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28th August to 3rd September 2022



DreamIAS



INTERNATIONAL

GORBACHEV SAW THE IMPERATIVE OF ALL-ROUND CHANGE IN THE SOVIET UNION. MANY OF HIS TRIUMPHS TURNED OUT TO BE EPHEMERAL

Widely seen in Russia as the man responsible for the collapse of the Soviet Union, Mikhail Gorbachev is hailed in the West as the leader who helped end the Cold War in Europe and nudged Russia towards political liberalisation. Many on the left in the “global South” blame him for facilitating US triumph in the Cold War and creating a global imbalance in favour of the West. Gorbachev’s record is a lot more complicated than the extreme perceptions of his brief tenure as the last General Secretary of the Communist Party of the Soviet Union during 1985-91. Whichever way one assesses the leader, who died Tuesday at 91, there is no denying his role as a world historical figure who altered post-War international politics.

To be sure, Gorbachev did not set out to dismantle the Soviet Union. That was an unintended consequence of his effort to reform the struggling Russian economy (perestroika), inject a measure of openness to its closed society (glasnost), end the arms race with the US, build cooperative relations with Europe, and pull back from military adventurism in Afghanistan and the developing world. As a young member of the CPSU Politburo taking charge of a society mired in multiple crises, Gorbachev believed that rejuvenating the Soviet Union was his patriotic task. But he could not control the forces he unleashed. This, in turn, led to the collapse of the communist system that was founded by the 1917 Russian Revolution. During the seven decades that it lasted, the Soviet Union had a powerful impact on world affairs — playing a critical role in defeating fascism in Europe, constructing the post-War order in Europe, and inspiring communist movements around the world. Gorbachev, who was a bright child of the CPSU, saw from within how rotten the system had become by the early 1980s. If Gorbachev was right in seeing the imperative of all-round change in the Soviet Union, he also ended up as a tragic figure who presided over its rapid dissolution.

Meanwhile, three decades after the collapse of the Soviet Union, many of Gorbachev’s presumed triumphs have turned out to be ephemeral. After a brief flowering of liberalism, hopes for democracy in Russia have withered away. The peace that Gorbachev constructed in Europe has gone up in flames as Russia invaded Ukraine in February. If Gorbachev hoped for constructive relations with the West, President Vladimir Putin is now locked in a serious confrontation with Europe and the US. In India, both the communists and Delhi’s foreign policy establishment deeply mourned the collapse of the Soviet Union and the disappearance of a familiar political, economic, and ideological world. In retrospect, though, the collapse of the Soviet Union compelled India to reform its own economy, reorient its foreign policy and elevate its global standing. Although the Russian romance endures in the Indian strategic community, Moscow’s strategic salience for Delhi has been in continuous decline since 1991. Russia’s new geopolitics of aligning with China and confronting the West is only likely to accelerate that decline.

IAEA TEAM HEADS TO ZAPORIZHZHIA PLANT

A team from the UN nuclear watchdog headed on Monday to Ukraine’s Zaporizhzhia nuclear plant, the agency’s chief said, as Russia and Ukraine traded accusations of shelling in its vicinity, fuelling fears of a radiation disaster.



Captured by Russian troops in March but run by Ukrainian staff, Zaporizhzhia has been a hotspot in a conflict that has settled into a war of attrition fought mainly in Ukraine's east and south six months after Russia launched its invasion.

"We must protect the safety and security of Ukraine's and Europe's biggest nuclear facility," Rafael Grossi, director-general of the International Atomic Energy Agency (IAEA), said in a post on Twitter. A team of IAEA inspectors he is leading will reach the plant on the Dnipro river near frontlines in southern Ukraine this week, Mr. Grossi said, without specifying the day of their arrival.

The IAEA tweeted separately that the mission would assess physical damage, evaluate the conditions in which staff are working at the plant and "determine functionality of safety & security systems". It would also "perform urgent safeguards activities", a reference to keeping track of nuclear material.

A top Russian diplomat said Moscow welcomes the IAEA mission, and a Moscow-installed official in Russian-occupied Ukraine said authorities would ensure the safety of the UN nuclear inspectors, Russian news agencies reported. The UN and Ukraine have called for a withdrawal of military equipment and personnel from the nuclear complex, Europe's largest, to ensure it is not a target. The two sides have for days exchanged accusations of courting disaster with their attacks.

Fears of nuclear accident

With fears mounting of a nuclear accident in a country still haunted by the 1986 Chornobyl disaster, Zaporizhzhia authorities are handing out iodine tablets and teaching residents how to use them in case of a radiation leak.

Russian forces fired at Enerhodar, the Dnipro riverside town where the plant is located, the chief of staff of Ukrainian President Volodymyr Zelensky, said on Sunday on Telegram channel alongside a video of firefighters dousing burning cars.

THE NPT IS BEGINNING TO LOOK SHAKY

The Tenth Review Conference of the Parties to the Treaty on the Non-Proliferation of Nuclear Weapons (NPT) concluded last week in New York. Marking 52 years of a treaty that every speaker described as the 'cornerstone of the global nuclear order' — it was originally planned for its 50th year for 2020, but the conference was delayed due to COVID-19 — it should have been a celebratory occasion, yet, the mood was sombre. And after four weeks of debate and discussion, the delegates failed to agree on a final document.

NPT's success and weakness

To manage the disappointment, some staunch believers claimed that the success should not be defined in terms of a consensus outcome! It is true that since 1970, when the NPT entered into force, only four of the 10 review conferences (in 1980, 1990, 2000 and 2010) have concluded with a consensus document, the review years were: 1975, 1980, 1985, 1990, 1995, 2000, 2005, 2010, 2015, 2022. Ironically, even the critical 1995 Review Conference that decided to extend the NPT into perpetuity, broke down weeks later over the review process.

However, there was one key difference in 2022. In the past, the divergences were over Iran, Israel, West Asia or between the nuclear haves and nuclear have-nots. The three depositary states (the



United States, the United Kingdom and the U.S.S.R./Russia) were always on the same page. The difference in 2022 was that it pitched Russia against the West; it was the inability to find language to address the nuclear safety crisis at the Zaporizhzhia nuclear power plant in Ukraine, under Russian occupation since March, that ultimately led to the failure.

The NPT was negotiated during the 1960s to reconcile three competing objectives — controlling the further spread of nuclear weapons beyond the P-5 countries (the U.S., the U.S.S.R., the U.K, France and China) that had already tested; committing to negotiating reductions of nuclear arsenals leading to their elimination; and sharing benefits of peaceful applications of nuclear science and technology. The first was strongly supported by the nuclear-haves; the latter two were demands made by the nuclear have-nots.

Over the years, the non-proliferation objective has been achieved in large measure. Despite apprehensions that by the 1980s, there would be close to 25 nuclear powers, in the last 50 years, only four more countries have gone on to test and develop nuclear arsenals — India, Israel, North Korea and Pakistan (South Africa developed nuclear weapons but the apartheid regime destroyed them and joined NPT in 1991 before relinquishing power to majority rule). After the end of the Cold War and the break-up of the U.S.S.R. in 1991, non-proliferation remained a shared priority for the major powers and the International Atomic Energy Agency, set up originally to promote international co-operation became better known as the non-proliferation watchdog.

Progress on the other two aspects took a back seat; no meaningful discussions or negotiations on nuclear disarmament have ever taken place in the NPT framework. In fact, in the early 1980s, there was a growth in nuclear arsenals. Arms control talks between the U.S. and the U.S.S.R./Russia did take place and the two countries did succeed in bringing down their collective arsenals from a high of nearly 65,000 in the early 1980s to less than 12,000 warheads. But this process too has ground to a halt.

The first signal was the U.S. withdrawal from the 1972 Anti-Ballistic Missile (ABM) Treaty in 2002 on the grounds that it unduly constrained its missile defence activities. Limits imposed by the ABM Treaty had been a critical element in creating mutual vulnerability as a means of underwriting deterrence stability. It was a unipolar world with the U.S. as the dominant power. Russia gradually responded by embarking on its nuclear modernisation.

In 2019, the U.S. notified Russia of its decision to quit the 1987 Intermediate Range Nuclear Forces (INF) Treaty that had obliged both countries to get rid of all ground-launched missiles with a range of 500-5,500 km. The U.S. blamed Russia for cheating on its obligations and pointed out that China's missile developments created new security threats that needed to be addressed. The U.S. was now facing two strategic rivals.

The only surviving arms control treaty between Russia and the U.S. is the New START Treaty that imposes a ceiling on operational strategic nuclear weapons of 700 launchers and 1,550 warheads each. It expires in 2026 and there are no signs of any follow-on discussions.

Attempts by the Donald Trump administration to invite China to join in the arms control process were rejected. Given growing tensions in the Taiwan Strait, any prospects for such talks have only receded.

All that the five nuclear-weapon-states party to the NPT could manage at the conference was a reiteration of the 1985 Reagan-Gorbachev declaration that 'a nuclear war cannot be won and must never be fought'. The statement remains valid but clearly sounded hollow in the face of growing



strategic rivalry between China, Russia and the U.S., rising nuclear rhetoric, and modernisation plans for nuclear arsenals being pursued.

Nuclear modernisation

While the Joe Biden administration's Nuclear Posture Review is awaited, the U.S.'s 30-year nuclear modernisation programme, intended to provide 'credible deterrence against regional aggression' is already underway. This has been used to justify developing and deploying more usable low-yield nuclear weapons.

Russia (and China too) is developing hypersonic delivery systems that evade missile defences as well as larger missiles that do not need to travel over the Arctic. Also on the cards are nuclear torpedoes and new cruise missiles. Last year, satellite imagery over China revealed that at least three new missile storage sites are being developed. Analysts suggest that China may be on track to expand its arsenal from current levels of approximately 350 warheads to over 1,000 by 2030. Such a dramatic expansion raises questions about whether this marks a shift in the Chinese nuclear doctrine that has relied on a credible minimum deterrent and a no-first-use policy for the last six decades.

Developments in space and cyber domains are blurring the line between conventional and nuclear weapons, leading to nuclear entanglement and rendering command and control systems vulnerable. This, in turn, compresses decision-making time and creates incentives for early use, raising nuclear risk.

At the conference, France, the U.K. and the U.S. wanted to draw a distinction between "irresponsible" nuclear threats of an offensive nature and "responsible" nuclear threats for defensive purposes but Russia (and China) stymied western efforts. When the nuclear have-nots suggested a universal condemnation of all threats of nuclear use, all five nuclear-haves joined together to resist such moves. This reflects an emerging divide.

Other treaties, their state

Frustrated by the absence of progress on nuclear disarmament, the nuclear have-nots successfully negotiated a Treaty on the Prohibition of Nuclear Weapons (TPNW, also called Ban Treaty) in 2017 that entered into force in January 2021. All 86 signatories are nuclear have-nots and parties to the NPT. The TPNW creates a new legal instrument and at their meeting in June in Vienna, the TPNW states committed to pushing for 'stigmatising and de-legitimising' nuclear weapons, condemning all nuclear threats and 'building a robust global peremptory norm against them'. Expectedly, the nuclear-haves and their allies ignored the Vienna meeting but will find it increasingly difficult to overlook this political reality as more and more NPT colleagues call their bluff.

The Comprehensive Test Ban Treaty (CTBT) was concluded in 1996 but has yet to formally enter into force because two major powers, the U.S. and China, have yet to ratify it. While it is true that they do observe a moratorium on nuclear testing, modernisation plans could soon run up against the CTBT.

Nobody wants a breakdown of the NPT but sustaining it requires facing up to today's political realities. The rivalries in a multipolar nuclear world create new challenges, different from what the world faced in a bipolar era of the 1960s when the NPT was concluded. Without addressing



the new challenges, the NPT will weaken and with it, the taboo against nuclear weapons that has held since 1945.

U.S. WARSHIPS SAIL THROUGH TAIWAN STRAIT

Two U.S. Navy warships sailed through international waters in the Taiwan Strait on Sunday, the first such operation since a visit to Taiwan by U.S. House Speaker Nancy Pelosi enraged China which regards the island as its territory.

The U.S. Navy said cruisers USS Chancellorsville and USS Antietam were carrying out the ongoing operation. Such operations usually take eight to 12 hours to complete and are closely monitored by China's military.

In recent years U.S. warships, and on occasion those from allied nations such as Britain and Canada, have routinely sailed through the strait, drawing the ire of China which claims Taiwan against the objections of its democratically elected government.

Ms. Pelosi's Taiwan trip in early August infuriated China which saw it as a U.S. attempt to interfere in its internal affairs. China subsequently launched military drills near the island which have since continued. "These (U.S.) ships transited through a corridor in the strait that is beyond the territorial sea of any coastal state," the U.S. Navy said.

U.S. commitments

The operation demonstrates the United States' commitment to a free and open Indo-Pacific, and the U.S. military flies, sails and operates anywhere international law allows, the Navy said.

The narrow Taiwan Strait has been a frequent source of military tension since the defeated Republic of China government fled to Taiwan in 1949 after losing a civil war with the communists, who established the People's Republic of China.

Ms. Pelosi's visit to Taiwan was followed around a week later by a group of five other U.S. lawmakers, with China's military responding by carrying out more exercises near the island.

The administration of U.S. President Joe Biden has sought to keep tension between Washington and Beijing from boiling over into conflict, reiterating that congressional trips are routine.

The United States has no formal diplomatic relations with Taiwan but is bound by law to provide the island with the means to defend itself. China has never ruled out using force to bring Taiwan under its control. Taiwan says the People's Republic of China has never ruled the island and so has no claim to it, and that only Taiwan's 23 million people can decide their future.

UN ACCUSES CHINA OF UIGHUR RIGHTS ABUSES

The UN accused China of serious human rights violations that may amount to "crimes against humanity" in a report examining a crackdown on Uighurs and other ethnic groups. Beijing on Thursday denounced the assessment as a fabrication cooked up by Western nations.

Human rights groups have accused China of sweeping a million or more people from the minority groups into detention camps, where many have said they were tortured, sexually assaulted, and forced to abandon their language and religion. The camps were just one part of what the rights organisations have called a ruthless campaign against extremism in the far western province of



Xinjiang that also included draconian birth control policies and restrictions on people's movement.

The assessment from the Geneva-based UN Human Rights Council (HRC) largely corroborated earlier reporting by researchers, advocacy groups and the news media, and it added the weight of the world body to the conclusions. Still, among Uighurs who have fled overseas, there was a palpable sense of relief that the report had finally seen the light of day.

Report welcomed

Human rights groups, Japan and Germany quickly welcomed the report.

The assessment concluded that China has committed serious human rights violations under its anti-terrorism and anti-extremism policies and calls for "urgent attention" from the UN, the world community and China itself to address them.

Human rights groups renewed calls for the UN rights body, which meets next month, to set up an independent body to investigate the allegations. But China showed no sign of backing off its denials.

"The assessment is a patchwork of false information that serves as political tools for the U.S. and other Western countries to strategically use Xinjiang to contain China," Foreign Ministry spokesperson Wang Wenbin said. "It again shows that the UN Human Rights Office has been reduced to an enforcer and accomplice of the U.S. and other Western nations."

In a sign of China's fury, it issued a 122-page rebuttal, entitled "Fight against Terrorism and Extremism in Xinjiang: Truth and Facts," that was posted by the UN along with the report.

PORTUGUESE HEALTH MINISTER STEPPING DOWN AFTER DEATH OF AN INDIAN TOURIST IS A MOMENT TO PAUSE ON

On Tuesday, the Portuguese government announced that the country's health minister, Marta Temido, had resigned because she realised that she "no longer had the conditions" to remain in office. Temido was acknowledging responsibility for the death of a pregnant Indian tourist who did not receive proper hospital care. The 34-year-old woman reportedly suffered a cardiac arrest while being transferred between Lisbon hospitals on August 27. The death has sparked social media outrage over the Portuguese health ministry's decision to close emergency obstetric services in several hospitals during weekends. Temido, a Phd in Public Health and a hospital management expert, had been under fire because the weekend off-day policy was forcing women to make risky trips to healthcare facilities situated far from their homes. Critics blamed the problems on the government's failure to plan for the staff shortage during the summer vacation period. Matters have evidently come to a head after the death of the Indian tourist.

Of course, the minister's response to the tragic incident will not fix the doctor shortage problem. But by choosing not to ride out the crisis, Temido has directed attention to a principle that seems to have, more and more, slipped out of the lexicon of those holding high office — accountability. Even before the Covid pandemic, ministers and heads of government in several parts of the world — including India — have presided over catastrophic health system failures, illness and deaths, including of children. And they have mostly managed to keep their jobs, often by offloading blame onto minor officials of their departments. The only appraisal that seems to matter for those holding high office seems to be their fate at the electoral hustings. Nor is this malaise, as the



pandemic has brought into sharper focus, confined to the Third World. It took the resignation of several of his colleagues for UK Prime Minister Boris Johnson to finally give up his prolonged attempts to cling to power amid accusations that his government had not been responsive and responsible in the midst of a public health emergency.

In a Europe that seems to be closing in on itself and turning inward-looking — despite people from outside the continent making it to high offices — the public outcry over the Indian tourist and the health minister's response to the tragedy is notable for another reason: An “outsider” is, or tragically was, at the centre of the story.

THE NEW FACETS OF TERRORISM

Two recent acts of terror in Russia and the U.S. carry ominous signs for India. The first one was the attempt to murder Salman Rushdie, the famous author of the controversial 'The Satanic Verses', at an event in Upstate New York. He had been under constant police protection for years after Iran's Ayatollah Ruhollah Khomeini issued a fatwa, a veritable death warrant, against him in 1989. So much time had lapsed since that threat that security services relaxed their vigil, and then, a previously unknown terrorist got to him for words he had written 34 years ago.

Mr. Rushdie is recovering but it is alarming that fanatics have such long memories. Terrorists driven by religious fanaticism are daring, suicidal and vengeful individuals and their fanaticism has no expiry date.

A second incident took place in Moscow on August 20 when the 29-year-old Darya Dugina, a nationalist and outspoken daughter of a conservative ideologue of Russia, Alexander Dugin — who is a supporter of Vladimir Putin's invasion of Ukraine — died in a car bomb explosion. Russian State security services have already released details of a suspect, a woman, who they claim had arrived from Ukraine, rented an apartment and escaped into Europe through Estonia. Immediately after the attack, the Ukrainian government called the claim a “fiction.” There is reference to a Ukrainian website which is termed as a “hit list” by Russian State security officials in which several pro-Putin journalists' and writers' home addresses and personal data are listed. Darya Dugina was on that list, and her name was crossed out as ‘eliminated’, moments after the explosion.

These two incidents involve prominent personalities and should worry the U.S. Federal Bureau of Investigation (FBI). The attack on Mr. Rushdie was the handiwork of a 24-year-old “sleeper”, an unregistered offender who was not on the FBI records as a terror suspect. The FBI should be hugely worried because of the considerable time interval between the fatwa issued by Iran's religious leader and its execution.

The high value targets

An enormous investment has been made by the U.K. and the U.S. in protection of high value targets such as Mr. Rushdie. The question is whether the American security establishment has slipped into complacency or whether it is simply impossible to protect a target because terrorists can melt away and integrate in the maze of ethnicities of the United States and emerge only to kill.

The U.S. has seen erosion of several human rights and privacy in an attempt to identify fanatic “needles in a haystack” that pose a terror threat. The U.S. agencies sift through volumes of personal data of citizens and people around the world and deploy tools such as Artificial Intelligence (AI) to identify terrorists or their sympathisers.



Similarly, the Moscow incident puts a question mark on the efficacy of Russian intelligence and the law enforcement agencies. The incident involving Daria Dugina is either due to Russian overconfidence or helplessness in keeping track of all threats, or both.

Spying democracies

What these two attacks tell us when it comes to terrorism is that there is no difference between the rigours of a security apparatus in a democracy and in a heavy-handed security state. Democracies and autocracies are known to use the same tools of spying on citizens, listening to conversations, sifting through petabytes of online data using AI to find patterns or abnormalities that might lead to someone who might be part of a terrorist organisation. The recent attacks on prominent public figures make a mockery of all security drills and knowledge that has been accumulated by security agencies over the years.

Against this background comes the disconcerting report from Russia that a suspect has been apprehended there, who is alleged to have been preparing to enter India and harm an unnamed dignitary. The individual is said to owe his allegiance to an Islamic terror group. It may be invidious to name names but the contours are clear. Even in the chaotic and rumbunctious democracy of India, leaders of all hues must therefore be mindful of their words, lest they become terror targets.

Infiltration of security agencies by terror groups has always been a nightmare to governments across the globe. In the last decade, technology, software and tools for eavesdropping on all kinds of communication are deployed to tackle infiltration. But it is obvious they offer no guarantee of pre-emption and early detection. Only alert vigilance in physically defending critical infrastructure, buttressed by international collaboration can keep the determined terrorist at bay.

NAJIB RAZAK AND THE 1MDB SCANDAL

The story so far: On August 23, Malaysia's top court upheld the conviction and 12-year prison sentence awarded to former Prime Minister Najib Razak in the multi-billion-dollar graft scandal linked to the looting of funds from 1Malaysia Development Berhad (1MDB). Najib lost his final appeal in the case and had to immediately begin serving the sentence. Najib Razak served as the Prime Minister of Malaysia from 2009 to 2018.

What is 1MDB?

Now insolvent, 1MDB was a state-owned company co-founded by Najib in 2009 purported to promote development. During its initial years, 1MDB signed ventures with companies like PetroSaudi and was also funded by investment company Goldman Sachs in deals worth billions of dollars. In 2015, The Wall Street Journal reported that millions of dollars from 1MDB accounts were transferred to Najib's personal accounts, bringing global attention to money laundering through the state-owned 1MDB fund. Investigations related to the allegations were launched internationally, in countries like the U.S., Singapore, Hong Kong, Switzerland and Abu Dhabi. Najib denied all allegations of wrongdoing.

How was the scam unearthed?

Xavier Justo, a former employee of Petro Saudi, became the unlikely whistleblower of the 1MDB scandal when he handed around 2,27,000 company emails in the beginning of 2015 to Malaysian publication The Edge and investigative journalist Clare Rewcastle Brown. In February 2015, The Edge reported that 1MDB was over RM30 billion (more than \$10 billion) in debt, which was

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



unusual for a five-year-old state fund. Following the allegations, Malaysia formed a special task force that included officials from central bank, police, anti-grant agency and the attorney general's chambers. It was after this that the Wall Street Journal made its revelations, following which , international investigations related to the scandal were launched.

