corridor was marred by the presence of "Khalistani separatist elements", which New Delhi protested, and security officials said they worried about the corridor being misused for the movement of spies, weapons, cash and drugs, cautioning against increasing the number of pilgrims allowed per day beyond a few hundreds. Pakistan was willing to raise the number to 10,000, provided they would each pay an entrance fee of \$20. India stipulated that each corridor traveller could carry no more than ₹11,000 and a bag weighing no more than 7 kg. Despite all the restrictions and procedural delays with registering for the journey, nearly 45,000 Indians and OCIs (Overseas citizens of India) visited Kartarpur on the corridor in the first two months (by January 31, 2020), an average of about 500 per day.

More trouble

More trouble followed. Within just four months of opening, the corridor had to be closed due to the COVID-19 pandemic in March 2020, as India and Pakistan imposed lockdowns and international travel restrictions. The year that has followed has seen unabated tensions between the two countries, relieved very intermittently by a COVID health initiative for SAARC countries, an LoC ceasefire, an invitation from India to Pakistan for a conference on Afghanistan in Delhi (which was rejected), and an international cricket match between the two countries. Against all odds, and despite the growing chasm between India and Pakistan, Kartarpur Sahib Gurdwara and the corridor opened once again on November 17, ahead of Guru Nanak's 552nd birth anniversary. "The spirit of Kartarpur continues to live. Centuries after his death, Guru Nanak's message conquers politics, bridges divides and provides a corridor to mutual humanism," historian Fakir Aijazuddin told The Hindu, when asked about the reopening, in what most would see as an over-optimistic sentiment given the times. Today, in the absence of any other new initiative that would bring the two countries closer together, the Kartarpur Sahib Gurdwara remains both geographically and metaphorically a unique, lonely structure across a bleak landscape.

WHO WAS RANI GAIDINLIU, AFTER WHOM THE TRIBAL FREEDOM FIGHTERS MUSEUM IS NAMED IN MANIPUR?

Union Home Minister Amit Shah on Monday virtually laid the foundation stone for the 'Rani Gaidinliu Tribal Freedom Fighters Museum' in Manipur's Tamenglong district. "Rani Gaidinliu was the epitome of valour & courage. PM @narendramodi govt is resolved to give our tribal freedom fighters their due respect and rights," Shah tweeted after the event. Who was Rani Gaidinliu and why is her legacy important?



Rani Gaidinliu, the daughter of the hills

A spiritual and political leader, Rani Gaidinliu, of the Rongmei tribe, was born on January 26, 1915 at Luangkao village, now in Taosem Sub-Division under Tamenglong District of Manipur. At 13, she became associated with freedom fighter and religious leader, Haipou Jadonang, and became his lieutenant in his social, religious and political movement. Jadonang, who was also a Rongmei, started the 'Heraka movement', based on ancestral Naga religion, and envisioned an independent Naga kingdom (or Naga-Raja). Rani Gandiliu's association with Jadonang prepared her to fight the British. After the execution of Jadonang, she took up the leadership of the movement — which slowly turned political from religious. Rani started a serious revolt against the British and was eventually imprisoned for life. She was released after 14 years, in 1947. Acknowledging her role in the struggle against the British, Jawaharlal Nehru called her the "Daughter of the Hills" and gave her the title "Rani" or queen. She passed away on February 17, 1993 at her native village Luangkao. But before that, she was bestowed a number of honours including the Tamrapatra in 1972, Padma Bhushan in 1982, Vivekananda Sewa Summan in 1983, and Stree Shakti Puraskar in 1991. She posthumously was awarded the Bhagwan Birsa Munda Puraskar in 1996. The Government of India also issued a commemorative stamp in her honour in the same year. The Indian Coast Guard commissioned a Fast Patrol Vessel "ICGS Rani Gaidinliu" in 2016. In 2015, the Centre, on her birth anniversary, issued commemorative coins of Rs 100 and a circulation coin of Rs 5 in her honour.

Legacy

According to Imphal-based historian Professor N Joykumar Singh, Rani Gaidiliu was one of the few women political leaders who exhibited outstanding courage during the colonial period, despite limitations. Unlike Jadonang, whose approach was inclined to be "millenarian", Rani orchestrated for the need of an armed movement against colonial rule. Historians even hailed Rani's movement as a significant event in the freedom struggle that inspired many, said Singh, adding that in 1938, the Nihil Manipur Maha Sabha, the first political party of Manipur during the British colonial rule adopted a resolution to free Rani Gaidinliu from prison.

SHOW THAT CELEBRATED 200 YEARS OF BENGAL ART TO SHUT DOWN

Ghare Baire, the popular museum-exhibition in Kolkata that showcased two centuries of art in Bengal and was housed in a building almost as old, is shutting down on Sunday after enriching the cultural landscape of the city for nearly two years. The announcement was sudden, with DAG Museums, a private entity that ran the show in collaboration with the National Gallery of Modern Art and the Archaeological Survey of India (both under the Culture Ministry), issuing a statement on Friday that they would be downing the shutters of Ghare Baire on November 28. According to sources, DAG Museums' contract with the Ministry for Ghare Baire came to an end sometime last year and the Ministry had now decided not to renew it.

Short-lived existence

The museum-exhibition was inaugurated on January 11, 2020 at the renovated Currency Building — which was built in 1833 and almost razed in 1996 — located in BBD Bagh, also known as Dalhousie Square. It was shut down temporarily a few times due to the pandemic. "Consisting of multiple exhibitions, Ghare Baire traced the evolution of art in Bengal from the arrival of travelling European artists to the establishment of one of the earliest colonial art schools, the rise of indigenous practices, a revivalist movement borne of resistance to imperial impositions as well as

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the high tide of modernism. Viewed through a historical lens, the curation included the largest such collection of Bengal art on public display anywhere in the world,” the DAG statement said.

‘Dynamic cultural space’

“Ghare Baire combined sensitive displays with extensive notes in English and Bengali on artists, art movements and individual artworks spanning the gamut of early European aquatints, Kalighat and Early Bengal paintings, prints, drawings, paintings in watercolour, oil and acrylic, photography as well as sculpture. Its galleries and courtyard were used for workshops and as performance spaces, creating a dynamic cultural space in the city. With Ghare Baire set to close in Kolkata on Sunday, we promise to return with newer perspectives and exhibitions — our way of thanking the city that deserves the epithet of ‘art capital’ of India,” the statement said. Ghare Baire (at home and the world) derived its name from the title of Rabindranath Tagore’s iconic novel, which later inspired Satyajit Ray to make a film by the same name.

‘ASSAM TO BE LANGUAGE LAB FOR COUNTRY’

Union Education Minister Dharmendra Pradhan said he saw Assam as the laboratory of the country’s language-based education in the next decade. He was speaking at the North East Education Conclave 2021 in Guwahati on Saturday. “By the next decade, we are bound to implement the new approach on language. Whatever challenges may come, I see Assam becoming the laboratory of language-based and knowledge-imparting education system in the country,” he said. He said some 180 languages spoken by the communities and tribes in northeast India are the country’s strength. “More than 64 of these languages are spoken in Assam. I strongly believe the diversity of our language is the major unifying factor of our civilisation,” he said.

‘Pathways opened’

Stating that the National Education Policy (NEP) has opened many pathways, he said the focus should be on primary education with an emphasis on teaching in the mother tongue or the local language. “The NEP has amplified the possibility of language, giving importance to mother tongue, local languages,” Mr. Pradhan said. The NEP, he said, was designed keeping the fast-changing world in mind. “There are 26 crore students in India and 1.25 crore of them are studying in the northeast, primarily Assam. The NEP is the instrument and document for the transformative way in front of us. For humanity and civilisation, the challenge is how equal economic opportunities can be given to all sections of the society,” he said, praising the Assam Government for spending 6% of its GDP on education. Chief Minister Himanta Biswa Sarma said the NEP will motivate the students to strive for excellence.

CAN ELEPHANT COLLARING HELP MANAGE HUMAN-ELEPHANT CONFLICT IN ASSAM?

A wild elephant was radio-collared for the first time in Assam’s Sonitpur district by the state’s Forest Department, in collaboration with NGO World Wildlife Fund (WWF)-India. The joint initiative is being described as a step to study and mitigate human-elephant conflict in the state. Experts say the exercise is challenging, and even runs the risk of having a low success rate. Yet, the forest department is planning to collar at least five elephants in high-conflict habitats in the coming months. What is radio-collaring, what are the challenges involved, and can it really help?

What are radio-collars?

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Radio collars are GPS-enabled collars that can relay information about an elephants' whereabouts. They weigh roughly 8 kg and are fitted around the elephant's neck. According to a WWF blog, collaring includes identifying a suitable candidate (generally an adult elephant), darting it with a sedative, and fitting a collar around the elephant's neck, before the animal is revived. Additionally, the team also attaches an accelerometer to the collar to "understand what exactly an elephant is doing at any given time (running, walking, eating, drinking, etc)".

How does radio-collaring help?

