



CURRENT AFFAIRS for UPSC

12TH TO 18TH MARCH 2023

DREAMIAS



INTERNATIONAL

WHAT IS THE NEW U.K. POLICY ON REFUGEES?

The Conservative government of the U.K. is proposing to adopt a new, stricter policy to deal with asylum seekers who arrive on the island via boat. The government has taken this step to fulfil a promise made in January 2023 by Prime Minister Rishi Sunak, to “stop the boats”. It was among the five key policy priorities he outlined at the time. The proposed plan to deport to origin or remove asylum seekers arriving in the U.K. by boat to a third country has been sharply criticised by the UN refugee agency, UNHCR, and by leaders of the European Union. They have argued that the new U.K. policy is incompatible with international law, specifically the 1951 Convention Relating to the Status of Refugees, and the European Convention on Human Rights (ECHR). While the Illegal Migration Bill (IMB) is yet to be passed by the U.K. Parliament, once that happens it will have retrospective applicability from March 7, 2023.

What is the political context for the Bill?

Policies to regulate immigration, specifically of undocumented workers and asylum seekers, have always been a sensitive political issue in the U.K., as in other developed economies. With the rise of anti-immigrant sentiments fuelling some aspects of the Brexit campaign, which became a reality on January 31, 2020, the U.K. Conservative Party has been a strong advocate for tighter immigration policies. This is purportedly aimed at protecting U.K. jobs or shifting the focus to skilled workers arriving through legal routes. However, through the recent years of the pandemic and the economic distress it has caused across developing countries, as well as the displacement of certain communities in countries such as Afghanistan, Iran and Iraq, ever greater numbers of asylum seekers have been arriving on the shores of the U.K., prompting closer scrutiny of the policy response in this regard.

What measures does the Bill propose?

The Bill, when passed into law by the U.K. Parliament, will require that the Home Secretary detain and remove those arriving in the U.K. illegally, either to Rwanda or another “safe” third country; would deny migrants the right to bail or judicial review for the first 28 days of their immigration detention; would only allow migrants who are minors, medically unfit to fly or at risk of serious harm in the country of their removal to delay their departure from the U.K.; and to block such migrants from returning to the U.K. or seeking British citizenship going forward. The Bill would also seek to set a cap on the number of refugees who will be permitted to settle in the U.K. through “safe and legal routes” — which at the moment only apply to people from Afghanistan and Ukraine, or British National status holders in Hong Kong. A relatively miniscule number of refugees also can enter the U.K. through the U.K. Resettlement Scheme, the Community Sponsorship Scheme, the Refugee Family Reunion and the Mandate Resettlement Scheme.

What is the trend on refugee numbers?

The figure for arrivals in small boats across the English Channel was 45,755 in 2022, the highest number since records began in 2018. The so-called “small boat arrivals” comprised approximately 45% of the total asylum applications made in 2022, which was close to 89,000, a new high after the figure dropped to a 20-year low of 22,600 in 2010 from a previous record of 1,03,000 in 2002. Albania, Afghanistan, Iran, Iraq and Syria were the top countries from which asylum applications



were received. Last year, the U.K. government returned asylum decisions for 29,150 applicants, granting some form of protection to 17,747 people, which is 61% of the total number.

What were the earlier measures adopted by the U.K. towards asylum seekers?

To crack down on undocumented migration and the influx of refugees, in December 2021 the U.K. Parliament passed the Nationality and Borders Bill, which empowered the government to remove asylum seekers to a “safe” third country for “offshore asylum processing” and it also set an early precedent to “push back boats at sea”.

In April 2022, the U.K. and Rwanda signed a Memorandum of Understanding to relocate asylum seekers who are not being considered by the U.K. to Rwanda, a move that the UNHCR criticised over “shortcomings in its asylum process, citing the arbitrary denial of access to asylum procedures for some people, the risk of detention and deportation of undocumented asylum seekers, the discriminatory access to asylum procedures that LGBTIQ+ individuals face, or the lack of legal representation”. While the UNHCR said that this arrangement “does not meet the requirements necessary to be considered a lawful and/or appropriate bilateral transfer arrangement”, Human Rights Watch drew parallels to the documented suffering caused by Australia’s offshore detention sites in Nauru and Papua New Guinea.

Is the bill consistent with human rights laws?

The U.K.’s Home Secretary, Suella Braverman, admitted in a letter to MPs, that there was a “more than 50% chance” that the new bill is incompatible with international law. This is most salient in the concept of non-refoulement, an idea encapsulated in the Refugee Convention as well as the ECHR, to which the U.K. is a signatory, that refugees should not be returned to a country where they face threats to life and liberty. In this context, it is expected that the bill will be challenged in the courts and might fail on the grounds of inconsistency with human rights laws. However, the U.K. High Court recently ruled that the Rwanda deportation plan did not violate any human rights conventions.

DANGEROUS MOVES

The high-altitude manoeuvring between two Russian fighter jets and an American drone over the Black Sea, which resulted in the splashing down of the U.S. MQ-9 Reaper drone on Tuesday morning, has underscored the dangerous risks of the Ukraine war. In conflicting narratives about the incident, the Pentagon says the Russian Su-27s intercepted the surveillance drone in international airspace, dumping fuel on the drone, colliding with it and forcing it down. But the Russian Defence Ministry said its jets were scrambled after a U.S. drone violated its “temporary airspace” off the Crimean peninsula (declared for its war in Ukraine) and that the American aerial vehicle “lost altitude” in “sharp manoeuvring”. The MQ-9 recorded the incident. The video has been declassified and would help establish the truth. But whatever the reason, the fact that the U.S. lost a drone in the Black Sea, where it does not even have a naval presence, is a grave reminder of how close the nuclear powers have come to a conflict. While both sides have responded with maturity, the underlying situation that triggered this crisis remains unchanged.

The U.S. has provided over \$30 billion in military assistance, including advanced defensive and offensive weapons, to Ukraine since the Russian invasion began, and imposed tough sanctions on Moscow. Washington says it is not directly involved in the war but is helping Ukraine defend its territories, while Russia alleges that the “collective West” is seeking to destroy it. As the war drags



on, with Russia's failure to take a quick victory, the relationship between Washington and Moscow has broken down. Last month, Russia suspended its participation in the New START nuclear arms control treaty, the last of the Cold War-era weapons control mechanisms between the two countries. Steadily deepening mutual distrust amid an ongoing conflict is a perfect recipe for disaster in great power rivalries. Even if the Biden administration has clearly ruled out a direct conflict with Russia, irresponsible and high-risk manoeuvring or even accidents could lead to, as the Pentagon said, "miscalculation and unintended escalation". The U.S. and Russia already have a deconfliction hotline to avoid mid-air collisions in different theatres where they operate. They should use that mechanism around Ukraine as well to avoid a repeat of incidents such as the Black Sea one. But a bigger challenge is to arrest the deterioration of their bilateral ties, which is now reminiscent of the bilateral hostility of the first two decades of the Cold War. If the U.S. and Russia address this problem and find some stability between themselves, it would help them bring the war in Ukraine to an end.

INTERNATIONAL CRIMINAL COURT ISSUES ARREST WARRANT AGAINST PUTIN OVER UKRAINE

The International Criminal Court (ICC) on Friday announced it had issued an arrest warrant against Russian President Vladimir Putin for the "unlawful deportation" of Ukrainian children. The Hague-based ICC said it had also issued a warrant against Maria Lvova-Belova, Russia's presidential commissioner for children's rights.

The ICC said the crimes dated from February 24, 2022, when Russia invaded Ukraine. "There are reasonable grounds to believe that Mr. Putin bears individual criminal responsibility for the aforementioned crimes," it said.

Mr. Putin was allegedly responsible both directly by committing the acts and for "failure to exercise control properly over civilian and military subordinates who committed the acts, or allowed for their commission".

ICC prosecutor Karim Khan launched an investigation into alleged war crimes and crimes against humanity in Ukraine. Mr. Khan said after a visit to Ukraine that the alleged abductions of children "are being investigated by my office as a priority".

The Kremlin said that the ICC's decision to issue an arrest warrant for President Vladimir Putin was legally "void" since Moscow does not recognise the court's jurisdiction.

EUROPE PICKS UP MORE ARMS EVEN AS GLOBAL WEAPON IMPORTS DROP

European countries increased imports of major weaponry by 47% between 2013-17 and 2018-2022 even as the global volume of international arms transfers fell by 5.1%. If only those European states in the U.S.-led NATO alliance are considered, the increase in arms imports was 65% in the same period.

Russia's invasion of Ukraine last year has prompted European countries to rush to bolster their defences. "Even as arms transfers have declined globally, those to Europe have risen sharply due to the tensions between Russia and most other European states," Pieter D. Wezeman, Senior Researcher with the Stockholm International Peace Research Institute (SIPRI), said in a statement. SIPRI defines major arms as aircraft, warships, tanks, artillery, missiles and various heavy defence systems.



While Europe's share in global volume of arms transfers increased significantly, the share of West Asia, Americas and Asia and Oceania decreased marginally in the last five years. Africa's share decreased significantly in the period.

SIPRI's data also shows that U.S. arms exports increased by 14% between 2013–17 and 2018–22, and Washington accounted for 40% of global arms exports in 2018-22.

Meanwhile, Russia's arms exports fell by 31% between the two periods, and its share of global arms exports decreased from 22% to 16%, while France's share increased from 7.1% to 11%.

The export of arms has long been dominated by the U.S. and Russia with the two countries being the largest and second-largest arms exporters for the past three decades. However, the gap between them has been widening significantly, while the gap between Russia and the third-largest arms supplier, France, has narrowed. The think-tank said it was likely that the invasion of Ukraine will further limit Russia's arms exports due to Moscow's need to prioritise supplying its own armed forces and the low demand from other states due to trade sanctions.

SIPRI, established in 1966, is an independent international institute dedicated to research of conflict, armaments, arms control and disarmament.

INDIA REMAINS WORLD'S LARGEST IMPORTER OF ARMS: SIPRI REPORT

India remained the world's largest arms importer for the five-year period between 2018 and 2022 even though its arms imports dropped by 11% between 2013-2017 and 2018-2022, according to the Swedish think tank Stockholm International Peace Research Institute (SIPRI). Russia was the largest supplier of arms to India from 2013 to 2022, but its share of total imports fell from 64% to 45% while France is the second largest supplier.

As per latest SIPRI data, among the top 10 arms exporters for the period 2018 to 2022, India was the biggest arms export market to three countries — Russia, France and Israel — and the second largest export market to South Korea. India was also the third largest market for South Africa, which was ranked 21 in the list of arms exporters.

For the same period, India remained the largest arms importer followed by Saudi Arabia. Russia accounted for 45% of India's imports followed by France (29%) and the U.S. (11%). Also, India was the third largest arms supplier to Myanmar after Russia and China accounting for 14% of its imports.

"India's tensions with Pakistan and China largely drive its demand for arms imports. With an 11% share of total global arms imports, India was the world's biggest importer of major arms in 2018 to 2022, a position it has held for the period 1993 to 2022. It retained this position even though its arms imports dropped by 11% between 2013 to 2017 and 2018 to 2022," according to SIPRI data.

"The decrease can be attributed to several factors including India's slow and complex arms procurement process, efforts to diversify its arms suppliers, and attempts to replace imports with major arms that are designed and produced domestically."

The report noted that Russia's position as India's main arms supplier is under pressure due to strong competition from other supplier states, increased Indian arms production and, since 2022, also the impact of war in Ukraine



“India’s arms imports from France, which included 62 combat aircraft and four submarines, increased by 489% between 2013 to 2017 and 2018 to 2022. France therefore displaced the U.S. to become the second largest supplier to India in 2018 to 2022,” the report said.

Just under two thirds of Russian exports went to three states from 2018 to 2022 — India (31%), China (23%) and Egypt (9.3%). India was also the largest recipient of Russian arms from 2013 to 2017, but exports decreased by 37% between the two periods.