In an attempt to stifle dissent against the corruption allegations, Najib reshuffled the Malaysian cabinet, sacked his deputy, and replaced the attorney general. In January 2016, the new attorney general cleared him of all charges, saying that the almost-\$700 million that he received in his personal account were a donation from the Saudi royal family. His relief, however, was short lived. An investigation by Swiss authorities into the indebted Malaysian state investment fund indicated that \$4 billion may have been misappropriated from state-owned companies of Malaysia. In July 2016, the U.S. Department of Justice filed a civil suit to recover "more than \$1 billion in assets associated with an international conspiracy to launder funds misappropriated from a Malaysian sovereign wealth fund".

How was the conviction reached?

Following months of public unrest caused by the scam, 92-year-old Mahathir Mohamad secured a historic victory in Malaysia's general elections against Najib in May 2018. He reopened the investigation into the 1MDB fund. A few days later, the Malaysian Police raided the former Prime Minister's house and recovered jewellery and luxury goods worth millions of dollars

Najib was then charged with multiple counts of criminal breach of trust and one count of using his position for gratification as part of a probe into missing money from state fund 1MDB in July 2018, and was arrested. He then went on trial in 2019 and pleaded not guilty to all charges against him.

In 2020, the former Prime Minister was found guilty of abuse of power, criminal breach of trust and money laundering, for illegally receiving \$9.4 million from SRC International, a former unit of 1MDB. He was sentenced to serve up to 12 years in prison by a high court. The investigators alleged that at least \$4.5 billion was stolen from the fund and laundered by Najib's associates. Meanwhile, Goldman Sachs agreed to pay around \$3 billion to end a probe of its role in the scam in October 2020. The banking company also admitted in a court in the U.S. that it had paid over a billion dollars in bribes to raise money for the 1MDB fund, the BBC reported.

In April 2021, Malaysia's Court of Appeal began hearing a bid by Najib to set aside his conviction on corruption charges. On December 8, 2021, the Court of Appeal upheld his conviction. The latest ruling in the case was delivered by Malaysia's Federal Court, the country's top court. Chief Justice Tengku Maimun Tuan Mat chaired a Federal Court panel of five judges that delivered the verdict.

Can he escape jail time?

Najib can still apply for a review of the decision by the top court which will be looked at by a new panel of judges. However, it is very rare for review applications of convictions and sentences to be successful, a lawyer told Free Malaysia Today. He can also apply for a royal pardon, which is mentioned in the country's Federal Constitution under Article 42(1). As per the Constitution, the King of Malaysia, can grant pardons for all offences committed in Kuala Lumpur and Labuan. Royal pardons are, however, only granted for criminal cases, while Najib also faces bankruptcy cases, Reuters said.



NATION

FLOODS AND FOES

Prime Minister Narendra Modi's message, in a tweet on Monday evening, expressing condolences to the victims of the flooding in Pakistan, is a welcome gesture, especially after weeks of silence over what has been one of the worst natural disasters in the neighbourhood in recent times. More than 1,100 people have died, and over 33 million people have been affected, as officials say one-third of the country is under water, and estimate about \$10 billion in damage to homes, roads and infrastructure. The floods have also affected standing crops, and as the waters recede, fears of disease as well as food shortages are expected to rise. In addition, the worry that the devastating floods have been caused due to climate change is a worry for all of South Asia, one of the world's regions most vulnerable to global warming. On Tuesday, UN Secretary General Antonio Guterres launched a global appeal for aid to Pakistan, that he said had been hit by a "monsoon on steroids", indicating unnatural climate patterns. Countries such as the U.K., the U.S., China, the UAE, Qatar and Turkey have already dispatched aid to Pakistan, and many others have promised help, while the IMF announced a \$1.1 billion bailout tranche on Tuesday, as part of ongoing negotiations with the country that is already steeped in an economic crisis. Given that the crisis will only deepen at this point, Pakistan Finance Minister Miftah Ismail also said on Monday that he may propose lifting the trade ban imposed on India after the Jammu-Kashmir reorganisation in 2019, so as to import Indian vegetables and essential commodities. Thus far, Islamabad has only made exceptions for pharmaceutical imports from India during the COVID-19 pandemic, and India's humanitarian aid to Afghanistan.

Despite the poor state of India-Pakistan ties, both New Delhi and Islamabad must put aside their domestic considerations, and seize the moment to help those stranded in the flooding as best they can. India cannot pride itself as being the "first responder" in the neighbourhood — as it has been for Nepal, Sri Lanka, the Maldives and Afghanistan — if it fails to see the suffering right at its land boundary with Pakistan. It would be churlish and short-sighted of Pakistan to reject an opportunity to lift the trade ban with India that has only hurt its own interests, and to give up a source of affordable supplies at a time of such calamity. And it would be both tragic and ridiculous if the enmity between the two countries would not allow them to work together at a time such as this, even as their governments allow their cricket teams to play each other for financial considerations. Significantly, Prime Minister Narendra Modi and Pakistan Prime Minister Shehbaz Sharif are due to travel to Uzbekistan in September for the SCO summit. While a more lasting dialogue, that has been suspended between the two countries for nearly a decade over the terrorism issue, is unlikely, the leaders must find the time to discuss ways to mitigate the catastrophe at hand.

ROCKING THE SHIP

The war of words between the Chinese Ambassador and the Indian High Commission in Colombo over the Yuan Wang episode shows the India-China relationship in unseemly light in a third country. It puts host Sri Lanka, already in a tough place, in a corner over its relations with both countries. Significantly, the Chinese envoy appeared to frame India-China tensions as part of the wider geopolitical rivalry between the US and China in the Indo-Pacific. Delhi's approach so far has been to delink its difficult relationship with Beijing from its relations with the US, and with other Quad members. This has helped prevent India's border issue with China from getting entangled in a big power race for supremacy. And to keep the responsibility for resolving the issue



within the bilateral relationship. This is why Delhi has appeared more restrained than many western countries in pronouncements on China. External Affairs minister S Jaishankar said the other day that India-China relations are going through an “extremely difficult phase”. In recent statements on the Taiwan issue, India expressed concern and neutrally urged “restraint, avoidance of unilateral actions to change status quo, de-escalation of tensions and efforts to maintain peace and stability in the region.”

It is surprising that after China’s emphatic assertion that the ship had no military purpose, Chinese envoy Qi Zhenhong, who set off the spat with an article in a Sri Lanka publication, should draw a parallel between the visit of US House Speaker Nancy Pelosi to Taiwan and the Yuan Wang in Hambantota port. His assertion that China and Sri Lanka “jointly safeguard each other’s sovereignty, independence, and territorial integrity” (Colombo had made a statement during the Taiwan crisis reiterating its support for the one-China policy) and that Sri Lanka had faced “aggression” from its “northern neighbour”, are clearly attempts at escalating the row. The Indian High Commission, in turn, accused the Chinese envoy of violating diplomatic etiquette, “which may be a personal trait or reflective of a national attitude”, and said the Chinese ambassador had “given the game away” by giving a geopolitical colour to the ship’s visit. It also used the word “militarisation” for the first time with reference to China’s response to the Pelosi visit.

India need not have risen to the bait. But if what the Chinese envoy says is correct, it shows Beijing in poor diplomatic light for trying to widen its tensions with the US by pulling into it a country struggling to survive its economic collapse. It seems that his intention was also to derail India-Sri Lanka ties. Colombo needs help with money at the moment, not a geopolitical crisis on its territory. China has not yet said how it intends to help Sri Lanka restructure its debt, despite a formal request from Colombo. If Beijing is really a steadfast friend of Sri Lanka, the Sri Lankan people and the world would like it to show more purpose on this front instead of stirring the geopolitical pot.

CHINESE TROOPS STOP GRAZERS IN LADAKH

Indian graziers were stopped by the Chinese Army at Demchok in Ladakh on August 21, a senior government official said.

According to the official, the People’s Liberation Army (PLA) objected to the presence of graziers within India’s perception of the Line of Actual Control (LAC) near Saddle Pass at CNN junction in Demchok. The incident was followed by a couple of meetings between the commanders of the Indian Army and the Chinese PLA to resolve the issue. The graziers have been frequenting the area and there was a minor scuffle in 2019 also, said the official.

“This time when the graziers went with the livestock, the Chinese objected that this was their territory,” the official said. A defence source said there was no face-off between the two Armies. “It was a routine interaction between local commanders on the ground level to resolve issues at the local level to prevent escalation and maintain peace and tranquillity on the LAC,” the source said.

Another official added that India and China have been engaged in eyeball-to-eyeball positions in the area since April 2020. Many areas in the sector have become “no patrolling zones” post-Galwan incident on June 15, 2020, when 20 Indian soldiers were killed in clashes with the Chinese PLA.



In 2018, China pitched tents metres away from the Charding Nilung Nallah in Demchok or the CNN junction.

Precarious position

Indian and Chinese troops are positioned in close proximity at multiple locations along the undefined LAC in Eastern Ladakh for more than two years. While several rounds of talks at the diplomatic and military level have eased the stand-off at a few points turning the areas into no-patrolling zones, there are others where the build-up continues.

India and China have held 16 rounds of meetings of Senior Commanders so far. Both sides failed to achieve a breakthrough for disengagement at Patrolling Point 15 in the Hot Springs area. With disengagement completed on the north and south bank of Pangong Tso, a phased disengagement is yet to take place in other friction areas in Eastern Ladakh, including Depsang and Demchok sectors.

In 2016, there was a standoff between Indian and Chinese troops in the Demchok area as PLA objected to the construction of an irrigation canal under the Mahatma Gandhi National Rural Employment Guarantee Act (MNREGA) scheme.

Reacting to the report, first published in the The Hindu, Mallikarjun Kharge, Leader of the Opposition in the Rajya Sabha, said in a tweet that the Government of India is in complete denial while "China challenges our territorial sovereignty". "The Modi government must recognise the Chinese challenge and our lands and rights are restored," Mr. Kharge said.

LIFETIME PERKS FOR FORMER CJIS, SC JUDGES

Farewell ceremonies for retired judges usually have the country's top law officers wish them on behalf of the government a "healthy and peaceful" retirement. Now the government seems bent on fulfilling the wish.

On Friday, the Centre amended the Supreme Court Judges Rules the second time in a week to provide chauffeurs and domestic help for retired Chief Justices of India and Supreme Court judges for their entire lifetime.

Retired CJIs would also get secretarial assistants. The staff would be paid the salary and allowances of regular employees of the Supreme Court.

The first series of amendments in the Rules on August 23 had allowed retired Chief Justices of India and Supreme Court judges chauffeurs, secretarial assistants and security cover only for a year. There was no mention of "domestic help", who would be an employee in the level of junior court assistant.

Security cover

But Friday's amendments are more generous. The benefit of 24-hour security cover has been extended to five years for retired Chief Justices and three years for retired judges of the Supreme Court. The judiciary had recently raised concerns about attacks on judges.

Besides, former CJIs and retired judges of the top court can get their monthly mobile phone and Internet bills reimbursed to the extent of ₹4,200. A retired CJI is also entitled to a rent-free Type VII accommodation, other than the designated official residence, in New Delhi for six months



immediately after retirement. The amended Rules mandate that retired Chief Justices and judges be extended courtesies as per protocol at ceremonial lounges of airports. The notification issued by the Law Ministry however said these post-retirement benefits would be available only if the retirees were not getting similar facilities from any High Court or government body.

The government is one of the biggest litigants in the Supreme Court. There has been public debate on whether post-retirement benefits dangled by the government could influence the judicial work of serving judges.

HOW DID THE BILKIS BANO CONVICTS WALK FREE?

The story so far: There has been widespread outrage over the premature release of 11 convicts in a case relating to the gangrape of Bilkis Bano and the murder of at least seven persons, including a three-year-old child, as part of the riots in Gujarat in 2002. The decision by the Gujarat government to grant remission of the remainder of their life imprisonment has come under criticism from lawyers, activists and political parties. It is now under challenge in the Supreme Court.

What happened to the woman and her family?

Bilkis Bano is a gang-rape survivor of the 2002 anti-Muslim pogrom in Gujarat. On March 3 that year, Bilkis, who was pregnant, was part of a group moving from one village to another for safety. Rioters brutally attacked them near a village called Pannivel, raped the women and killed many of them, including her three-year-old daughter. The incident left 14 people dead, according to the police, but only seven bodies were found. Neither the girl's body nor that of a two-day-old infant born to her cousin was found. The Supreme Court transferred the investigation to the CBI and the case to Mumbai to facilitate a free and fair trial. Eleven men were convicted by the trial court and sentenced to life. The Bombay High Court confirmed their life terms in 2017.

How did the 11 men walk out of prison?

Life imprisonment normally means convicts remain in jail for the whole of their life. However, they can be released by the State and Central governments at some point, but not before they complete 14 years, by remitting the remaining prison term. Ramesh Rupabhai, one of the convicts, approached the Bombay High Court in 2013 seeking that his release be considered. However, the court ruled that even though the trial took place in Mumbai, the appropriate government to consider remission was Gujarat. Radheshyam Shah, another accused, approached the Gujarat High Court seeking remission. However, the court ruled that as the trial took place in Maharashtra, the appropriate government would be Maharashtra. On his appeal to the Supreme Court, a two-judge Bench ruled on May 22 this year that Gujarat is the appropriate government to consider remission. Significantly, it also accepted the petitioner's claim that the remission should be under the 1992 policy that prevailed in Gujarat on the date of his conviction in 2008. Based on the Supreme Court's direction to consider their plea for remission, the Gujarat government ordered the release of all the 11 convicts, and they walked free on August 15 this year.

What are the rules for remission?

Judicial decisions advocate both subjective and objective norms for remission. Courts have ruled that remission should be informed, fair and reasonable, and not arbitrary; that it should not undermine the nature of the crime. In *Laxman Naskar vs Union of India* (2000), the Supreme Court laid down five considerations: whether the offence is an individual act of crime that does not affect



society; whether there is a chance of the crime being repeated in future; whether the convict has lost the potentiality to commit crime; whether any purpose is being served in keeping the convict in prison; and socio-economic conditions of the convict's family.

Was the remission given in this case legal?

The outcry over the remission granted in this case is largely due to the brutal and horrific nature of the crime. However, lawyers and activists have highlighted possible legal infirmities. For one, the remission has been granted by the Gujarat government without consulting the Centre. Under Section 435 of the Code of Criminal Procedure (CrPC), in a case investigated by the CBI, such consultation is mandatory prior to remission. The Supreme Court has also ruled that 'consultation' means 'concurrence' in this regard. Further, reports indicate that the committee that recommended remission contained some Bharatiya Janata Party (BJP) functionaries, including two MLAs. A remission panel usually consists of government officials, officers in charge of parole, rehabilitation and probation of offenders and prison officials. The opinion of the judge who conducted the trial or in charge of the district should be taken too.

In this case, the district judge is understood to have opposed the grant of remission. While the judge's opinion may not be binding, courts have cautioned against brushing aside the opinion without valid reasons. It may also be argued that the presence of political functionaries on the committee may have influenced the decision. The question whether Gujarat is indeed the appropriate government may also be raised again, even though the order by which the Supreme Court wanted their remission plea to be considered has already given its finding. Section 432(7) of the CrPC says the appropriate government will be "the State within which the offender is sentenced or the said order is passed". Commentators have pointed out that the current remission policy bars those found guilty of heinous crimes from being given remission. Their release under a 1992 policy (because it was the one prevailing during their conviction) may also be subjected to legal scrutiny.

RELIEF, REBUFF

In granting interim bail to activist Teesta Setalvad, the Supreme Court of India has dealt a firm rebuff to the Gujarat government, which stoutly opposed her release after showing great alacrity in arresting her for pursuing allegations that high functionaries were involved in the Gujarat pogrom of 2002. The order by a Bench headed by the Chief Justice of India, Justice U.U. Lalit, is limited in scope, as it will now be the Gujarat High Court that will decide on the grant of regular bail on merits. However, its real significance is that it is a strong pushback against a government that seems intent on keeping her behind bars for daring to assist victims of heinous communal violence in their efforts to seek justice. In an earlier judgment that endorsed the findings of the Special Investigation Team (SIT) that absolved Narendra Modi, the then Chief Minister, the Supreme Court virtually canvassed for the arrest and prosecution of Ms. Setalvad and former police officers, R.B. Sreekumar and Sanjiv Bhatt. The Court had accused her of "keeping the pot boiling" in a pejorative reference to the help she rendered to Zakia Jafri, among others, in seeking justice for the death of her husband Ehsan Jafri, a former MP, and many others in a mob attack on Gulbarg Society in Ahmedabad. In cases registered in response to the Supreme Court's orders, the three have been accused of being part of a conspiracy to forge documents and present false evidence in court to implicate political leaders.

The Supreme Court raised some sharp and pertinent questions to the State government represented by the Solicitor General of India during the arguments. A key consideration was the



unusually long postponement of the bail hearing before the Gujarat High Court, which had issued notice to the police returnable after nearly six weeks. While the Solicitor General raised a technical objection to Ms. Setalvad approaching the Supreme Court even while the High Court proceedings were on, the Bench was of the view that such a long adjournment may warrant interim bail until it is heard. Ultimately, the Bench has clarified that the High Court will take an independent view without being influenced by any of its observations. It also seems to have taken into account a provision in law that allows grant of bail on the ground that the accused is a woman. Noting that the documents allegedly forged and submitted in court pertained to a period prior to 2012 and considering that she has been in custody for over two months and had been interrogated in custody for seven days, the Bench rightly felt that granting interim relief would be quite in order. The relief given to Ms. Setalvad should be welcomed by those who value personal liberty as well as activism in support of the vulnerable.

CURING THE PATRIARCHAL MINDSET OF THE LEGAL SYSTEM

A sessions court in Kerala, while granting anticipatory bail recently to an author and social activist in the State in a case of alleged sexual harassment, observed that the offence under Section 354A of the Indian Penal Code ('Assault or criminal force to woman with intent to outrage her modesty') is not prima facie attracted when the de facto complainant was dressed in 'sexually provocative dresses'. (The Kerala High Court has since stayed the order of the sessions court). The sessions court had relied on photographs submitted with the bail application of the accused showing that the de facto complainant was wearing a dress that was 'sexually provocative' and hence, Section 354A would not be used against the accused. The observation was clearly an affront to a woman's constitutional right to dignity, life and personal liberty, and privacy.

The ratio decidendi proclaimed by the sessions court judge is a (patriarchal) Freudian slip. In psychoanalysis, a Freudian slip is defined as an error in speech, memory or action that occurs due to the interface of an unconscious subdued wish or internal train of thought. Terming a woman's dress as 'sexually provocative' is a result of the objectification of woman as an erotic quiddity. In this case, it is an unwitting sparking of a patriarchy that affected not only the individual judicial officer but also the entire socio-legal system.

The Supreme Court in *Aparna Bhat vs The State Of Madhya Pradesh* (2021) had held that "the use of reasoning/language which diminishes the offence and tends to trivialize the survivor [in gender violence cases] is especially to be avoided under all circumstances. Thus, the following conduct, actions or situations are deemed irrelevant, e.g. - to say that the survivor had in the past consented to such or similar acts or that she behaved promiscuously, or by her acts or clothing, provoked the alleged action of the accused, that she behaved in a manner unbecoming of chaste or 'Indian' women, or that she had called upon the situation by her behavior, etc. These instances are only illustrations of an attitude which should never enter judicial verdicts or orders or be considered relevant while making a judicial decision; they cannot be reasons for granting bail or other such relief." The controversial comment of the sessions court judge is a clear violation of the guideline given by the Supreme Court of India.

IS THERE CLARITY ON PEGASUS MALWARE REPORT?

The story so far: The Supreme Court on August 25 said that the panel that it had constituted to look into the Pegasus issue had found no conclusive evidence of the Israeli-origin spyware on the 29 phones it examined. The Court, which said it was studying the detailed report from the panel,



also noted that the Central government had continued its stance of not cooperating with the probe panel. Making oral comments, the outgoing Chief Justice of India (CJI) N.V. Ramana said, "Whatever stand you had taken here [Court], you took with them [court-appointed Pegasus technical committee]."

Why was the panel constituted?

The Supreme Court had constituted the panel on October 27 last year after several pleas came before it for a probe into allegations that Central agencies had used Pegasus to spy on politicians, journalists and others. The Centre had, at that time, refused to submit a detailed affidavit on the allegations, as sought by the court. The panel consists of a three-member technical committee supervised by retired Justice R.V. Raveendran. The members are Naveen Kumar Chaudhary of National Forensic Sciences University in Gandhinagar; Prabakaran P. of Amrita Vishwa Vidyapeetham in Kerala, and Ashwin Anil Gumaste of IIT-Bombay. The panel informed the court in an interim report in May this year that it had come up with its own protocols and software to test phones for Pegasus infection.

What do we know of the panel's report?

Justice Ramana, who was heading the three-judge Bench on the case, stated during the latest hearing that the Bench had read parts of the sealed report and would pursue a detailed reading soon. The panel had been working on two key aspects: first, the technical details of the probe into the allegations of Pegasus use; and second, the enhancement of the current laws surrounding digital surveillance, cyber security, and privacy rights. On the first aspect, as per the CJI's reading of the report, five of the 29 phones that were submitted for examination had shown signs of malware infection, but not necessarily Pegasus. The report itself has three parts: the technical details of the phone analysis, the report of the technical committee, and the report of the supervising judge. The Hindu has reported that Justice (retd) Raveendran has called for a special investigation agency for cyber attacks.

What is the Centre's stance?

The Centre had earlier refused the Supreme Court's order to submit a detailed affidavit regarding the use of Pegasus, arguing that such a public affidavit would compromise national security. The Centre had also wanted the panel probing the issue to be under it, which the apex court denied citing the possibility of bias. On August 25, the CJI noted that the panel had also mentioned in its report that there was no cooperation from the Centre on the probe.

How was Pegasus used in India?