The objectives are twofold, M K Yadava, Chief Wildlife Warden, Assam said. "Information from the GPS would help us track and study the movement patterns of the herd, across regions and habitats," he said. Added Hiten Baishya of the WWF, "We will know where they are moving, which corridors they frequent, if the habitat is sufficient, if it needs protection, etc." This would help in understanding what is driving the conflict. The second objective is incidental, said Yadava. The collars would serve as an early warning system, and if people know which direction an elephant is moving, they can prepare accordingly. "Villagers and forest officials will know about approaching elephants... very much how weather forecasting works. And this would help mitigate conflict incidents," said veterinarian and elephant expert Kushal Konwar Sharma, who is involved in the exercise.

What is the plan in Assam?

In March 2020, the Ministry of Environment of Forest & Climate Change, gave approval to collar five elephants in Sonitpur and Biswanath districts in Assam, stating a number of conditions, among them being "minimum trauma" to the elephants during the operation and submission of regular periodic reports. Yadava said the department aimed at collaring eleven elephants across the landscape in the future. "We have eleven elephant herds to be tracked in high human elephant-conflict areas. These include areas in Sonitpur, Golaghat, Nagaon, Goalpara, Udalguri, among others," he said. He added that there was no time frame involved since this was such a "delicate and complicated" exercise.

Is it easy collaring an elephant?

Not at all. Experts say it is an extremely time-consuming and challenging exercise. "We first have to identify the matriarch of the herd we will tag... identification alone takes time and involves us stalking them for days," said the elephant expert Sarma, adding that there were "practical challenges" in tagging them too. "We don't have helicopters and other sophisticated equipment to approach elephants to tranquillise them. We go by foot. There is risk — for both our life and the elephant's life. But we have very skilled experts on board and they are doing the job with utmost care," added Baishya. When the approval comes from the Centre, we take into account all the conditions and follow them all, he added.

Any other challenges/drawbacks?

Officials said all components for radio collaring are not available in India, including collars and tranquilising drugs. These have to be imported and are quite expensive. Baishya said they also have to take into account that elephants grow in size. "Collars may become tight, so we usually take a senior elephant so there is less chance of growth," he said. The state's topography too, marked by hills and rivers, including the Brahmaputra that runs across it, can be a challenge. "Each state has its own peculiar problems. We have elephants that are long ranging, and have a diverse



topography,” said Yadava. “Many times elephants are not able to keep the collar on. They will have it on for maximum six months, before it falls off,” said Bibhuti Lahkar, a senior scientist with Guwahati-based conservation NGO Aaranyak. He added that there may be technical glitches with the device too. In Assam, too, an elephant who had strayed from the Amchang Wildlife Sanctuary, that borders Guwahati, into the city in 2019, was radio-collared on a trial basis last year. “We monitored it for a month, but due to the weight of the belt and elephant brushing against trees, the signal was feeble and ultimately the collar fell off,” said a forest official, who did not want to be named.

So is it worth it?

Yadava added that while there were risks and the success rate was low, there has been no better mechanism (other than collaring) to study conflict long term. Lahkar said that in Africa, such an exercise had worked well. “Of course, the terrain is different here and may prove to be more difficult, but it is worth doing it,” he said, adding that if it works well, and if even six out of ten elephants are collared, it would yield “lots of information”. Collaring has been attempted in Chhattisgarh, Odisha and Tamil Nadu too.

How bad is human-elephant conflict in Assam?

From 2010-2019, 761 people and 249 elephants were killed in Assam as a direct consequence of human-elephant conflict, stated the WWF blog. “More than 65 per cent of the habitat north of the river has been lost in the past few decades to agriculture and settlements, and conflict between humans and elephants has been steadily increasing ever since,” it said. Yadava said there are currently about 6,000 wild elephants in Assam.

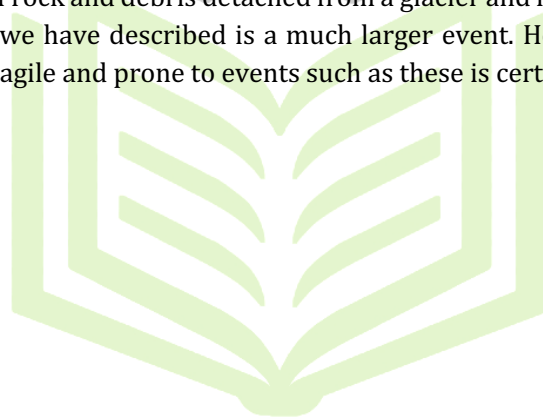
THE GREAT LONELY HEART

In 1998, a young elephant, at home in the vast Savannah grasslands of Zimbabwe, set off on a journey he hadn't asked for. By the fiat of humans, he had been turned from elephant to emissary — a gift from the African nation to the Indian president. Here, in these arid climes, he was given a name, Shankar, and a home, an enclosure at the Delhi Zoo. He was not alone at first, but the female elephant who had accompanied him on that long journey died a few years later. It is hard for the African elephant, untamed and solitary by nature, to get along with Asian elephants or respond to human commands. The only other African elephant in India lives far away in Mysuru. And so, in this strange land, all that remained for Shankar was a long, stubborn loneliness. For centuries, emperors and imperialists have turned animals into a currency of power, or tokens of benevolence. The East India Company's reign in India saw elephants make arduous voyages to Britain. After Independence, a nation without economic heft turned elephants into symbols of soft power. Under Nehru, baby elephants were dispatched as “messengers of affection from the children of India” to several countries. For designing an ash tray for Air India, the Spanish artist Salvador Dali asked for — and got — an elephant for his garden in Barcelona. This anthropocentric worldview — where the most magnificent animals are uprooted from their homes and habitats to be turned into playthings of human needs — is fortunately on its way out. In 2005, the Indian government banned the gifting of wild animals for diplomacy. The Delhi Zoo has stopped accepting such “gifts”. Prodded by online petitions against Shankar's “solitary confinement”, it is now looking to import a mate for Shankar, or for a way to send him back home to Zimbabwe. Whether or not they succeed, the loneliness of Delhi's only African elephant will continue to ask troubling questions of the cost sentient beings pay for human pride.



'GLACIER CHANGED TRACK 20,000 YEARS AGO'

Nearly 20,000 years ago, a five-kilometre-long Himalayan glacier “abruptly” changed course and over time fused into an adjacent glacier in present-day Pittoragarh, Uttarakhand. This is the first time, say scientists who have described the findings in a peer-reviewed journal this week, that such a turn in glacier’s course has been recorded in the Himalayas. Change in climate along with tectonic movement probably caused this to happen. Based on remote sensing and an old survey map, the study, which appears in the Journal of Geosciences, assessed that the glacier had been affected by active fault and climate change. The glacier, which does not have a name and lies in an extremely inaccessible region, was large enough that it formed its own “valley” and the accumulated debris that accompanies the formation of glaciers probably caused it to turn from a north-eastern direction to a south-eastern course, said Manish Mehta of the Wadia Institute of Himalayan Geology (WIHG), a Department of Science and Technology institute, who is among the authors of the study. The study adds to evidence of the inherent instability of the Himalayan region, among the youngest mountain ranges in the world due to which the underlying tectonic plates that support it are not stable but are jittery and frequently trigger earthquakes and landslides. The event had “similarities” to the February disaster in Rishiganga valley, Uttarakhand, in which a large mass of rock and debris detached from a glacier and hurtled down the Rishiganga river. “This event that we have described is a much larger event. However, that the Himalayan region is ecologically fragile and prone to events such as these is certain,” Mr. Mehta added.



DreamIAS



BUSINESS & ECONOMICS

POINTERS THAT INDIA IS WITNESSING A K-SHAPED RECOVERY

There has been great chatter about a V-shaped recovery for quite a while, ever since the first lockdown following the novel coronavirus pandemic. A V-shaped recovery is characterised by quick and effective recovery in measures of economic performance after an acute decline in the economy. There is undeniably some type of recovery, but one can hardly label it V-shaped. The economic ravages of the pandemic have had an uneven impact on different socio-economic groups. The recovery we see today is more K-shaped than V-shaped, with various groups and industries recovering much more rapidly than their counterparts.

Signs from industry

Government taxation policies continue to be regressive, with increased indirect taxes and lower direct taxes placing greater tax incidence on the destitute. The effects of this K-shaped recovery can be observed through the growth and consumption in specific industries. Two-wheelers represent the economic situation of the lower and middle-class groups and India's small businesses. A report by analytical company CRISIL indicates that in the year 2021, two-wheeler sales are set to decline by 3%-6% year-over-year. This is on top of a lower base in the year 2020 already affected by the pandemic. The actual decline of two-wheeler sales from pre-pandemic times on account of the base effect must be much more significant. The sales of two-wheelers are the second-lowest it has been in seven years. It is imperative to note that entry-level models are the ones most affected under the category of two-wheelers. The festival season was said to rectify this phenomenon, but it had been unable to. On the other hand, premium cars and premium motorcycles have been resistant to the pandemic slowdown.

Impact of taxation

Moreover, the usurious taxation policy of the Government, which insists on maintaining indirect taxes on fuel and consumer products while lowering corporate taxes, paints a picture explaining these figures. The Government had recently raised taxes on textile products from 5% to 12%. While inflation soars, the incomes of the middle and lower-middle-class have at best remained constant. There is tremendous pressure on the financial stability of these households, which seemingly face a sustained loss in disposable income. Besides, the figures representing those who are employed only partially explain this phenomenon.