NEW REALITY

The Saudi-Iran reconciliation in a China-brokered agreement reflects the new reality in West Asia where old rivals are warming up to each other and Beijing is increasingly willing to play a bigger role at a time when the U.S., the region’s traditional great power, is preoccupied with challenges elsewhere. The enmity between Iran, a Shia-majority theocracy, and Saudi Arabia, a Sunni-majority absolute monarchy, has been one of the dominant drivers of conflicts in the region. While the details are yet to be unveiled, officials say Iran has agreed to prevent attacks against Saudi Arabia, including those from the Houthi-controlled parts of Yemen, and both countries would restore full diplomatic relations, which were severed in 2016. In recent years, West Asia has seen similar realignments. In 2020, the UAE was among the first Arab countries to normalise ties with Israel in a quarter century. The following years saw the Arab world and Israel, faced with the common Iran challenge, deepening their cooperation, despite Israel’s brutal occupation of Palestine territory. As the U.S. has deprioritised West Asia — it is now heavily focused on Ukraine and countering China’s Indo-Pacific influence — its allies in West Asia have started looking out for solutions for what they see as America’s diminishing security guarantees.

The agreement also marks China’s arrival in West Asia as a power broker. China has been involved in multilateral peace talks such as the 2015 Iran nuclear deal (from which the U.S. unilaterally withdrew in 2018), but this is the first time Beijing is using its leverage directly to bring conflicting parties to reconciliation. Stability in West Asia, a major energy source, is essential for China, which is the world’s largest oil importer. And unlike the U.S., which has hostile ties with Iran, Beijing enjoys good ties with Tehran and Riyadh, as a leading oil buyer and trading partner, respectively. This has put China in a unique position to bring two of the region’s most significant powers closer. Saudi Arabia, which is undergoing rapid changes, wants peace in its neighbourhood, while Iran, which is under the U.S.-imposed sanctions, wants more diplomatic and economic openings. If the détente holds, it will have far-reaching implications on regional geopolitics, from peace in Yemen to stability in Lebanon. But it is too early to say whether peace would hold between the two, given their multilayered enmity. Saudi Arabia, Iran and China should be mindful of the pitfalls ahead and continue to build on the momentum created now to achieve a cold peace between the two regional powers.

IN CAMBODIA, A BATTLE FOR DEMOCRACY, INCLUSIVENESS

The U.S. said it was “deeply troubled” by the conviction of the “respected leader”. Terming the ruling “politically motivated”, Human Rights Watch, a New York-based global rights watchdog, said it was based on “bogus charges”. Cambodia’s general elections are scheduled to be held in July this year. Incumbent Prime Minister Hun Sen, who will seek another term in the coming election, has remained in the position for nearly 40 years.

Vanishing space



In addition to democratic freedoms, inclusive development that speaks to people's needs will be imperative for the country's progress, local activists note. Reeling under the lingering impact of Pol Pot's dictatorship, and the cycles of war which officially ended in 1991, the Southeast Asian country, home to over 17 million people, is struggling to elevate its economy from a lower-income status.

But the ruling establishment appears to regard democracy as dispensable, be it in governance or development, community leaders observe with concern. "It is just impossible to access credible data in the official records, there is no transparency. Journalists are afraid to take on the government or the Prime Minister, because of repression," a senior journalist, who is also part of a professional free media network, said. In a move that drew much criticism from rights defenders last month, Mr. Hun Sen ordered the closure of 'Voice of Democracy', a prominent local radio station, for allegedly criticising his son in a story.

Under threat

If democracy is under threat, it is not as if the government's development agenda is speaking to people's immediate needs, according to locals. And in this context, the spotlight on Chinese investment in Cambodia is growing. The scenic coastal town of Sihanoukville is a clear case in point. A brand-new 187-km-long expressway, built with a Chinese investment of \$2 billion, connects the port town with capital Phnom Penh, reducing travel time by more than half, to just about two hours. Part of China's Belt and Road Initiative, the road was opened late last year.

The international gaze on Cambodia is centred on Chinese investment. Locals appear more concerned about unbridled development that is detached from people's needs, than about who backs it. India, which is currently engaged mostly in technical training and livelihood support, could do more to support local entrepreneurship, a youth activist noted. "But more importantly, India must help promote democracy within Cambodia," he said. "Without democratic freedoms, the government's development initiatives cannot reach our people."

DreamIAS



NATION

THE EXPRESS VIEW ON MODI-ALBANESE MEET: CANBERRA CALLING

The four-day visit of Prime Minister Anthony Albanese has helped consolidate Australia's position in the A list of India's valued partners. Thanks to the sustained efforts of the political leadership in both the capitals in recent years, the long-standing synergies between the two nations are now being translated into concrete outcomes in the political, economic, and the security domains. During the Cold War, the occasional efforts at overcoming the political divergences in the worldviews of Delhi and Canberra did not succeed because there was little economic cooperation between the two countries. It was only after India's economic liberalisation that followed soon after the Cold War came to an end that the complementarity between India's economic growth and Australia's rich natural resources came into view. Yet, it took nearly three decades for policies to catch up with new possibilities. The Economic Cooperation and Trade Agreement that opened the door for freer commerce between the two nations came into force at the end of 2022. Prime Minister Narendra Modi and Albanese are pushing for their trade bureaucracies to quickly complete the negotiations on a comprehensive economic partnership agreement (CECA) that will further integrate the two economies.

Meanwhile, the deterioration of regional security environment marked by the rise of an increasingly assertive Beijing has nudged Delhi and Canberra closer together in deepening their bilateral security cooperation as well as join hands in such minilateral institutions as the Quadrilateral forum as well as regional multilateral forums such as the Indian Ocean Rim Association and the East Asia Summit. While Delhi and Canberra can't accept Beijing's efforts to exercise hegemony over Asia and the Indo-Pacific, they are conscious that China is here to stay as a major force and are eager to develop a reasonable and mutually beneficial relationship with Beijing. Neither Modi nor Albanese want to join a containment ring against China, but are determined to promote a stable regional security architecture in the Indo-Pacific.

The convergences on the economic and security front have been reinforced by the rapidly growing size of the Indian diaspora in Australia. At nearly a million, the Indian origin population is now about 3 per cent of the total inhabitants of Australia. The flows of Indian technical talent and skilled labour into Australia are likely to grow further in the years ahead. But this "living bridge" also generates new problems. PM Modi flagged the recent vandalism of Indian temples in Australia by Khalistani groups with Albanese. The Australian PM has underlined Canberra's commitment to crackdown on such attacks. While Delhi is right in raising the issue with Canberra, it should also reflect on one important fact. The sharpening religious polarisation within India is dividing our diaspora everywhere, including in Australia. Delhi, then, has much responsibility in limiting the divide at home and preventing hate crimes that have massive external impact.

INERTIA, INTERVENTION

The Supreme Court's decision to refer to a Constitution Bench the issue of granting legal recognition to same-sex marriages can be seen as an important step towards ensuring gender equality, despite apprehension that it is encroaching on the legislative domain. Petitioners before the Court view the idea of giving of legal status for marriages between people belonging to the same sex as a natural consequence of the 2018 judgment decriminalising homosexuality. The government, however, contends that there is no need to depart from the heteronormative understanding of marriage. And even if there ought to be such a change, it must come from the

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



legislature. The question before the Court is whether it should interpret provisions of marriage laws in India, especially the Special Marriage Act, 1954, as permitting marital unions between same-sex couples. The Act allows the solemnisation of a marriage between any two persons and is used by those who are unable to register their marriages under their respective personal laws. The Union government has argued that the decriminalisation of consensual relations between adults of the same sex has removed the stigma attached to homosexuality, but has not conferred the right of marriage. And that the state is entitled to limit its recognition to marriages involving heterosexual couples. There is no discrimination, it claims, in keeping same-sex couples out of the definition of marriage.

In terms of the equality norm, the central question is not very complicated. It can be recognised that no civil right available to married heterosexual couples ought to be denied to those who belong to the same gender. The incidental consequences on issues of property and succession may not pose insurmountable difficulties. The Centre's other argument, invoking religious norms and cultural values, against recognising same-sex marriages is weak and inadequate. It is futile to argue that it will undermine faith or rock societal values. The mere fact that many people consider marriage to be a sacrament or a holy union is not enough to deny equal status to the union of people of the same sex or to undermine its essential character as a social and economic contract. Whether the remedy ought to take the form of recognition of same-sex marriages, and, if so, whether it should be through judicial intervention or legislative action, is the question. That the legislature should be involved in bringing about far-reaching changes that may impact the personal laws of all religions is indeed an acceptable proposition. A responsive government that wants to treat this as a matter of policy and not cede space to the courts would act on its own to consider the right of any two people, regardless of gender, to marry or found a family. Legislative inaction on burning social issues will legitimise and invite judicial intervention.

ADULTERY AS MISCONDUCT AND JUDICIAL MUSINGS

More than four years ago, the Supreme Court of India decriminalised adultery in its landmark judgment, *Joseph Shine versus Union of India* (September 2018). It held Section 497 of the Indian Penal Code (on adultery) along with Section 198 of the Criminal Procedure Code to be unconstitutional on the premise that these provisions were violative of Articles 14, 15 and 21 of the Constitution of India.

Aggrieved by the order concerning its implementation in the armed forces, the Union of India sought clarification from the Court saying that any promiscuous or adulterous acts should be allowed to be governed by the relevant sections of the Army Act, the Air Force Act and the Navy Act being special legislations by the virtue of Article 33 of the Constitution. Under Article 33, Parliament has powers to restrict or abrogate the fundamental rights of certain categories of persons, including members of the armed forces to ensure the proper discharge of their duties and the maintenance of discipline among them. The Court, recently, without going into the nuances of relevant sections of the special legislations (i.e., the Army Act and similar special Acts) said that in *Joseph Shine* it 'was not at all concerned with the effect and operation of the relevant provisions' and 'it is not as if this Court approved of adultery'. The Court further added that it found adultery as a moral (and civil) wrong and a ground for securing dissolution of marriage. With these observations, the case was disposed of.



Issue of discharge of duties

The moot question is whether these observations by the Court give an impression that the armed forces may go ahead with disciplinary action for the misconduct of adulterous acts (as understood in common parlance without reference to Section 497 of the IPC) under their special legislations?

Consequent to the Joseph Shine case, the Rajasthan High Court, in Mahesh Chand Sharma versus State of Rajasthan and Others (2019), set aside the departmental proceedings against the petitioner who was serving as an inspector in the Rajasthan Police (after having served for 18 years in the Indian Air Force) and allegedly had illicit relations with one woman constable and had also 'begotten a child from illicit relations'. The High Court held that no employer can be allowed to do moral policing on its employees which go beyond the domain of his public life and personal choices and selections (to have sexual intercourse) cannot be a subject matter of departmental proceedings under the Service Conduct Rules.

More recently, in Maheshbhai Bhurjibhai Damor versus State of Gujarat and 3 other(s) (2022), the Gujarat High Court quashed and set aside the dismissal order of an armed police constable arising from allegations that he had developed illicit relations with a widow which amounted to misconduct. The departmental inquiry revealed that the relations between the two were voluntary and mutual, and there was no exploitation of the woman. The Court held that in order to prove misconduct, allegations must have some nexus, direct or indirect, with the duties to be performed by the government servant. As the alleged act was a private affair, and not a result of any coercive pressure, the act of the petitioner at the most could be considered as an immoral act; however, to term it as misconduct as per Conduct Rules would be too far-fetched.

A corollary may also be drawn with the conduct of an army personnel who consumes alcohol. Unless, the drinking habits or any such act of an officer affects the discharge of his duties or discipline of the force, no departmental action is initiated. It is nobody's secret that army canteens officially provide alcohol to their men and officers at subsidised rates at all locations. A section of society may consider drinking alcohol as an immoral act, but this does not authorise the employer to initiate disciplinary action. In other words, some private space is given even to army personnel where moral policing is not allowed.