Reports that appeared in July 2021 from the Pegasus Project, which includes The Wire in India, The Guardian in the U.K., and The Washington Post in the U.S., said that in India, at least 40 journalists, Cabinet Ministers, and holders of constitutional positions were possibly subjected to surveillance using Pegasus. The reports were based on a database of about 50,000 phone numbers accessed by the Paris-based non-profit Forbidden Stories and Amnesty International. These numbers were reportedly of interest to clients of the NSO Group (developer of the Pegasus software). According to The Guardian, Amnesty International's Security Lab tested 67 of the phones linked to the Indian numbers in the database and found that "23 were successfully infected and 14 showed signs of attempted penetration". Since Pegasus is graded as a cyberweapon and can only be sold to authorised government entities as per Israeli law, most reports have suggested that the governments in these countries are the clients. On January 28, The New York Times



published an article which claimed that Pegasus was part of a \$2-billion “package of sophisticated weapons and intelligence gear” transaction between India and Israel after Narendra Modi became the first Indian Prime Minister to visit Israel. The article claimed that it was after this deal that India changed its historically pro-Palestine stance and voted in Israel’s favour in 2019 at the U.N.’s Economic and Social Council to deny observer status to a Palestinian human rights organisation.

REVISITING THE S. SUBRAMANIAM BALAJI VS TAMIL NADU JUDGMENT

The story so far: On Friday, the Supreme Court referred to a three-judge Bench a series of petitions seeking a judicial direction that political parties who make “wild” promises of largesse should also reveal in their poll manifestos where they will get the money to pay for them. The reference is a shift from the court’s own stand in the S. Subramaniam Balaji vs Tamil Nadu judgment of 2013.

What happened?

In the Balaji case judgment, a Division Bench of the Supreme Court had held that making promises in election manifestos do not amount to a ‘corrupt practice’ under Section 123 of the Representation of People Act (RP).

However, the Supreme Court is now worried that freebies promised by political parties to win elections could bleed the public exchequer dry. The Court said that parties who form the government riding the wave created by their pre-poll promises of “free gifts” are bleeding the State finances dry by actually trying to fulfil their outlandish promises using public money.

The Supreme Court has therefore decided to revisit the Balaji verdict.

What triggered the Balaji case?

The course of events started in 2006, during the run-up to the Tamil Nadu Assembly elections. The Dravida Munnetra Kazhagam (DMK) released its election manifesto announcing a scheme of free distribution of colour television sets (CTVs) to “each and every household” which did not have one if the party was voted to power. The party justified that the TV would “provide recreation and general knowledge to household women, more particularly, those living in the rural areas”. The party swept to power in the polls and decided to implement its scheme and portioned off ₹750 crore from the budget for the project. The government finally distributed 30,000 TV sets across the State. In 2011, rival All India Anna Dravida Munnetra Kazhagam (AIADMK) and its alliance also announced its election manifesto with free gifts to “equalise” the gifts offered by the DMK. AIADMK promised grinders, mixies, electric fans, laptop computers, four gram gold thalis, a cheque of ₹50,000 for women’s marriage, green houses, 20 kg of rice to ration card holders (even to those above the poverty line) and free cattle and sheep. Mr. Balaji, a resident of Tamil Nadu, challenged the schemes introduced by the parties in the Madras High Court. He said the expenditure to be incurred by the State from the exchequer was “unauthorised, impermissible and ultra vires the constitutional mandates”. The High Court dismissed his case, following which he had moved the apex court.

How did the case play out?

Mr. Balaji, represented by senior advocate Arvind Datar, said the State cannot act in furtherance of “eccentric principles of socialistic philanthropy”. He argued that the promises of free distribution of non-essential commodities in an election manifesto amounts to electoral bribe under Section 123 of the RP Act. The Comptroller and Auditor General of India has a duty to



examine expenditures even before they are deployed. Money can be taken out of the Consolidated Fund of the State only for “public purposes”. The distribution of goods to certain sections of people was violative of Article 14 of the Constitution.

In response, the State of Tamil Nadu countered that promises of political parties do not constitute corrupt practice. Political parties are not the State and ‘freebies’ is a nebulous term which has no legal status. The promises implemented by the party after forming the government is an obligation under the Directives Principles of State Policy. The State is only doing its duty to promote the welfare of its people. The promises are implemented by framing various schemes/guidelines/eligibility criteria etc. as well as with the approval of the legislature. Thus, it cannot be construed as a waste of public money or be prohibited by any statute or scheme.

The court’s judgment held that promises by a political party cannot constitute a ‘corrupt practice’ on its part. It would be “misleading” to construe that all promises in the election manifesto would amount to corrupt practice. The manifesto of a political party is a statement of its policy. The question of implementing the manifesto arises only if the political party forms a government. It is the promise of a future government and not of an individual candidate. However, the court agreed that freebies create an “uneven playing field”. It had asked the Election Commission of India to consult political parties and issue guidelines on the election manifesto and make it a part of the Model Code of Conduct.

Why is the Court’s move to review the Balaji judgment significant?

In its order, the court foresees that “freebies may create a situation wherein the State government cannot provide basic amenities due to lack of funds and the State is pushed towards imminent bankruptcy”. The court said it wants a transparent debate before the three-judge Bench on whether an “enforceable” judicial order can stop political parties from promising and distributing ‘irrational freebies’. The case is unique as the Supreme Court is exploring whether judicial parameters can be set on a purely political act of promising freebies.

WHY HAS THE SUPREME COURT RELAXED THE BAN ON IRON ORE MINING IN KARNATAKA?

The story so far: On August 26, 2022, the Supreme Court raised the ceiling limit of iron ore mining for Ballari (from 28 MMT to 35 MMT), Chitradurga and Tumakuru districts (from 7 MMT to 15 MMT collectively) in Karnataka, saying that the conservation of ecology and environment must go hand in hand with the spirit of economic development. Earlier, on May 20, 2022, the apex court had relaxed the ban on sale outside the State and export of already excavated iron ore from mines in these three districts. Ten years after it clamped down on production and sale of iron ore in Karnataka, the Court has relaxed its own orders.

How did the illegal mining start?

Karnataka’s mining story is closely linked to the notorious Reddy brothers of Ballari. In 2002, Gali Janardhan Reddy incorporated the Obulapuram Mining Company (OMC) in Andhra Pradesh’s Anantapur district. Eight years later, in 2010, it was shut down by the Court, after a Central Bureau of Investigation (CBI) probe was initiated against Mr. Reddy in 2009 for illegal mining. The unprecedented illegal mining left in its wake a plunder of public wealth, massive losses to the exchequer, encroached forest land, a ravaged environment and large-scale health issues among the local population.



The two Lokayukta Reports of 2008 and 2011 exposed over 700 government officials in the mining scandal, including three Chief Ministers, laying bare the nexus between the political class and the mining and steel industries. After the Court-appointed Central Empowered Committee (CEC) report brought to light accounts of rampant violations, the apex court passed an order on September 23, 2011 to stop mining operations in Ballari. Furthermore, in 2012, the SC banned export of iron ore pellets from Karnataka with an aim to prevent environmental degradation. It fixed maximum permissible annual production limit at 35 MMT for A and B category mines.

What were the Court's directions?

Following the ban, the Court directed the Indian Council of Forestry Research and Education (ICFRE) to draw up a reclamation and rehabilitation plan to reverse the environmental damage caused by illegal mining.

A year later, in September 2012, the SC allowed 18 "category A" mines to resume operations. Subsequently, the ore was sold through e-auctions. In December 2017, the Court permitted increasing the cumulative ceiling cap to 35 MMT based on a CEC report.

Why has the issue resurfaced?

In May this year, The Federation of Indian Mineral Industries, Southern Chapter — which includes Vedanta Limited — had asked the SC to scrap e-auction norms in the export or sale of iron ore for mining lessees in the state.

The mining firms claimed that they were facing closure as steel plants and other related industries were not willing to purchase stocks in the e-auction or above the prevailing market price. This application by mining firms was supported by the Union ministries of Steel and Mines. The CEC also gave in, adding that the demand and supply and price of iron ore are best left to be determined by market forces.

As opposed to 2017, when Karnataka was in support of a gradual increase in the ceiling limit, the Basavaraj Bommai-led government has changed its stance and is now in favour of a complete removal of the ceiling limit. However, it has opposed lifting of the decade-old ban on iron ore export from the State.

What did the Supreme Court rule?

Through its two orders this year, the top Court ruled that it was necessary to create a level playing field for the mines situated in the three districts with those in the rest of the country.

Taking cognisance of the course correction by the government, it relaxed its 2011 order since the situation had now "changed for the better". However, the Court has reserved its judgment on the complete removal of ceiling limits on iron ore mining. 'The original petitioner, NGO Samaj Parivartan Samudaya led by activist S.R. Hiremath, has opposed any exports on the grounds that minerals are national assets that need to be preserved and only finished steel should be exported.

What are the implications?

India's efforts to clean up illegal mining and export of iron ore, left steel producers in the lurch after 2011. With closure of mines, steel mills faced raw material shortages forcing them to import, thereby opening up the country to business for iron ore giants from outside India.



India exports its low-grade ore mainly to China. Hence, resuming exports in Karnataka would lower supplies to the local market and benefit Chinese steelmakers, the Indian Steel Association has argued.

The restrictions on production and sale had also affected lakhs of mining dependants in Karnataka making their livelihood uncertain. The Court order may offer them some respite.

AS SUPERTech TOWERS CRASHED DOWN, A MASS OF PRIVATE TRAGEDIES BECAME A PUBLIC SPECTACLE

On August 28, almost a year after the Supreme Court ordered the demolition of the Supertech twin towers in Noida, the two structures came crashing down in a controlled explosion. There to witness the “once-in-a-lifetime event” were TV crews and cameras, breathlessly recounting the lawsuit that led to this day and describing the nuts and bolts of the demolition plan to bring down structures taller than the Qutub Minar. Aam spectators were there too, most having made the journey specially to watch the towers destroyed. In locations farther away, people watched live streams of a sight that, so far, they had only seen in big budget action movies.

No doubt there was something thrillingly cinematic about the demolition, as the towers came crashing down, Jenga-like, and sent a massive cloud of dust billowing out in every direction. And there was something of the movie hall audience in the crowd that had gathered to watch, which cheered and whooped. If there were questions — for example, about how the families that lost their homes felt about the televised demolition, or even if demolition was the only or best way out — they were swept away by the flood of tweets, posts and reels documenting the spectacle.

In a society where sight and sound is increasingly mediated through a 6-inch screen, there is something inevitable about the transformation of an experience — with all its joys and sorrows, and despite them — into spectacle. At the Supertech demolition site, it was easy to forget, perhaps, that the two towers were once the brick-and-mortar embodiment of many families’ dreams. Framed by TV and smartphone cameras, this mass of private tragedies became a 12-second public spectacle, to be consumed on a Sunday afternoon ahead of a busy week.

FLOGGING THE DEAD

Sometimes, only a thin line separates use of power from its misuse. Political calculations, not medical sense or public interest, went into the setting up of the inquiry commission probing the circumstances that led to the death of former Tamil Nadu Chief Minister Jayalalithaa in December 2016. In order to ease the process of re-integrating himself with the All India Anna Dravida Munnetra Kazhagam (AIADMK) after a period of isolation, former Chief Minister O. Panneerselvam laid a precondition for his coming back to the fold — a probe into Jayalalithaa’s death. The AIADMK’s Edappadi K. Palaniswami found it easy to acquiesce as the purported antagonist — V.K. Sasikala, Jayalalithaa’s aide — was a common enemy. Thus, the A. Arumughaswamy Commission of Inquiry (CoI) was constituted in September 2017. The first sign of trouble in this post mortem deconstruction was when Apollo Hospitals, where Jayalalithaa was treated until her death, claimed the CoI was seeking to fix criminal intent on the part of the hospital. The hospital approached the Madras High Court pleading that the CoI was not qualified to inquire into the correctness of treatment meted out, and went on to suggest, as it did to the CoI in 2018, that a medical board be constituted to assist the judge, but it was rejected. The Supreme Court stayed the proceedings before the CoI in April 2019. In 2021, the Supreme Court favoured the constitution of a medical panel from the All India Institute of Medical Sciences, to advise the

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



Col. This panel submitted its report earlier this month, agreeing with the hospital's submission that Jayalalithaa had suffered a matrix of diseases, for which she was given correct and appropriate treatment, and averred with the final diagnosis.

After umpteen extensions, the Col finally submitted its report on August 27. It has recommended that the government conduct an inquiry into the role of a few persons, including Sasikala, who did not depose in person before it. Interestingly, the man who was responsible for the Col, Mr. Panneerselvam too delayed his deposition until March this year, and remained largely non-committal even when he appeared. Evidently, the political advantage the commission provided for the AIADMK had ceased to be relevant. In the interregnum, the Dravida Munnetra Kazhagam has taken over the reins of the State. To now flog this issue beyond death would be sorely lacking in sagacity, and mark a new low in politicking. The government will do well to put this non-issue to rest once and for all. No political mileage can be squeezed from this report by anyone.

FURORE OVER LOK AYUKTA

The Kerala Lok Ayukta (Amendment) Bill, 2022, has raised the political temperature in the State.

It has brought up a swirl of issues to the fore of the public debate, including the Opposition's allegation that the proposed law aspired to accord the executive appellate authority over damning decisions by the anti-corruption ombudsman.

The Bill might open a new legal and political battleground between the ruling Left Democratic Front (LDF) and the Congress-led United Democratic Front (UDF) opposition. Much about the proposed law remains in the realm of conjecture, though the UDF has opposed the legislation vehemently.

The official Bill is likely to provide more clarity on the matter. The Bill will assume final form only after vetting by the Subject Committee.

The Opposition says it has reasons to believe that the Bill aspires to replace the Governor as the competent authority to accept or reject any unfavourable decision by the Lok Ayukta (under Section 14(5) of the Kerala Lok Ayukta Act, 1999) against the Chief Minister of the State.

In the case of Ministers found guilty of corruption or nepotism by the Lok Ayukta, the proposed law allegedly bestows appellate powers on the Chief Minister (the competent authority).

The UDF has damned the Bill as a violation of the cardinal principle of natural justice, saying "no one should be a judge in their own cause." It argues that the Bill violates the fundamental right to equality before the law.

The Bill accords the executive appellate jurisdiction over the judiciary. The amendment aspires to vest unqualified judicial power in the executive.

Slamming the bill, the Opposition said it had shamed the Kerala Assembly, which passed scores of landmark legislation. Terming the Bill as colourable legislation, it accused the government of foraying into an area where it had no right to pass laws.

The government, however, views the Lok Ayukta as an investigation mechanism, not a quasi-judicial body. It believes the current law is against the Act's preamble and glaringly lacks an appeal provision.



The LDF notes that the Lok Pal Act allowed States to pass and amend their respective Lok Ayukta laws. It argues that Article 164 of the Constitution mandated that the Governor appoint or dismiss the Council of Ministers. However, as per the current law, the Lok Ayukta could "destroy" a constitutionally elected government by an adverse ruling. The State could not even appeal against the Lok Ayukta's declaration under Section 14, which was final and binding.

Questions abound in the social and mainstream media about the Bill's motive. The UDF has viewed it as a Machiavellian move to forestall the ongoing anti-corruption investigations against Chief Minister Pinarayi Vijayan.

The government had initially pushed the Bill as an ordinance through the Cabinet, allegedly blindsiding the Communist Party of India (CPI), the second major partner in the LDF coalition. It introduced the amendment as a Bill after the Governor refused to re-promulgate the executive order.

The CPI has expressed reservations about the Bill, triggering widespread speculation that the government wanted to shred a proven law and perhaps the only remaining guardrail against corruption and nepotism.

The Bill comes at a time when an amendment to the Prevention of Corruption Act has made it mandatory for the Directorate of Vigilance and Anti-Corruption to seek the government's prior permission to investigate or chargesheet government officials. The legal and political strife over the Bill is unlikely to end anytime soon.

TRIBE CATEGORISATION WORK DELAYS BENEFITS UNDER SEED

Till 8 p.m. on Monday, the Union Social Justice Ministry received 402 applications online from across the country for benefits under the Scheme for Economic Empowerment of Denotified, Nomadic, Semi-nomadic (SEED) Tribes. More than 10 crore Indians from 1,400 communities belong to these groups, show the latest estimates available with the government.

None of the applications received so far on the SEED's online portal has been approved yet. Multiple officials say the exercise to categorise all 1,400 communities under the Scheduled Caste, Scheduled Tribe and Other Backward Classes is holding up the implementation of the scheme, unveiled in February by Social Justice Minister Virendra Kumar.

Welfare options

The scheme aims to provide free competitive exam coaching to students, health insurance and financial assistance for housing and uplift clusters of these communities through livelihood initiatives. The Ministry has been allocated ₹200 crore for this scheme to be spent over five financial years from 2021-22 to 2025-26.

At the time of the launch, the Ministry announced that the scheme would be implemented through an online portal that would issue a unique ID to each applicant to apply and track the status of the application online.

Of the applications received on the portal so far, 17 are for free coaching, 111 for health insurance, 222 for housing, and 52 for livelihood assistance, the Ministry said.

The applications are still being reviewed at the State and district levels, officials said.



While the Anthropological Survey of India (AnSI) and Tribal Research Institutes are studying 267 uncategorised communities to classify them under SC, ST, or OBC, inconsistencies have been hindering the processing of SEED applications. The categorisation of these communities by the Idate Commission left room for inaccuracies as outlined by the commission in its 2018 report.

For instance, some communities such as the Banjara were under the SC list in Delhi, the ST list in Rajasthan and the OBC list in Uttar Pradesh.

The commission said some communities were under different lists in different districts even within a State.

NITI Aayog officials monitoring the exercise told The Hindu, "The AnSI is expected to submit reports on all the communities by October."

Government officials said the categorisation of DNTs, NTs and SNTs is essential for the implementation of SEED because there is no schedule in the Constitution providing for their reservation. "So, we are asking State governments to uniformly categorise these communities under SC, ST, or OBC lists and then provide a sub-categorisation in their certificates, declaring them as either DNT, NT, or SNT," an official said.

CHALLENGING THE SPECIAL MARRIAGE ACT, 1954

The story so far: The Supreme Court on Monday dismissed a writ petition challenging provisions of the Special Marriage Act (SMA), 1954 requiring couples to give a notice declaring their intent to marry 30 days before their marriage.

What does the petition seek? What did the court say?

The Supreme Court on Monday dismissed a writ petition challenging the Constitutional validity of certain provisions of the SMA under which couples seek refuge for inter-faith and inter-caste marriages. The writ petition has called these provisions violative of the right to privacy guaranteed under Article 21 of the Constitution as they require couples to give a notice of 30 days before the date of marriage inviting objections from the public. The writ petition filed by counsels K. R. Sripathi and Anupama Sripathi and advocate on record Sriram Parakkat has also said that the provisions contravene Article 14 on prohibition of discrimination on grounds of religion, race, caste and sex as well as Article 15 on right to equality as these requirements are absent in personal laws.

A Bench of Justices Dinesh Maheshwari and Bela M. Trivedi rejected the writ petition on the grounds that the petitioner, 35-year-old Athira Sujatha, was no longer an aggrieved party as she had already solemnised her marriage under SMA. The petitioner's lawyers said that they were now deliberating on an alternative approach to initiate this litigation such as through a public interest litigation involving other victims. Another writ petition in Nandini Praveen vs Union of India & Others filed on similar grounds was admitted by the Supreme Court in 2020 and the government's reply to is awaited.

What are the provisions that have been challenged?

Section 5 of the SMA requires couples getting married under it to give a notice to the Marriage Officer 30 days before the date of marriage. The writ seeks striking down of provisions that follow in Section 6 to Section 10. Section 6 requires such a notice to be then entered into the Marriage



Notice Book maintained by the Marriage Officer, which can be inspected by “any person desirous of inspecting the same”. These notices have to be also affixed at a “conspicuous place” in the office of the Marriage Officer so that anyone can raise an objection to the marriage. Section 7 provides the process for making an objection such as if either party has a living spouse, is incapable of giving consent due to “unsoundness of mind” or is suffering from mental disorder resulting in the person being unfit for marriage or procreation. Section 8 specifies the inquiry procedure to be followed after an objection has been submitted.

The petition reads, “The impugned provisions, by throwing the personal information of the individuals open to public scrutiny, seriously damage one’s right to have control over her or his personal information and its accessibility. By making the personal details of the couple accessible to everyone, the very right of the couple to be the decision makers of their marriage is being hampered by the state.”

How do these provisions make couples vulnerable?

These public notices have been used by anti-social elements to harass couples getting married. In Athira’s case, who got married in 2019 under SMA, her marriage notice containing her address was circulated on Facebook and WhatsApp calling on people to visit her parents and make them “aware” about her marriage. While Athira had the support of her parents, for many others who often marry without their parent’s consent this can be life-threatening. There have been instances, where marriage officers have gone over and beyond the law and sent such notices to the parents of the couple leading to a Muslim woman in Delhi being confined to her house by her parents in March 2020 until her boyfriend filed a habeas corpus in the Delhi High Court. Following another petition, the Sub-Divisional Magistrate (SDM) was slapped with a contempt notice and the Delhi government issued a warning to all SDMs in the State. The Haryana government has laid down 16 pre-requisites which ask couples to issue a notice in a newspaper and that such notices be sent to their parents. In certain States, couples have to seek a no-objection certificate from their parents. The Maharashtra Department of Registration and Stamps publicly shares the details of couples marrying under SMA on its website and so did the Kerala government until Athira came forward and pointed out that this allowed communal elements to access personal details and threaten and harass couples. Many also complain about the behaviour of the staff at the SDM’s office who often delete or delay applications and dissuade couples from marrying under SMA and ask them to convert at a Arya Samaj temple. With as many as 11 States passing anti-conversion (or so called love-jihad) laws, parents and the State are now armed to punish and harass such couples.

THE CONCERNS AROUND AADHAAR-VOTER ID LINKAGE

The story so far: Reports have surfaced online of instances where block level officers have asked individuals to link their Aadhaar with their Voter IDs, failing which their Voter IDs could be cancelled. This comes in the aftermath of the Election Commission’s (EC) campaign to promote the linkage of Voter ID and Aadhaar that began on August 1. In the first ten days since its launch, the campaign saw almost 2.5 crore Aadhaar holders voluntarily submitting their details to the EC.

Why does the government want this?

The EC conducts regular exercises to maintain an updated and accurate record of the voter base. A part of this exercise is to weed out duplication of voters, such as migrant workers who may have been registered more than once on the electoral rolls in different constituencies or for persons



registered multiple times within the same constituency. As per the government, linkage of Aadhaar with voter IDs will assist in ensuring that only one Voter ID is issued per citizen of India.

Is the linking of Aadhaar with one's Voter ID mandatory?