On jobs, NREGA

Over five million or 50 lakh people lost their jobs in October, according to a Centre for Monitoring Indian Economy (CMIE) report. Many of those who lost their jobs during this period are likely economically insecure and abstain from non-essential purchases. This, paired with the astronomically high food and fuel prices, delivers a deadly blow pushing families to poverty. Additionally, it is prudent to look at Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA) figures as it acts as a proxy for the informal sector, which employs a large portion of Indians. In the year 2021-2022, the Government of India had cut its budget allocation towards MGNREGA by 34%. There is a greater demand now for MGNREGA jobs than in the pre-COVID-19 era. The lower Budget allocation accounts for the inability to compensate workers in time and fairly. A portion of the Budget this year is spent on paying the liabilities for the previous financial



year. Those looking for MGNREGA work cannot afford to be unpaid for such long durations. This again ties back to placing upward pressure on unemployment figures.

Stimulus and growth

Therefore, there seems to be no surprise that the consumption of two-wheelers and other such products has taken a significant hit. The U.S. and European economies have stimulated the economy bottom-up through unemployment cheques and social welfare schemes. The economist, John Maynard Keynes, popularised the concept of the money multiplier and the relationship between government stimulus and economic growth. It fundamentally makes great sense to prioritise those who are more likely to spend (the middle and lower-middle-class) rather than those who have a greater propensity to save. The velocity of money which sustained a significant shock from pandemic lockdowns needs to be kickstarted. Furthermore, the inflation of asset prices over the recovery period helps determine the nature of this recovery. The recovery in the stock market and other such financial assets over the past year has been phenomenal. However, it is essential to understand that this does not necessarily reflect the economy's condition as observed previously. Less than 5% of India invest in equities, which means that less than 5% of India directly benefited from said recovery. The lower middle class, which does not invest in such assets for many reasons, has no guard against inflation. Their only hedge against inflation is their income which makes for a poor one.

Think welfare schemes

Therefore, as discussed before, their financial situation is worsened due to the rising prices of essential goods. Moreover, the disproportional benefit of the asset price inflation favouring the upper-middle-class further displays the inherent K-shape of the recovery. It is crucial that the Government addresses this phenomenon and works towards aiding the middle and lower-middle class. Social welfare schemes must be given greater importance to assist households to get through this period. A seemingly viable solution is for the Government to increase progressive (direct) taxes and reduce regressive (indirect) taxes to ease the financial pressure on lower-income households.

WHY ARE INDIA, OTHER COUNTRIES RELEASING OIL FROM STRATEGIC RESERVES?

India's move to release 5 million barrels of oil from its strategic reserves as part of a coordinated challenge led by the US against the OPEC+ producers' cartel's move to curb output, is the first time that New Delhi would be dipping into its reserves to leverage it as a geopolitical tool. The oil will be released "in parallel and in consultation with" the US, China, Japan and South Korea, the Oil Ministry said in a statement on Tuesday, without specifying a timeframe. The UK has announced that it will release 1.5 million barrels of crude; the US is set to release 50 million barrels.

Why are these countries releasing oil from strategic reserves?

It is part of a concerted effort to negate upward pressure on crude prices from OPEC+ — a 13-country grouping of oil exporters that has been joined since 2016 by 10 others led by Russia to decide production quotas — keeping supply below demand, even though the action is largely symbolic in nature. India has called for an increase in the supply by OPEC+ at multiple international forums and in bilateral talks with oil producing countries. India argues that high crude oil prices are impacting the post-Covid economic recovery, especially in the developing



countries. In a release, the White House said American consumers and businesses were feeling the impact of high prices “because oil supply has not kept up with demand as the global economy emerges from the pandemic”.

How will this affect crude oil prices?

Talk of a coordinated release of reserves by large oil consuming countries had already played a role in bringing down prices from a high of \$86.4 in late October to under \$80 per barrel on Monday. Brent, however, recovered to \$82.3 per barrel on Wednesday with some analysts noting that the US had released less oil from its reserves than was expected. Analysts at Goldman Sachs said on Wednesday that the coordinated release led by the US may add about 70-80 million barrels of crude supply, less than the more-than-100 million barrels the market has been pricing in. Government officials noted that the coordinated action would be a step in the direction of reducing international oil prices. “Global...prices have risen due to the efforts of Russia and Saudi Arabia. Now that the US has announced the release of oil from reserves, we are cooperating in this step to ensure that crude oil prices remain under control,” an official said. Saudi and Russia are the largest oil producers in the OPEC+ group, which has indicated it may revisit its plans to gradually increase production in the light of releases from strategic reserves. OPEC+, which controls about half the world’s oil output, had cut production by 10 million barrels a day in April 2020 when prices fell below \$20 per barrel as global demand collapsed due to lockdowns. The cartel has been accused of being slow to restore production levels despite a sharp increase in crude prices in 2021. Even after a scheduled increase in production of 400,000 barrels per day in December, the output of OPEC+ will still be lower than the reference levels of member countries by nearly 5.4 million barrels per day.

How have high crude oil prices impacted India?

High global prices have contributed to consumers paying record high prices for petrol and diesel across the country. In Delhi, petrol is retailing at Rs 104.0 per litre, and diesel at Rs 86.7 per litre, up 27 per cent and 21 per cent respectively from a year ago. Consumers are facing prices that are significantly higher than those prior to 2021, despite a recent move by the Centre to cut excise duty on petrol by Rs 5 per litre, and on diesel by Rs 10 per litre. The Centre had in 2020 increased central excise duties on petrol and diesel by Rs 13 and Rs 16 per litre respectively in an effort to shore up revenues as economic activity crashed due to the pandemic. Some states have also hiked VAT on fuels.

What are India’s strategic petroleum reserves, and why are they needed?

India’s strategic reserves are the effort of a broader plan to build an emergency stockpile with millions of barrels of crude oil, on the lines of the reserves that the US and its Western allies set up after the first oil crisis of 1973-74. Under the first stage of the Strategic Petroleum Reserve project, underground rock caverns with total storage of 5.33 MMT, or about 38 million barrels of crude oil, have been commissioned at three locations — Visakhapatnam (1.33 MMT), Mangalore (1.5 MMT), and Padur in Karnataka (2.5 MMT). These facilities can provide for about 9.5 days of India’s crude oil requirements based on 2019-20 consumption levels. The combined storage facilities of Oil Marketing Companies (OMCs) in the country can hold enough crude oil to meet 64.5 days of requirement, bringing the total national capacity for storage of crude oil and petroleum products to 74 days, according to the Centre. India is in the process of expanding its strategic petroleum reserve storage by 6.5 MMT at two locations — Chandikhol in Odisha (4 MMT)



and Padur (2.5 MMT). The International Energy Agency (IEA) recommends that all countries hold crude oil stocks worth 90 days of imports. India imports about 85 per cent of its crude oil requirements. Crude oil from the reserves are to be released by an empowered committee constituted by the government, in the event of any supply disruptions from abroad. These include any natural calamity or unforeseen global event leading to an abnormal increase in prices. A senior government official said that this would be the first instance of India using strategic reserves to influence international prices, adding that India had also drawn down its reserves somewhat earlier this year to supply refineries as crude oil prices were rising. A release of 5 million barrels from strategic reserves would equate to about 13 per cent of India's strategic petroleum reserves. A release of 50 million barrels of crude oil from the US strategic petroleum reserves would equate to about 8.3 per cent of the 604.5 million barrels of crude oil stored in US strategic petroleum reserves.

GOVT. PUTS ON SALE MTNL, BSNL ASSETS AT BASE PRICE OF ₹970 CR.

The government has listed for sale real estate assets of state-run telecom firms MTNL and BSNL at a reserve price of about ₹970 crore, according to documents uploaded on the DIPAM website. BSNL properties located in Hyderabad, Chandigarh, Bhavnagar and Kolkata have been posted for sale at a reserve price of about ₹660 crore. The Department of Investment and Public Asset Management (DIPAM) website has listed MTNL assets located in Vasari Hill, Goregaon in Mumbai for sale at a reserve price of about ₹310 crore. "This is the first stage of asset monetisation at MTNL and BSNL," BSNL Chairman and Managing Director P. K. Purwar told PTI. "Bids have been invited for BSNL assets worth ₹660 crore and MTNL assets worth ₹310 crore. We plan to complete the entire process within one-and-a-half months." MTNL's 20 flats located in Oshiwara have also been put up for sale as part of the asset-monetisation plan of the company. The flats include two units of 1-room set, 17 units of 1 bedroom hall and kitchen (BHK) and one unit of 2 BHK. Their reserve prices range from ₹52.26 lakh to ₹1.59 crore.

E-auction for MTNL

The e-auction for MTNL assets will take place on December 14. The asset monetisation is part of the ₹69,000 crore revival scheme for MTNL and BSNL which was approved by the government in October 2019. Both the public sector firms were to identify and monetise assets worth ₹37,500 crore by 2022. "We will proceed as per market demand for asset monetisation," Mr. Purwar added.

A UNIFIED REGULATORY FRAMEWORK

It is evident that the success of Internet firms and telcos goes hand in hand. However, the ownership of approximately 18% of Jio by Facebook and Google provides a hint that new dynamics are on the horizon — with the evolution of 5G technologies, we are seeing the growth of an integrated sphere of cooperation as well as competition between telcos and Internet companies on account of substitute services, and competition in complementary value networks.