A caveat that cannot be overlooked

Though Article 33 of the Constitution empowers Parliament to restrict the fundamental rights of the members of the armed forces, the caveat of 'so as to ensure the proper discharge of their duties and the maintenance of discipline among them' cannot be overlooked. The same principle will also apply to members of the forces charged with the maintenance of public order, i.e., the police personnel of all States and Union Territories, intelligence and counter-intelligence agencies including their communication sections as provided in Article 33 of the Constitution.

Therefore, neither did the Joseph Shine verdict of 2018 inhibit the parameters of departmental proceedings nor has the clarification sought enlarged them. It is true that many acts and omissions which are not necessarily criminal in nature may amount to acts unbecoming of a government servant. A common thread running through all relevant judgments is that if the conduct interferes directly or indirectly with the honest discharge of duties; such conduct may be considered as unbecoming of a government servant. The legislative intent of Article 33 of the Constitution is also similar. Therefore, the sacrosanct right to privacy available to the members of the armed forces (and the policemen engaged in the maintenance of public order) cannot be taken away under the guise of the special legislations unless it has some nexus with their duties.



CASTE BIAS KEY REASON FOR SC/ST STUDENTS' MENTAL HEALTH PROBLEMS ON CAMPUS: SURVEY

A mental health survey carried out in June by the SC/ST Students' Cell of the Indian Institute of Technology (IIT) Bombay has found that caste discrimination is a "central reason" for the mental health problems faced by reserved category students on campus. The survey also found that almost one-fourth of the SC/ST students who took part in the survey suffered from mental health problems while 7.5 per cent of them faced "acute mental health problems and exhibited a tendency for self-harm".

The SC/ST Students' Cell at IIT Bombay – which has students as members and faculty as convenors – held two surveys last year, one in February and another in June. The first survey was aimed at collating data to understand the life of SC/ST students on campus and the problems they face while the second survey focused on the mental health of reserved category students. The surveys were sent to all SC/ST students of the institute (around 2,000 of them), out of which 388 participated in the February survey and 134 in the June survey. The findings of the two surveys are yet to be officially released by the institute.

Earlier this month, an interim report by the institute on the death by suicide of Darshan Solanki, a first-year student at the institute, ruled out caste-based discrimination as alleged by his family while citing his "deteriorating academic performance" and his introvert nature.

According to the findings of the June survey, SC/ST students prefer to hide their identity to escape the stigma of reservation.

"It was very significant that despite a hostile environment in IITs, 9 per cent of the students (12 students) attributed caste as a substantial reason for their mental health problems. Four students also identified professors' casteist and discriminatory attitudes as the reason for their mental health issues," states the report, adding that "in IITs, caste appears in the form of reservations which is seen as a 'loss of merit'. Hence the SC/ST students are looked down as students with fewer capabilities."

Reacting to the survey, IIT Bombay, in a statement, said that the findings of the survey had not been shared with the administration yet.

"It may be noted that none of the survey results were shared with the IIT senior administration, but the SC/ST Students' Cell has taken several steps to address issues raised in the surveys," it said. The statement shared by the IIT administration also pointed out that the surveys were conducted before the current first-year batch entered IIT. "Thus it provides no specific inputs on the experience of the current first-year batch," it stated.

GOVERNOR CANNOT PRECIPITATE THE FALL OF AN ELECTED GOVT.: SC

The Supreme Court on Wednesday said that Governors seriously undermine democracy if they use their constitutional office to call for a trust vote, citing dissension within a ruling political party, and precipitate the fall of a legitimately established and functioning government.

"A Governor must be aware of the fact that his very calling for a trust vote may precipitate the loss of majority for a government. Calling for a trust vote may itself lead to the toppling of a government... Governors must not lend their offices for effectuating a particular result... The



Governor cannot enter into any area by which his action would precipitate the fall of a government,” Chief Justice of India D.Y. Chandrachud, heading a Constitution Bench, observed.

The Bench was referring to then Maharashtra Governor Bhagat Singh Koshiyari’s call for a trust vote in the Assembly, which eventually led to the fall of the Uddhav Thackeray government and the appointment of Eknath Shinde as the Chief Minister in June 2022.

The court questioned the version of the Governor’s office, represented by Solicitor-General Tushar Mehta, that there was a serious difference of opinion in the Shiv Sena between the Shinde faction and the Thackeray camp. The Shinde camp had felt that Mr. Thackeray had cheated the party’s core ideology by joining hands with the Congress and the Nationalist Congress Party to form the ruling Maha Vikas Aghadi coalition.

“They [Shinde group] had a remedy then... They could have voted their leader out. But can the Governor say there is dissension about certain aspects of the leadership and a trust vote is called for? Can the Governor, I ask again, use his powers to precipitate the fall of an elected government? This is very, very serious for our democracy,” Chief Justice Chandrachud observed.

Mr. Mehta said the majority in the Shiv Sena had found the leadership joining hands with ideologically non-aligned parties a “sad spectacle”.

“But then you cohabited with them for three whole years... What happened after three years of happy marriage that made you suddenly unhappy overnight? Many of them were Ministers in the alliance... You enjoy the spoils and suddenly you wake up, is that it? The fact that the conduct of a government has gone against the core ideology of a party is not a ground for calling of a trust vote by the Governor,” Chief Justice Chandrachud noted.

ENDLESS DELAY

The frequency with which the conduct or inaction of Governors comes up for judicial scrutiny reflects poorly on the state of relations between incumbents in Raj Bhavans and the respective Chief Ministers. The Supreme Court will soon hear an extraordinary petition from the Telangana government, seeking a direction to the Governor, Dr. Tamilisai Soundararajan, to grant assent to Bills passed by the State Assembly. Recently, the apex court disposed of a petition from the Punjab Government that was aggrieved by an alleged delay in the Governor summoning the Assembly. The matter was resolved when it was submitted on behalf of the Governor that the Assembly would meet on the day desired by the State government. In earlier decades, a petition seeking a direction to Governors or questioning their inaction on constitutional matters would have been thrown out at the threshold itself. However, such is the extent to which the gubernatorial office is being overtly politicised by those holding it that courts may now be constrained to examine whether such inaction is justified. One sees a disturbing tendency in recent years of some Governors making use of the absence of a time-frame in the Constitution to indefinitely delay decisions. This tactic effectively stalls the elected regime’s legislative agenda.

The conflict between Raj Bhavan and the Chief Minister’s office witnessed in several States is quite acute in Telangana. Dr. Soundararajan has alleged that she is being boycotted by Chief Minister K. Chandrashekar Rao and that her queries are not being answered. The State government, for its part, is apparently upset that she may be trying to act independent of the Cabinet. A recent tweet from her account the day after the State government went to court — conveying a message that Raj Bhavan was closer than Delhi — indicates that her stand is linked to her view that the



government is unfriendly and discourteous. These considerations ought not to matter on constitutional issues. The Governor can either grant assent to a Bill or decline it, or reserve it for the President's consideration. In suitable cases, it may also be returned for reconsideration. However, none of this should be based on the Governor's personal view on the Bill's content. One can understand an occasional query if any Bill seemingly violates fundamental rights, but a relevant question that requires an authoritative pronouncement from the court is whether the Governor should decide on its legality or the legislature's competence each time a Bill is presented for assent. As the Supreme Court remarked recently, dialogue between constitutional functionaries should not become a race to the bottom. Constitutional functions should not be held hostage to political and personal differences.

ON RESERVATION FOR WOMEN IN POLITICS

A day before her appearance in front of the Enforcement Directorate in the Delhi liquor policy case, Bharat Rashtra Samithi (BRS) leader K. Kavitha launched a six-hour hunger strike on March 10 seeking early passage of the long-pending Women's Reservation Bill. The protest at Jantar Mantar in Delhi was inaugurated by Communist Party of India (Marxist) leader Sitaram Yechury. More than 10 parties participated in the protest, including the Samajwadi Party (SP), the Rashtriya Janata Dal (RJD) and the Rashtriya Lok Dal (RLD). The Bharatiya Janata Party said the protest was "preposterous" and termed it a ploy to change the narrative on the Delhi excise case.

What has been the history of political reservation for women?

The issue of reservation for women in politics can be traced back to the Indian national movement. In 1931, in their letter to the British Prime Minister, submitting the official memorandum jointly issued on the status of women in the new Constitution by three women's bodies, leaders Begum Shah Nawaz and Sarojini Naidu wrote, "To seek any form of preferential treatment would be to violate the integrity of the universal demand of Indian women for absolute equality of political status."

The issue of women's reservation came up in Constituent Assembly debates as well, but it was rejected as being unnecessary. It was assumed that a democracy would accord representation to all groups. For instance, in 1947, noted freedom fighter Renuka Ray said, "We always held that when the men who have fought and struggled for their country's freedom came to power, the rights and liberties of women too would be guaranteed...". However, in the following decades, it became clear that this was not to be the case. As a consequence, women's reservation became a recurrent theme in policy debates. For instance, the Committee of the Status of Women in India, set up in 1971, commented on the declining political representation of women in India. Though a majority within the Committee continued to be against reservation for women in legislative bodies, all of them supported reservation for women in local bodies. Slowly, many State governments began announcing reservations for women in local bodies.

The National Perspective Plan for Women recommended in 1988 that reservation be provided to women right from the level of the panchayat to that of Parliament. These recommendations paved the way for the historic enactment of the 73rd and 74th amendments to the Constitution which mandate all State governments to reserve one-third of the seats for women in Panchayati Raj Institutions and one-third of the offices of the chairperson at all levels of the Panchayati Raj Institutions, and in urban local bodies, respectively. Within these seats, one-third are reserved for Scheduled Caste/Scheduled Tribe women. Many States such as Maharashtra, Andhra Pradesh,



Bihar, Chhattisgarh, Jharkhand and Kerala have made legal provisions to ensure 50% reservation for women in local bodies.

What is the Women's Reservation Bill?

After local bodies, the next step was to ensure reservation in Parliament, but this has been a difficult fight. The Women's Reservation Bill proposes to reserve 33% of seats in the Lok Sabha and State Legislative Assemblies for women. It was first introduced in the Lok Sabha as the 81st Amendment Bill in September 1996 by the Deve Gowda-led United Front government. The Bill failed to get the approval of the House and was referred to a joint parliamentary committee which submitted its report to the Lok Sabha in December 1996. But the Bill lapsed with the dissolution of the Lok Sabha.

In 1998, the Atal Bihari Vajpayee-led National Democratic Alliance (NDA) government reintroduced the Bill in the 12th Lok Sabha. After the Law Minister M. Thambidurai introduced it, an RJD MP went to the well of the House, grabbed the Bill and tore it to bits. The Bill failed to get support and lapsed again. The Bill was reintroduced in 1999, 2002 and 2003. Even though there was support for it within the Congress, the BJP and the Left parties, the Bill failed to receive majority votes.

In 2008, the Manmohan Singh-led United Progressive Alliance government tabled the Bill in the Rajya Sabha and it was passed with 186-1 votes on March 9, 2010. However, the Bill was never taken up for consideration in the Lok Sabha and lapsed with the dissolution of the 15th Lok Sabha. At the time, the RJD, the JD(U) and the SP were its most vocal opponents. They demanded 33% reservation for backward groups within the 33% quota for women. JD(U) leader Sharad Yadav infamously demanded to know how short-haired women could represent "our women" (women from rural areas). In 2014, the BJP promised 33% reservation for women in its manifesto and repeated the promise in its 2019 agenda. But there has been no movement from the government in this regard.

What are the arguments for the Bill?

Proponents of the Bill argue that affirmative action is imperative to better the condition of women since political parties are inherently patriarchal.