In December 2021, Parliament passed the Election Laws (Amendment) Act, 2021 to amend the Representation of the People Act, 1950, inter alia. Section 23(4) was inserted in the Representation of the People Act, 1950. It states that the electoral registration officer may “for the purpose of establishing the identity of any person” or “for the purposes of authentication of entries in electoral roll of more than one constituency or more than once in the same constituency” for citizens already enrolled, require them to furnish their Aadhaar numbers.

To reflect this amendment, in June 2022, the government notified changes to the Registration of Electors Rules, 1960. Rule 26B was added to provide that “every person whose name is listed in the roll may intimate his Aadhaar number to the registration officer”. Although, the use of discretionary language throughout the amendments have been accompanied by assurances by both the government and the EC that linkage of the Aadhaar with Voter ID is optional, this does not seem to be reflected in Form 6B issued under the new Rule 26B.

Form 6B provides the format in which Aadhaar information may be submitted to the electoral registration officer. Form 6B provides the voter to either submit their Aadhaar number or any other listed document. However, the option to submit other listed documents is exercisable only if the voter is “not able to furnish their Aadhaar number because they do not have an Aadhaar number”. To that extent, the element of choice that has been incorporated in the amendments seem to be negated or at the very least thrown into confusion.

Why is the mandatory linking of Aadhaar to the Voter ID an issue?

The preference to use Aadhaar for verification and authentication, both by the state and private sector, stems from two reasons. First, at the end of 2021, 99.7% of the adult Indian population had an Aadhaar card. This coverage exceeds that of any other officially valid document such as driver's licence, ration cards, PAN cards etc that are mostly applied for specific purposes. Second, since Aadhaar allows for biometric authentication, Aadhaar based authentication and verification is considered more reliable, quicker and cost efficient when compared to other IDs.

But these reasons do not suffice the mandating of Aadhaar except in limited circumstances as per the Puttaswamy judgment. It needs to be considered whether such mandatory linkage of Aadhaar with Voter ID would pass the test of being “necessary and proportionate” to the purpose of de-duplication which is sought to be achieved. In Puttaswamy, one of the questions that the Supreme Court explored was whether the mandatory linking of Aadhaar with bank accounts was constitutional or not. The Court observed that the mandatory linking of Aadhaar with bank accounts was not only for new bank accounts but also existing ones, failing which the individual will not be able to operate their bank account. The Court held that depriving a person of their right to property for non-linkage fell foul of the test of proportionality. Even though the situation at hand is slightly different in that other means of verification and authentication are allowed if the person does not hold an Aadhaar, given the wide coverage of Aadhaar, the current design would in effect mandate Aadhaar linkage. In this context, it needs to be considered whether requiring an Aadhaar holder to mandatorily provide Aadhaar for authentication or verification would not be considered violative of their informational autonomy (right to privacy) which would allow them to decide which official document they want to use for verification and authentication.



Moreover, in Lal Babu Hussein (1995), the Supreme Court had held that the Right to vote cannot be disallowed by insisting only on four proofs of identity — voters can rely on any other proof of identity and obtain the right to vote.

What are the operational difficulties?

First, the preference to Aadhaar for the purposes of determining voters is puzzling as Aadhaar is only a proof of residence and not a proof of citizenship. Therefore, verifying voter identity against this will only help in tackling duplication but will not remove voters who are not citizens of India from the electoral rolls.

Second, the estimate of error rates in biometric based authentication differ widely. As per the Unique Identification Authority of India in 2018, Aadhaar based biometric authentication had a 12% error rate. This led the Supreme Court to hold in Puttaswamy that a person would not be denied of benefits in case Aadhaar based authentication could not take place. This concern is also reflected in the previous experiences of using Aadhaar to clean electoral rolls. A similar exercise undertaken in 2015 in Andhra and Telangana led to the disenfranchisement of around 30 lakh voters before the Supreme Court stalled the process of linkage.

Lastly, civil society has highlighted that linking of the two databases of electoral rolls and Aadhaar could lead to the linkage of Aadhaar's "demographic" information with voter ID information, and lead to violation of the right to privacy and surveillance measures by the state. This, however, would seem to be the case with the use of any other officially valid document to verify or authenticate the identity of the voter. This would leave the EC with the option of verifying its information only through door-to-door checks. It also needs to be noted that the Puttaswamy judgment, after reviewing the Aadhaar architecture, held that the use of biometric based authentication and verification, did not lead to the creation of a "surveillance state". To address these concerns, one needs to have enforceable data protection principles that regulate how authentication data will be used.

What is the way forward?

Even as the amendments have been made and the EC has launched a campaign for linkage, a writ petition has filed with the Supreme Court challenging the same. It challenges the amendments as being violative of the right to privacy. The Supreme Court has transferred the writ to the Delhi High Court.

In the meantime, it is important that the government clarifies through correction in Form 6B that the linking is not mandatory and expedites the enactment of a data protection legislation that allays concerns of unauthorised processing of personal data held by the government.

DATA GATHERING BY PUBLIC AGENCIES PICKS UP EVEN AS LAW HANGS FIRE

The customs department mandating airlines to share personal details of international flyers, the Civil Aviation Ministry's facial recognition system DigiYatra, the MeitY's proposal to share non-personal data collected by the government with start-ups and researchers, CERT-In's mandate asking virtual private network (VPN) service providers to store data of their users: these are among a rising number of moves made by the Central government and its agencies to collect and process citizens' data — all in the absence of a data protection law.



Experts have raised concerns over this trend, questioning the government's efforts of data collection and monetisation in the absence of a basic data protection regime. Earlier this month, the Centre withdrew the Data Protection Bill, 2021, saying that it will soon come out with a "comprehensive legal framework" for the online ecosystem.

The Bill, more than four years in the works, had gone through multiple iterations, including a review by a Joint Parliamentary Committee. While it had significant exemptions for the Centre and its agencies, it laid down a framework for consent-related mechanisms before gathering data, how personal data was supposed to be handled by various entities, and provided for a recourse mechanism in case a person's data was compromised.

In the backdrop of the Bill's withdrawal, so far this year, a number of Central government institutions and its related entities — ranging from the Ministry of Electronics and Information Technology (MeitY), the Central Board of Indirect Taxes and Customs (CBIC), the Civil Aviation Ministry, cybersecurity regulator CERT-In, and the Indian Railway Catering and Tourism Corporation (IRCTC) among others — have all either introduced new types of data collection or monetisation plans. While some of them eventually relented under criticism and withdrew their proposals, the initial efforts and the underlying idea of monetisation are undeniable, experts contend.

Last month, IRCTC released a tender detailing its plans to monetise its bank of passenger data for doing business with government and private entities. According to the tender, customer data that could potentially be monetised includes passengers' name, age, mobile number, gender, email address, payment mode, "login/password", among other things. However, last Friday, the company withdrew the tender given the absence of a data protection law in the country.

In February, the MeitY had floated a draft India Data Accessibility and Use Policy which proposed that data collected by the Centre that has "undergone value addition" can be sold in the open market for an "appropriate price". This draft was withdrawn after it faced severe criticism over its proposal to monetise government data and the MeitY has now come out with a draft data governance framework which looks to leverage non-personal, that is data that can not identify individuals, instead.

Experts believe that there is a fundamental issue in treating citizens' data as a "wealth resource".

"There is a fundamental issue with our approach of trying to treat data as a 'sovereign wealth resource' which then creates incentives for attempts to accumulate, and subsequently monetise large volumes of data. Until this lens persists, we can expect more efforts to monetise citizens' data even without any additional safeguards," said Prateek Waghre, policy director at Delhi-based digital rights group Internet Freedom Foundation.

"The government's primary concern should be service delivery and safeguarding the information it gathers from citizens towards this end. Its key objective should not be to monetise this data for profit.

"The 2018-2019 Economic Survey of India referred to data as a 'public good'. By definition, that means it should be treated as 'non-excludable and non-rivalrous public good' and not traded as if it were a commodity," he added.

Within the Centre, there are past precedents of scrapping an active policy that monetised citizens data, over privacy concerns.



The Ministry of Road Transport, in 2020, had scrapped its Bulk Data Sharing Policy, under which the ministry used to sell vehicle registration data (Vahan) and driving licence data (Sarathi) to private and public entities. The policy was scrapped over potential misuse of personal information and privacy issues.

Aside from monetisation, the Centre has also upped the ante on mandating entities to collect new types of citizen data and, in some cases, share it with the government.

With its new Passenger Name Record Information Regulations, 2022, issued earlier this month, the CBIC has asked airlines to mandatorily share PNR (passenger name record) details of all international passengers with the National Customs Targeting Centre-Passenger, 24 hours prior to departure of flights.

Aimed at “risk assessment”, the data to be shared includes name of the passenger; date of intended travel; all available contact details; all available payment or billing information such as credit card numbers; travel status of the passenger, including confirmation and check-in status; baggage information; seat information; and travel agency or agent from where the ticket was issued. While the notification says that the data will be subject to “strict informational privacy, it will be stored for a period of five years.

There are more instances of data collection happening in the aviation sector — under the Civil Aviation Ministry’s DigiYatra initiative, facial recognition technology and scanners will be used at various airport checkpoints like security and boarding to ascertain the identity of passengers. Earlier this month, the Delhi International Airport soft-launched the initiative, rolling out the beta version of its app for Android platforms. The policy outlining how the initiative will be implemented states that the facial scanner will have the ability to change data purge settings based on “security requirements” and security and government agencies could be given access to passengers’ facial data.

In April, the Indian Computer Emergency Response Team (CERT-In) released a set of cybersecurity guidelines which mandated VPNs, cloud service providers and data centres to store user information like their IP address, email, address, and contact numbers among others. These are data points which could potentially be accessed by the agency in case an entity faces a cybersecurity incident.

In December 2021, the Department of Telecommunications (DoT) had amended the Unified Licence Agreement asking telecom operators and internet service providers as well as all other telecom licensees to maintain commercial and call detail records for at least two years, instead of the then current one-year practice. DoT sources had earlier told this newspaper that the amendment was based on requests from multiple security agencies.

Queries sent to IRCTC, MeitY, CBIC, CERT-In, Civil Aviation Ministry, and DoT did not elicit a response until press time.

Before all this, in 2020, the government had launched the contact tracing app Aarogya Setu — which was downloaded by millions of Indians at the height of the coronavirus pandemic — and collected data like their names, phone numbers and location. In its early days, the app was necessary for accessing a number of services including flights, until the Karnataka High Court in October 2020 ordered that the app cannot be made mandatory. The app had also triggered privacy-related concerns, given that it had access to people’s personal data, and in response, the government had released a data sharing protocol for the app. And now, as the app heads towards



becoming a health app of sorts, the protocol has expired, a right to information request by IFF revealed.

All these developments comes as India continues to lack a basic data protection legislation. However, government sources have said that the new Bill will incorporate the broader ideas of data protection as recommended by the Joint Parliamentary Committee and will be in line with the Supreme Court's landmark judgement of 2017 wherein it held privacy as a fundamental right.

WHAT ARE THE CLAIMS OF TWITTER'S WHISTLEBLOWER?

The story so far: On August 23, CNN and The Washington Post newspaper reported that Peiter 'Mudge' Zatkó, a former head of security at Twitter, had filed a whistleblower complaint with the U.S. Securities and Exchange Commission, which among other things alleges that the Indian government forced the social media network to hire its agent, who then had access to sensitive user data.

What is the report about?

This news report is about a disclosure regarding Twitter's security problems and vulnerabilities that Mr. Zatkó sent last month to U.S. government agencies and congressional committees. The disclosure document, put out by the Post, identifies him as a "security lead" and "a member of the senior executive team," someone who "uncovered extreme, egregious deficiencies by Twitter in every area of his mandate including... user privacy, digital and physical security, and platform integrity/content moderation."

Mr. Zatkó, whose services were terminated by Twitter in January this year, has accused his former employer of making false statements to users and the Federal Trade Commission regarding security, privacy and integrity. He has also accused it of deceiving the board of directors and investors.

Significantly, the whistleblower has said in the disclosure that Elon Musk's suspicions about the accuracy of Twitter's claims that less than 5% of its accounts are spam — which eventually led the Tesla founder to pull back from a deal to buy the social media network — "are on target." That's because, "Agrawal [Twitter CEO Parag Agrawal] knows very well that Twitter executives are not incentivised to accurately 'detect' or report total spam bots on the platform."

On a broader level, in the disclosure, Mr. Zatkó has written about Twitter's lack of real progress on the issues of security and privacy over the years. For instance, he has alleged that it has allowed too many people in the system to access sensitive data. And that it has also been plagued by server vulnerabilities and fundamental architectural issues. He has also written of being aware of "multiple episodes suggesting that Twitter had been penetrated by foreign intelligence agencies and/or was complicit in threats to democratic governance." It is in this context that he refers to the Indian case. The disclosure comes amid a long-standing battle, now in the courts, between the government and Twitter over the former's power to get the latter to block handles from time to time.

What is the reference to the Indian government?

This is what Mr. Zatkó's disclosure said: "The Indian government forced Twitter to hire specific individual(s) who were government agents, who (because of Twitter's basic architectural flaws)



would have access to vast amounts of Twitter sensitive data.” This, according to Mr. Zatkan, is a violation of Twitter’s commitments to its users.

What have been the reactions to this?

Twitter has dismissed the allegations. Its response, which was published in The Hindu, has made it a point to mention that Mr. Zatkan was fired for “ineffective leadership and poor performance.” Also, it has said: “What we’ve seen so far is a false narrative about Twitter and our privacy and data security practices that is riddled with inconsistencies and inaccuracies and lacks important context.”

Twitter hasn’t made a specific comment on the Indian angle in the disclosure. The Indian government has also been silent on this.

According to a separate report in The Hindu, Twitter “stonewalled” questions by members of the Standing Committee on Information Technology. The social media network has been given a week’s time to submit replies.

It isn’t clear whether the “agent” mentioned in the disclosure is actually a reference to the grievance officer that significant social media networks were required to recruit under the new IT rules introduced last year. A CNN report said, “A person familiar with the matter, and with Zatkan’s tenure at Twitter, told CNN the Indian agents Zatkan describes are government-mandated roles the country requires of tech platforms under its local laws.” There has been no official statement, either from Twitter or from the government, regarding this.

The Standing Committee on Information Technology has, in fact, asked Twitter about the number of people it employs in India as well as of those employees who had earlier worked with the government.

AS KARNATAKA GOVERNMENT STOKES OLD FAULTLINES, THE PRICE MUST BE PAID BY THE STATE

Two courts delivered separate orders on Ganesh Chaturthi celebrations in Karnataka on Tuesday: The Supreme Court said no to holding the puja at the Bengaluru Idgah ground whereas the Dharwad-bench of Karnataka High Court allowed it at the Hubballi maidan. The HC accepted the claim that the Hubballi-Dharwad Municipal Corporation, though it had leased out the Hubballi Idgah ground to Anjuman-i-Islam for 999 years, has rights over the land and could allow puja there. In the Bengaluru case, the SC ruled in favour of status quo — only Muslims have held religious functions at the Idgah in the past 200 years — and asked the Wakf Board and the state government to settle the title dispute in the HC. What is common to both the disputes, however, is the disturbing role of the state government in seeking to facilitate Hindu religious functions in the face of Muslim claims over the properties. This Idgah politics follows a disquieting pattern wherein the government and the ruling party, the BJP, are seen to be stoking old disputes, whose only outcome can be greater communal polarisation.

Karnataka is the only southern state where the BJP has the organisational spread and depth to win elections on its own. But evidently, the party, beset by corruption scandals and infighting, seems unsure of its governance record. With assembly elections due in 2023, it has chosen to project itself as a custodian of Hindu interests. Under B S Yediyurappa, the BJP’s most prominent face in the state, the party had mostly pursued a communitarian politics by patronising religious sects and mutts. That, however, did not help the party to win the 2018 assembly elections — it



cobbled a majority in 2019 by winning over legislators from the Congress and JD(S). With Basavaraj Bommai as chief minister, however, the party has actively campaigned on issues such as a ban on hijab in educational institutions and pursued a contentious anti-conversion law. A section of the BJP itself, including Yediyurappa, had to call for an end to “divisive politics” after attacks on Muslim traders. The constant chatter that Bommai, originally from the Janata parivar, could be replaced appears to have made the CM promise a “Yogi style of administration” to win over the Hindutva hardliners.

Such polarising politics has a price that the state will pay. Bengaluru’s evolution as the symbol of India’s tech prowess has much to do with successive state governments nurturing a liberal, cosmopolitan milieu. This imagination is now actively challenged by sectarian groups, which are patronised, unfortunately, by the ruling party.

RAM KATHA BEGINS IN RAJ BHAWAN AMID OBJECTIONS

A five-day Ram katha began at Raj Bhawan here on Saturday amid strong objections from civil rights groups, which said the event would grossly undermine secular values of the Constitution. Rajasthan Governor Kalraj Mishra has invited Sant Vijay Kaushal from Vrindavan to deliver sermons on Lord Ram on the Raj Bhawan premises from August 27 to 31. In addition to the religious discourse, a Bhakti arts exhibition is also being organised at Raj Bhawan for five days by the West Zone Cultural Centre, a government body functioning from Udaipur. The exhibition has devotional paintings and products on display.

Mr. Mishra offered prayers to Lord Ram and the Ramcharitmanas before the sermon started and greeted the saint on behalf of all members and staff of Raj Bhawan. The Governor said the story of Lord Ram’s life would enrich the listeners and inculcate righteousness among them. “We are fortunate to have Sant Vijay Kaushal Ji [among us] to give us the nectar of Ram katha at Raj Bhawan,” he said.

Sant Vijay Kaushal said organising Ram katha in Raj Bhawan, which is a historic building reverberating with governance and politics, is an “act of dharma” that would bring divine solace to the listeners and empower them spiritually. The sermons will be delivered for three hours in the evening for five days and will also be livestreamed on social media platforms.

Unacceptable, says PUCL

The People’s Union for Civil Liberties (PUCL) expressed outrage over a religious event of a particular faith being organised at Raj Bhawan and said it had not only violated the principles of secularism, but is also against the dignity of the constitutional office of the Governor. While clarifying that it was not against Ram katha or the saint delivering it, the PUCL said holding the discourse on the Raj Bhawan premises was highly objectionable.

PUCL-Rajasthan president Kavita Srivastava said the Bhakti arts exhibition was also equally unacceptable, as it was completely different from cultural programmes organised in Raj Bhawan on festivals such as Holi, Diwali, Dussehra, Eid, Christmas or Guru Nanak Jayanti.

“This event brazenly compromises the secular character of our Constitution. These are not personal programmes of the Governor,” Ms. Srivastava said.

The PUCL affirmed that the Governor, as the highest constitutional authority of the State, should maintain neutrality and equality towards all religions.



PIN CODE @50 YEARS

India Post introduced a six-digit Postal Index Number (PIN) code on August 15, 1972, the day the silver jubilee of India's independence was observed. The idea was to give a unique identity to all physical addresses of the country in terms of the delivery jurisdiction of the post offices. This code was expected to help in bypassing the challenge of inaccurate addressing and ensure accurate and fast delivery by post offices. Now it is time to introspect whether the system succeeded in achieving its purpose in the last 50 years.

The postal code, known differently in different countries viz. postcode, zip code, etc, is an alpha-numeric or numeric number that is included in the postal address for easy identification of the sorting-district and the addressee's delivery post office. The codes were introduced nationwide in Germany in the year 1944, Singapore (1950), Argentina (1958), the U.S. (1963), Switzerland (1964), India (1972), and the U.K. (1974). Introduction of sorting machines in the West in the 1960s also necessitated the introduction of codes since the machines could not read the addressee's post office easily if described in writing. The Universal Postal Union says that 160 countries of the world have so far introduced postal codes.

Speeding up the sorting

The post code revolutionised the system of manual postal sorting as the sorters are not required to keep in memory the locations of thousands of post offices. To what extent did the PIN code succeeded in speeding up the sorting in India? It is intriguing that even after five decades, a substantial volume of mail in India is not PIN coded. The Government took efforts to educate the citizens to write the PIN code of the addressee on the mail. It succeeded to a small extent. Until about a decade ago, government offices and the billers of the utility services were the biggest culprits. In cities such as Delhi and Kolkata, where sorting work is done by machines, mails without PIN code must be coded separately before they are put to sorting machine, causing delay in processing at the sorting centres.

Of late, the proportion of PIN-coded mails in India started improving after the introduction of computerised billing by utility service providers and the launching of KYC norms by banks, where providing complete and accurate addresses is mandatory. Now, new challenges have come up. Personal mail has almost vanished after the revolution of mobile telephony in the last two decades. What remains with the postal system are documents and e-commerce parcels where there is stiff competition from the couriers.

A REVERT TO THE MEAN

In a worrying trend, the registration in violent crimes such as rape, kidnapping, atrocities against children, robberies and murders increased in 2021 to levels set before the pandemic, in comparison to the drop in 2020, according to the annual report, "Crime in India" released by the NCRB earlier this week. The drop, in 2020, seemed to, therefore, be an anomaly, either due to lowered registration or a partial decrease in occurrence as there were extensive lockdowns and office shutdowns. While there was an increase in violent crimes in 2021, the overall crime rate (per one lakh people) decreased from 487.8 in 2020 to 445.9 in 2021, largely due to a decrease in cases registered under disobedience to a public servant's order, relating to the lockdowns. If 2020 was the year when India faced the first COVID-19 wave, 2021 was equally a fraught year because of the effect of the Delta variant of the novel coronavirus; the frequency and intensity of the lockdowns were relatively lower in comparison to 2020. "Cruelty by husband or his relatives"

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



constituted 31.8% of crimes against women, up from 30.2% in 2020 and 30.9% in 2019, indicating that domestic violence continued to be a major issue. While violent crimes increased, the chargesheeting rate fell from 75.8% in 2020 to 72.3% in 2021, as did the conviction rate (57% from 59.2% in 2020). So, law enforcement was less responsive in a year with more violent crimes. Again these trends have to be read State-wise — Assam (76.6 violent crimes per one lakh people), Delhi (57) and West Bengal (48.7) had the highest numbers while Gujarat, Andhra Pradesh and Tamil Nadu registered the lowest numbers.

The report also revealed that the suicide rate in the population in 2021 — 12 per one lakh people was the highest in the last five years. Domestic problems (33.2%) and illnesses (18.6%) were reported as the main reasons, with most victims being daily wage earners (25.6%) and housewives (14.1%), revealing the severity of the pandemic and its indirect consequences on people. With India registering the highest excess deaths during the pandemic, in particular during the Delta wave according to the World Health Organization, these figures are not surprising. The 5.9% jump in cases registered as cyber crimes over 2020, also indicates the increasing use of digital devices and the related challenges. This increase was more so in rural areas as cyber crime in metropolitan cities (with population more than two million people) registered a decline of 8.3% compared to 2020. With more people in rural areas utilising digital devices, including for financial purposes, the increase in cybercrimes should warrant an effort by the Government to educate people about risks in cyber activities and to ensure better law enforcement.