Asymmetric regulatory stance

The growth in over-the-top (OTT) messaging services provided by Internet firms has been accompanied by significant reductions in the revenues of text messaging services provided by telcos. For instance, the quarterly SMS volume in the U.K. has declined by half to 10 billion by 2021 in the past five years. Similarly, the growth of Voice over Internet Protocol (VoIP) services offered



by OTT service providers is also a threat to telcos. Complementary value networks or 'Walled Gardens' comprise a bouquet of services provided by network operators, handset manufacturers, platform vendors, and content providers. An example is the one created by Apple with exclusive wholesale agreements with AT&T Wireless in the early 2000s for its iPhones. By subsidising the iPhone with long tenure contractual agreements, and creating a proprietary app store, Apple created a walled garden. Recently in India, Rjio has forged arrangements with Google for JioPhone Next to create an ecosystem of handsets, connectivity and applications. These walled gardens often have a "platform captain" (i.e. Apple, Rjio) which provides coordinating mechanisms, rules, key products, intellectual property and financial capital. Platform captains generally derive business benefit from their pole position. Hence, members of a walled garden may aspire for the position of captain. This brings a new element of competition into the telcos-Internet companies' relationship. Despite the fact that services can be substituted and despite increasing competitive pressures within walled gardens, there is an asymmetric regulatory stance with respect to telcos and Internet companies. Some of this stems from fundamental differences in the nature of business such as the jurisdictional nature of operation and technology used. However, the asymmetry partly reflects a certain world view with regard to the regulation of competition across telcos and Internet firms.

Net neutrality regulation

An example is net neutrality regulation. When net neutrality was conceptualised in the early 2000s, it was meant to stem the significant market power of telcos, which provide an essential service. A dominant telco can hinder competition in a downstream market by a vertical merger with content and application providers. Net neutrality regulation that prohibits discriminatory treatment of Internet companies — either with respect to pricing or traffic management — in a sense eliminates any incentive for vertical integration. Net neutrality regulation can also be explained as a way of preventing telcos from extracting all their revenues from Internet companies. This possibility arises because such firms have no choice but to make themselves available via all telecom service providers. On the other hand, subscribers restrict themselves to one service provider. However, over the past decade, the Internet has evolved to a point where many Internet companies also provide an essential service and enjoy significant market power. For instance, web search, a market dominated by Google, is often the starting point for navigating the World Wide Web. Without search neutrality, search results may be manipulated to favour certain firms. This concern becomes heightened in the presence of vertical integration between the search engine company and downstream companies. Hence, net neutrality principles need to be applied to Internet companies as well. Beyond net neutrality, just as it is mandatory for telcos to provide "equal access" for interconnecting with other telcos' networks, social media networks, instant messengers, and indeed any Internet service that exhibits critical mass dynamics needs to be governed by interconnection regulation. In sum, there is an element of competition between telcos and Internet companies in the context of overlapping services and walled gardens. Hence, there is a need for a measure of regulatory parity between the two. In the U.S. and in India, while the sector regulator makes rules for telcos, the competition regulator oversees the behaviour of the Internet firms. It is time for a unified regulatory framework. A semblance of this convergence is visible in the European Union. India too needs an integrated perspective.



THE RATE RESET

Since its onset in 2017, the GST regime to subsume multiple State and Central levies was criticised for far too many tax rates that were amenable to creating complications instead of simplifying taxation. The Government had hinted that rates could be reviewed once the system stabilised. Now, with GST in its fifth year, the Government has assessed it is about time to consider a reboot, partly because revenues are falling short of expectations, despite healthy monthly collections. Next month, a Group of Ministers set up by the GST Council is expected to propose changes, including merging slabs, with a road map for immediate, short- and medium-term changes. This mandate marked an expansion of its initially stated task of rationalising tax rates to bolster revenues. To recap, there are eight effective GST rates, including zero on essential goods, standard rates of 5%, 12% and 18% for most goods and services, and a 28% tax plus GST Compensation Cess on sin or demerit goods. Special low rates are specified for jewellery, precious stones and supplies to exporters. The effective tax rate under GST has slipped from the original revenue-neutral rate of 15.5% to 11.6%, which Finance Minister Nirmala Sitharaman said occurred due to rate cuts effected across categories since 2017. Quite a few stemmed from the GST's hasty beginning and errors in the initial rate-setting. The Council continues to resolve genuine hardships this created for industry segments, but the constant tweaks have also altered the original revenue dynamics envisaged. The 18% tax rate, levied even on insurance premium payments, now accounts for the largest taxable turnover, as a National Institute of Public Finance and Policy (NIPFP) paper points out. Reducing the 18% rate or merging it with the 12% slab will thus entail revenue losses that would have to be offset by hikes in the lowest and/or highest rates. The NIPFP has suggested a structure of 8%, 15% and a 30% rate for sin goods, to protect revenue concerns while minimising the need for a sharp hike at either end of the spectrum and leaving special rates untouched. This may be less contentious than raising rates on bullion, reportedly proposed to the GoM, which could only spur tax evasion. Sequencing the implementation of new rates and avoiding far-too-frequent rethinks would be critical to minimise disruptions and engender investor confidence. The Council must also urgently address data limitations flagged by the NIPFP. For several months this year, the Government did not reveal returns filed by taxpayers even as it claimed GST collections reflect recovery and improved compliance. Also, many GST rate cuts that triggered the current resource worries were aimed at pandering to regional considerations ahead of critical elections. With key State polls soon, the Government's resolve to carry out a hard reset on GST rates now may be tested.

RBI ACCEPTS MOST OF PANEL PROPOSALS, SILENT ON CORPORATE FORAY INTO BANKING

The Reserve Bank of India (RBI) has maintained status quo on the issue of corporate entry into the banking space. The central bank has opted neither to accept nor reject the proposal of an Internal Working Group (IWG) of the RBI that large corporate houses should be allowed as promoters of banks "only after necessary amendments" to the Banking Regulations Act, 1949. The RBI, which accepted 21 out of 33 recommendations of the IWG, did not comment on the issue of granting banking licence to big corporate houses. The IWG said this (amendment to facilitate corporate entry) is to deal with connected lending and exposures between the banks and other financial and non-financial group entities and strengthening of the supervisory mechanism for large conglomerates, including consolidated supervision. In its report on the 'Ownership Guidelines and Corporate Structure for Indian Private Sector Banks', released in November 2020, IWG has proposed that "the RBI may examine the necessary legal provisions that may be required



to deal with all concerns” on the issue of granting licence to big corporate houses. “The minimum requirement on track record of experience of promoting entity, including for a converting NBFC, may continue at 10 years for universal banks and 5 years for small finance banks,” the RBI said. IWG said well-run large NBFCs, with an asset size of Rs 50,000 crore and above, including those which are owned by a corporate house, may be considered for conversion into banks provided they have completed 10 years of operations and meet the due diligence criteria and satisfy the additional conditions specified in this regard. The RBI accepted the proposal that it may consider putting in place a tighter, bank-like regulatory framework for large NBFCs. While the RBI has decided to accept 21 recommendations (some with partial modifications, the remaining recommendations are under examination, the RBI said. The RBI also accepted the recommendation that the cap on promoters’ stake in long run of 15 years should be raised from the current levels of 15 per cent to 26 per cent of the paid-up voting equity share capital of the bank. It said small finance banks should be listed within eight years from the date of commencement of operations.

FOR PMC BANK DEPOSITORS, RESTRICTIONS ON ACCESS TO FUNDS, INTEREST

In a setback to depositors of the Punjab and Maharashtra Cooperative (PMC) Bank, the Reserve Bank of India, in its draft scheme of amalgamation of the bank with Unity Small Finance Bank Ltd (USFB), has placed multiple restrictions on access to deposits beyond Rs 5 lakh that depositors can receive from the Deposit Insurance and Credit Guarantee Corporation (DICGC). Also, no interest will be payable on interest-bearing deposits in the transferor bank (PMC Bank) for five years. The RBI has, however, invited suggestions and objections until December 10 from members, depositors and other creditors of the transferor bank and transferee bank (USFB).

What is the scheme?

The scheme of arrangement states that depositors of PMC Bank will receive up to Rs 5 lakh (depending upon the balance in their account) from DICGC in accordance with the rules. However, those with higher deposits in PMC Bank will face restrictions. Retail depositors will have access to additional amounts up to Rs 50,000 at the end of two years from the appointed date, up to Rs 1 lakh at the end of the third year, up to Rs 3 lakh after four years, and up to Rs 5.5 lakh after five years. Beyond this, they will receive no amount for the next four years. Only after 10 years will they receive the rest of their deposit.

What are the restrictions on interest?

After March 31, 2021, interest shall not accrue on any interest-bearing deposit with the transferor bank for five years. In respect of balance in any current account or any other non-interest bearing account, no interest shall be payable. An interest of 2.75% per year shall be paid on retail deposits of the transferor bank, which shall remain outstanding after five years from the appointed date.

What happens to other deposits?

From the appointed date, 80% of the uninsured deposits outstanding to the credit of each institutional depositor of the transferor bank shall be converted into Perpetual Non-Cumulative Preference Shares (PNCPS) of USFB with a dividend of 1% per annum payable annually. At the end of 10 years, the transferee bank may consider additional benefits for such PNCPS holders, either in the form of a step-up in coupon rate or a call option, after getting RBI approval. The



remaining 20% of the institutional deposits will be converted into equity warrants of USFB at a price of Rs 1 per warrant. These will further be converted into equity shares of USFB at the time of the Initial Public Offer. In respect of every other liability of the transferor bank, USFB shall pay only the principal amounts, as and when due, to the creditors in terms of agreements entered between them prior to the appointed date.