Second, despite the hopes of the leaders of the national movement, women are still under-represented in Parliament. Reservations, proponents believe, will ensure that women form a strong lobby in Parliament to fight for issues that are often ignored. There is now evidence that women as panchayat leaders have shattered social myths, been more accessible than men, controlled the stranglehold of liquor, invested substantially in public goods such as drinking water, helped other women express themselves better, reduced corruption, prioritised nutrition outcomes, and changed the development agenda at the grassroots level. Esther Duflo, Raghav Chattopadhyay et al found that in States such as West Bengal and Rajasthan, while women leaders were often rubber stamps of their husbands or fathers, they were more likely to invest in goods that were important to the interests of women. Today, India has a high percentage of crimes against women, low participation of women in the workforce, low nutrition levels and a skewed sex ratio. To address all these challenges, it is argued, we need more women in decision-making.

Third, proponents such as Brinda Karat argue that the discussion is not about a Bill alone, but about changing powerful, entrenched interests in India's polity.



What are arguments against the Bill?

Professor Nivedita Menon writes that opponents of reservation for women argue that the idea runs counter to the principle of equality enshrined in the Constitution. They say that women will not be competing on merit if there is reservation, which could lower their status in society.

Second, women are unlike, say, a caste group, which means that they are not a homogenous community. Therefore, the same arguments made for caste-based reservation cannot be made for women.

Third, women's interests cannot be isolated from other social, economic and political strata. Fourth, some argue that reservation of seats in Parliament would restrict the choice of voters to women candidates. This has led to suggestions of alternate methods including reservation for women in political parties and dual member constituencies (where constituencies will have two MPs, one of them being a woman). But some parties have pointed out that even these may not work as parties may field women candidates in unwinnable seats, or women may contest the elections but not get voted to power, or they may get relegated to a secondary role. Fifth, as men hold primary power as well as key positions in politics, some have even argued that bringing women into politics could destroy the "ideal family".

How many women are in Parliament?

Only about 14% of the members in Indian Parliament are women, the highest so far. According to the Inter-Parliamentary Union, India has a fewer percentage of women in the lower House than its neighbours such as Nepal, Pakistan, Sri Lanka and Bangladesh — a dismal record.

HOUSE MATTERS

The second leg of the Budget session of Parliament is in a deadlock. The ruling Bharatiya Janata Party (BJP) wants Congress leader Rahul Gandhi to apologise for remarks that he made in London recently about democratic backsliding in India; the Congress is insisting on the constitution of a Joint Parliamentary Committee (JPC) to probe allegations of dubious financial transactions and dishonest business practices against the Adani Group of companies. Available evidence suggests that Mr. Gandhi had categorically stated that the challenges to Indian democracy had to be sorted out domestically, and ruled out any role for foreign forces. With the Indian diaspora expanding, the ripple effects of politics in India are inevitable beyond the country's geographical boundaries. In fact, the BJP has for long believed in cultural nationalism which is not contained within the geography of India. Mr. Modi has discussed national politics before audiences around the world. A democracy that does not allow criticism, including of democracy itself, is a contradiction in terms. Mr. Gandhi has not been able to speak in Parliament and explain his remarks; meanwhile, a BJP Member has initiated a process to terminate Mr. Gandhi's Lok Sabha membership. It is an ill-advised move, and if carried out, will further amplify the fears of a democratic deficit in India.

In their clamour for an apology by Mr. Gandhi, BJP Ministers are also evading questions regarding government patronage of the Adani Group. The Congress has been seeking answers from the government on the links between the public sector Life Insurance Corporation of India and the State Bank of India with the Adani Group. The BJP and the government have been silent on this serious issue of governance that spans the government and the public and private sectors. Arbitrariness in decision making, followed by a lack of accountability, amounts to governance failure, if not collusion. The government, the Rajya Sabha chairman and the Lok Sabha Speaker



should work with the Opposition for a discussion on the issues arising out of the Adani controversy. Coming clean is essential in maintaining the government's credibility, the regulatory environment and the private sector. There have been precedents of a JPC in cases of financial scandals. The BJP has the numbers to get away with any disregard for parliamentary norms, but it should rise above that temptation and evolve as a true party of governance. Parliament has a role to play in fixing accountability, and the BJP should not avoid it and betray a new level of executive impunity.

WHY DO LANDFILLS CATCH FIRE DURING SUMMERS?

The Kochi landfill site around Brahmapuram that caught fire earlier this month is a stark reminder that Indian cities need to be prepared for more such incidents as summer approaches. Preventing such fires require long-term measures, including thorough and sustained interventions from municipalities.

How do landfills catch fire?

India's municipalities have been collecting more than 95% of the waste generated in cities but the efficiency of waste-processing is 30-40% at best. Municipal solid waste consists of about 60% biodegradable material, 25% non-biodegradable material and 15% inert materials, like silt and stone. Municipalities are expected to process the wet and dry waste separately and to have the recovered by-products recycled. Unfortunately, the rate of processing in India's cities is far lower than the rate of waste generation, so unprocessed waste remains in open landfills for long periods of time. This openly disposed waste includes flammable material like low-quality plastics, which have a relatively higher calorific value of about 2,500-3,000 kcal/kg, and rags and clothes. In summer, the biodegradable fraction composts much faster, increasing the temperature of the heap to beyond 70-80°C. A higher temperature coupled with flammable materials is the perfect situation for a landfill to catch fire. Some fires go on for months.

Is there a permanent solution?

There are two possible permanent solutions to manage landfill fires. The first solution is to completely cap the material using soil, and close landfills in a scientific manner. This solution is unsuitable in the Indian context, as the land can't be used again for other purposes. Closed landfills have specific standard operating procedures, including managing the methane emissions. The second solution is to clear the piles of waste through bioremediation — excavate old waste and use automated sieving machines to segregate the flammable refuse-derived fuel (RDF) (plastics, rags, clothes, etc.) from biodegradable material. The recovered RDF can be sent to cement kilns as fuel, while the bio-soil can be distributed to farmers to enrich soil. The inert fraction will have to be landfilled. However, implementing a bioremediation project usually takes up to two or three years, necessitating a short-term solution for summertime landfill fires.

What are some immediate measures?

Landfill sites span 20-30 acres and have different kinds of waste. The first immediate action is to divide a site into blocks depending on the nature of the waste. At each site, blocks with fresh waste should be separated from blocks with flammable material. Blocks that have been capped using soil are less likely to catch fire, so portions like these should also be separated out. The different blocks should ideally be separated using a drain or soil bund and a layer of soil should cap each block. This reduces the chance of fires spreading across blocks within the same landfill. Next, the



most vulnerable part of the landfill — the portion with lots of plastics and cloth — should be capped with soil. The fresh-waste block shouldn't be capped but enough moisture should be provided by sprinkling water and the material should be turned regularly for aeration, which helps cool the waste heap. Once a site has been divided into blocks, the landfill operator should classify incoming waste on arrival to the site, and dispose them in designated blocks rather than dumping mixed fractions. Already segregated non-recyclable and non-biodegradable waste should be sent to cement kilns instead of being allowed to accumulate. Dry grass material and dry trees from the site should also be cleared immediately.

While these measures can help reduce the fires' damage, they're far from ideal and not long-term solutions. The permanent and essential solution is to ensure cities have a systematic waste-processing system where wet and dry waste are processed separately and their by-products treated accordingly.

SURVEY DEBUNKS SWACHH BHARAT'S 100% ODF CLAIM

Yet another released recently government survey has called into question the Central government's claim in 2019 that all Indian villages are open defecation-free (ODF). However, four government surveys/reports released just before or after the announcement, including the latest Multiple Indicator Survey (MIS), have not only disputed the ODF status of most States but also shown persisting levels of poor sanitation in many of them.

The three older surveys which disputed the ODF status were the National Statistical Office (NSO) survey from October 2018, the National Annual Rural Sanitation Survey (NARSS) of 2019-20, and the National Family Health Survey-5 (NFHS-5) 2019-21.

For instance, according to data from the Swachh Bharat Mission, Gramin (SBMG) portal, villages in Madhya Pradesh and Tamil Nadu were declared 100% ODF by October 2018. However, according to NSO data, only 71% and 62.8% of rural households in Madhya Pradesh and Tamil Nadu, respectively, had access to some form of latrine (own, shared, public) in the same month. The SBMG data claimed that in 24 States/UTs, over 99% of rural households had individual household latrine as of March 2019, whereas the NARSS data recorded six months later showed that in 24 States/UTs, less than 90% of the rural households had access to their own toilets. According to the SBMG data, 99.4% of rural households in Gujarat had individual latrines as of March 2019. However, according to NFHS data, in the second half of 2019, only 63.3% of the population in rural households in Gujarat used individual toilets.

SAFE HARBOUR AT RISK

In formally outlining the crux of the proposed Digital India Act, 2023, the Minister of State, IT, Rajeev Chandrasekhar, made a case for a robust replacement of the IT Act, 2000, which is somewhat obsolete now. He ominously added a question that the government sought to revisit: "should there be a 'safe harbour' at all for all intermediaries?" This acquires significance as the government has been working towards increasing the compliance burden on Internet intermediaries, in particular in the IT Rules 2021 and its later amendments. These Rules themselves had put the onus on social media intermediaries to arbitrate on content on their platforms with regulations that were weighted in favour of the government of the day, and had invited legal appeals as digital news media platforms among others questioned the constitutionality of the Rules. Meanwhile, an amendment in October 2022 provided for government-appointed committees that will adjudicate on an individual user's appeals against



moderation decisions of these intermediaries. In January 2023, the IT Ministry proposed an amendment on the take down of social media/news content that has been marked as “fake” or “false” by the Press Information Bureau or any other government agency. These, in sum, had already put the safe harbour protections for intermediaries at much risk.

Regulation of hate speech and disinformation on the Internet is a must and intermediaries, including digital news media and social media platforms, have an accountable role to play. The IT Rules’ specifications on giving users prior notice before removing content or disabling access, and for intermediaries to come up with periodic compliance reports are well taken. Social media intermediaries should not shut down users’ posts or communications except in the interests of public order and to avoid legal consequences. But care should be taken to ensure that requirements on intermediaries should not become needlessly onerous and punitive, which also vitiate the principle of safe harbour. There is a legitimate concern that the government is keener on regulating or taking down critical opinion or dissent in social media/news platforms than hate speech or disinformation, which in many cases has originated from representatives of the state. Safe harbour provisions, in particular Section 230 of the U.S. Communications Decency Act, 1996, that explicitly provided immunity to online services with respect to user-generated content had gone a long way in catalysing the Net’s development. While modern regulations to tackle issues related to misinformation, problematic content and the side effects of the new form of the Internet are a must, they should still retain first principles of safe harbour without whittling down their core.

WHERE SHIPS COME TO DIE

It’s 7.30 p.m. at the Alang ship-breaking yard. The yard lights have come on, and a ship, fully lit, is heading to the shore from the Arabian Sea. It’s the last time Kochi Express is sailing. Mohammad Asif Khan, safety officer of a company in the yard, jumps from his chair, comes out of his office and turns on his mobile-phone camera. “The ship will never be lit up again; it’s a farewell to the vessel,” he says.

Alang, in the Gulf of Khambhat in Gujarat, hosts the world’s largest ship-breaking yard, dismantling many freight and cargo ships from around the world. The facility, established in 1983, has 183 yards along 14 km of the coast. Super-tankers, ferries, container ships and dwindling numbers of ocean liners are beached on the mud flats during high tide. As the tide recedes, manual labourers move to the beach to dismantle each ship, salvaging what they can and reducing the rest to scrap.

When the economy is good, the shipping market booms and fewer vessels arrive for scrapping. During the peak of the pandemic, as the tourism industry came to a halt, many cruise vessels ended up in Alang. The decommissioned aircraft carrier INS Viraat too has come for dismantling. “We have officially written out requests to the External Affairs and Shipping Ministries and the Prime Minister’s office requesting hospitals and hazardous waste treatment at Alang,” Mukesh B. Patel, chairman of Shri Ram Group, which is executing the work on Viraat, says.

At least 100 workers are engaged in picking apart the vessels in various yards. It takes six to eight months for breaking a ship, depending on its size. The labourers are migrants from Bihar, Odisha, West Bengal and Uttar Pradesh, working 12 hours during summer and 10 hours in winter from 7 a.m.