THE COMPLETE STORY OF INS VIKRANT, AND WHY INDIA ALREADY WANTS TO BUILD ANOTHER AIRCRAFT CARRIER

The commissioning of India's first Indigenous Aircraft Carrier (IAC-1) into the Navy as INS Vikrant marks a defining moment. The first ever aircraft carrier to be indigenously designed and constructed, INS Vikrant will strengthen the country's standing as a 'Blue Water Navy' — a maritime force with global reach and capability to operate over deep seas.

With it, India also joins the elite group of nations – the US, Russia, France, the UK and China – who are capable of designing and constructing aircraft carriers. Also, with a displacement of 43,000 tonnes when fully loaded, INS Vikrant is set to be the seventh largest among the carriers or carrier classes in the world.

The ship was officially laid down in 1943, and was being built for the Royal Navy as HMS (Her Majesty's Ship) Hercules when the constitution was put on hold after World War II ended.

Like many other ships at the time, the under-construction HMS Hercules was put up for sale by the United Kingdom, and was purchased by India in 1957. The construction work was completed and the ship was commissioned in the Indian Navy as INS Vikrant in 1961.

The ship operated its aircraft fleet with a catapult assisted system and ski-jump during its service.

Compared to the new INS Vikrant, the old one had less than half its displacement and was over 210 metres in length against 260 metres of the present one.

R11 saw significant action during the 1971 war with Pakistan when it led the Naval blockade of East Pakistan. The ship was decommissioned in 1997 after 36 years of service. Over the next 15 years, it was preserved as a museum ship before being finally sold to be dismantled.



The Sanskrit word Vikrant, which means courageous, finds its origins in various scriptures including the Bhagwad Gita. The sixth shloka in the first chapter of the Gita, while describing the valour of some Generals from the army of Pandavas, uses the adjective 'Vikrant'.

As far as the origin of the word goes, the 'Vi' prefix in the Sanskrit word denotes something that is distinctive or extraordinary, and the 'krant' suffix means to move or advance in a direction.

The word Viraat which means magnanimous, can also be found in the same chapter of Gita in a later verse and is the name of the now decommissioned and dismantled British-origin Centaur-class aircraft carrier of the Indian Navy.

"The induction and reincarnation of Vikrant is not only another step towards strengthening our defence preparedness, but also our humble tribute to the sacrifices made by our freedom fighters for the Independence of the nation and our brave soldiers during the 1971 war." the Indian Navy has said.

Along with the pennant number R11, the newly commissioned INS Vikrant also carries forward the motto of its predecessor – "Jayema Sam Yudhi Sprudhah" – from the Rigveda which means: "I conquer those who fight against me".

But what gives context to this motto is the previous part of this verse in Rigveda which, while addressing Hindu deity Indra, says: "Strengthened by the thunderous weapon given by you, we conquer..."

When fully operational the mighty aircraft carrier will not just be a strong deterrent but also act as a floating airbase on blue waters and will be a sovereign territory of India in the middle of the oceans.

Indigenous design and construction

The plan for building an indigenous aircraft carrier started taking shape as the old INS Vikrant neared its decommissioning in the late 1990s.

After it was retired, India relied on INS Viraat, which had then been serving the Indian Navy for over 10 years, after its earlier 25 year stint with the Royal Navy as HMS Hermes.

Meantime, the design and construction of the Indigenous Aircraft Carrier-I (IAC-I) was sanctioned in January 2003. Cochin Shipyard Ltd (CSL), a public sector shipbuilding entity under the Ministry of Shipping, was tasked to build the ship. This was the first warship construction project for the CSL.

Milestones along the way

The first major milestone for IAC – also referred to as Project 71 (P71) — was ceremonial steel cutting in April 2005. Other ceremonial events followed soon.

In any ship's life there are four key ceremonial occasions – keel laying, launching, commissioning and decommissioning.

Keel laying ceremony originates from the tradition of laying one central timber that forms the backbone of the ship. For modern ships, keel laying is marked by placing the first of the modular components of the ship being placed in the dock. The keel of the IAC-I was laid on February 28, 2009.



Launching is when the ship is transferred from the building site into the waters. The IAC was launched on August 12 in 2013 and by that time, 80% of its structure had been fabricated and all the major machinery including turbines, alternators and gearboxes were installed.

The IAC was launched out into the Ernakulam Channel in a pontoon assisted precision manoeuvre. It was moved out of the building dock to be positioned in the refitting dock where the next phase of outfitting was completed. On June 10, 2015, the IAC was undocked.

The equipment, amenities and apparatus onboard

The INS Vikrant is 262 metres long and 62 metres wide, making its flight deck bigger than two football fields. The aircraft carrier displaces around 4,3000 tonnes when fully loaded, with a maximum designed speed of 28 knots with endurance of 7,500 nautical miles, which is equivalent to around 14,000 km.

The 18-floor high ship has close to 2,400 compartments, designed to house 1,600-strong crew. It also has specialised cabins to accommodate women officers and sailors. The aviation hangar is as big as two Olympic-size pools that can accommodate around 20 aircraft. There is a well-equipped kitchen that can serve a diverse menu. It also has a unit that makes 3,000 rotis per hour.

Its medical complex has a 16-bed hospital along with modular emergency operation theatre, physiotherapy clinic, Intensive Care Unit, pathology set up, radiology wing with a CT scanner and X-Ray machines, a dental complex, isolation ward and telemedicine facilities.

In its fully operational mode, the carrier will have an air wing consisting of 30 aircraft comprising of Russian-origin, carrier-capable MiG-29K fighter jets and airborne early warning control helicopter Kamov-31 helicopters, US origin MH-60R multi-role helicopters, in addition to homegrown Advanced Light Helicopters (ALH) and Light Combat Aircraft (LCA) (Navy). Vikrant uses the Short Take Off but Arrested Recovery (STOVAR) model with a ski-jump for launching aircraft, and a set of three arrestor wires for their recovery onboard.

The path ahead after commissioning

Vikrant has been built at an approximate cost of Rs 20,000 crore. The Navy has said that around 80 to 85% has been ploughed back into the Indian economy with complete indigenous construction, 76% indigenous content and with employment given to 2,000 CSL personnel with another 13,000 being employed indirectly.

On operationalising INS Vikrant, the Navy has said, "In line with the prevailing practices being followed by other advanced countries having experience of building aircraft carriers, the deck integration trials of fixed wing aircraft and exploitation of Aviation Facility Complex will be carried out post commissioning of the ship when the operational command and control of the ship, including flight safety, is with the Navy."

The flight trials of INS Vikrant are set to begin by November and the carrier is expected to be fully operational by mid-2023, Vice Chief of Naval Staff, Vice Admiral SN Ghormade said.

The demand for another aircraft carrier

Over the last few years, top commanders have been insisting for a third carrier apart from Russian-origin Kiev-class INS Vikramaditya and INS Vikrant. The Indigenous Aircraft Carrier-II will be named INS Vishal with a proposed displacement of around 65,000 tonnes, equalling the



Queen Elizabeth-class of carriers of the UK. The idea is for India to have two carriers at any given point in time, if a third is in the refit.

The cost of building and operating aircraft carriers

Cost is always a key consideration as far as constructing and operating aircraft carriers is concerned.

The carrier strike group — the operational formation of the aircraft carriers — consists of destroyers, frigates, submarines and service ships. In spite of the protective cover of these ships and its own defence systems, aircraft carriers remain a vulnerable target.

However, senior officials said that the decision to give a nod to construct IAC-II not just has political, economic and strategic considerations, but also one of India's projected standing as a global maritime power. The decision also needs to be looked at from the standpoint of how China is rapidly pursuing its carrier programme with their third carrier already in the making and more in the pipeline, officials said.

NAVAL MUSCLE AND SEAL OF CHHATRAPATI SHIVAJI, INSPIRING INDIAN NAVY

Prime Minister Narendra Modi on Friday unveiled the Indian Navy's new Ensign (Flag) at the commissioning of INS Vikrant in Kochi. The new Naval Ensign bears the seal of Chhatrapati Shivaji Maharaj, whose navy gave his enemies sleepless nights, and which the Indian Navy will now fly proudly in the sky and on the seas, the Prime Minister said.

The new Naval Ensign

The new Ensign has the national flag on the upper canton (top left corner), and a blue octagon encompassing the National Emblem sitting atop an anchor. The anchor, depicting steadfastness, has been superimposed on a shield inscribed with the Navy's motto, Sam No Varunah, in Devanagari.

The octagonal shape represents the eight directions, symbolizing the Navy's multi-directional reach and operational capability. The octagon, with a golden double border, has been inspired by the Raja Mudra — seal — of the Maratha emperor Shivaji, which was adopted when he was only 16 years old.

The new Naval Ensign has replaced the one that carried the Saint George's Cross with the Tricolour in the canton. That Ensign was essentially a successor to the pre-Independence ensign of the Indian Navy which had the red George's Cross on a white background with the Union Jack of the United Kingdom on the top left corner

Marathas and Indian Navy

The Indian Navy has always acknowledged the sea-faring prowess of the Maratha empire under Shivaji and later. It has named a training establishment in Lonavla as INS Shivaji, and a shore-based logistics and administrative hub of the Western Naval Command, Mumbai, as INS Angre — after Kanhoji Angre (1669-1729), the celebrated Maratha naval commander.

The use of the octagonal design of the seal of Shivaji on the new Naval Ensign is a formal stamp on the umbilical ties of the Indian Navy with the navy of the Maratha empire. Says an Indian Navy document: "The navy under Shivaji was so strong that the Marathas could hold their own against



the British, Portuguese and Dutch. Shivaji realised the importance of having a secure coastline and protecting the western Konkan coastline from the attacks of Siddis' fleet".

The navy of Shivaji

Shivaji's empire reached the west coast after 1656-57, when his dominions touched Kalyan. In the same year, he decided to establish a navy in order to protect his territory from the Siddis, and to secure ports and merchant ships in order to ensure smooth maritime trading that brought in revenue and customs duty. His vision for establishing a naval wing of his military was based in his belief in "Jalameva yasya, balameva tasya", which translates as "He who rules over the seas is all powerful".

Between 1661 and 1663, the naval wing of the Maratha empire came into existence, and at its peak included 400-odd ships of various kinds and sizes. These included both battleships and other vessels of varying shapes and purposes, such as gurab, tarande, galbat, shibad, and pal.

According to B K Apte's pioneering A History of the Maratha Navy and Merchantships, Shivaji's navy tasted its first success when he used 85 ships to attack Basuru near Kundapura in today's Karnataka, and returned with a huge booty. Shivaji also ordered the construction of the naval fort, the Vijaydurg, the twin to Sindhudurg fort, in 1653. Between 1653 and 1680, Shivaji built more naval forts such as Sindhudurg and Kolaba. Many of the forts remained unconquered and were used by the Marathas for strategic purposes, to keep a watch on enemies approaching via the seas. North Konkan's Kalyan and Bhivandi, which were part of the Bijapur territory, came under Shivaji's control by 1657.

The Maratha navy continued to be a formidable force even after Shivaji, led by admirals such as Angre. The Maratha empire fought the Mughals, the Dutch, and the English at sea, and held its own against all of them.

Replacing the ensign with colonial past

After Independence, on August 15, 1947, the Indian defence forces continued with the British colonial flags and badges and it was only on Jan 26, 1950 that a changeover to Indianised pattern was made. The Navy crest and flag were changed but the only difference made to the flag was that the Union Jack was replaced with the Tricolour, and the George's Cross was retained.

What is the Saint George's Cross?

The red cross on white background is known as the Saint George's Cross and is named after a Christian Warrior Saint who is believed to have been a crusader during the third crusade. This cross also serves as the flag of England which is a constituent of the United Kingdom. The flag was adopted by England and the city of London in 1190 to identify English ships entering the Mediterranean. The Royal Navy adopted the George's Cross to fly on their ships in various shapes and forms and the present pattern of the British White Ensign (as it is known) was adopted around 1707.

Countries which discarded George's Cross as naval ensign

Most Commonwealth countries retained the Red George's Cross at time of their independence, but several have done away with it on their respective naval ensigns over the years. Prominent among them are Australia, New Zealand and Canada. The Royal Canadian Navy adopted a new design in 2013 which has the Canadian flag in top left corner and the Canadian naval crest on a white



background. The Australian navy changed its ensign in 1967 and it now has the Union Jack and six blue stars positioned, as in the Australian national flag, on a white background. The New Zealand navy also did away with the George's Cross in 1968 and replaced it with a white flag bearing Union Jack in top left corner and four red stars.

The South African naval ensign has a green cross instead of the Red George's Cross. Pakistan navy has its naval crest on the ensign while Bangladesh navy has a white flag with Bangladesh national flag in top left corner.

J&J'S TALC-BASED POWDER STILL ON SALE

India is part of the "worldwide portfolio assessment and commercial decision to transition to an all corn-starch-based baby powder portfolio" of the pharmaceutical giant Johnson and Johnson (J&J).

In its statement, the company said that as a result of this transition, talc-based Johnson's baby powder would be discontinued globally in 2023.

The announcement earlier this month comes two years after J&J discontinued the product in the U.S. and Canada.

Child rights groups, parents and doctors have been questioning the continued availability of the product here in India. Indian drug regulators have been silent on this issue, allowing wide availability and sale of this product in the country.

The company has said that "In India there is no plan to withdraw this talc and that there will be no recall. The product is safe and will be available till manufacturing stops."

It reiterated that it continuously evaluates and optimises its portfolio to best position the business for long-term growth.

"This transition will help simplify our product offerings, deliver sustainable innovation, and meet the needs of our consumers, customers and evolving global trends," it maintained while admitting that the corn-starch-based Johnson's Baby Powder was already sold in countries around the world.

Concerns over asbestos

The company's decision to stop production comes following multiple lawsuits from women who claim that the product caused ovarian cancer, due to the alleged contamination of asbestos, a known carcinogen.

It, however, has maintained that its older product (which is not cornstarch-based) is safe.

"Our position on the safety of our cosmetic talc remains unchanged. We stand firmly behind the decades of independent scientific analysis by medical experts around the world that confirms that talc-based Johnson's Baby Powder is safe, does not contain asbestos, and does not cause cancer," the company said in its statement.

"In India, the company is late in implementing the strategy, which has been adapted in the western part of the world. If a product is being discontinued for manufacturing, why should it be sold and



why not recall it,” asked Suresh Kumar Panuganti, lead consultant, paediatric critical care, Yashoda Hospitals, Hyderabad.

For decades now, doctors have advised parents not to use talcum powder on babies, even if it does not contain asbestos, cautioning that inhaling the talc can lead to respiratory illnesses.

Syed Mustafa Hasan, director and senior consultant, paediatrics and neonatology, Aakash Healthcare, pointed out, “We already know the harmful effects of asbestos, which has been found in their talc-based baby powder, on respiratory health.”

“When talc is contaminated with asbestos, it is more likely to contain highly carcinogenic tremolite or anthophyllite. They are considered more carcinogenic than chrysotile, the most-used type of asbestos. Prolonged breathing of asbestos increases the risk of multiple cancers, including lung and colon cancer. Infants and children below the age of five are five times more likely to get affected than a 30-year-old adult to develop mesothelioma, a type of cancer linked to asbestos if they are exposed to it at the same time. This is because a child’s organs are more tender than an adult’s. Talcum powders are harmful for both the mother and baby,” he said.

The National Commission of Protection for Child Rights had raised questions with the drug regulator over the lack of uniformity in the testing methods for detecting the presence of formaldehyde and asbestos in J&J’s baby shampoo and talcum powder.

BHANG, GANJA, AND CRIMINALITY IN THE NDPS ACT

While granting bail to a man arrested on June 1 for possessing 29 kg of bhang and 400 g of ganja, Karnataka High Court recently observed that nowhere in the Narcotic Drugs and Psychotropic Substances (NDPS) Act is bhang referred to as a prohibited drink or prohibited drug. Since the ganja recovered was below commercial quantity, the accused was given bail on a personal bond of Rs 2 lakh.

The single judge Bench relied on two earlier judgments, *Madhukar vs the State of Maharashtra*, 2002 and *Arjun Singh vs State of Haryana*, 2004, where the courts had ruled that bhang is not ganja, and is therefore not covered under the NDPS Act.

What is bhang?

Bhang is the edible preparation made from the leaves of the cannabis plant, often incorporated into drinks such as thandai and lassi, along with various foods. Bhang has been consumed in the Indian subcontinent for centuries, and is frequently consumed during the festivals of Holi and Mahashivratri. Its widespread use caught the attention of Europeans, with Garcia da Orta, a Portuguese physician who arrived in Goa in the 16th century, noting that, “[Bhang] is so generally used and by such a number of people that there is no mystery about it”.

Bhang and the law

Enacted in 1985, the NDPS Act is the main legislation that deals with drugs and their trafficking. Various provisions of the Act punish production, manufacture, sale, possession, consumption, purchase, transport, and use of banned drugs, except for medical and scientific purposes.

The NDPS Act defines cannabis (hemp) as a narcotic drug based on the parts of the plant that come under its purview. The Act lists these parts as:



(a) Charas: “The separated resin, in whatever form, whether crude or purified, obtained from the cannabis plant and also includes concentrated preparation and resin known as hashish oil or liquid hashish.”

(b) Ganja: “The flowering or fruiting tops of the cannabis plant (excluding the seeds and leaves when not accompanied by the tops), by whatever name they be known or designated.”

(c) “Any mixture, with or without any neutral material, of any of the above forms of cannabis or any drink prepared therefrom.”

The Act, in its definition, excludes seeds and leaves “when not accompanied by the tops”. Bhang, which is made with the leaves of the plant, is not mentioned in the NDPS Act. As a “special provision”, the Act states that the government “may allow cultivation of any cannabis plant for industrial purposes only of obtaining fibre or seed or for horticultural purposes”.

Cannabis and criminal liability

Section 20 of the NDPS Act lays out the punishment for the production, manufacture, sale, purchase, import and inter-state export of cannabis, as defined in the Act. The prescribed punishment is based on the amount of drugs seized.

Contravention that involves a small quantity (100 g of charas/hashish or 1 kg of ganja), will result in rigorous imprisonment for a term that may extend to one year and/or a fine which may extend to Rs 10,000. For a commercial quantity (1 kg charas/ hashish or 20 kg ganja), rigorous imprisonment of not less than 10 years, which may extend to 20 years, including a fine that is not less than Rs 1,00,000 but may extend to Rs 2,00,000.

Where the contravention involves quantity less than commercial, but greater than small quantity, rigorous imprisonment up to 10 years is prescribed, along with a fine which may extend to Rs 1,00,000.

SONALI PHOGAT MAY HAVE BEEN GIVEN A METH OVERDOSE; HOW CAN THIS DRUG INDUCE A HEART ATTACK?

Goa Police have said BJP leader Sonali Phogat was given the recreational drug methamphetamine on the eve of her death on August 23. Phogat had been partying at Curlies Beach Shack in Anjuna along with her personal assistant Sudhir Sangvan and his aide Sukhwinder Singh, both of whom have been arrested for her murder.

The owner of the shack, Edwin Nunes and two alleged drug peddlers have also been arrested. CCTV camera footage shows Sangvan and Singh making Phogat drink from a bottle, and one of the accused holding and escorting the 41-year-old woman towards the bathroom of the shack. Police have allegedly recovered drugs from the bathroom.

Phogat was declared dead in St Anthony’s Hospital in Anjuna on August 23. She died after a heart attack that was initially thought to have been triggered by blunt injuries, but which is now understood to have been brought on by an overdose of methamphetamine.

The stimulant drug

The United States National Institute on Drug Abuse (NIDA), the lead federal agency supporting scientific research on drug use and addiction, says methamphetamine — meth for short — is a



powerful, highly addictive stimulant that affects the central nervous system, and is used to treat attention-deficit hyperactivity disorder (ADHD) and narcolepsy, a sleep disorder.

Crystal methamphetamine or crystal meth is a form of the drug that looks like glass fragments or shiny, bluish-white rocks. It is chemically similar to amphetamine.

Methamphetamine can be smoked, swallowed in the form of a pill or tablet, snorted, and injected after dissolving the powder in water or alcohol. Police have said the accused in the Phogat case, Sangvan and Singh, “intentionally gave the victim an obnoxious chemical substance in a liquid” hours before she died on Tuesday morning.

“Methamphetamine can lead to myocardial infarction (heart attack); it can cause stroke. The drug can affect the heart, the brain, and the kidneys. It can result in the blood pressure shooting up suddenly. So, it is a very dangerous drug if there is an overdose,” Dr Rommel Tickoo, director of internal medicine at Max Super Speciality Hospital, said.

However, Dr Tickoo said, “nobody knows how much can lead to overdose — that will depend on not just the quantity, but how the drug is taken, and how the individual processes it”.

In general, people get a feeling of euphoria after consuming the drug, Dr Tickoo said — and “although these problems occur when there is an overdose, it is a recreational drug that should not be used”.

Effect on the brain

Meth raises the amount of dopamine in the brain. Dopamine, a natural chemical, plays a role in body movement, motivation, and reinforcement of rewarding behaviours. According to NIDA, the ability of the drug to rapidly release high levels of dopamine in reward areas of the brain strongly reinforces drug-taking behaviour, making the user want to repeat the experience.

According to NIDA, even small amounts of meth can result in many of the same health effects as those of other stimulants, such as cocaine or amphetamines. These include increased wakefulness and physical activity; decreased appetite; faster breathing; rapid and/ or irregular heartbeat; and increased blood pressure and body temperature.

POLIO TO COVID-19: WHAT ACCOUNTS FOR INDIA'S VACCINATION SUCCESS STORY?

India's success with immunization is an achievement not only for the country but also for the world. India has consistently contributed to the global Sustainable Development Goals (SDGs) by focusing on the immunization of newborns, infants, children, and pregnant women. Under its Universal Immunization Programme (UIP), India provides vaccines against 11 diseases nationally and one disease sub-nationally, targeting close to 2.7 crore newborns and 2.9 crore pregnant women every year.