What happened at PMC Bank?

After a fraud was detected, in September 2019, inspections showed complete erosion of capital and substantial deposit erosion of the bank. The RBI issued 'All Inclusive Directions' to the bank under Section 35A read with Section 56 of the Banking Regulation Act, 1949 (10 of 1949) with effect from close of business of September 23, 2019 to protect the interest of the depositors. It also superseded the bank's board of directors on September 23, 2019 and appointed an administrator in its place. RBI then decided to prepare a scheme of amalgamation. In February 2021, Centrum Financial Services Ltd as promoters, along with Resilient Innovation Pvt. Ltd as 'joint investor', expressed interest in acquiring PMC Bank through a suitable amalgamation scheme with a new small finance bank to be registered. On October 12, the RBI granted a licence to USFB Ltd, and it started transacting business from November 1. USFB has been set up with capital of about Rs 1,100 crore, with provisions for further infusion of capital.

What does it mean for fixed deposits?

Unlike equity and bond investors, bank depositors enjoy the highest levels of safety on their funds. However, there is an element of risk: If the bank collapses, there can be a delay in redeeming their FDs, they may not be able to withdraw beyond Rs 5 lakh, or they may face a write-down in certain cases. In recent times, depositors have faced trouble in getting immediate access to their funds in PMC, Yes Bank and Lakshmi Vilas Bank. While the RBI puts in withdrawal restrictions to get time to stitch together a resolution plan for the failing bank, it can shake depositors' faith in the banking system. To ensure funds are safe, a depositor with, say, Rs 15 lakh can park Rs 5 lakh each in three banks, giving full safety to the entire amount. For those with higher deposits, it's better to put the money in large banks, as they usually have a more effective risk culture.

What about deposit insurance?

Currently, in the unlikely event of a bank failing, a depositor can claim a maximum Rs 5 lakh per account as insurance cover. The cover is provided by the DICGC. Depositors with more than Rs 5 lakh have no legal recourse to recover funds if a bank collapses. Deposits in public and private sector banks, local area banks, small finance banks, regional rural banks, cooperative banks, Indian branches of foreign banks and payments banks are all insured by the DICGC. The premium is paid by banks to the DICGC, and is not to be passed on to depositors. Banks currently pay a minimum of 12 paise on every Rs 100 worth deposits to the DICGC as premium for the insurance cover. Last year, the government raised the insurance amount to Rs 5 lakh from Rs 1 lakh.

REGULATING CRYPTOCURRENCY

The Cryptocurrency and Regulation of Official Digital Currency Bill, 2021, listed for introduction in Parliament's Winter Session starting November 29, seeks to "create a facilitative framework for the creation of the official digital currency to be issued by the Reserve Bank of India". The Bill "seeks to prohibit all private cryptocurrencies in India, however, it allows for certain exceptions



to promote the underlying technology of cryptocurrency and its uses". Prices of cryptocurrencies on local exchanges crashed overnight after the news broke, even though they remained largely unchanged in global markets. Industry sources said there was panic-selling by crypto holders fearing an impending ban or restriction. There is currently no regulation or ban on cryptocurrencies in India; however, national responses to defining and regulating virtual currencies vary widely in jurisdictions around the world.

How are cryptocurrencies regulated in countries around the world?

The stance of countries and regulators has ranged from a total ban on these financial assets, to allowing them to operate with some regulations, to the other extreme of allowing virtual currency trading in the absence of any guidelines. Governments and regulators remain divided on how to categorise it as a currency or asset — and how to control it from an operational point of view. The evolution of the policy and regulatory response has been uncharacteristically discordant, with no apparent coordination in the responses of countries. As stated above, the regulatory and policy response can vary from complete openness of the kind seen in countries like El Salvador, which has approved bitcoin as legal tender, to a total clampdown like in China, which has imposed stringent regulations on both cryptocurrencies and service providers. Countries such as India are somewhere in between — still in the process of figuring out the best way to regulate cryptos after some policy and regulatory experimentation. The United States and European Union have been proactive in trying to pin down the regulatory mandate, while discussions continue. Among the countries that haven't issued detailed regulations, there are those that have recognised and defined these currencies.

CANADA for example, through its Proceeds of Crime (Money Laundering) and Terrorist Financing Regulations, defines virtual currency as:

(a) a digital representation of value that can be used for payment or investment purposes that is not a fiat currency and that can be readily exchanged for funds or for another virtual currency that can be readily exchanged for funds; or

(b) a private key of a cryptographic system that enables a person or entity to have access to a digital representation of value referred to in paragraph (a).

A report by the Thomson Reuters Institute in June this year noted that Canada has been among the early adopters of crypto, and the Canada Revenue Authority (CRA) generally treats cryptocurrency like a commodity for purposes of the country's Income Tax Act.

ISRAEL, in its Supervision of Financial Services Law, includes virtual currencies in the definition of financial assets. The Israeli securities regulator has ruled that cryptocurrency is a security subject, while the Israel Tax Authority defines cryptocurrency as an asset and demands 25% on capital gains.

IN GERMANY, the Financial Supervisory Authority qualifies virtual currencies as "units of account" and therefore, "financial instruments". The Bundesbank considers Bitcoin to be a crypto token given that it does not fulfil typical functions of a currency. However, citizens and legal entities can buy or trade cryptoassets as long as they do it through exchanges and custodians licensed with the German Federal Financial Supervisory Authority.



IN THE UNITED KINGDOM, Her Majesty's Revenue & Customs, while not considering crypto assets to be currency or money, notes that cryptocurrencies have a unique identity and cannot, therefore, be directly compared to any other form of investment activity or payment mechanism.

IN THE United States, different states have different definitions and regulations for cryptocurrencies. While the federal government does not recognise cryptocurrencies as legal tender, definitions issued by the states recognise the decentralised nature of virtual currencies.

IN THAILAND, digital asset businesses are required to apply for a licence, monitor for unfair trading practices, and are considered "financial institutions" for anti-money laundering purposes among others, according to the Thomson Reuters Institute report. Earlier this month, Thailand's oldest lender, Siam Commercial Bank, announced a move to purchase 51% stake in local cryptocurrency exchange Bitkub Online.

While most of these countries do not recognise cryptocurrencies as legal tender, they do recognise the value these digital units represent — and indicate their functions as either a medium of exchange, unit of account, or a store of value (any asset that would normally retain purchasing power into the future). Like India, several other countries have moved to launch a digital currency backed by their central bank.

How would a Central Bank Digital Currency (CBDC) work?

The Reserve Bank of India plans to launch its CBDC, a digital form of fiat currency that can be transacted using wallets backed by blockchain, and which is regulated by the central bank. Though the concept of CBDCs was directly inspired by Bitcoin, it is different from decentralised virtual currencies and crypto assets, which are not issued by the state, and lack the 'legal tender' status declared by the government. CBDCs enable the user to conduct both domestic and cross-border transactions that do not require a third party or bank. Since several countries are running pilot projects in this space, it is important for India to launch its own CBDC, making the rupee competitive in international financial markets. While CBDC too is a digital or virtual currency, it is not comparable to the private virtual currencies that have mushroomed over the last decade. The private virtual currencies sit at odds with the historical concept of money — and they are certainly not currency as the word has come to be understood historically.

OVER-VALUED UNICORNS IN A DISTRESSED

Early this month, the biggest-ever initial public offering (IPO) in India fell flat on its face on the first day of its listing in the stock exchange, with shares being traded at prices less than 27% of the IPO price. The timing of this IPO is blameless as investors have responded enthusiastically in recent times reaping massive gains in the range of 60% to 100% at the end of the first day's trade. Naturally then, questions arise on the valuation of the firm and the IPO. This firm, along with an educational technology start-up, is viewed as one of the 'shining beacons' among a growing list of unicorns in India. But the muted response towards the giant IPO casts doubts about the valuation of unicorns in India. Are they really worth the expectations? Or are they overhyped?

Diverse sectors

There has been a unicorn gale in India in recent years, covering diverse sectors from fintech to cloud kitchen. By the end of 2021, India is expected to have produced 40 more unicorns, more



than three a month on average. An ecosystem which combines thriving digital payments, a growing smartphone user base and digital-first business models adopted by many start-ups has driven expectations of investors, resulting in large-scale fund flows into new business ventures. Expectations are high as the country has around 640 million Internet users, of which 550 million are smartphone users. Digital payment has seen a growth of 30.19% as of March 31, 2021 and by the end of September 30, the unified payments interface (UPI) registered 3.5 billion transactions amounting to ₹6.54 trillion.