NIOT TO SET UP GREEN, SELF-POWERED DESALINATION PLANT IN LAKSHADWEEP

Stepping up from its ongoing initiative of providing potable water on six islands of Lakshadweep using low temperature thermal desalination (LTTD) technology, the Chennai-based National Institute of Ocean Technology (NIOT) is working at making this process free of emissions.

Currently, the desalination plants, each of which provides at least 1,00,000 litres of potable water every day, are powered by diesel generator sets — there being no other source of power on the islands. The LTTD exploits the difference in temperature (nearly 15 degrees Celsius) in ocean water at the surface and at depths of about 600 feet. This cold water condenses water at the surface, which is warmer but whose pressure has been lowered using vacuum pumps. Such depressurised water can evaporate even at ambient temperatures, this resulting vapour when condensed is free of salts and contaminants and fit to consume.

However, the need for diesel power to reduce the water pressure means that the process is not fossil-fuel free and also consumes diesel, a precious commodity on the islands that has to be shipped from the mainland, critical for powering the electric grid.

“For the first time in the world, probably, we are setting up a [desalination] plant that will also supply power to the plant,” said G.A. Ramadoss, Director, NIOT, Chennai.

Currently, there are five desalination plants in operation on the Lakshadweep islands. Four more were expected to be functioning in the coming months. The proposed self-sustaining plant — the 10th plant — is expected to be ready later this year, he added.

The NIOT, an institute under the aegis of the Ministry of Earth Sciences (MoES), has worked for years on harnessing energy from the ocean. However, ocean thermal technology, while plausible for islands, was unlikely to be useful for supplying power onshore. “For such plants to work, we need a large gradient [difference in temperature between the surface and the ocean depths]. In Lakshadweep, these depths can be achieved fairly easily unlike, say, off the coast of Chennai. It will make the power produced this way extremely expensive,” M. Ravichandran, Secretary, MoES, told The Hindu.

While demonstration plants were funded by the MoES, the existing desalination plants were funded by the Lakshadweep administration. The Ministry provided technical assistance and the plants were commissioned via private industry, Mr. Ravichandran added.

WHAT IS RAJASTHAN’S RIGHT TO HEALTH BILL?

What does the Bill say?

The Congress-led government tabled the Right to Healthcare Bill, 2022 in the Rajasthan State Assembly in September 2022. The Bill provides rights to patients and healthcare providers, places the obligation on the government to protect these legal rights and mandates the setting up of grievance redressal mechanisms. Rajasthan residents will be entitled to free check-ups, drugs, diagnostics, emergency transport and care at all public health institutes, along with affordable surgeries. The Bill frames medical services as a public service rather than a vehicle for making money. If enacted, the Act will have a recurring annual expenditure of ₹14.5 crore.

Clause 3 of the Bill lays down 20 rights a State resident will be entitled to — including the right to informed consent, to seek information (in the form of medical records and documents) regarding



diagnosis and treatment, and to receive treatment without discrimination based on caste, class, age, gender, etc.

Clause 4 of the Bill shifts the burden of responsibility in providing adequate medical services to the government. The government is “obligated” to provide funds, set up institutions and constitute grievance redressal systems.

Clause 4 mandates that the government develop a Human Resource Policy for health ensuring equitable distribution of doctors, nurses and healthcare workers at all levels of the system across regions.

Does the Constitution guarantee a right to health?

The Indian Constitution does not explicitly talk about a right to health. A “right to health”, in theory, is derived from the right to life and liberty as guaranteed under Article 21 of the Constitution.

Previously, courts have highlighted the State’s obligation to protect and promote the health of citizens, pointing to Constitutional provisions such as Article 38 (promoting the welfare of people) and Article 47 (which directs the government to meet the nutrition and health requirements of the population).

Why are people opposed to it?

The staunchest resistance to the Bill has come from private healthcare providers, owing to the ambiguity around who will pay for the mandatory free-of-cost emergency treatment. A pamphlet in circulation across the States, published by a “Joint Action Committee”, lists the Bill’s other alleged shortcomings: that it abdicates the State’s responsibility in providing health protection and puts a larger patient load on the private sector.

After protests, the government has agreed to create a fund to reimburse any emergency care offered by the private sector.

Further, doctors argue the Bill is both futile and an exercise in over-regulation. Clinics and hospitals are required to abide by State regulations and norms.

Health activists and civil society members agree the Bill, in its current form, is a “diluted” version of the draft which activists and Jan Swasthya Abhiyaan submitted to the government in 2019.

Moreover, there’s no mention of a designated time frame within which the rules must be framed and the Bill loosely mentions the term “guarantee” — which makes the actual execution of an Act ambiguous.

HOW IS BENGAL TACKLING FATAL VIRAL INFECTION?

On March 6, Chief Minister Mamata Banerjee informed the West Bengal Legislative Assembly that 19 children below the age of five years have died in State-run institutions due to acute respiratory infection (ARI). Of the 19 children who succumbed, 13 had co-morbidities and six children had no health conditions other than the adenovirus infection, she added. Despite admission of infant deaths, the State claims that there is no evidence of a viral epidemic and the current situation is nothing but a seasonal surge. While officials put mortality figures at 19, unofficial estimates suggest the number of children who have died to be well over 100 between December 2022 and



the first week of March, 2023. On Saturday, the West Bengal government set up an eight-member task force to 'supervise the works related with control of adenovirus and treatment of affected persons'. The State government's statement said that so far 10,999 acute respiratory infection cases in children have come to the fore.

What is the adenovirus infection?

The Centre for Disease Control and Prevention of the United States government states that adenoviruses are common viruses that typically cause mild cold or flu-like illness and are usually spread from an infected person to others by close personal contact. The virus is transmitted through the air by coughing and sneezing and also by touching an object or surface with adenoviruses on it. While the virus can affect people of any age group, children with low and compromised immunity are at a higher risk. The symptoms of the viral infection, other than common cold or flu-like symptoms, include acute bronchitis, pneumonia, pink eye (conjunctivitis) and acute gastroenteritis.

Shanta Dutta, Director of Kolkata's National Institute of Cholera and Enteric Diseases (NICED), a unit of the Indian Council of Medical Research (ICMR), said that a recombinant of two strains of adenovirus is causing a spike in viral infections in West Bengal. "It is a recombinant strain of human adenovirus type 3 (HAdV-3) and type 7 (HAdV-7) that is causing the majority of infections. In January, when the serotyping of adenovirus samples was done, the recombinant strain was found in 30% samples and it increased to 40% in February," Dr. Dutta said. While about 88 human adenovirus (HAdV) serotypes have been found, epidemiologic reports have suggested that nearly all fatal adenoviral diseases in children are associated with HAdV-7. The HAdV-3 strain is said to be more prevalent.

What is the strain prevalent in Bengal?

While the NICED is yet to come out with the outcome of the virulence study on the recombinant strain, doctors claim that it is the recombinant strain which is the reason for the spike in infections and deaths. Sayan Chakraborty, an infectious disease expert at AMRI Hospitals, Kolkata said a recombinant of human adenovirus type 3 (HAdV-3) which is more prevalent and type 7 (HAdV-7) which is more severe has led to morbidities. Dr. Chakraborty said most of the children who have been infected by the virus are less than three years old and were born during the COVID-19 pandemic. Since they were isolated at home, an 'immunity gap' has emerged for them and that they are more susceptible to viral infection. Tamal Laha, senior consultant and paediatrician at Apollo Hospitals, Kolkata said that children who are in the age group of six months to preschool are most susceptible to viral infection and suffer from something called 'immunity lag period'. He added that this is the reason why vaccines are administered to children in this period.

HORSESHOE CRABS DISAPPEARING OFF ODISHA'S COAST; SCIENTISTS WORRIED

Horseshoe crabs, one of the oldest living creatures on earth and medicinally priceless, appear to be disappearing from their familiar spawning grounds along Chandipur and Balaramgadi coast in Odisha's Balasore district.

Scientists have urged Odisha government to come up with a robust protection mechanism before the living fossil becomes extinct due to destructive fishing practices.

Professor B.C. Choudhury, member of Odisha State Wildlife Advisory Board, and Anil Chatterjee, retired scientist of National Institute of Oceanography (NIO), Goa, appealed to the Union Ministry

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



of Environment, Forest and Climate Change to place the horseshoe crabs on the list of marine species for which a Species Recovery Plan has to be developed.

Dr. Chatterjee first discovered horseshoe crabs along Balasore coast and brought the species to the State's notice in 1987.

"When we used to come to Odisha in 1988-89, the population of horseshoe crab was very high. In 200 square metre area, we were getting 30 to 40 specimens. Last month, I had been to Balasore, I found there were hardly any of such animals," he said.

"Like olive ridley sea turtles, these crabs are basically deep-sea animals. They come to coasts of Balasore in Odisha and Digha and Sundarban in West Bengal for breeding purposes. They select a suitable site for laying their eggs. Unfortunately, those eggs are also damaged by local people," lamented the scientist.

Medicinal value

The blood of this crab is very important for the preparation of rapid diagnostic reagents. All injectable medicines are tested on them. Dr. Chatterjee said a molecule has been developed from a reagent of horseshoe crab to help treat pre-eclampsia.

The scientist said only a few countries in the world have horseshoe crab population and India is one among them. "This is the oldest living creature on earth. Palaeontological studies say the age of horseshoe crabs is 450 million years. The creature has lived on earth without undergoing any morphological change. Scientists are surprised to find strong immune system in animal that helped it survive millions of years. The animal is critical for human health. If we don't put any effort now, horseshoe crabs would not be found in India in next few years," he warned.

In a letter to Principal Chief Conservator of Forest (Wildlife), Dr. Choudhary suggested that the horseshoe crab's breeding grounds be declared as a conservation reserve to protect the species.

INDIA'S BIG MOMENT AT OSCARS 2023

The success of RRR and The Elephant Whisperers is a recognition of the quality and diversity in Indian cinema. It is a moment to savour and build on.

Two Indian productions made history at LA's Dolby Theatre on Sunday evening. The Elephant Whisperers, Kartiki Gonsalves's debut film, won the Best Documentary Short Film and 'Naatu Naatu', composed by M M Keeravani and lyrics by Chandrabose, from the S S Rajamouli film RRR, won Best Original Song at the 95th Academy Awards. Three Indian films had been among the nominees this year — Shaunak Sen's All That Breathes was up for Best Documentary Feature Film, but lost out to Navalny, which is about the Russian dissident Alexei Navalny. For two of the three Indian nominees to end up with statuettes is a big moment for Indian cinema — Oscars, after all, is a global benchmark of excellence in film-making.

The wins for RRR and The Elephant Whisperers mark a new recognition in the West of the full spectrum of cinema that India produces, an acknowledgement that there is more to the films made here than Bollywood. For long, even as filmmakers like Satyajit Ray and Adoor Gopalakrishnan were feted in the film festival circuit and, lately, Indian documentaries were recognised at festivals like Cannes, the bulk of Indian cinema has attracted little critical attention. The RRR juggernaut, having already snared a Golden Globe and other awards, rode into the Oscars positioned as the



favourite in its category and backed by a massive, stubborn campaign by Rajamouli after his film was snubbed in favour of Pan Nalin's Chhello Show as India's official entry in the race. RRR's epic scale and everything-but-the-kitchen-sink approach, is in sharp contrast to the intimate tale of two orphaned elephants and their human caretakers told by Gonsalves's non-fiction short. The films' wins must also be seen against the larger conversation about diverse voices that is gripping Hollywood and making room for stories from other cultures: Everything, Everywhere, All At Once, the story of an Asian-American family featuring actors of Asian origin, sweeping the awards is evidence of the churn. Both RRR and The Elephant Whisperers, rooted as they are in Indian milieu, were able to take advantage of this larger shift. They were also aided in no small measure by the entertainment revolution brought in by OTT platforms: Gonsalves's film was distributed by Netflix, while RRR's burst of fame came after it began streaming last year.