Vaccination is one of the most cost-effective public health interventions, which saves lives by protecting people, especially children, from dreadful vaccine preventable diseases. Since the discovery of the smallpox vaccine over two centuries ago, vaccines have effectively reduced the burden of diseases such as polio, measles, tetanus, whooping cough, influenza, and lately, Covid-19. A recent study in the medical journal The Lancet estimates that vaccines have prevented up to 3.7 crore deaths in the last 20 years in low- and middle-income countries alone.



Vaccines also have economic and social benefits. A study published in Health Affairs estimated that for every rupee invested in immunization against 10 pathogens in LMICs from 2021-30, the return on investment will be 52 rupees.

From polio to Covid-19

India has a long history of successful vaccination with historical accounts of inoculation dating back to the 18th century. After being declared smallpox-free in 1977, India launched the Expanded Programme on Immunization (EPI) in 1978, and introduced the BCG, DPT, and OPV vaccines. Since then, India's immunization programme has steadily improved in reach and the arsenal of childhood vaccines provided under its umbrella.

Newer vaccines, better infrastructure, and innovative strategies to improve both demand and supply of vaccines have been integral components of programme expansion. Along with a government-driven eradication plan, a multi-faceted communication approach helped the entire population achieve public ownership to be polio-free in 2014.

Since 2014, immunization activities have been intensified with catch-up rounds such as Mission Indradhanush to ensure that full immunization coverage of >90% is achieved and sustained across the country. In 2016, India became the first country in Asia to launch the Rotavirus vaccine under the UIP. And in 2017, the Pneumococcal Conjugate Vaccine (PCV) was introduced and scaled up using Made-in-India vaccines to prevent rotaviral diarrhoea and pneumococcal pneumonia in children.

PCV produced in India costs around Rs 200 per dose, making it affordable and accessible to protect young children from pneumococcal pneumonia in India and other parts of the world. Despite the Covid-19 pandemic, the vaccine was scaled up to all states of the country in 2021. Additionally, the introduction of the pentavalent vaccine in the routine vaccination provides protection against five diseases with no added infrastructure costs and fewer missed doses for individual vaccines.

Data from the National Family Health Surveys (NFHS) provide direct evidence of India's success: childhood vaccination rates have consistently improved over the last two decades with the proportion of children who are 'fully vaccinated' reaching 76% as per the latest 2019-21 survey. As India and the world set themselves up to eliminate measles by achieving a sustained vaccination coverage of 95%, the data from India look promising.

Measles vaccination rates have increased from 59% in 2006 to 88% in 2021. Mass immunization campaigns have prevented tens of thousands of measles deaths in children. India launched an ambitious Measles-Rubella (MR) vaccination drive and vaccinated over 3 crore children in three years. All the diseases prevented, and lives saved also translate into economic and social benefits.

India has achieved remarkable feats with childhood vaccination, and continues to do so with Covid-19 vaccination. India has overcome challenges across time and geography to reach much of its population, ensure last-mile delivery, finance a sustained large-scale operation at the government level, and develop and sustain trust among the people.

During the pandemic, lockdowns led to disruptions in routine immunization services and the closure of health facilities. And while we saw global collaboration to bring out vaccines at an unprecedented speed, we also saw an 'infodemic-fueled' vaccine hesitancy in people who previously trusted vaccines.



Sustained vaccination services, along with cultivating continued vaccine trust and basic knowledge of vaccine benefits in the general population, has helped prevent outbreaks of vaccine-preventable diseases such as measles and polio that are being seen in some parts of the world. Use of technology like the Electronic Vaccine Intelligence Network (eVIN) system that digitizes the entire vaccine stock management, their logistics and temperature tracking at all levels of vaccine storage from national to the sub-district, further ensures vaccine availability and vaccine safety.

What accounts for India's success?

One, since Independence, India has built up its biomedical enterprise including research and development, and manufacturing capacity. A fruitful public-private partnership has helped bolster this development. The indigenously produced Rotavirus and PCV vaccines, and the speed with which India was able to indigenously produce two Covid-19 vaccines, are examples of the return on these investments.

India also built its delivery infrastructure by establishing cold chain systems, and by developing and training a community health cadre of workers who established last-mile services. Today, India is the single largest producer of vaccines in the world, providing quality vaccines at low cost, and helping immunize other LMICs. It is estimated that almost two-thirds of the children in the world receive at least one vaccine manufactured in India.

Two, the infrastructural developments were accompanied by an improvement on the demand side through social and behavioural communication campaigns.

Such campaigns target all segments of the population to generate awareness about vaccine-preventable diseases and build trust and confidence in vaccinations. In our studies with pregnant and breastfeeding women across various states in India, we documented a continued positive attitude towards childhood immunization mostly because of accurate knowledge about vaccines and their benefits, and about vaccine-preventable diseases.

This awareness can be attributed to sustained communication campaigns as part of UIP. India uses various available platforms of communication to convey consistent and accurate information. Community health workers such as ASHAs and Anganwadi workers go door-to-door to provide information and identify the missed-out children and pregnant women for any due dose. They have been a cornerstone of the polio endgame through their role in vaccination and active surveillance.

While national leaders and celebrities spreading messages through mass media has proven to be useful, engagement with local community influencers who are “closer” to people has also tremendously helped build vaccine confidence. As media outlets proliferated, the government incorporated dissemination through new channels such as mobile messaging and social media as part of its evolving communication strategy.

Despite multiple challenges, vaccination is indeed one of India's public health success stories. As the world aims to bring about improved uptake of, and equity in Covid-19 vaccination, policymakers and public health practitioners can learn from India's vaccination programmes. Advocacy, capacity building, investment in research and manufacturing, community engagement, mass- and social-media engagement, and social mobilization have helped India reach its current vaccination coverage.



CAMERA HAS TWO FACES

By all accounts, Varun Nath was mildly inconvenienced for a few minutes. At around 7 am on August 30, Nath was stuck in a lift in his posh Gurgaon highrise for 3-4 minutes. When the lift operator, accompanied by a security guard got him out, he proceeded to slap them both. The CCTV footage that caught him in the act does not have sound. But it appears from the video that while his victims were trying to speak, Nath's first response was the violence of the entitled. Earlier this month, Bhavya Roy was caught on camera, with audio, abusing security guards at a Noida condominium. Unfortunately, both incidents are not infrequent. What has changed is that with the ubiquity of the camera — CCTVs, cellphones — the entitlement and casual violence that marks Indian society is now there for all to see.

Is the camera, then, so often seen as an instrument of "Big Brother", a way to bring to light daily injustices that are otherwise ignored? It is easy to imagine how — given the relative privilege and power of the residents of a high-rise vis-a-vis the staff — incidents like the ones involving Roy and Nath would be brushed under the carpet had it not been for the "viral videos". Yet, as with all era-defining technology, the assessment of mass surveillance and recording needs a nuanced approach.

It is easy to get swayed by the current of justifiable outrage at the reprehensible behaviour displayed in the videos. Yet, outrage alone is not enough to fix an unequal society and an ineffective criminal justice system. That requires an honest conversation about class, caste and the forms of violence used to police their boundaries. And the camera, as much as it is a tool for shining a light on dark places, can also be used to breach the boundaries of personal space and tell stories without context. The abusive behaviour in Gurgaon and Noida are instances of the former. But, the hidden camera — or the colony and office CCTV — can be used to great detriment too.

BULBUL-E-PAKISTAN

Pakistani singer Nayyara Noor, who died on Sunday after a long battle with cancer, was one of the most underrated singers from the subcontinent. She will be remembered as a musician with a dulcet voice that was admired by many, but never achieved the glory reserved for vocalists like Noorjehan and Begum Akhtar. This may have also been because she remained away from any flamboyance in terms of her music and personality.

Noor's family had migrated from Amritsar to Assam, where her father was an active member of the All India Muslim League. Born and raised in Guwahati, she grew up listening to songs by Begum Akhtar, Kanan Devi, Noorjehan, and Lata Mangeshkar, mostly through radio. It was at National College of Arts in Lahore that Noor was first noticed for her voice by Professor Asrar Ahmad of Islamiya College. She'd sung a Krishna bhajan — "Jo tum todo piya" from V Shantaram's "Jhanak Jhanak Payal Baaje" (1955). Attention came to her through an EMI tape titled "Nayyara Sings Faiz" (1976), recorded as a gift to the poet on his birthday. Noor sang 12 pieces of poetry by Faiz including the famed "Aaj bazaar mein pa-ba-jaulan chalo/ Chashm-e-nam, jaan-e-shoreeda kafi nahin (Let us walk in the bazaar in shackles/Wet eyes, restless souls are not enough)".

Noor never sang in the thick or robust or nasal voice that was then in fashion. She did not embellish her songs with many classical elements either. She was averse to complicated taans used by ustads and pundits to showcase their musical prowess. Nayyara Noor's music was just like her — gentle and perfectly controlled with an old-world charm to it.

**BUSINESS & ECONOMICS****SLOW IMPROVEMENT**

The latest official GDP estimates would in normal circumstances be a cause for cheer, pointing as they ostensibly do to a double-digit expansion in economic output in the first quarter. The NSO's projection of 13.5% growth in gross domestic product from the year-earlier April-June period, however, is disconcertingly slower than the 16.2% pace that the Reserve Bank of India (RBI) had projected just last month and points to an economy that is still in search of a firmer footing. Faced with headwinds — signs of a global recession and the Ukraine war — the first-quarter's underwhelming momentum may pitch the economy into a far shallower growth trajectory even as faster-than-acceptable inflation erodes consumer confidence. Output in the eight broad sectors that combine to provide the Gross Value Added (GVA) shows that while year-on-year all sectors expanded, with public administration, defence and other services growing 26.3%, six of these sectors posted sequential contractions. Only two services sectors — electricity, gas, water and other utility services, and financial and professional services — logged expansions from the January-March quarter, growing by 12.6% and 23.7%, respectively. The major employment-providing sectors of agriculture, manufacturing, construction and the contact-intensive trade, hotels and transport services sector suffered quarter-on-quarter contractions of 13.3%, 10.5%, 22.3% and 24.6%, respectively.

The demand side has flattered to deceive. Private final consumption expenditure, the essential bulwark of the economy, appeared to have revived with a year-on-year expansion of 25.9% lifting its share in the GDP to just shy of 60%. However, when viewed sequentially, the estimated ₹22.08 lakh crore of private consumption spending in April-June 2022 was a not insignificant ₹54,000 crore, or 2.4%, less than what was spent in the preceding quarter. And both government spending and gross fixed capital formation, which is viewed as a proxy for private investment, shrank quarter-on-quarter by 10.4% and 6.8%, respectively, undermining overall output. That GDP, in fact, contracted 9.6% sequentially should be a cause for concern among policymakers. Given that this year's monsoon has distributed rains in an erratic scattershot pattern that has caused disruptive flooding in some parts while leaving key paddy and pulses growing areas in northern and eastern India moisture deficient, both farm output and consumer spending in the rural hinterland are likely to take a hit. And with global trade also becalmed amid the sharp slowdown in advanced economies, India's merchandise exports are sure to weaken in momentum, any benefits from the rupee's depreciation against the dollar notwithstanding. With the RBI needing to stay laser focused on taming inflation, the onus is on fiscal authorities to spur consumption and investment.

MGNREGA, NCRB, INSURANCE DATA POINT TO UNABATED STRAIN AT MIDDLE AND LOWER ENDS OF INCOME DISTRIBUTION

After contracting in 2020-21, the Indian economy rebounded sharply in 2021-22, ending the year 1.5 per cent above its pre-pandemic level. This year the Reserve Bank of India expects it to grow at 7.2 per cent, making India one of the fastest growing economies in the world during this period. But the recovery from the pandemic lows has been anything but even. Beyond the headline numbers, there are indicators of the unabated pain stemming from the pandemic and the continuing distress in parts of the economy.



One possible indication of the scale of the distress comes from data on households/individuals who have worked under MGNREGA. In 2019-20, the year prior to the pandemic, 7.88 crore individuals worked under the scheme. In 2020-21, the first year of the pandemic, this number rose to 11.19 crore. While in the subsequent year it dipped to 10.62 crore, the number of individuals working under the scheme remained considerably higher than in the pre-pandemic period. In fact, so far this year, 6.29 crore individuals have already worked under the scheme as compared to 6.21 crore in the entire year of 2014-15. This growing reliance on MGNREGA likely indicates that other more remunerative employment opportunities remain limited. Another pointer to the economic distress at the lower end of the income distribution scale comes from the National Crime Records Bureau report — there has been a rise in suicides by daily wage earners and in 2021, daily wage earners accounted for a fourth of suicides in the country. As this paper has also reported, in 2021-22 over 2.3 crore life insurance policies were surrendered way ahead of their maturity by policy holders — this was more than thrice the number of policies surrendered the previous year. Other indicators point to subdued household purchasing power. As per data from SIAM, in 2021-22, sales of two-wheelers were lower than their 2019-20 levels by almost a quarter. Similarly, as per CRISIL, sales of cars priced below Rs 10 lakh grew by a mere 7 per cent in 2021-22, while those priced above Rs 10 lakh (the premium segment) grew by 38 per cent.

The bigger picture that emerges is one of pain at the lower and middle levels of income distribution. As policymakers navigate the tumultuous global macroeconomic environment, they must be mindful of the highly uneven nature of the recovery, and take measures to address the distress of the most vulnerable.

WHY TWO IITIANS ARE CHARGED IN A US INSIDER TRADING CASE

In late July this year, several Indian-origin people in the US were charged with committing financial crimes in separate cases. Among them was Brijesh Goel (37), a former Goldman Sachs Group Inc. vice president and banker, who was arrested on July 24 for allegedly participating in an insider trading scheme with his close friend, Akshay Niranjani (33). Between 2017 and 2018, Goel tipped Niranjani on at least seven deals that resulted in approximately \$290,000 in illegal profits, according to federal prosecutors.

Goel has been charged with four counts of securities fraud and one count of obstruction of justice, each carrying a maximum term of 20 years in prison. He has been charged with conspiracy to commit securities fraud and tender offer fraud as well, carrying a maximum term of five years in prison. He is currently out on a \$1 million bond, and cannot travel beyond New York and northern California, reported Bloomberg. What is the case against them that led to charges by a US government agency?

Insider trading and manipulation

While working at Goldman Sachs, Goel regularly received material nonpublic information (MNPI) about corporate merger and acquisition transactions, as well as potential public offerings in which his investment bank was acting as a financial adviser. Considered to be inside information, MNPI remains undisclosed to the general public because its release could affect the market value or trading price of the issuer's securities or stocks.

From February 2017 onwards, Goel misappropriated confidential information from strictly internal emails and gave Niranjani, who was employed at Barclays Bank Plc, the names of the potential target companies. Niranjani then used that MNPI to trade call options, which are financial



contracts that give the option buyer the right but not obligation to buy or sell certain stocks. The indictment against the two states that these call options would become profitable if the price of a company, that was targeted for acquisition, increased.

EFFECTING THE BAN ON SINGLE-USE PLASTICS

The story so far: The Ministry of Environment, Forest and Climate Change, Government of India, notified the Plastic Waste Management Amendment Rules, 2021 on August 12, 2021. In keeping with the spirit of the 'Azadi ka Amrit Mahotsav', the country is taking steps to curb littered and unmanaged plastic waste pollution. Since July 1, 2022, India has banned the manufacture, import, stocking, distribution, sale, and use of single-use plastic (SUP) items with low utility and high littering potential. India is a party to the United Nations Environment Assembly (UNEA). In all, 124 nations are party to the UNEA, and India has signed a resolution to draw up an agreement in the future that will make it legally binding for signatories to address the full life cycle of plastics, from production to disposal.

Why are single-use plastics harmful?

The purpose of single-use plastics is to use them once or for a short period of time before disposing of them. Plastic waste has drastic impacts on the environment and human health. There is a greater likelihood of single-use plastic products ending up in the sea than reusable ones.

India has taken resolute steps to mitigate pollution caused by littered single-use plastics. A number of items are banned, including earbuds with plastic sticks, balloon sticks, plastic flags, candy sticks, ice cream sticks, polystyrene (thermocool) for decorations, plates, cups, glasses, cutlery such as forks, spoons, knives, straws, trays, wrapping or packing films around sweet boxes, invitation cards, cigarette packets, plastic or PVC banners less than 100 micron, stirrers, etc.

What is the impact on the environment?

Littered single-use plastic items have an adverse effect on both terrestrial and aquatic ecosystems. All countries face a major environmental challenge due to pollution caused by single-use plastic items. India piloted a resolution on single-use plastics pollution at the 4th United Nations Environment Assembly in 2019, recognising the urgent need for the global community to address this issue. This resolution was adopted at the UN Environment Assembly as an important step forward. In the recently concluded 5th session of the United Nations Environment Assembly in March 2022, India engaged constructively with all member states to develop a consensus on a resolution to drive global action against plastic pollution.

However, India is not the first country to ban single-use plastics. Bangladesh became the first country to ban thin plastic bags in 2002; New Zealand banned plastic bags in July 2019. China had issued a ban on plastic bags in 2020 with a phased implementation.

As of July 2019, 68 countries have plastic bag bans with varying degrees of enforcement.

What are the plastic waste management rules in India?

With effect from September 30, 2021, the Plastic Waste Management Amendment Rules, 2021, prohibited the manufacture, import, stocking, distribution, sale, and use of plastic carry bags whose thickness is less than 75 microns. From December 31, 2022, plastic carry bags whose thickness is less than 120 microns will be banned.



It means that the ban does not cover all plastic bags; however, it requires the manufacturers to produce plastic bags thicker than 75 microns which was earlier 50 microns. As per the notification, the standard shall be increased to 120 microns in December this year.

The notification clearly mentioned that plastic or PVC banners/ hoardings should have more than 100 microns in thickness, and non-woven plastic (polypropylene) must be more than 60 GSM (grams per square metre). Non-woven plastic bags have a cloth-like texture but are counted among plastics. Still, plastic or PET bottles, counted among the most recyclable types of plastic, have been left out of the scope of the ban.

In addition, the Indian government has taken steps to promote innovation and create an ecosystem for accelerated adoption and availability of alternatives across the country. To ensure the effective enforcement of the ban, national and State-level control rooms will be established, as well as special enforcement teams for the purpose of checking the illegal sale and use of single-use plastics. To prevent the movement of banned single-use plastic items between States and Union Territories, border checkpoints have been established.

In an effort to empower citizens to help curb the plastic menace, the Central Pollution Control Board (CPCB) has launched a grievance redressal application.

The Government has been taking measures for awareness generation towards the elimination of single-use plastics. The awareness campaign has brought together entrepreneurs and start-ups, industry, Central, State and local Governments, regulatory bodies, experts, citizen organisations, R&D and academic institutions.

What is the role of the manufacturer?

In addition, the Ministry of Environment, Forests, and Climate Change notified the Plastic Waste Management Amendment Rules, 2022 on February 16, 2022. Extended Producer Responsibility (EPR) is the responsibility of a producer for the environmentally sound management of the product until the end of its life. The guidelines provide a framework to strengthen the circular economy of plastic packaging waste, promote the development of new alternatives to plastic packaging and provide the next steps for moving towards sustainable plastic packaging by businesses.

What are the challenges?

The ban will succeed only if all stakeholders participate enthusiastically and engage in effective engagement and concerted actions.

However, if we look back at our past, almost 25 Indian States previously banned plastic at the state level. However, these bans had a very limited impact in reality because of the widespread use of these items.

Now the challenge is to see how the local level authorities will enforce the ban in accordance with the guidelines. Banned items such as earbuds with plastic sticks, plastic sticks for balloons, etc., are non-branded items and it is difficult to find out who the manufacturer is and who is accountable for selling because these items will be available in the market even after the issuing of guidelines.



What's happening on the research and development front?

The consumer needs to be informed about the ban through advertisements, newspaper or TV commercials, or on social media. In order to find sustainable alternatives, companies need to invest in research and development. The solution to the plastic pollution problem is not the responsibility of the government alone, but of industries, brands, manufacturers and most importantly consumers. Finding alternatives to plastic seems a little difficult, however, greener alternatives to plastic may be considered a sustainable option. For example, compostable and biodegradable plastic, etc., may be considered as an option.

While the total ban on the use of plastic sounds a great idea, its feasibility seems difficult at this hour, especially in the absence of workable alternatives.

ADANI'S NDTV PLAN

The story so far: A battle to control the management of New Delhi Television Ltd. (NDTV), which operates one of the leading television news outlets in the country, is brewing between the Adani Group and the founders of NDTV. On Tuesday, the group announced that it would indirectly take over control of 29.18% of NDTV in lieu of unpaid debt. The Gujarat-based conglomerate also said it planned to make an open offer worth ₹493 crore to NDTV's public shareholders to acquire an additional 26% of the media outlet to comply with the rules laid down by the Securities and Exchange Board of India (SEBI). If the open offer made by the Adani Group entity is successful, NDTV would come under the control of billionaire Gautam Adani's expanding business empire.

What is it all about?

NDTV's promoters and their holding entity Radhika Roy Prannoy Roy Holding (RRPR) had taken an interest-free loan of a little more than ₹400 crore from Vishvapradhan Commercial Pvt. Ltd. (VCPL), a firm indirectly controlled by billionaire Mukesh Ambani's Reliance Industries, in separate tranches, in 2009 and 2010. According to the loan agreement, the Roys transferred a portion of their shares to RRPR such that RRPR in effect owned 29.18% of NDTV. Warrants were also issued to VCPL allowing the entity to acquire 99.9% of equity in RRPR in case the loan was unpaid. Before the loan, the Roys owned a majority stake of about 55% in NDTV. Right now, Radhika Roy and Prannoy Roy together hold about 32.26% of the company in their individual capacities. On Tuesday, AMG Media Networks, a wholly owned subsidiary of the Adani Group's flagship Adani Enterprises Ltd. bought VCPL from its current owners for ₹113.74 crore and immediately exercised the warrants to acquire a 29.18% stake in NDTV and announced an open offer to buy an additional 26% stake.

What are the possible legal implications of the proposed takeover?

On first look, the partial takeover seems to be legally valid as the terms of the loan agreement suggest that VCPL is well within its rights to exercise the warrants to convert the debt it issued into equity. However, Prannoy Roy and Radhika Roy have contended that they would not be able to transfer RRPR's stake in NDTV to VCPL as they are barred by a SEBI order from dealing in the securities market for two years till November. They have also contended that they were not consulted by the lender before the exercise of the warrant. Creditors, in most instances, do not necessarily need to seek permission from borrowers before they exercise any warrant to take control of the indebted entity. While the Securities Appellate Tribunal's order dated July 20, 2022, cites the loan agreement to note: "VCPL and its affiliates cannot purchase shares of NDTV which



will increase their holding to more than 26% in NDTV without the consent of the promoters”, whether this clause also covers the conversion is not clear. Only a perusal of the fine print of the loan agreement, which is not in the public domain, can shed light on whether the creditor was required to consult with the Roys before exercising the warrants.