Fintech leads

This growth in digital payment is reflected in the fintech sector that has contributed the most to the unicorn list. For the period 2011, when the first fintech unicorn in India was reported, to 2020, the economy had six fintech unicorns. However, this year has already seen seven fintech firms joining the unicorn list. American investment firms Tiger Global and Sequoia Capital have been the major investors, providing very quick follow-up rounds of funds across all stages and sectors. The bulk of these deals are on the basis of potential market opportunity and the expectation that these firms have the ability to sustain an initial level of hyper growth. Fundamental financial performance of the business is not factored in these decisions which could lead to biased valuations. Ever since Clayton M. Christensen popularised the idea of disruptive technologies in his 1997 book, *The Innovator's Dilemma*, it has become a buzzword for characterising start-ups. The idea was that start-ups with limited resources can aim at technology disruption by inventing an entirely new way of getting something done. The firm which came out with the giant IPO was considered by many as a technology disruptor and game changer — which created hype and overvaluation. However, in reality, the firm does nothing that other big players do not do. In fact the spread of UPI has made the firm's core business of wallets redundant, and it is losing market share as more and more people are opting for UPI-based payments to directly transfer money from their bank accounts. A report says, "Its business model is no different than that of several other fintech and ecommerce businesses". Still, the firm's IPO was valued at an outlandish 26 times its estimated price-to-sales ratio for 2022-23, which assumes significance as the global benchmark is 0.3-0.5 times the price-to-sales growth ratio for fintech firms. These valuations have to be seen in light of the shrinking of consolidated revenues by 11% for fiscal year 2020 -2021 and losses of ₹1,701 crore.

The EdTech parallel

To make matters worse, the structure of the group has an inherent weakness emanating from the fact that there are 39 subsidiaries and over half of these put together contribute to a mere 5% of its revenues. These were clear warning signals for the brokerage firm, Macquarie Capital Securities (India) Pvt. Ltd, which calls the firm a "cash guzzler" having funding losses, burning 70% of the money it has raised since its launch. Further, valuation expert Aswath Damodaran, in his own valuation of the firm called the company "India's premier cash burning machine". The story is similar in educational technologies (EdTech) as well. In fact the novel coronavirus pandemic has been a blessing in disguise for EdTech firms, as it is this external environment that is pushing the industry, giving it an acceleration by four to five years. Rising Internet penetration is also shaping the fortunes of the sector. Here we have the case of an EdTech firm touted as a shining example of entrepreneurship in the new economy, having 30% rise in valuations every six to nine months without a change in its fundamentals. This firm acquired nine other firms in one year. Too many acquisitions with big ambitions to grow inorganically puts pressure on the balance



sheet in the years to come as some of the new acquisitions are likely to fail. Even, EdTech firms with reasonably good business models are highly overvalued due to abundant liquidity. Almost every second advertisement on primetime television is either of a digital payment firm or EdTech platform. This is because one of the things that technology companies typically attempt first is to induce a behavioural change to customers who have lived in a particular style. New firms in services will have to indulge in this process for a longer period than firms in other industries such as transportation as these firms have to bring about a particular kind of change that customers are significantly comfortable using the service. It is only when this journey of behavioural change starts that more and more consumers utilise such services. But inducing such behavioural changes are costly to new firms as they have to incentivise customers. “Firms burn cash to give massive discounts to customers in the hope that people will get so habituated to these platforms that they will remain active even when the prices are hiked”. To some extent this worked in the context of mobile telephone services as Indians have got hooked to mobile phones and reoriented spending to buy more sophisticated smartphones and data. But in other services this does not seem to work so easily.

The projections flaw

A mistake that firms and valuation experts seem to make is that they overestimate the Indian economy’s ability to consume services as they assume exponential demand growth for longer time horizons. Data by the Centre for Monitoring Indian Economy (CMIE) points to this flaw of over-optimistic demand projections as there are just about 23 million households which earn more than ₹5 lakh per year i.e., less than ₹42,000 a month, which is about 7% of all Indian families. It is only this class which can be coaxed to behavioural changes — i.e. people who can afford various kinds of goods and services. If firms want to go beyond this 7% of households they have to offer bigger discounts, burning more cash, with the possibility that once the discounts are reduced, customers drop off. Given the current state of the economy and employment situation, we have “a scenario of consumer-facing tech companies already reaching the saturation point of their real customer-base; people who can afford to consume without discounts”. It is in this milieu that we are witnessing new unicorns emerging every month, which are products of inflated valuations to tap more funds to burn more cash. These valuations are solely on the basis of future earnings, with virtually no profits to show in the present. Ecstasy and euphoria over these unicorns then has to be based on illusions rather than on reality.

DreamIAS



LIFE & SCIENCE

NASA IS CRASHING A SPACECRAFT INTO AN ASTEROID. HERE'S HOW TO WATCH THE LAUNCH

NASA is about to launch a spacecraft with one simple mission: Smash into an asteroid at 15,000 mph. The mission, the Double Asteroid Redirection Test, or DART, leaves Earth early Wednesday to test whether slamming a spacecraft into an asteroid can nudge it into a different trajectory. Results from the test, if successful, will come in handy if NASA and other space agencies ever need to deflect an asteroid to save Earth and avert a catastrophic impact.

When is the launch and how can I watch it?

The DART spacecraft is scheduled to lift off atop a SpaceX Falcon 9 rocket Wednesday at 1:20 am Eastern time from the Vandenberg Space Force Base in California. NASA plans to host a livestream of the launch on its YouTube channel starting at 12:30 am Wednesday. If bad weather around the Vandenberg launch site prompts a delay, the next opportunity for liftoff would be about 24 hours later.

Why is NASA crashing into an asteroid?

NASA is crashing DART into an asteroid to test, for the first time, a method of planetary defense that could one day save a city, or maybe the whole planet, from a catastrophic asteroid impact. DART "is something of a replay of Bruce Willis' movie, 'Armageddon,' although that was totally fictional," Bill Nelson, NASA's administrator, said in an interview. If all goes as planned with DART, NASA will have a confirmed weapon in its planetary defense arsenal. Should a different asteroid ever wind up on a collision course with Earth, the world's space agencies would have confidence that an asteroid missile like DART would shoo the space rock away.

How will the mission work?

After launching to space, the spacecraft will make nearly one full orbit around the sun before it crosses paths with Dimorphos, a football-field-sized asteroid that closely orbits a bigger asteroid, called Didymos, every 11 hours and 55 minutes. Astronomers call those two asteroids a binary system, where one is a mini-moon to the other. Together, the two asteroids make one full orbit around the sun every two years. Poses no threat to Earth, and the mission is essentially target practice. DART's impact will happen in late September or early October next year, when the binary asteroids are at their closest point to Earth, roughly 6.8 million miles away. Four hours before impact, the DART spacecraft, formally called a kinetic impactor, will autonomously steer itself straight toward Dimorphos for a head-on collision at 15,000 mph. An onboard camera will capture and send back photos to Earth in real time until 20 seconds before impact. A tiny satellite from the Italian Space Agency, deployed 10 days before the impact, will come as close as 34 miles from the asteroid to snap images every six seconds in the moments before and after DART's impact.

How will NASA know if DART succeeded?

Telescopes on Earth will fix their lenses on the crash site, showing the two asteroids as tiny dots of reflected sunlight. To measure whether DART's impact changed Dimorphos' orbit around Didymos, astronomers will track the time between one flicker of light — which indicates that



Dimorphos has passed in front of Didymos — and another, which indicates that Dimorphos has orbited behind Didymos. If Dimorphos' orbit around Didymos is extended by at least 73 seconds, DART will have successfully performed its mission. But mission managers expect the impact to lengthen the asteroid's orbit even more, by about 10 and 20 minutes.

SETTING THE TONE AT GLASGOW, THE JOB AHEAD IN DELHI

With current per capita emissions that are less than half the global average, India's pledge to reach 'net zero' emissions by 2070 has cemented India's credentials as a global leader. The emissions of all others who have pledged "net zero" by 2050 are above the global average. At COP26 in Glasgow (October 31-November 12, 2021), India successfully challenged the 40-year-old frame of global climate policy that pointed a finger at developing countries with the alternate frame of 'climate justice', that unsustainable lifestyles and wasteful consumption patterns are to blame. The political implication of the date 2070 is that the world should get to 'net-zero' by 2050. For that, the rich countries will need to do more and step up closer to their share of the carbon budget. India's stand also signals that it will not act under external pressure, as requiring equal treatment is the hallmark of a global power, and will have an impact on other issues.

G7 no longer a rule setter

The problem, as Gandhiji had also observed, is really western civilisation; it also accounts for the spate of criticism of India's open challenge in the plenary, and getting global agreement on a "just" transition to phase down, and not phase out, coal. The subject of oil was not touched, even as automobile emissions are the fastest growing emissions, because it is a defining feature of western civilisation. Coal is the most abundant energy source, essential for base load in electrification, and the production of steel and cement. Its use declines after the saturation level of infrastructure is reached. The irony of the host country pushing other nations to stop using coal — an energy resource which powered its own Industrial Revolution — was not lost on the poor countries who called out "carbon colonialism". That India and China working together forced the G7 to make a retraction has signalled the coming of a world order in which the G7 no longer sets the rules. The Prime Minister's stand in the opening plenary, pushing 'climate justice', and the Environment Minister, Bhupender Yadav's constant reminder that the negotiating text is not balanced as there is little advance on financial and other support, gave courage to the others to also successfully question the negotiating frame which focused on emissions reduction. After 40 years there is more specific language on both finance and adaptation finally recognising that costs and near-term effects of climate change will hit the poorest countries hardest.