Indian cinema has long been touted as its greatest soft power and the two Oscar wins present the opportunity to expand both its canvas and market. This means creating conditions that allow the art to flourish, not just in terms of resources but also in experimenting with ideas and views that may not necessarily be conforming with the mainstream. Despite being one of the largest filmmaking countries in the world, India's track record at the Oscars has been dismal. RRR and The Elephant Whisperers have taken a first step towards correcting this imbalance. Over to tomorrow's storytellers and actors and artists to make the most of this historic moment.

MADRAS HC'S CONNECTION WITH AMMU FROM 'THE ELEPHANT WHISPERERS'

Admirers of Academy Award-winning 'The Elephant Whisperers' may not disagree that Ammu, a three-month-old female elephant calf, is the cutest character in the 40-minute Netflix documentary. Director Kartiki Gonsalves introduces the animal after 20 minutes, with whimsical background music, and it goes on to steal the hearts of the viewers, in part, thanks to the Madras High Court.

It was on October 24, 2019, that Justices M. Sathyanarayanan (since retired) and N. Seshasayee of the HC had ordered that "utmost care must be bestowed" to bring up Ammukutty alias Ammu alias Bommi "in a safe manner." Disposing of a case filed by activist S. Muralidharan, they had directed the Forest Department to ensure periodical monitoring of the health of the calf. Ammu had got separated from her herd at the Sathyamangalam Tiger Reserve and could not be reunited despite the efforts of the Forest Department. It was then that the case was filed in the court to restrain the Department from making any further attempt to shift it to the forest. The litigant insisted that the animal be brought up either in a zoo or in any elephant camp.

When the court called for the remarks of the Principal Chief Conservator of Forests (PCCF), the latter told the court that Ammu could not be reunited with her herd and any attempt might endanger her life. Therefore, he had decided move the calf to a camp. After recording the PCCF's submissions, the High Court had disposed of the case with a direction to bestow utmost care in bringing up Ammu.

It was pursuant to these proceedings that she was handed over to mahout Bomman and his wife Bellie since they had a track record of having brought up well a male elephant calf, Raghu. The documentary portrays how Raghu was highly possessive of the couple and was initially unable to accept them sharing their love with Ammu until both calves developed a camaraderie, only to be separated soon.



ANTIQUITIES ABROAD: WHAT INDIAN, INTERNATIONAL LAWS SAY

Before Independence, an Antiquities (Export Control) Act had been passed in April 1947 to ensure that “no antiquity could be exported without license.”

An investigation by The Indian Express, in association with the International Consortium of Investigative Journalists and Finance Uncovered, has found that the catalogue of the Metropolitan Museum of Art, New York, includes at least 77 items with links to Subhash Kapoor, who is serving a 10-year jail term in Tamil Nadu for smuggling antiquities.

What is an antiquity?

The Antiquities and Art Treasures Act, 1972, implemented on April 1, 1976, defined “antiquity” as “any coin, sculpture, painting, epigraph or other work of art or craftsmanship; any article, object or thing detached from a building or cave; any article, object or thing illustrative of science, art, crafts, literature, religion, customs, morals or politics in bygone ages; any article, object or thing of historical interest” that “has been in existence for not less than one hundred years.”

For “manuscript, record or other document which is of scientific, historical, literary or aesthetic value”, this duration is “not less than seventy-five years.”

What do international conventions say?

The UNESCO 1970 Convention on the Means of Prohibiting and Preventing the Illicit Import, Export and Transfer of Ownership of Cultural Property defined “cultural property” as the property designated by countries having “importance for archaeology, prehistory, history, literature, art or science.”

The Declaration further said that “the illicit import, export and transfer of ownership of cultural property is one of the main causes of the impoverishment of the cultural heritage of the countries of origin of such property and that international co-operation constitutes one of the most efficient means of protecting each country’s cultural property.”

After that, in 2000, the General Assembly of the UN and the UN Security Council in 2015 and 2016 also raised concerns on the issue. An INTERPOL report in 2019 said that almost 50 years after the UNESCO convention, “the illicit international traffic of cultural items and related offences is sadly increasingly prolific.”

What do Indian laws say?

In India, Item-67 of the Union List, Item-12 of the State List, and Item-40 of the Concurrent List of the Constitution deal with the country’s heritage.

Before Independence, an Antiquities (Export Control) Act had been passed in April 1947 to ensure that “no antiquity could be exported without license.” In 1958, The Ancient Monuments and Archaeological Sites and Remains Act was enacted. Then in 1971, Parliament saw an uproar over the theft of a bronze idol from Chamba and some important sandstone idols from other places.

This, along with the UNESCO convention, prompted the government to enact The Antiquities and Art Treasures Act, 1972 (AATA), implemented from April 1, 1976.



The AATA states, “it shall not be lawful for any person, other than the Central Government or any authority or agency authorised by the Central Government in this behalf, to export any antiquity or art treasure... No person shall, himself or by any other person on his behalf, carry on the business of selling or offering to sell any antiquity except under and in accordance with the terms and conditions of a licence.”

This licence is granted by the Archaeological Survey of India (ASI). After the AATA was implemented, the Centre asked traders in antiquities and art objects to declare their possessions of antiquities by June 5, 1976, and individual owners by July 5, 1976.

What is ‘provenance’ of an antiquity?

Provenance includes the list of all owners from the time the object left its maker’s possession to the time it was acquired by the current owner.

How is ownership proved?

The UNESCO 1970 declaration stated that, “The requesting Party shall furnish, at its expense, the documentation and other evidence necessary to establish its claim for recovery and return.” The first thing in order to prove the ownership is the complaint (FIR) filed with the police. In India, the problem with missing antiquities is that in many cases, there is no FIR. But other proof, like details mentioned by reputed scholars in research papers etc., also work.

How to check for fake antiquities?

Under section 14(3) of the AATA, “Every person who owns, controls or is in possession of any antiquity” shall register such antiquity before the registering officer “and obtain a certificate in token of such registration.”

So far, the National Mission on Monuments and Antiquities, launched in March 2007, has registered 3.52 lakh antiquities among the 16.70 lakh it has documented, to help in “effective check” of illegal activities. This is a very small portion of the total number of antiquities in the country, which the government estimates to be around 58 lakh, according to a statement by the Ministry of Culture in Parliament in July 2022.

Can India bring back antiquities?

There are three categories to take note of: antiquities taken out of India pre-independence; those which were taken out since independence until March 1976, i.e. before the implementation of AATA; and antiquities taken out of the country since April 1976.

For items in the first two categories, requests have to be raised bilaterally or on international fora. For instance, the Maharashtra government on November 10, 2022 announced it was working to bring back the sword of Chhatrapati Shivaji Maharaj from London. This sword was given to Edward, the Prince of Wales (the later King Edward VII) by Shivaji IV in 1875-76. Several antiquities, from Vagdevi of Dhar (MP), to the Kohinoor diamond, to Amaravati marbles to the Sultanganj Buddha to antiquities related to Rani Laxmibai and Tipu Sultan, are currently abroad.

Antiquities in the second and third categories can be retrieved easily by raising an issue bilaterally with proof of ownership and with the help of the UNESCO convention. The conviction of Subhash Kapoor has further given a chance to India to bring back smuggled antiquities.



BUSINESS & ECONOMICS

FRICITION OVER FORMULA: WHY SOME STATES GET MORE FROM CENTRE

The Centre's tax collections are pooled-in from States and a part of it is distributed among them, based on the Finance Commission's (FC) formula. The Fifteenth Finance Commission's (XVFC) formula is skewed in favour of some States, resulting in wide inter-State variations. As population is given a higher weightage, it tilts the balance in favour of some northern States. This has been a bone of contention between the Centre and the affected States.

Tamil Nadu's Finance Minister P.T.R. Palanivel Thiagarajan, in a discussion with Congress leader Shashi Tharoor, said, "The notion to allocate funds based on the population, it rewards those who have not been able to achieve population control."

The Centre, on the other hand, has been defensive. In an event in Chennai, Union Finance Minister Nirmala Sitharaman said, "If every State thinks I am giving so much, I should get so much, it's just not going to work out... Will a country prosper if it constantly draws this artificial line?"

The XVFC had arrived at the States' share in the divisible pool of taxes based on each State's needs (population, area and forest and ecology), equity (per capita income difference) and performance (own tax revenue and lower fertility rate). The weight assigned to needs was 40%, equity 45%, and 15% for performance. This formula meant that Uttar Pradesh and Bihar got 17.9% and 10%, respectively in the XVFC. Karnataka, Kerala and Tamil Nadu got 3.65%, 1.93% and 4.08%, respectively.

Notably, the XVFC introduced the fertility rate in the formula to reward States which had reduced the fertility levels. While this does favour the developed States which have pushed their TFR below replacement rate, the weightage given to the component is relatively lower than equity and need.

M. Govinda Rao, a member of the 14th Finance Commission, defended the formula. "The objective is not to return the money you get from a State. Transfers enable a State to provide comparable levels of services. The basic rationale is horizontal equity. Taxes accrued to Tamil Nadu are not necessarily from the State. Yes, per capita income levels increased substantially in Karnataka, Kerala and Tamil Nadu. Now, the increase need not necessarily have to do only with the States' efforts."

A senior economist from Tamil Nadu differed. "The southern States have grown faster, and contribute larger revenue to the central kitty. We don't say that if U.P. gets one rupee for every 10 paise it contributes, Tamil Nadu should also get the same. We are not against equity but that should not adversely impact our efficiency. So, if developing States are not incentivised to generate more tax revenue, how will the Centre then redistribute it?"

Moreover, in the discussion with Mr. Tharoor, Mr. Thiagarajan argues that he is "concerned about what happens to all the money that goes to poorer States. Why is it not leading to development? It's not the money that we begrudge, it's the lack of progress, it's like throwing money down the well." The States which get more money from the Centre show sedate growth, and the progress of those who get less is relatively much superior.



RBI HAS PERMITTED BANKS FROM 18 COUNTRIES TO TRADE IN RUPEE: CENTRE

Banks from 18 countries have been permitted by the Reserve Bank of India (RBI) to open special vostro rupee accounts (SVRAs) for settling payments in Indian rupees, the government told the Rajya Sabha on Tuesday.

In response to a question from Sushil Kumar Modi of the BJP, Union Minister of State for Finance Bhagwat Kishanrao Karad said the SVRAs could be set up by banks of partner countries by approaching authorised dealer (AD) banks in India that may get permission from the RBI after the due procedure.

Mr. Karad informed that as per records, the RBI had granted approval to “domestic and foreign AD Banks in 60 cases for opening SRVAs of banks from 18 nations — Botswana, Fiji, Germany, Guyana, Israel, Kenya, Malaysia, Mauritius, Myanmar, New Zealand, Oman, Russia, the Seychelles, Singapore, Sri Lanka, Tanzania, Uganda and the United Kingdom”.

Of the 18 countries mentioned in Mr. Karad’s response, Russia has been vocal in using trade in local currency for the overall process of “de-dollarisation”. But India has been supporting the idea of trade in local currency mainly to boost exports.

The process of SVRAs began in July 2022 when the RBI announced that, “it has been decided to put in place an additional arrangement for invoicing, payment, and settlement of exports/imports in INR [Indian rupees]”.

The announcement came against the backdrop of the commodities crisis triggered by the Western sanctions against Russia after President Vladimir Putin launched the “special military operation” against Ukraine in February 2022. Trade in local currencies have been mooted as a solution to avoid the current wave of wartime international sanctions that are hampering supply chains and global trade flows.

In the past one year, India has finalised trade pacts with partner countries such as the UAE and Australia and begun negotiation with others such as the U.K. and the EU while making inroads for the national currency in bilateral and global trade.

WHY IS CRYPTO TRADE WITHIN PMLA AMBIT?

What is the PMLA ?