How is the Adani Group going about the takeover?

The Adani Group acquired VCPL, the original lender to NDTV’s promoters, and then used its ownership of VCPL to exercise the call option on the warrants to gain control of a 29.18% stake in NDTV. The potential ‘hostile’ takeover of NDTV by the Adani Group has got many worried about its implications for media independence. They contend that corporate ownership of news media organisations could lead to increased bias and censorship. Even though the news industry has been struggling to grow and stay profitable, large corporations have at the global level shown interest in acquiring news outlets. Jeff Bezos, a billionaire and the chairman of Amazon, bought The Washington Post in 2013. Earlier this year, Adani Enterprises bought a 49% stake in Quintillion Business Media.

What lies ahead?

The Roys and the Adani Group may get involved in either a protracted legal battle or an aggressive bidding war to gain majority control over NDTV. The open offer by Adani seeks to purchase 26% of NDTV from public shareholders at ₹294 per share. The price offered to public shareholders is much lower than the market price of NDTV’s shares, which closed at about ₹423 rupees on Friday. NDTV’s shares have risen rapidly recently probably in the expectation that a higher price could soon be offered to public shareholders. The Adani Group, with its financial power, however, may hold the upper hand in any bidding war to acquire shares from public shareholders.

‘SINGLE BRAND TO HELP CUT FERTILIZER COST’

After the Opposition’s criticism that the Centre’s decision to introduce “One Nation, One Fertilizer” by branding it as the Pradhanmantri Bharatiya Janurvarak Pariyojna (PMBJP) is for self-promotion, Union Minister for Fertilizers and Chemicals Mansukh Mandaviya said on Saturday that the scheme was aimed at reducing the logistics cost involved in the transportation of fertilizers.

In an informal briefing, Mr. Mandaviya said the Centre had taken steps to ensure the steady availability of fertilizers by entering into agreements with countries such as Russia and Saudi Arabia at the time of a global shortage for fertilizers. He said that recently, the Centre signed an agreement in Saudi Arabia for the supply of 2.5 million tonnes of fertilizers for different Indian manufacturers.

Mr. Mandaviya said “One Nation One Fertilizer” would stop the criss-cross movement of fertilizers for longer distances. “It will reduce logistics costs and also ensure the availability of fertilizers to the farmers throughout the year. This concept will strengthen to monitor real-time movement, availability and sales of fertilizers in a State,” he said. The Minister said that the production and distribution process would be redrawn as the companies would not have to transport their products beyond 500 kilometres on average.

On the criticism that prices of essential fertilizers such as diammonium phosphate (DAP), Muriate of Potash (MoP) and single super phosphate (SSP) are high, he said the prices were decontrolled as per the nutrient-based subsidy policy from 2010. “Prices are fixed by phosphatic and potassic



(P&K) fertilizer companies as per market dynamics. “Due to the rise in international prices of fertilizers and raw materials due to the pandemic, supply chain disruptions and the present geopolitical situation, the Centre increased substantial amount of subsidy on fertilizers to subsume rise in prices,” he added.

He said the specifications of fertilizers were the same across the nation despite their brand.

“After the introduction of the ‘Bharat’ brand under One Nation, One Fertilizer, farmers would not be confused to choose the brand. It will encourage capturing the local market by selling fertilizers by companies and would lead to timely availability of fertilizers to the farmers,” he said adding that there is no compromise on the quality of fertilizers.

IARI: NEW VIRUS BEHIND MYSTERY DWARFING OF RICE

THE INDIAN Agricultural Research Institute (IARI) has confirmed that the mysterious disease resulting in “dwarfing” of rice plants, reported mainly from Punjab and Haryana, has been caused by the Southern Rice Black-Streaked Dwarf Virus (SRBSDV). The virus is spread by the white-backed plant hopper, an insect pest, which injects it while sucking the sap from mostly young plants.

“The presence of the virus was detected both in the infected plants and the body of the vector insect, whose RNA was isolated. But the virus was not found in the seeds collected from the infected plants. The virus is specific to the phloem (plant tissues that transport sugar and organic nutrients from the leaves to other parts) and is not transmitted by seed or grain,” A K Singh, director of IARI, the premier New Delhi-based institute, told The Indian Express.

An IARI team surveyed a total of 24 fields in Sonapat, Panipat, Karnal, Kurukshetra, Ambala and Yamunanagar districts of Haryana. In the fields where the disease was recorded, the infected plants varied from 2 to 10 per cent. In a severely-affected field in Panipat, up to 20 per cent incidence was recorded.

“The affected plants showed severely stunted appearance. The roots were poorly developed and turned brownish. The infected tillers can be easily pulled out,” the IARI said in its report that has been submitted to the Union Agriculture Ministry.

The institute carried out a comprehensive investigation to diagnose the cause of the mystery “dwarfing” disease, using three independent methods: transmission electron microscopy, RT-PCR and real-time quantitative PCR.

The first method indicated the presence through visualisation of the SRBSDV, which belongs to the Fijivirus genus and was first detected in China in 2008. The second method confirmed it by “using specific primers targeting two different genomic components of the virus”. The third “further validated” the infection in the symptomatic samples and the white-backed plant hopper vector, besides confirming the absence of the virus in the seeds collected from the plants.

The IARI investigation has revealed the infection in as many as 12 rice varieties, both basmati (Pusa-1962, 1718, 1121, 1509, 1847 and CSR-30) and non-basmati (PR-114, 130, 131, 136, Pioneer Hybrid and Arize Swift Gold). “In general, the non-basmati varieties were more affected than basmati. Also, the late-sown paddy had less infestation than the early sown,” the report said.



Given that the virus is exclusively transmitted by the white-backed plant hopper, the IARI has advised farmers to monitor the fields every week for the presence of the insect. The pest can be managed by spraying recommended dosages of 'buprofezin', 'acetamiprid', 'dinotefuran' or 'flonicamid' insecticides at 15-day intervals.

RELIANCE JIO 5G IN THE 4 METROS BY DIWALI, HOW WILL ITS 'STANDALONE' ARCHITECTURE WORK?

India's largest telecom company Reliance Jio on Monday announced the launch of its 5G services in Delhi, Mumbai, Kolkata, and Chennai by Diwali this year, with an aim to expand and cover the entire country by December 2023.

The company said it will launch its 5G services on a "standalone" 5G architecture, against the "non-standalone" approach that other operators are betting on. The disagreement between service providers on the network modes they are taking to roll out the next generation of mobile telephony also spotlights questions over the readiness of Indian consumers to move to 5G.

What are the two different modes of 5G networks?

5G networks are deployed mainly on two modes: standalone and non-standalone. Both architectures have their advantages and disadvantages, and the path chosen by operators primarily reflects their view of the market for the new technology, and the consequent rollout strategy.

In the standalone mode, which Jio has chosen, the 5G network operates with dedicated equipment, and runs parallel to the existing 4G network, while in the non-standalone mode, the 5G network is supported by the 4G core infrastructure.

Given that the non-standalone networks are built on existing infrastructure, the initial cost and the time taken to roll out services through this track is significantly less than standalone networks. Jio has committed an investment of Rs 2 lakh crore for its standalone 5G network.

What are the key differentiators between standalone and non-standalone 5G networks?

The standalone mode provides access to full 5G capabilities and new network functionalities such as slicing that provides greater flexibility to operators to efficiently use their spectrum holdings.

Non-standalone networks are generally considered to be a stepping stone, and global precedent suggests operators that have launched non-standalone 5G networks eventually transition to standalone networks. The non-standalone mode, however, lets operators maximise the utilisation of their existing network infrastructure with relatively lower investment.

The biggest difference in the two architectures is the compatibility with existing device ecosystems. Most smartphones today have capability to connect to non-standalone 5G networks — which are essentially 5G airwaves transmitted through 4G networks — and will require software updates by their OEMs to be able to connect to standalone networks.

How is the 5G smartphone ecosystem in India shaped?

Share of 5G smartphones in India has been on a steady rise over the last two years. According to data sourced from analytics firm Counterpoint Research, 5G-enabled smartphones accounted for a paltry 3 per cent of overall smartphone shipments in India, which is expected to grow to 35 per



cent by the end of 2022. Currently, smartphones in the mid-tier segment — costing between Rs 20,000 and Rs 30,000 — have the highest share of 5G smartphones at 39 per cent, followed by the budget segment where 34 per cent of all smartphones are 5G-enabled.

Until June 2022, Samsung had the highest share of 5G smartphones sold in the country with a market share of 24 per cent, followed by Vivo (13 per cent) and OnePlus (13 per cent). Reliance Jio also said on Monday that it was working with Google, which makes the Android operating system, to launch a budget 5G phone. “We are working with Google to develop ultra-affordable 5G smartphones for India,” Reliance Industries Chairman Mukesh Ambani said.

What are the broad benefits of 5G for consumers?

5G could have benefits for consumers owing to the superior Internet speed and low latency it promises over 4G. At its peak, Internet speeds on 5G could touch 10 Gbps, compared to the 100 Mbps peak of 4G. Similarly, latency under 4G is between 10-100 ms (millisecond) whereas on 5G it is expected to be under 1 ms. Latency is the time it takes for a device to send packets of data and get a response. Shorter the latency, quicker the response.

According to a May 2019 report by Ericsson, a key player in the 5G equipment market, while it is a common belief that 5G might not deliver any near-term benefits for consumers, they expect 5G to offer a step change in network performance, relief from urban network congestion, and more home broadband choices as near-term benefits.

Further, it pointed out that while there were reservations back in 2010 during the onset of 4G about the technology’s actual benefits for consumers, today, a number of online activities — from streaming ultra high definition content to making video calls, especially propelled by the pandemic — that are possible on 4G, would have been near impossible on 3G speeds.

“Consumers expect to be able to stream videos seamlessly wherever they are, regardless of how many others are trying to do the same. Upgrading to 5G could bring rapid relief to consumers suffering from capacity constraints in their networks,” Ericsson’s report said.

Does the nature of the 5G network also determine use cases?

For most industrial use cases such as manufacturing, Internet of Things, artificial intelligence, the speeds and latency levels offered by 5G telephony are the key selling propositions. These low latencies and high Internet speeds can only be made available through the standalone architecture.

Also, given the high investments that would have typically gone into standalone modes, operators would look at designing high-margin offerings for business customers on these networks. Comparatively, the early rollout timelines and low infrastructure costs would make non-standalone networks more attractive for smartphone users.

“It (non-standalone) is the most widely available ecosystem in the world, and as you know telecom is a game of ecosystems. In the US and South Korea, where both SA and NSA have been launched, the traffic on SA is less than 10 per cent of the total 5G traffic,” Gopal Vittal, Managing Director & Chief Executive Officer, Bharti Airtel, said earlier this month at the company’s quarterly earnings call.



5G CELLS TO PIGGYBACK ON POLES, HOARDINGS

To expedite the roll-out of 5G, telecom operators in the country will leverage street furniture such as poles, advertisement hoardings and bus shelters for deploying low-power base stations called 'small cells' that will help bring the network closer to the consumers.

"Small cells are needed for deploying 5G as opposed to earlier generations such as 4G, because of the frequency. The higher the frequency, the lower the wavelength, which means that the distance they travel is less," S.P. Kochhar, director-general at the Cellular Operators Association of India, said.

He added that for higher frequencies in the range of 3.3-3.6 GHz, which are expected to be used for offering 5G services, the waves will travel 100-150 metres. At present, telecom towers, which are about 30 metres high, are placed at a distance of about 5 km apart.

The Telecom Regulatory Authority of India (TRAI) has also issued a consultation paper on the "Use of street furniture for small cell and aerial fibre deployment", wherein it states that small cells will play a critical role in the success of 5G as these are needed to exploit features of 5G such as support low latency, ultra-high speeds, and massive connection densities.

Small cells are low-powered radio access nodes or base stations that have a coverage range from a few metres up to a few hundred metres. They are portable, easy to deploy and help provide localised coverage. As per the TRAI paper, small cells provide coverage for very short distances and therefore they are installed in a large number — even more than 200 per square kilometre — for good geographical coverage to provide highly reliable and high-capacity broadband.

Mr. Kochhar added that lower height (6-7 metres) poles are sufficient to install small cells, and a good ecosystem of such poles already exists in the form of street lights, electricity and traffic lights poles. "We expect to cover about 100 meters radius from each pole for the coverage to be adequate," Mr. Kocchar said.

Leveraging of existing street infrastructure will also save the hassle and investments needed for erecting new poles along roadside, especially in highly populated areas.

The Department of Telecom last week also notified the amended Right of Way Rules, which pave the way for deployment of 5G small cells on existing street infrastructure, and expects these reforms to enable launch of 5G services in the country by October, 2022. The amendments include rationalisation of charges, introduction of a single window clearance system and doing away with the need for consent from a government authority for installing infrastructure over private property. To facilitate faster 5G roll-out, RoW application procedures for small cells have been simplified and telecom licensees will be able to use street infrastructure to deploy telecom equipment at a cost of ₹150 a year in rural areas and ₹300 in urban areas.

CALIFORNIA'S DECISION TO PHASE OUT NEW PETROLEUM-POWERED VEHICLES

California has approved a ban on the sale of new petroleum-powered vehicles by 2035 — a landmark policy intervention that could have an impact throughout most other American states, and in countries outside of the US.



How does this work?

The rule would kick in with a 35 per cent limit on new passenger vehicle sales to be “zero emission” (or Battery Electric Vehicles) by 2026, which then goes up to 68 percent by 2030, and 100 per cent in 2035. The 35 per cent figure set for 2026 is up from over 16 percent of new car sales being “zero-emission” in 2022, and up from 12.5 percent in 2021 and 7.8 percent in 2020.

Why is this important?

California, besides being the biggest US state, is one of the largest markets for car sales in the world. So, California’s position on new car sales is extremely important given the state’s status as a torch bearer for clean air regulations. So far, 14 other US states have adopted California’s zero-emission vehicle program for passenger vehicles, which was launched in the early 1990s.

The state is prepared to make the necessary investments to spur the shift to EVs, including \$10 billion in vehicle incentives, charging infrastructure, and public outreach over the next six years. The state is paying low-income residents up to \$9,500 to trade in internal combustion engine-powered cars for an EV, as well as \$7,000 for any resident who wants to buy or lease an electric car.

Are there challenges?

One potential obstacle has been the rising sale price for most EVs on the market, although experts predict that prices will come down as more models are available to customers. There are also concerns about whether the state can push charging infrastructure to power the EV transition.

California’s rules are seen as taking off from the Joe Biden Administration’s Inflation Reduction Act’s climate provisions, especially new tax credits that are aimed at incentivizing EV sales and the domestic supply chain.

What is India’s stance?

India has a target of meeting at least 65 per cent of all new vehicle sales to be electric by 2030. Progress has been patchy though, with 6.38 lakh EVs registered in India since 2012 – less than 1 per cent of the total vehicle count. What is encouraging is that over 15 states have issued or adopted EV policies so far. A CEO-led panel of more than 25 companies, including automakers Mahindra & Mahindra and Volvo, oil major Shell, and clean mobility startups, however said India should set firm targets and frame policies to support the transition to EVs, according to the World Business Council for Sustainable Development.

**LIFE & SCIENCE****DESTINATION MOON AND BEYOND FOR NASA'S ARTEMIS 1**

The launch of a keenly awaited space mission that is being seen as the start of a new age in space exploration had to be put off on Monday evening after engineers were unable to resolve a problem involving inadequate flow of liquid hydrogen to one of the rocket's four engines. NASA's Artemis 1 mission is aimed at exploring the Moon with the specific objective of getting human beings back on the lunar surface and possibly beyond — to Mars and elsewhere.

NASA did not say when it would attempt to launch the mission again. There are at least two windows of opportunity in the next one week, and more after a few weeks. But it will all depend on how soon the problem is fixed.

Back to the Moon

It has been 50 years since the six Apollo human moon landings between 1969 and 1972. There has been huge progress in space exploration since then. Spacecraft have now gone beyond the solar system, exploratory missions have probed Mars, Jupiter and Saturn, more than 500 astronauts have travelled to space and back, and permanent space laboratories like the International Space Station (ISS) have been set up.

However, the promise of transporting human beings to new worlds, the possibility of landing, and living, on other planets, or travelling deep into space, probably even encountering aliens, has remained stagnant since the last of the 12 astronauts to set foot on the Moon returned in 1972.

This is why Artemis 1 is being seen as ushering in a new space age. It is the first in a series of ambitious missions that are planned to take human beings back to the Moon, explore possibilities of extended stay there, and investigate the potential to use it as a launch pad for deep space explorations.

On the face of it, Artemis 1 has extremely humble mission objectives. It is technically only a lunar Orbiter mission. It is not carrying any astronauts. It does not even have a lander or rover component. The mission's spacecraft, called Orion, will get into a lunar orbit that would be about 97 km from the Moon's surface at its closest. But unlike most other Orbiter missions, Orion has a return-to-Earth target after it has orbited the Moon for about a month.

Not reinventing the wheel

Although the objective is to ensure the return of human beings to the Moon, the Artemis missions are going to be qualitatively very different from the Apollo missions. In many ways, the Moon landings of the 1960s and 1970s came a little too early in the space age. Man had reached the Moon just 12 years after the first-ever satellite, Sputnik, had been launched.

The Apollo missions were guided by geo-political considerations, and the desire of the United States to go one up on the Soviet Union which had taken a considerable lead in space technology, having sent the first satellite in space, the first spacecraft to crash on to the lunar surface, and the first astronaut in space.

President John F Kennedy had made a public announcement in 1961 that the US would put a man on the Moon before the decade was out. That deadline was met, thanks to a massive mobilisation



of resources towards that end. But the technology ecosystem that could have maximised the benefits of such a major scientific breakthrough was still to be built. Therefore, astronauts landing on the moon could do little than bring back samples back to Earth for investigations.

The Artemis missions are in a position to exploit the major advancements in space technologies over the years. These technologies now make it possible to start extracting the resources found on the Moon, build from the materials available there, harness hydrogen or helium as energy source. Not all of that would happen with the first mission itself, but these things are distinctly possible now, making human landings on the Moon much more meaningful than earlier.

Setting the stage

Artemis 1 is all about laying the foundations for more complex and ambitious missions. It is carrying several payloads in the form of small satellites called CubeSats, each of which is equipped with instruments meant for specific investigations and experiments. The focus of these investigations is clearly to explore long-term stays of human beings in space, and on the Moon. One CubeSat will search for water in all its forms, another will map the availability of hydrogen that can be utilised as a source of energy. Then there are biology experiments, investigating the behaviour of small organisms like fungi and algae in outer space, and the effect of radiation, especially the reaction on their genes.

The Orion spacecraft, which is specifically designed to carry astronauts into deep space on future missions, will have three dummy 'passengers' — mannequins made of material that mimic human bones, skin, and soft tissue. These would be equipped with a host of sensors to record the various impacts of deep space atmosphere on the human body.

The rocket that is being used for the Artemis missions, called Space Launch System, or SLS, is the most powerful ever built, more powerful than the Saturn V rockets that had taken the Apollo missions to the Moon. The giant, 98-metre-tall rocket, weighing 2,500 tonnes, can help the Orion spacecraft achieve speeds of over 36,000 km per hour, and take it directly to the Moon, which is 1,000 times farther than the International Space Station that sees a regular traffic of astronauts.

The aborted launch

The excitement around the mission will, however, have to be held back for the time being. There was a two-hour window on Monday to launch the mission, between 8.33 am and 10:33 am Eastern Daylight Time (about 6 pm to 8 pm in India). The launch was called off shortly after 8.33 am (6 pm India time) since the engineers who had been working on the problem for over two hours had been unable to resolve the issue.

The problem had been detected a few hours ahead of the launch. The flow of liquid hydrogen to one of the four engines of the rocket was not found to be optimal, which could have resulted in over-heating.

"We don't launch until it's right," NASA Administrator Bill Nelson said on NASA TV after the launch was aborted.

"It's just illustrative that this is a very complicated machine... They're going to work it. They're going to get to the bottom of it... We'll get it fixed and then we'll fly," he said.



MARTIAN ROCKS

The accepted view of Mars is red rocks and craters as far as the eye can see. That's much what scientists expected when the rover Perseverance landed in the Jezero Crater, a spot chosen partly for the crater's history as a lake and as part of a rich river system.

But what the rover found once on the ground was startling. Rather than the expected sedimentary rocks — washed in by rivers and accumulated on the lake bottom — many of the rocks are volcanic in nature. Specifically, they are composed of large grains of olivine, which are green in colour (Science).

The rocks and lava the rover is examining on Mars are nearly 4 billion years old. Rocks that old exist on Earth but are incredibly weathered and beaten, thanks to Earth's active tectonic plates as well as the weathering effects of billions of years of wind, water and life. On Mars, these rocks are pristine and much easier to analyse and study.

Understanding the rocks on Mars, their evolution and history, and what they reveal about the history of planetary conditions on Mars helps researchers understand how life may have arisen on Mars and how that compares with early life and conditions on ancient Earth.

Scientists can use conditions on early Mars to help extrapolate the environment and conditions on Earth at the same time when life was beginning to arise.

Understanding how, and under what conditions life began will help scientists know where to look for it on other planets and moons.

The search for life is one of Perseverance's main goals and one of the reasons it landed in Jezero Crater in the first place.

LA NINÃ CONDITIONS ENTER 3RD YEAR, 6TH TIME SINCE 1950

In what may be termed as an uncommon phenomenon, La Niña conditions prevailing over the equatorial Pacific Ocean since September 2020 has entered the third year. There are only six instances of La Niña lasting for more than two years since 1950s, data with the India Meteorological Department (IMD) show.

La Niña is when the sea surface temperatures (SSTs) along the central and equatorial Pacific Ocean are colder than normal, which, experts say, favour the Indian summer monsoon. However, La Niña years are also infamous for frequent and intense hurricanes and cyclones in the Atlantic Ocean and the Bay of Bengal.