India will be investing

The debate has now shifted to the national level, with questions on the feasibility of the goal of 'net-zero' by 2070. Here again, most of the concerns mirror those raised in the West without appreciating the significance of 'climate justice'. Seeing the challenge in terms of the scale and the speed of the transformation of the energy system assumes that India will follow the pathway of western civilisation where the energy system and lifestyles that evolved over a century have to be transformed over the next 30 years. India is urbanising as it is industrialising, moving directly to electrification, renewable energy and electric vehicles, and a digital economy instead of a focus on the internal combustion engine. Most of the infrastructure required has still to be built and automobiles are yet to be bought. India will not be replacing current systems and will be making investments, not incurring costs.

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West must cut consumption

There is sufficient evidence in the literature that the consumption of affluent households both determines and accelerates an increase of emissions of carbon dioxide. This is followed by socio-economic factors such as mobility and dwelling size. In the West, these drivers have overridden the beneficial effects of changes in technology reflected in the material footprint and related greenhouse-gas emissions. Climate change has to be addressed by the West by reducing consumption, not just greening it. For India, in parallel with the infrastructure and clean technology thrust, the focus on a decent living standard leads to behavioural change in the end-use service, such as mobility, shelter and nutrition — for change modifying wasteful trends. First, consumption patterns need to be ‘shifted away from resource and carbon-intensive goods and services, e.g. mobility from cars and aircraft to buses and trains, and nutrition from animal and processed food to a seasonal plant-based diet’. Second, along with ‘reducing demand, resource and carbon intensity of consumption has to decrease, e.g. expanding renewable energy, electrifying cars and public transport and increasing energy and material efficiency’.

This should be the focus

Third, equally important, will be achieving a ‘more equal distribution of wealth with a minimum level of prosperity and affordable energy use for all’, e.g., housing and doing away with biomass for cooking. Indian civilisational values already lay stress on vegetarianism, frown on wastage; mobility-related consumption is not disproportionately increasing with income. National acceptance of a ‘floor’ as well as ‘ceiling’ of sustainable well-being is feasible. The Government now needs to set up focused research groups for the conceptual frame of sustainable well-being. It should analyse the drivers of affluent overconsumption and circulate synthesis of the literature identifying reforms of the economic systems as well as studies that show how much energy we really need for a decent level of well-being. The West has yet to come out with a clear strategy of how it will remain within the broad contours of its carbon budget. The political problems of a scaling-down of economic production and lifestyles will provide useful lessons. It is becoming difficult for the West to use international trade that is shifting manufacturing and the burden of emissions to developing countries with the rise of a digital economy. And increasing inequality and a rise of protectionism and trade barriers imposing new standards need to be anticipated. This knowledge is essential for national policy as well as the next round of climate negotiations.

Work for Parliament

After the Stockholm Declaration on the Global Environment, the Constitution was amended in 1976 to include Protection and Improvement of Environment as a fundamental duty. Under Article 253, Parliament has the power to make laws for implementing international treaties and agreements and can legislate on the preservation of the natural environment. Parliament used Article 253 to enact the Environment Protection Act to implement the decisions reached at the Stockholm Conference. The decisions at COP26 enable a new set of legislation around ecological limits, energy and land use, including the efficient distribution and use of electricity, urban design and a statistical system providing inputs for sustainable well-being.

WHY IS INDIA’S COAL USAGE UNDER SCRUTINY?

On the final day of the UN Climate Change Conference held in Glasgow, India’s Minister for Environment Bhupender Yadav read out a statement promising to “phase down” rather than



“phase out” the use of coal. This caused many to raise questions about India’s commitment to tackling climate change. Earlier, during the COP26 (Conference of Parties) summit, Prime Minister Narendra Modi had committed to turning India carbon neutral by 2070.

Why must dependence on coal be reduced?

Since carbon emissions are considered the main culprit in global warming, countries have been committing themselves to turning carbon neutral by various dates. One key way to achieve carbon neutrality, wherein countries compensate for their carbon emissions by capturing an equal amount of carbon from the atmosphere, is to reduce dependence on coal. Coal is the most polluting among fossil fuels, and hence, its use in particular has come under scrutiny.

Why is it difficult?

Coal is used to meet over 70% of India’s electricity needs. Most of this coal comes from domestic mines. In FY 2020-21, India produced 716 million tonnes of coal, compared with 431 million tonnes a decade ago. Since FY 2018-19, domestic production has stagnated and has been unable to meet the rising domestic demand, leading to a rise in imports. Most of the country’s coal production is limited to Chhattisgarh, Odisha, Jharkhand and Madhya Pradesh with a total production of over 550 million tonnes, contributing to over 75% of the country’s total coal production. The Prime Minister promised to increase non-fossil fuel energy capacity to 500 GW by 2030, meet 50% energy needs from renewable sources and reduce carbon emissions by 1 billion tonnes in a decade. According to an estimate by the Centre for Science and Environment, the promise to reduce emissions by 1 billion tonnes means that India would need to reduce its carbon output by 22% by 2030. India now meets about 12% of its electricity needs from renewable sources, and increasing it to 50% by 2030 will be difficult. While some renewable energy sources like solar are cheap, they are unreliable because of the intermittency problem. They thus require the use of storage batteries, which adds to the cost. It should be noted that many low-income countries with low savings may not even possess the capital required to invest in renewable energy. Further, the damage that coal causes to commonly owned resources like the environment is not factored into its cost.

Is it fair to ask India to phase out coal?

India has fought attempts by developed countries to impose a cap on its emissions. It has argued that adopting stringent steps to reduce carbon emissions can drag down growth and affect efforts to reduce poverty. It should also be noted that per capita carbon emissions of countries such as India and China are still lower than those of many developed countries. According to World Bank data of 2018, India produces 1.8 metric tonnes of carbon emissions per capita against 15.2 metric tonnes produced by the U.S. Experts believe India’s commitment to phase down coal and become carbon neutral may actually be a rather generous commitment than what developed countries have committed themselves to. Critics have also pointed out that the focus on ending the use of coal deflects attention from other fossil fuels such as oil and natural gas that are heavily used by developed countries. They also say developed countries have not made good on their promise made at COP15 in Copenhagen to offer \$100 billion every year to developing countries to achieve net zero emissions.



What lies ahead?

It is highly unlikely that developing countries like India and China will reduce their coal consumption or even stop it from rising further. Coal, after all, is the cheapest and most reliable way to meet their rising energy needs. Some leaders have proposed a carbon tax as an alternative to ensure that the price of coal reflects the cost of the damage it causes to the environment. This may turn out to be a more effective approach towards reining in carbon emissions. Coal on average is priced at \$2, while experts believe that it should be priced in the range of \$30 to \$70 to reflect its true cost. But such high carbon taxes can cause a drastic fall in coal output and severely affect living standards unless alternative sources of energy step in to fill the gap. India also faces its own set of structural problems in the power sector that will make the transition towards clean energy harder.

FAST FOOD, SHORTCUT

The path to a nanny state is paved with good intentions. According to local reports, the council in “the most obese area in Lancashire” is planning to place restrictions on takeaway food to control the health menace. While this isn’t a standalone measure — there is also talk of encouraging exercise and addressing mental health issues — it is of a piece with the notion that health and well-being stem primarily from the decisions individuals take — smokers get cancer, obese people diabetes and heart disease. Even sitting down — in sedentary jobs, people don’t have a choice — is seen as a culprit. Hence, every so often, people must be subject to anodyne phrases like “sitting is the new smoking” and before that, “sugar is the new smoking”. Restricting fast-food perhaps isn’t a bad idea, particularly for young people amongst whom research indicates it is both a consequence of and cause for mental issues. But what do you replace it with? Kids having KFC and McDonald’s for multiple meals in the West are statistically more likely to belong to lower-income groups. In the West, it is more expensive and difficult to procure healthy produce than to walk down to the takeaway or order in. Like most addictive substances, fast food targets the poor and vulnerable and the solution to it cannot just be restricting individual choice. Like most short-cuts in life, prohibition tends to backfire in the long run. What is more important is to ensure food habits and economies that do not make eating healthy a function of wealth, or something that requires intervention from the state. Obesity, like most public health issues, is a social problem. Tackling it requires expanding choice — especially the ability to make healthy ones — rather than restricting them.

CABOTEGRAVIR & RILPIVIRINE

The UK’s National Institute for Health and Care Excellence (NICE) published a draft guidance recommending the country’s first long-acting injectable treatment for HIV-1 infection in adults. The recommended treatment is a combination of the injections cabotegravir (also called Vocabria and made by Viiv Healthcare) with rilpivirine (also called Rekambys and made by Janssen).

Oral vs injections

While there is no cure for HIV, infected people can manage the virus with the help of medication. At the moment, treatment involves lifelong antiretroviral tablets that need to be taken every day. The objective is to keep viral loads to levels at which the infection cannot be detected and transmitted between individuals. “Despite scientific advances HIV is still incurable, but the virus



can be controlled by modern treatment. However, for some people, having to take daily multi-tablet regimens can be difficult because of drug-related side effects, toxicity, and other psychosocial issues such as stigma or changes in lifestyle,” NICE quoted Meindert Boysen, deputy chief executive and director of the Centre for Health Technology Assessment at NICE, as saying. Clinical trials have shown that administering cabotegravir with rilpivirine is as effective as oral antiretrovirals at keeping the viral load low. NICE has recommended the combination as an option for adults with HIV-1 infection in those cases when antiretroviral medicines have kept viral loads to low levels and there is no evidence of viral resistance. These injections are to be administered separately every two months after an initial oral tablet lead-in period.