The anti-money laundering legislation was passed by the National Democratic Alliance government in 2002, and came into force on July 1, 2005. The PMLA was showcased as India’s commitment to the Vienna Convention on combating money laundering, drug trafficking, and countering the financing of terror (CFT). The law was aimed at curbing the process of converting illegally earned money into legal cash. The Act empowered the Enforcement Directorate (ED) to control money laundering, confiscate property, and punish offenders.

In July 2022, Union Minister of State for Finance Pankaj Chaudhary told the Lok Sabha, in response to a query on cases registered by the ED, that “till March 31, 2022, the ED recorded around 5,422 cases, attached proceeds to the tune of ₹1,04,702 crore (approx.), filed Prosecution Complaint in 992 cases resulting in confiscation of ₹869.31 crore and convicted 23 accused persons under PMLA.”



What does this move mean for crypto?

The gazette notification by the Ministry brings cryptocurrency transactions within the ambit of PMLA. This means that Indian crypto exchanges will have to report any suspicious activity related to buying or selling of cryptocurrency to the Financial Intelligence Unit – India (FIU-IND). This central agency is responsible for receiving, processing, analysing, and disseminating information related to suspicious financial transactions to law enforcement agencies and overseas FIUs. In its analysis, if the FIU-IND finds wrongdoing, it will alert the ED. Under Section 5 and 8(4) of the Act, the ED has discretionary powers to search and seize suspected property without any judicial permission.

Why is the government tightening the legislative grip on digital trade?

For a little more than a decade, cryptocurrencies, non-fungible tokens (NFT) and other digital assets enjoyed a regulation-free environment. But, in the past couple of years, as the use of digital assets has gone mainstream, regulators have turned hawkish. The value of all existing cryptocurrency is about \$804 billion as of January 3, 2023, according to cryptocurrency price-tracking site CoinMarketCap.com. That is about twice the GDP of Singapore in 2021. In India, according to a survey conducted by crypto exchange KuCoin, over 10 crore Indians have invested in cryptocurrencies.

Separately, according to a report by blockchain analytics firm Chainalysis, illegal use of cryptocurrencies hit a record \$20.1 billion last year. Transactions associated with sanctioned entities jumped over 1,00,000-fold, making up 44% of last year's illegal activity.

What tools can be used to track money laundering via crypto transactions?

Tracking money trail in cryptocurrency transactions may require new tools and approaches as such transfers differ fundamentally from traditional banking channels. FIUs may be familiar with Know Your Customer (KYC) or Customer Due Diligence (CDD) norms. But the technological nature of VDAs presents a new challenge in gathering information. This requires the intelligence unit to broaden its intelligence framework.

The Egmont Group that facilitates cooperation between FIUs to prevent money laundering recommends the analysis of crypto wallets, its associated addresses and blockchain records, and hardware identifiers like IMEI (International Mobile Equipment Identity), IMSI (International Mobile Subscriber Identity) or SEID (Secure Element Identifier) numbers, as well as MAC addresses.

What about regulation in other countries?

According to PwC's 'Global Crypto Regulations Report 2023', a large proportion of countries are at various stages of drafting regulations around crypto. Most countries have already brought digital assets under anti-money laundering laws. Singapore, Japan, Switzerland, and Malaysia have legislations on regulatory framework. The U.S., U.K., Australia, and Canada have initiated plans on regulating. So far, China, Qatar, and Saudi Arabia have issued a blanket ban on cryptocurrency. The EU is also preparing a cross-jurisdictional regulatory and supervisory framework for crypto-assets. The framework seeks to provide legal clarity, consumer and investor protection, and market integrity while promoting innovation in digital assets.



LESSONS LEARNT

A faltering bank, this time on the U.S. West Coast, sparked a déjà vu moment across global markets last week as fears of a Lehman redux triggered sharp declines in banking stocks worldwide and saw investors make a beeline for safe haven assets such as gold. However, over the course of four days from Friday, regulators in the world's largest economy acted with alacrity to bolster public confidence in the banking system. The Federal Deposit Insurance Corporation (FDIC) first took over the Silicon Valley Bank in California, and on Sunday took control of New York-based Signature Bank and in concert with the Federal Reserve and the Treasury Department announced that depositors in both the banks would be repaid in full. Shareholders of the two banks would, however, not be protected, regulators said. On Monday, U.S. President Joe Biden sought to reassure the nation and global markets that the U.S. was committed to maintaining a resilient banking system, and would move to simultaneously tighten regulations for banks to make it less likely for such failures to occur again. While the coordinated steps have, at least for now, restored a degree of calm in most markets, there are lessons that have been learnt and others that could, perhaps, be gleaned over time.

Silicon Valley Bank's case is fairly unique. With the depositor base comprising start-ups and venture capitalists, mostly from the tech hub of Silicon Valley, the customers were geographically and sectorally concentrated. The bank had also invested extensively in a portfolio of U.S. Treasuries and mortgage bonds, which had as a result of the recent sharp interest rate increases by an inflation-battling central bank accumulated unrealised losses that became too costly to liquidate in a distress situation. Signature, on the other hand, had exposed itself to highly volatile cryptocurrencies by providing services to those investing in digital assets. That, along with a run on deposits, ultimately proved to be its undoing. Blaming the Fed's monetary tightening as the proximate cause for the bank failures is a case of being unable to see the wood for the trees. Interest rates move in cycles and all banking is fundamentally predicated on managing the risks associated with interest rate moves as well as ensuring that the deposits banks accept to fund lending are always reasonably matched with income or holdings that could be used to meet withdrawals. The Reserve Bank of India's guidelines of 2018 advising banks to create an Investment Fluctuation Reserve is just the kind of countercyclical tool that has relatively insulated Indian lenders from interest rate risks. Still, the RBI must remain on guard to ensure neither global contagion nor management missteps threaten any local lender.



LIFE & SCIENCE

INDIAN INSTITUTE OF ASTROPHYSICS RESEARCHERS DEVELOP LOW-COST STAR SENSOR

Researchers at the Indian Institute of Astrophysics (IIA) have developed a low-cost star sensor for astronomy and small CubeSat class satellite missions.

The star sensor named Starberry-Sense can help small CubeSat class satellite missions find their orientation in space.

The Department of Science and Technology (DST) said that the Starberry-Sense is ready for launch on the PS4-Orbital Platform by ISRO and can be used for CubeSats and other small satellite missions in the future.

Based on commercial/off-the-shelf components, this star sensor costs less than 10% of those available in the market. The brain of the instrument is a single-board Linux computer called Raspberry Pi, which is widely used among electronics hobby enthusiasts.

“Any satellite needs to know where it is pointed in space, and the instrument used for this purpose is called a star sensor. The position of stars in the sky is fixed relative to each other and can be used as a stable reference frame to calculate the orientation of a satellite in orbit. This is done by correctly identifying the stars in the sky towards which the star sensor is pointed. The star sensor is essentially a celestial compass,” DST added.

HOW A PAPER ON ROOM-TEMPERATURE SUPERCONDUCTORS IS CREATING CONTROVERSY

At every power plant, a portion of the electricity generated is lost during transmission because the wires and cables that carry the current have electrical resistance. We can mitigate this to a large extent if we use a material that does not resist the flow of current. Physicists discovered such materials a century ago — they are called superconductors. They have since realised that superconductors can exhibit truly quantum phenomena that have the potential to enable revolutionary technologies, such as enabling efficient quantum computers.

‘Holy grail’

All the materials we now know to be superconductors become that way in special circumstances. Outside those circumstances, they resist the flow of current. For example, aluminium becomes superconducting at a devilishly cold temperature of less than -250°C . Physicists and engineers have been toiling to find materials that superconduct electricity in ambient conditions, that is at one or a few atmospheres of pressure and at room temperature. Given their potential, finding such materials is one of the holy grails of physics and materials science.

The theory that explains why some materials become superconductors in some conditions suggests that hydrogen and materials based on it could hold great promise in this pursuit. And just as predicted, in 2019, scientists in Germany found lanthanum hydride (LaH₁₀) to be a superconductor at -20°C , but under more than a million atmospheres of pressure — pressure that is only realised at the centre of the earth.

This is where a new study, published in Nature on March 8, becomes relevant. Researchers in the U.S., led by Ranga Dias at the University of Rochester, reported discovering room-temperature

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



superconductivity in nitrogen-doped lutetium hydride at roughly a thousand atmospheres of pressure, which on the face of it is a great advance.

The method

The key is the choice of the material. The authors specifically suggest that the presence of nitrogen is what led to the findings. They found a way to push some nitrogen into the crystal of lutetium hydride by developing a high-pressure synthesis process. Superconductivity in the material is brought about by the (microscopic) jiggling motion of the crystal, and the investigators intuited that the right amount of nitrogen could induce the right amount of jiggling — to produce superconductivity at room temperature but without destabilising the crystal.

The nitrogen-doped lutetium hydride that Dias et al. produced was stable in ambient conditions (with a blue colour) but not yet superconducting. When they applied a thousand atmospheres of pressure to this material, it turned red, indicating a change in the nature of the electrons in the material. When the scientists measured the material's electrical resistance, magnetic properties, and thermal properties in these conditions, they concluded that the material had become a superconductor.

The data they have reported in their paper shows a sharp drop in the electrical resistance around room temperature, the expulsion of magnetic fields, and a hump in the heat capacity (the sample expels heat from itself when cooled, as the electrons organise into the more-ordered superconducting state). These are all telltale signs of superconductivity, which they found in about 35% of the samples they tested.

However, this story of blue to red is not so black and white. On purely scientific grounds, the claims made by the authors depend strongly on the correctness of the way they processed their data.

WHY IS WHATSAPP THREATENING TO LEAVE U.K.?

During a visit to the U.K. last week, WhatsApp's head Will Cathcart said that WhatsApp would not comply with the country's proposed Online Safety Bill (OSB) which will in effect outlaw end-to-end (E2E) encryption. Mr. Cathcart said that it was the first time a "liberal democracy" was attempting to block a "secure product".

What is end-to-end encryption?

E2E encryption ensures that a message can only be decrypted by the intended recipient using a secure decryption key that is unique to each sender-recipient pair and to each of their messages. Decryption, even by the messaging service provider, is impossible. Even if the platform's servers are compromised, without the intended recipient's decryption key, only a garbled string of characters will be available. Over the last few years, E2E encryption has been steadily gaining ground. It is offered by default on WhatsApp, Signal, Apple's iMessage and FaceTime and is an option on Meta's Messenger and Telegram.

What is the Online Safety Bill?

The Online Safety Bill is a proposed British legislation that seeks to improve online safety by placing certain "duty of care" obligations on online platforms.

Most of the criticism is directed against clause 110 of the OSB which empowers the British telecommunications regulator, the Office of Communications, to issue notices to most kinds of



internet service providers, including private messaging apps and search engines, to identify and take down terrorism content that is communicated “publicly” and Child Sex Exploitation and Abuse (CSEA) content that is communicated “publicly or privately”, and to prevent such content from being communicated in the first place. Although the OSB does not mandate removal of E2E encryption, it would de facto mean breaking it as messaging apps would have to scan all messages that are sent on their platform to flag and take down terrorist and CSEA content. Since the clause also requires the platforms to “prevent” terrorism and CSEA content from being communicated using the platforms, it would mean that WhatsApp would have to implement a client-side scanning mechanism to scan content on users’ devices before it is even encrypted. For this, they would need to rely on algorithms that are not very sophisticated and do not understand context. For instance, in 2021, Google automatically blocked a father’s account in San Francisco and reported him to the local police because he had shot videos of his toddler son’s infection in intimate areas to share with his son’s doctor during the pandemic.

Privacy and free speech advocates, as well as multiple members of the British Parliament, view this Bill as a disproportionate step that allows the state to mandate bulk interception and surveillance.

What have other platforms said?

Last month, Signal’s president Meredith Whittaker told the BBC that Signal “would absolutely, 100% walk” if forced to weaken the privacy of its messaging platform. In a blog post, she wrote, “[encryption] is either broken for everyone, or it works for everyone. There is no way to create a safe backdoor.” Matthew Hodgson, the CEO of British Company Element that runs Matrix-based E2E encrypted messenger, said that if the OSB was passed, he may have to exit the U.K. entirely and shift his company’s headquarters.