This year, India has received 740.3mm rainfall which was quantitatively 7 per cent above the seasonal average till August 30. Out of the 36 states/Union Territories, 30 have received rainfall categorised as 'normal' or 'excess' or 'large excess'.

The opposite is El Niño, that is, warmer SSTs prevail over these regions.

By mid-August, meteorologists at Australia's Bureau of Meteorology (BoM), the National Oceanic and Atmospheric Administration (NOAA), USA, and India's Monsoon Mission Climate Forecast System (MMCFS) confirmed that the La Niña conditions are here to stay till the end of 2022.



This was in contrast to the forecasts issued by these multiple agencies in April this year that La Niña will dissipate by August.

From remaining at the La Niña 'watch' status, two of BoM's latest Climate Driver bulletins issued this month upgraded it to La Niña 'alert' status. In June this year, the World Meteorological Organisation had termed the persisting La Niña conditions as 'stubborn'.

"The continuing La Niña is abnormal but a good sign for the Indian monsoon. It may be good for India but not for some other countries," M Rajeevan, former secretary, Ministry of Earth Sciences (MoES), told The Indian Express.

Roxy Mathew Koll, senior scientist at Pune-based Indian Institute of Tropical Meteorology (IITM), too, shared that La Niña could be one of the reasons for India receiving good rainfall spells in the past three months. "Without La Niña, the monsoon currents could have been weaker," Koll said.

La Niña years are infamous for frequent and intense hurricanes and cyclones in the Atlantic Ocean and the Bay of Bengal. "La Niña favours a higher rate of cyclone formation in the Bay of Bengal," Koll said.

WHAT IS THE UN HIGH SEAS TREATY, AND WHY HAVE COUNTRIES FAILED TO AGREE ON IT?

Negotiations involving 168 countries, including the European Union, to agree on a UN treaty for protecting oceans failed Saturday (August 27). When the latest round of talks began two weeks ago in New York, it was hoped that an agreement would be arrived at for the conserving marine life at the 'high seas' which lie outside the exclusive jurisdiction of different countries.

In June, UN Secretary-General Antonio Guterres had declared an "ocean emergency" at the UN Ocean Conference in Lisbon, Portugal, citing threats to the world's oceans.

What is the proposed UN High Seas treaty?

Also referred to as the 'Paris Agreement for the Ocean', the treaty to deal with Biodiversity Beyond National Jurisdiction has been under discussion for several years.

The proposed treaty concerns the ocean existing beyond the Exclusive Economic Zones that lie from the coast of a country to about 200 nautical miles or 370 km into the sea, till where it has special rights for exploration. Waters beyond that are known as open seas or high seas.

The treaty was to be negotiated under the United Nations Convention on Laws of the Sea (UNCLOS) of 1982 which governs the rights of countries regarding marine resources. As there is no treaty for conserving the health of vast swathes of the earth's oceans, a UN resolution in 2017 had decided to rectify this while setting 2022 as the deadline.

The pandemic resulted in many delays, and later, a High Ambition Coalition, which now has more than 100 countries including India, the US, and the UK, came about and put the focus on '30×30' goals – protecting 30% of the ocean by 2030. After the latest deadlock, talks will only resume next year, unless a special session is called.

Some aspects of negotiations included establishing marine protected areas to put limits on certain activities, environmental impact assessments or clearances for sustainability of works, financial



support to countries and sharing other scientific knowledge. The International Union for Conservation of Nature has said binding agreements are needed for this treaty to be effective.

How are the world's oceans regulated as of now?

Some treaties, along with the UNCLOS, regulate the conduct of actors on the high seas. The UNCLOS led to the establishment of territorial sea boundaries 22 km offshore, deciding the region up to which countries could claim full sovereign territorial rights, as well as the 200 nautical miles EEZ limit. It also created the International Seabed Authority and other conflict-resolution mechanisms.

But a treaty dedicated to protecting ocean health does not exist as of now. Conversely, every country has the right to access open seas, resulting in large-scale drilling and trawling operations for catching fish and other animals for commercial purposes.

What are the risks of countries failing to reach an agreement?

Ninety per cent of global warming is occurring in the ocean, according to the NASA website.

"The effects of ocean warming include sea level rise due to thermal expansion, coral bleaching, accelerated melting of Earth's major ice sheets, intensified hurricanes, and changes in ocean health and biochemistry," it says. Excessive fishing has increased manifold over the years, and a third of species such as sharks and rays are at the risk of extinction, according to the World Wildlife Fund.

Despite acknowledging these threats, members failed to agree on how to deal with these threats.

There has been talk of resistance from countries that engage in deep sea mining of minerals or are heavily invested in fishing. "Although we did make excellent progress, we still do need a little bit more time to progress towards the finish line," UN Oceans Ambassador Rena Lee said, the AFP reported.

Some countries in the Caribbean alleged that richer countries of the Global North did not actively participate until the last few days of the talks.

DECODING MOSQUITOES' SENSE OF SMELL

Of the nearly 3,000 species of mosquito, a handful are choosy and will only target people for their blood. Some of these, for instance, *Aedes Aegypti*, *Anopheles* and *Culex* are well known as vectors for diseases such as dengue, malaria and West Nile fever. How these species are specifically able to detect humans — and often from as many as 50 metres away — has intrigued scientists.

Principle of obfuscating

A science question apart, understanding these behavioural patterns of the insect influences methods to trap and eliminate them. Mosquito repellents work on the principle of obfuscating the insect's sense of smell. The most common chemical in repellents, diethyltoluamide (DEET) for instance, confuses the mosquito's antennae that's sensitive to sweat and carbon dioxide from the human body.

However, this and several other ingredients such as picaridin, IR3535 and eucalyptus oil are not foolproof. The reason for this, a study this month in the journal *Cell* reports, is that mosquitoes



have evolved resilient back-ups in their olfactory system that make sure they can always smell our scents.

Olfactory neurons, that are designed to transmit sensations of smell to receptors in the brain, are only responsible for detecting one type of odour in animals. Thus, if a single odorant receptor is damaged in a person, all of the neurons that express that receptor will lose the ability to sense that smell. However, the researcher-team found that mosquito's olfaction didn't work like that.

Detection by neurons

1-octen-3-ol, is a chemical secreted in human sweat that can be detected only by specific set of neurons in people and mosquitoes. In these insects, however, these neurons are also stimulated by amines, another type of chemical mosquitoes use to look for humans. This is unusual since according to all existing rules of how animals smell, neurons encode odour with narrow specificity, suggesting that 1-octen-3-ol neurons should not detect amines.

Thus, the neurons for detecting humans through 1-octen-3-ol and amine receptors were not separate populations and could allow all human-related odours to activate the part of the mosquito brain that senses the presence of humans even if some of the receptors were lost, acting as a fail-safe.

LESS ACTIVE DOGS MORE LIKELY TO GET DOGGY DEMENTIA, SAYS STUDY

Just like dementia in humans, dogs too experience a decline in cognitive functions, which is known as canine cognitive dysfunction (CCD) or doggy dementia.

A large sample-size study published in the journal Scientific Reports on August 25 has reported that a dog's chances of developing CCD rise by 52% with each additional year of age.

"Among dogs of the same age, health status, breed type, and sterilization status, odds of CCD were 6.47 times higher in dogs who were not active compared to those who were very active," the study said. It noted that odds of having CCD went up in cases where the dogs had a history of eye, ear, or neurological problems.

Some earlier studies have found dementia can occur in at least 14% to 35% of older dogs, The New York Times reported.

The results of the new study were arrived at after analysing data from surveys completed by the owners of 15,019 dogs as part of the Dog Aging Project.

The disease, the study said, is difficult to diagnose as it is often confused with age-related issues among canines like loss of vision or hearing. However, symptoms that pet owners should look out for include changes in the dog's sleep cycle, forgetting years of house training, wandering around the house as if lost, among others. Another clinical sign that the study points to is altered social interaction — with the dog either being withdrawn or getting aggressive.

According to the researchers, the risk factors linked to CCD mirror some of the factors for humans with dementia.

"Given increasing evidence of the parallels between canine and human cognitive disease, accurate CCD diagnosis in dogs may provide researchers with more suitable animal models in which to study aging in human populations," the study said.



IMPROVING ACCESS TO ANTIBIOTICS THROUGH INNOVATION

In his Nobel lecture, Sir Alexander Fleming, who was awarded the Prize for the discovery of penicillin, had a profound warning. “The time may come when penicillin can be bought by anyone in the shops,” he said. “Then, there is the danger that the ignorant man may easily underdose himself and by exposing his microbes to non-lethal quantities of the drug make them resistant.” Within a century of his prophecy, the time has come.

Our reckless use of antibiotics, including penicillin, has given rise to bacteria, viruses, fungi and parasites that have become resistant to commonly used antimicrobials. What is more concerning is that these microbes are evolving faster than we can invent drugs to tackle them. Our stash of antimicrobials is drying up while more drug resistant ‘superbugs’ are evolving and taking over the world.

Antimicrobial resistance (AMR) is a growing health crisis, and tackling it needs a multi-pronged approach. We need newer, more effective antimicrobial drugs, improved access to life-saving antimicrobials across the globe; better diagnostics to identify drug-resistant infections and treat them with drugs that work, and robust surveillance systems to monitor the spread of drug resistant infections.

While discovering new antimicrobial drugs through pharmaceutical research and development is expensive, time-consuming, and often out of reach for many low- and middle-income countries, India can rely on collaborations and innovations to build game-changing strategies in tackling the AMR crisis and catch up with the evolving superbugs.

Scale of AMR crisis

In 2019 alone, drug-resistant superbugs killed about 1.27 million people globally — a toll more than HIV/AIDS or malaria — and according to the United Nations’ (UN) estimates, that number could reach 10 million by 2050.

In India, the largest consumer of antimicrobials globally, AMR is gaining ground, and the use of last-resort antibiotics like cephalosporins is soaring. The country is projected to have 1.6 million multi-drug resistant infectious cases in 2040, which is significantly higher than any country. The warnings are stark, but our current approaches to reign in the spread of superbugs seem inadequate.

Diagnostic innovations

One way to prevent the reckless overuse of antimicrobials is to diagnose what’s causing an infection early, which helps determine the right course of drugs. In India, many doctors prescribe antibiotics to treat infections that are likely caused by viruses. Rapid diagnostics, which can help identify the exact microbe and the drug to which they are susceptible to, can avoid antibiotic misuse at the point of care.

The COVID-19 pandemic demonstrated how quickly rapid diagnostic tests could be developed and made available to people. Similarly, diagnosing AMR needs research on identifying the appropriate biomarkers to detect multi-drug resistant pathogens and developing accurate and affordable detection tools. Agencies like ICMR, BIRAC could fund such development.

Antibiotic discovery



While the consumption of antibiotics like cephalosporins, quinolones, and macrolides has sharply increased in low- and middle-income countries, the pipeline of new antibiotics is dry. Lack of funding in pharmaceutical research, clinical trial and supply chain challenges, and regulatory hurdles have slowed down new antibiotics development.

Developing new antibiotics is expensive and it takes a few years for new drugs to become available in low- and middle-income countries. India needs to jumpstart in-house development of new antibiotics by leveraging public-private partnerships between pharma companies and government research labs, as it did with Covaxin.

Government agencies like ICMR and CSIR, along with DBT, DST could work with international partners like Global Antibiotic Research Development Partnership (GARDP), Wellcome Trust and others to pursue antibacterial research, develop world-class clinical trial infrastructure to accelerate drug development.

In India, where 80% urban healthcare providers are private, resource-starved hospitals struggle to procure pricey antibiotics. Innovative pricing models, bulk procurement of such antibiotics and guaranteed purchase commitments from hospitals could not only reduce cost but also imbibe confidence in pharma companies that have invested in antibiotics research. The rollout of universal health coverage in India could improve access to antibiotics for more than 100 million families by reducing out-of-pocket spending for individuals while also easing procurement for the government with bulk orders.

AMR is an emerging pandemic, and India is the AMR capital of the world — a distinction that calls for swift action from policymakers and the scientific community. With India's demonstrated prowess in pharmaceutical knowledge, experience and infrastructure, as witnessed during the COVID-19 pandemic with vaccine development and roll-out, the country has the opportunity to tackle AMR and show the way for other low- and middle-income countries.

In this direction, fostering innovation and international partnerships are key. With millions of lives at stake with the soon-to-become AMR pandemic, the country must act now.

CANCER-FIGHTING VIRUSES CAN BOOST

Can a virus help the body fight back against cancer and boost the immune system to tackle the disease better? A new study published in the journal *Cancer Cell* suggests that the body's immune capacity against cancer — to recognise and destroy cancer cells — can be boosted by using oncolytic viruses. Oncolytic viruses (OVs) are viruses that selectively target and kill cancer cells while sparing normal ones. The study notes that these viruses also enhance the immune system's ability to recognise and terminate cancer cells.

Although long theorised, the research into oncolytic virotherapy picked up only in the 1960s. Of late, there have been several trials looking at different viruses for cancer treatment.

The latest study focused on the virus known as myxoma and it found that T-cells infected with myxoma virus can lead to a type of cancer cell death not previously observed.

The research claims to “uncover an unexpected synergy between T-cells and MYXV (myxoma virus) to bolster solid tumor cell autolysis that reinforces tumor clearance”.



Autosis is a form of cell destruction that is useful against solid tumors, which are seen as treatment-resistant.

Myxoma can target and kill cancer cells directly, but using myxoma-equipped T-cells works well as cancerous cells in the vicinity of those targeted are also destroyed. This process is called bystander killing. The study makes the case that immunotherapy combined with virotherapy holds potential to seek and destroy 'cold tumors' that fly under the immune system's radar.

WANT TO REVERSE DIABETES? CUT DOWN CARBS TO 55 PER CENT, INCREASE PROTEIN TO 20 PER CENT, SAYS ICMR

If you're a pre-diabetic, just cut down on rice and rotis and increase your protein intake. This way you can halt Type-2 diabetes and even reverse it if you have been newly diagnosed, according to the country's largest ongoing study on the disease. It recommends reducing carbohydrate consumption to just about 50-55 per cent of the daily energy consumed and increasing the protein intake to 20 per cent.

The latest report from the Indian Council of Medical Research-India Diabetes (ICMR-INDIAB) is based on a detailed macro-nutrient consumption pattern study of 18,090 individuals, or one in six of the 1.1 lakh people enrolled in the study. A mathematical modelling was then used to determine the optimal consumption pattern.

Diet the best medicine

"The diabetes burden in India is rapidly increasing; we currently have 74 million people living with diabetes and another 80 million are pre-diabetic. Also, the pre-diabetics convert very fast to diabetes. It is estimated that India will have 135 million diabetics by 2045 – meaning almost double in the next 20 years or so. And, one of the main driving factors is the very high carbohydrate consumption in our population," said Dr V Mohan, chairman of Dr Mohan's Diabetes Specialities Centre and one of the authors of the study.

He said, "Around 60 to 75 per cent of our total calorie intake is in the form of carbohydrates and only 10 per cent comprises proteins. We have shown in several studies earlier that excessive consumption of white rice increases the risk of diabetes. Wheat is equally bad. Now, if a person is able to reduce the carbohydrate consumption slightly to 50 to 55 per cent, say three idlis instead of four and increase protein consumption — preferably plant protein; fish and chicken also work, but not red meat – then there can be a remission in diabetes."

Food ratio for diabetes remission

The optimal nutritional requirement for remission of newly-diagnosed diabetes was found to be carbohydrates accounting for 49 to 54 per cent of energy consumption, proteins 19 to 20 per cent, fat 21 to 26 per cent and dietary fibres 5 to 6 per cent. Women need to cut their carbohydrate consumption by around two per cent more than the men to achieve the same results. Similarly, older individuals had to cut their carbohydrate consumption by one per cent more and increase their protein consumption by one per cent more than the young.

For remission from pre-diabetes, the recommendations were 50 to 56 per cent carbohydrates, 18 to 20 per cent protein, 21 to 27 per cent fat, and three-five per cent dietary fibre. Physically



inactive individuals were recommended a four per cent greater reduction in carbohydrates as against active individuals.

FULL BODY CHECK-UP: WHAT BLOOD TESTS SHOULD I GET DONE? HOW TO UNDERSTAND LAB RESULTS FOR BLOOD?

A blood test is a proactive approach to detect any abnormal changes in the body by analysing various components of blood. Regular blood testing is one of the best ways to keep track of your health. It helps in finding medical problems, monitoring the effectiveness of medication or therapy and making informed decisions about your parameters. Even if you are healthy and above the age of 18, you should internalise a routine of periodic blood tests.

Preventive healthcare is the best way to lower your disease burden. Before ordering lab tests, consult a doctor to find out if you are at an increased risk of disease. This can help you determine what types of additional tests you may need. For example, age, medical history, family history of disease, obesity, your drinking and smoking habits, all have an imprint on your blood work.

TYPES OF BLOOD TESTS

Some of the major blood tests usually recommended by doctors are given below. They help you know your health better and improve your decision-making should there be anomalies.

- **Complete Blood Count:** This gives a quick and complete picture of your blood and bone marrow functioning. It measures several aspects of blood, including the number, variety, percentage and concentration. It helps in determining the quality of major blood cells — platelets, red blood cells and white blood cells. It is effective in screening different haematological abnormalities such as anaemia, nutritional deficiencies, blood clotting issues, infection and blood cancer.

Metabolic Panel: This includes measurement of glucose, kidney function test, including blood urea nitrogen (BUN), creatinine, sodium, potassium, calcium and bicarbonate. LFT or liver function test includes albumin, alkaline phosphatase (ALP), alanine aminotransferase (ALT), aspartate aminotransferase (AST) and bilirubin. These help in understanding the functioning of your kidneys and liver.

- **Lipid Profile:** This is an important test as it maps your cardiovascular and cerebrovascular health. It checks the cholesterol levels such as high-density lipoprotein (HDL), low-density lipoprotein (LDL) and triglycerides. It helps in knowing the status of your heart health and taking necessary measures in cases of abnormalities.

- **Thyroid Panel:** Also known as Thyroid Function Test, it checks the proper functioning of the thyroid gland and how it produces hormones such as Triiodothyronine (T3), Thyroxine (T4), and Thyroid-stimulating hormone (TSH). These hormones regulate heart rate, body temperature, metabolism and help in overall well-being.

- **Cancer Marker:** In addition to the Complete Blood Count (CBC) that detects any abnormality, other tests are recommended for screening of cancer cells. These include prostate-specific antigen (PSA) for prostate cancer and cancer antigen 125 (CA 125) for ovarian cancer. Other examples include carcinoembryonic antigen (CEA) for colon cancer and alpha-fetoprotein for liver cancer.



· Tests for deficiency of Vitamin B12 and Vitamin D: These tests are helpful in measuring deficiencies of Vitamin B12 and Vitamin D. These vitamins contribute a lot to normal metabolic functioning and healthy bones, so one must monitor their levels.

HOW TO UNDERSTAND YOUR BLOOD REPORT

Results are usually written in numerical values. In some cases, they include indications or markers to let you know how your blood is supporting your body. You can find letters used to indicate a particular condition such as H for high, L for low or acronym WNL for “within normal limits.” In case of difficulty, you can consult the doctor or lab technician to know your reports better.

Most importantly, you should work to maintain and improve your blood health. Based on the results, you can decide the right course of action like dieting habits, exercise and so on. It is important to note that an abnormal numerical value doesn't always denote a major disease/infection and should be interpreted by a qualified professional, especially in the setting of a clinical scenario.

QUICK TAKEAWAYS

For a good snapshot of your health, you should go for a blood test periodically. The blood tests mentioned above help you identify the strength and weakness of your body. Besides, they also help in understanding the efficacy of medication that you might be taking for any complication. Based on the test results, your doctor can recommend the best way to improve your health to keep problems at bay.

ONE MAN DIES, AND AN ENTIRE UNCONTACTED TRIBE VANISHES IN BRAZIL

When officials from Brazil's Indigenous protection agency approached the hut in the middle of the Amazon rainforest, their fears were confirmed: They were witnessing the first recorded disappearance of an uncontacted tribe in the country's history.

The man lying in the hammock, the last member of his tribe, had died, and with him an entire culture and answers to a thousand questions.

Even his name was a mystery. He was known only as “the Man of the Hole” because of the dozens of holes he had dug over the years in his territory. His age, too, could only be guessed at. He appeared to be about 60, officials said.

It was a sad milestone for a country that in recent years has seen protections for Indigenous groups weakened and undermined by an administration that has prioritised development of the Amazon over conservation.

Officials from Brazil's Indigenous protection agency, Funai, found the man's body on August 23 during a patrol in the Tanaru Indigenous Territory, in the state of Rondônia, bordering Bolivia.

The death was most likely the result of natural causes, Funai said in a statement released Saturday. They agency brought in criminal experts to examine the site and then sent the man's body to the capital, Brasília, for an autopsy.

Funai has reported evidence of at least 114 isolated groups in Brazil, but the existence of only 28 has been confirmed. As a result, the remaining 86 tribes do not benefit from any government protections. The agency is responsible for monitoring Indigenous activity and protecting the



inhabited lands from development. However, Brazil's president, Jair Bolsonaro, has championed industries driving the destruction of the Amazon, which has led to record levels of deforestation.

The Brazilian leader has both loosened regulations to expand logging, ranching and mining in the Amazon and scaled back protections for Indigenous groups and conservation lands. He has also slashed federal funds and staffing, weakening the agencies that enforce Indigenous and environmental laws.

MINDING YOUR ACCENTS

A Silicon Valley start-up has created an AI-based solution for one of the lingering questions faced by the customer service industry: How do you make sure that your call centre employee, who is likely to be based in India or the Philippines or another non-English speaking country, is clearly understood by your customers in the US or UK? Sanas's real-time voice-altering technology converts a range of accents into a more "neutral" sounding one for smooth interactions between employees and customers. But is that really a problem that needs solving?

In a hierarchy-free world, a software that tones down or erases a person's accent to make it easier to understand might have been a great idea. As such a world is still a long way off, however, the software only ends up raising troubling questions about cultural and linguistic identities. For example, who decides what is a "neutral" accent? Just like two Indians from different parts of the country don't have the same accent, an American from, say, Boston and one from New Orleans would not sound the same. The creators of the software argue that it removes some of the burden currently placed on call centre employees who have to undergo months-long training and makes them less susceptible to the ire of customers. But the voice samples shared by the company online sound flat and robotic — perhaps an inadvertent admission that achieving the kind of "neutrality" envisioned by those who would erase differences rather than acknowledge and celebrate them, is not even humanly possible.

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