Who benefits

About 13,000 people in England will be eligible for injectable treatment, according to NICE. However, the London School of Hygiene & Tropical Medicine (LSHTM) quoted Professor Alison Grant, Dean of its Faculty of Infectious and Tropical Diseases, as saying that the new guidance is still only a recommendation and “there is still much to do before clinics can give these injections to patients; this will take at least several months”.

OMICRON NEW VARIANT OF CONCERN

The World Health Organization (WHO) on Friday classified the B.1.1.529 variant detected in South Africa as a SARS-CoV-2 “variant of concern”, saying it may spread more quickly than other forms. Preliminary evidence suggested that there is an increased risk of reinfection and there had been a “detrimental change in COVID-19 epidemiology”, the WHO said after a meeting of experts who reviewed the data. Infections in South Africa had risen steeply in recent weeks, coinciding with the detection of the variant now designated as omicron, the WHO said. “This variant has been detected at faster rates than previous surges in infection, suggesting that this variant may have a growth advantage,” the WHO said. Current PCR tests continue to successfully detect the variant, it said. Earlier, the WHO cautioned countries against hastily imposing travel restrictions linked to the Omicron variant, saying they should take a “risk-based and scientific approach”. While medical experts warned against any overreaction before the variant was better understood, nations raced to halt air travel, markets fell sharply and scientists held emergency meetings to weigh the exact risks. Belgium is the first European Union (EU) country to announce a case of the variant. The 27-nation EU imposed a temporary ban on air travel from southern Africa, and stocks tumbled in Asia, Europe and the U.S. The Dow Jones Industrial Average dropped more than 1,000 points. The S&P 500 index was down 2.3%, on pace for its worst day since February. The price of oil plunged nearly 12%. “The last thing we need is to bring in a new variant that will cause even more problems,” German Health Minister Jens Spahn said. The member nations of the EU have experienced a massive spike in cases recently. EU Commission President Ursula von der Leyen said flights will have to “be suspended until we have a clear understanding about the danger posed by this new variant, and travelers returning from this region should respect strict quarantine rules.” Israel, one of the world’s most vaccinated countries, announced that it also detected its first case of the new variant in a traveler who returned from Malawi. After a 10-hour overnight trip, passengers aboard KLM Flight 598 from Capetown, South Africa, to Amsterdam were held on the edge of the runway on Friday at Schiphol airport for four hours pending special testing. Passengers aboard a flight from Johannesburg were also being isolated and tested. Some experts said the variant’s emergence illustrated how rich countries’ hoarding of vaccines threatens to prolong the pandemic. Fewer than 6% of people in Africa have been fully immunised against COVID-19, and



millions of health workers and vulnerable populations have yet to receive a single dose. Those conditions can speed up spread of the virus, offering more opportunities for it to evolve into a dangerous variant.

IS THERE RACIAL BIAS IN PULSE OXIMETERS?

The UK government's Department of Health and Social Care announced that an independent review will be carried out to find out if there is a potential bias in medical items such as pulse oximeters and how they impact patients from various ethnic groups. This move comes amid rising concerns that many medical devices are designed and calibrated for white patients. "The coronavirus (Covid-19) pandemic has exposed health disparities across the country...and death rates have been higher among people from ethnic minority communities," said the release from the UK government.

What is a pulse oximeter and how does it work?

A pulse oximeter is a small clip-like device used to calculate the amount of oxygen in your blood. It can be attached to the fingertip, earlobe or toes. The oximeter has a small electronic processor and a pair of LEDs – one emitting red light and another infrared. The oximeter shines these two lights which pass through your finger and the device senses what comes through the other side. Our blood contains haemoglobin and when it is saturated with oxygen it is called oxygenated haemoglobin and is bright red in colour. The hemoglobin without oxygen is called deoxygenated haemoglobin. Oxygenated haemoglobin and deoxygenated haemoglobin absorb red and infrared light differently. Oxygenated haemoglobin absorbs more infrared light and allows more red light to pass through than deoxygenated haemoglobin. The amount of light that is transmitted is measured by the processor and the device displays the oxygen saturation or the percentage of oxygenated haemoglobin in your blood. A normal blood oxygen saturation rate is often considered between 95 per cent and 100 per cent.

So, why is the device racist?

The initial step in an oximeter is the light passing through your skin and most of these devices are calibrated for light skin and can give errors for nonwhite people. Dr. Philip Bickler, the director of the hypoxia research laboratory at the University of California, San Francisco, which tests the performance of pulse oximeters, told The New York Times, the simplest way to explain the inaccuracies in patients with darker skin is that the pigment "scatters the light around, so the signal is reduced. It's like adding static to your radio signal. You get more noise, less signal." A letter to the editor published last year in The New England Journal of Medicine, titled 'Racial Bias in Pulse Oximetry Measurement', noted that the devices can provide misleading results from Black patients. The team studied 10,789 pairs of measures of oxygen saturation obtained using pulse oximetry and arterial blood gas test method. The study was carried out on 1,333 White patients and 276 Black patients. They found that the pulse oximetry overestimated oxygen levels 3.6 per cent of the time in white patients. In Black patients, the device overestimated nearly 12 per cent of the time. They carried out a second study on 37,308 pairs obtained from 7,342 White patients and 1,050 Black patients and saw similar results. "I think most of the medical community has been operating on the assumption that pulse oximetry is quite accurate," said Dr. Michael W. Sjoding, an assistant professor of internal medicine at the University of Michigan Medical School and lead author of the report to The New York Times. "I'm a trained pulmonologist and critical care physician, and I had no understanding that the pulse ox was potentially inaccurate — and that I

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was missing hypoxemia in a certain minority of patients.” Another study published in 2005 had also raised the issue of oximeters’ racial bias. Published in *Anesthesiology*, titled ‘Effects of Skin Pigmentation on Pulse Oximeter Accuracy at Low Saturation’, the team saw that the device overestimated the arterial oxygen saturation by around 3% in darkly pigmented patients, compared with 0.37% in those lightly pigmented. “In our 18 yr of testing pulse oximeter accuracy, and probably in other testing laboratories, the majority of subjects have been light-skinned. Most pulse oximeters have probably been calibrated using light-skinned individuals, with the assumption that skin pigment does not matter,” wrote the team.

DICTIONARY DEFINITION

Back in the days before the internet, this is how a dictionary worked: You read or hear a word you did not know the meaning of, looked it up, and voila! The light of new knowledge poured into your mind. A wonderful side-effect of this exercise was the discovery of new words as you browsed. Now, there is no browsing — even curiosity is customised, one searchable term at a time. But even the most basic purpose of the dictionary — to tell people what a word means — lies in tatters. Collins Dictionary’s “Word of the Year” for 2021 is “NFT” — an abbreviation that stands for “non-fungible token”. The reason for its selection is reportedly the “meteoric” rise in its use over the last year. NFT is indeed one of the most popular bits of fintech babble that has graced the page and screen and its competition was words like “crypto” and “metaverse”. But what is a non-fungible token? An NFT, according to Collins Dictionary, is a “unique digital certificate, registered in a blockchain, that is used to record ownership of an asset such as an artwork or a collectible”. Digital artworks have been selling for exorbitant amounts in recent months and NFTs seem to have something to do with that. However, the dictionary definition leaves one none the wiser as to what they actually are. Money? Authentication certificates for art works? A digital medium of exchange? The answer is likely a bit of all of the above. It seems that an abbreviation is the word of the year because of its popularity — the obsolete dictionary seems to want to ride the popularity of the tech wave to boost its publicity. Unfortunately, the ubiquity of the term is only matched by the opacity of its meaning — something Collins doesn’t help with. No worries, though. After all, you can always google it.

JUST HIT PLAY

How would we listen to The Dark Side of the Moon or Sgt Pepper’s Lonely Hearts Club Band had these albums been released today? Much like how video was believed to have killed the radio star when the MTV era began in 1980s, the age of music streaming is said to have killed off the very idea of the album that takes the listener on a thematic, sonic or narrative journey. If this sounds too esoteric an issue to be bothered about, consider a recent Twitter exchange on the subject of the shuffle feature and what it says about our attention-deficient times. British singer-songwriter Adele, who recently released her fourth studio album 30, responded to news about Spotify removing the shuffle button as the default option on albums, by thanking the music streaming giant for “listening”. She tweeted: “We don’t create albums with so much care and thought into our track listing for no reason. Our art tells a story and our stories should be listened to as we intended.” Whether or not Spotify made this move at Adele’s explicit request — the company responded to her tweet with, “only for you” — is besides the point. What this exchange highlights is that, despite having every kind of music, from all over the world, at our literal fingertips, we’ve forgotten how to really listen to — and engage with — music. What we do instead is skip from



song to song, seeking the dopamine hit that comes with every fresh track. The fact that Spotify counts 30 seconds of playtime of every song as a single stream is itself a damning indicator of our flighty listening habits. Requiems for the music album — one of the 20th century's greatest art concepts — had begun to be written back in the early aughts when the iPod, with a shuffle feature that prioritised singles over albums, upended the industry. With Adele's pushback and Spotify's acquiescence, here's hoping that those requiems would not need to be played anytime soon.



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