What if the platforms don’t comply?

If platforms do not comply, they may face penalties of up to £18 million or 10% of the platform’s global revenue of the preceding accounting year, whichever is higher. Currently, the Bill has been passed by the House of Commons and a House of Lords committee is examining the Bill. Once the committee’s report is ready, it will go back to House of Lords for a third reading.

Did India enact a similar law?

Through the Information Technology (Intermediary Guidelines and Digital Media Ethics Code) Rules, 2021, the Indian government made it mandatory for messaging platforms with more than five million users in India to “enable the identification of the first originator” of a message, or what is commonly called traceability. This is not the same as asking for scanning and flagging of all encrypted content; it is about getting to the first person who sent a message that may have been forwarded multiple times. In India, WhatsApp did not threaten to leave the market. It instead, sued the Indian government over the traceability requirement. This is mainly because India, with 487.5 million WhatsApp users, is home to 22% of the platform’s 2.24 billion monthly active users. WhatsApp’s penetration rate in India is over 97% while in the U.K., it is at about 75%. Moreover, the U.K., with 40.4 million users accounts for little less than 2% of global users. Even Mr. Cathcart said it would be “an odd choice” to compromise the app’s security for just 2% of its user base.



A RED HAT LESSON FOR ELON MUSK: ON MAKING TWITTER'S ALGORITHM OPEN SOURCE

Twitter's new owner Elon Musk is planning to make the microblogging site's algorithm open source. This means that the blueprint on how the platform plays up content and ads to users will be open to the broader developer community. Mr. Musk revealed his plan on making Twitter's back-end rules open source two weeks ago. In a tweet, which seemed more like a lament, he said, "I acquired the world's largest non-profit for \$44B lol." When a user prodded him on whether he would open the platform's algorithm, he replied cautiously that he will. He told his nearly 130 million plus followers to be prepared "to be disappointed at first" when the rules are made open source. But he promised them "it will rapidly improve."

According to the timeline he shared, Twitter's algorithm must now be open to developers. However, this has not happened yet and Mr. Musk has not given any further update. So, it is unclear when developers can view the list of rules.

A good decision?

Tesla's boss bought Twitter with a mix of equity and debt to cover the \$44 billion acquisition price tag. The purchase had cost him the world's richest person title briefly. He has now reclaimed it, thanks to a rally in Tesla stocks. He is once again at the top, according to Bloomberg's Billionaires Index. But he still has interest payments to make on the loans he took to purchase Twitter. So, how does it make sense for him to open-source Twitter's algorithm? Or, per his own tweet, has he really bought a non-profit firm for \$44 billion?

Twitter, compared to the social media giant Facebook, has a small user base, is less profitable and not cash rich. Its platform has about a few hundred million daily active users. But the platform's selling point for Mr. Musk was the relatively large number of users in absolute terms who are highly engaged on the platform. So, can open source Twitter make money for the world's richest man?

The open source movement

To get a glimpse of the path ahead, let us look into a brief history of free and open source software (FOSS). Today, almost all desktop users run their software programmes on paid operating systems (OS). Microsoft's Windows OS dominates the market with about a 74% share, followed by Apple's MacOS at 15%. At 3%, Linux has the smallest market share.

But, unlike Windows or MacOS, Linux is not a proprietary OS. Developed by a Finnish Computer Scientist Linus Torvalds in 1991, Linux was made available for free downloading. This was a somewhat common practice back then; to release source code among developers. This helped anyone with knowledge of computer programming to modify Linux to suit their own purposes. It also helped in refining the code. Access to Linux source code enabled other developers to build on top of Torvalds's work. By 1994, Linux's first version was released, and it garnered a lot of interest from the developer community. Around this time, there were several other "free" softwares, including Linux, Project GNU, and several other OS and tools.

There were also significant ideological differences among prominent computer scientists on whether software can be used for free or not. These differences led to a new paradigm, in giving and getting access to source codes, which was the open-source movement. It also brought along with it the idea of combining volunteer-built programmes with proprietary software.



Red Hat's business model

Red Hat Inc. understood the economics of packaging something that is freely available. It took the lead in providing open-source software products to enterprise clients in the mid-1990s. Red Hat's model was a new way of building software business as Microsoft was already selling proprietary software to enterprise clients.

The company's business model was like how mineral water firms sold bottled water. The natural resource was anyway freely available. But to make it appealing, they filtered drinking water and showcased that it tasted better. But there was one addition to this packaging. It came with complementary applications, documentation, and other services. Red Hat distributed Linux on CD-ROM that included installation software, and user manuals. The company also provided a level of technical support. Within a few years, the adoption of Linux grew, and Red Hat was caught in the late 1990s IPO frenzy. When the company went public, its stock value soared.

However, the sky-high valuation was short-lived as the stock market crashed with the dotcom bust, raising the issue of whether open source was a viable business model. But the crash did not stop companies from adopting Linux as there was an increased need for open-source software in the Internet infrastructure market.

Towards cloud infrastructure

While individual PC users were inclined to buy proprietary software as they came with a large library of applications, enabling them to transfer files with other users easily, the server market was different. Enterprises used more than one platform to run a plethora of applications. This could not be handled by a single software provider. So, they preferred open source software that Red Hat offered. Around the time when it went public, Red Hat wanted to create enterprise-class server OS. Nearly 15 years later, in 2014, it was serving the next generation datacentres, and laying the foundation for the future of cloud computing. It was a profitable company, selling subscription and support. While it was nowhere near the big players like Microsoft, it carved out a niche for itself.

Some venture investors called for Red Hat to change its business model from the current open source one. They claimed that the Linux software provider would have a problem investing in innovation, and that it would be dependent on the open source community to come up with ideas. Instead, they pointed to a hybrid future where open source software could be used as a platform to build software as a service (SaaS) offerings. Five years later, in 2018, IBM acquired Red Hat for \$34 billion to offer hybrid multi-cloud platform service based on open source technologies like Linux and Kubernetes.

Twitter's move

Elon Musk can use Red Hat's example to build an entirely new open source business model. But to do that, he will have to dispassionately look at the existing business model which is built on selling ads and channelling content. Once the algorithm is opened to the developer community, it could get a new form and shape. This could result in a change in its core identity. But, at the end of the experiment, a new paradigm may emerge. Until then, it is going to be a long journey, and Mr. Musk will have to make interest payments.



WORLD'S FASTEST CAMERA CONFIRMS HOW FLAMES FORM SOOT

Scientists from Germany and the U.S. have built the world's fastest single-shot laser camera — 1,000x faster than its predecessors at capturing extremely short-lived events. They used the camera to provide the most precise view, of how a hydrocarbon flame produces soot, which can teach us about how this important climate pollutant is produced in kitchen stoves, car engines, and wildfires.

The device's technique is called laser-sheet compressed ultrafast photography (LS-CUP). It can resolve a plane of a three-dimensional object like a flame or spray or any turbid media and can “resolve physical or chemical processes” in space and time, Yogeshwar Nath Mishra, a co-author of the work's paper, published in *Light: Science & Applications*, told *The Hindu* by email.

Dr. Mishra is a researcher with the University of Gothenburg, Sweden, the NASA Jet Propulsion Laboratory in California, and the Caltech Optical Imaging Laboratory.

The researchers' device can capture images at 12.5 billion frames per second. They used it to record the “emission, soot temperature, primary nanoparticle size, soot aggregate size, and the number of monomers” of polycyclic aromatic hydrocarbons — molecules that form soot.

THE EVIL EFFECTS OF DEFORESTATION

The World Health Organization (WHO) points out that since 1990, 420 million hectares of forests have been lost through conversion to other land uses — agriculture, industrial use and biofuels — in order to feed 11 billion humans by the end of this century.

This will, in particular, affect the tropical regions such as India, China and Africa.

Causes of global warming

The Food and Agricultural Organisation (FAO) has published the Global Forest Resources Assessment, and points out that 31% of the land on earth is covered by forests. When trees are felled, they lead to the accumulation of carbon dioxide in the atmosphere and hence, global warming. Deforestation increases 11% of the global greenhouse gas emissions (CO₂, CH₄, N₂O, SO₂, and chlorofluorocarbons).

The Harvard University Public Health Group further points out that deforestation leads to spikes in infectious germs such as those causing diseases such as malaria and dengue, which can adversely affect humans.

Dr. S.B. Kadrekar of the Environmental Society of India points out that not just trees but soil and water too must be saved. A 1% increase in deforestation leads to a 0.93% decrease in the availability of clean drinking water in rural communities that depend on open wells and flowing streams.

Also, trees release water into the atmosphere during transpiration, and this comes down as rainfall. Thus, deforestation has double effects. About 30% of the earth's land area (3.9 billion hectares) is covered by forests. Yet, in the name of food supply, land use for developmental activities and technology, a lot of deforestation occurs in many countries.



Situation in India

The total forest cover in India is about 8 lakhsq km, which is 22% of the total geographic area of the country. Of these, the twin islands of Andaman and Nicobar have 87% of the total area.

Dr. Pankaj Sekhsaria points out that the Colonial British set up a port there, in order to export timber elsewhere. The present government is also targeting these islands in order to expand its navy and also to attract more mainlanders to not just visit but even settle down here. So much for saving these islands.

The Himalayan States of Jammu and Kashmir, Uttarakhand, and Himachal Pradesh have about 21,000, 24,000 and 16,000 sq km of forest area, respectively. Yet, the government of India has removed a significant fraction of trees in order to build underpass and overpass highways in these regions.

Likewise, Goa has about 2,219 sq km forestation. Yet, the government there has cut trees with the idea of connecting Mumbai to Goa by a four-lane highway. Around 31,000 trees are being cut by local authorities.

Giant banyan trees

Likewise, the National Highways Authority of India (NHAI) is set to start the expansion of the 45-km stretch of NH163, from two to four lanes. Towards this, they want to destroy 9,000 banyan trees in Chevella Mandal in Telangana.

These giant banyan trees are centuries old, established by the Nizams and other forest-loving groups.

In sum, these are some of the evil effects of deforestation, and we should protest.

EURASIAN OTTER RAISES HOPE FOR J&K STREAM

Eurasian otter caught in the infrared camera along the Neeru stream in Jammu and Kashmir. Special Arrangement

The first photographic record of an elusive semi-aquatic carnivorous mammal has indicated that not all is lost for a Jammu and Kashmir stream.

A trio of scientists from the University of Jammu's Institute of Mountain Environment (IME) at Bhaderwah camera-trapped three Eurasian otters – two adults and one sub-adult – in the Neeru stream of the Chenab catchment.

Apart from putting an end to doubts about the animal's presence in the upper Chenab catchment, their findings have confirmed that some stretches of the Neeru remain unpolluted. The Neeru is a tributary of the Chenab river. "These stretches are away from human habitations and comprise stony beds and narrow valleys that are virtually unsuitable for sand and gravel mining, providing some hope for the otter's survival," Neeraj Sharma, the corresponding author of the report on the Eurasian otter (*Lutra lutra*) told The Hindu.

Since the Eurasian otter — classified as 'near threatened' on the IUCN Red List — is regarded as a flagship species and indicator of high-quality aquatic habitats, its presence is encouraging for the health of the Neeru stream, he said.



Dinesh Singh and Anil Thakar are the other scientists behind the study published in the latest issue of the Journal of Threatened Taxa.

The study area is drained by the Neeru, a 30-km perennial stream that originates in the Kailash Lake at 3,900 metres above mean sea level and drains into the Chenab at Pul-Doda. Fed by 13 major tributaries, the stream flows through several small villages, semi-urban and urbanised areas, with Bhaderwah being the largest settlement.

Questionnaire surveys conducted in 2016-17 revealed that the animal – locally called huder or hud – once inhabited the entire length of the Neeru and its tributaries. Unable to establish a direct sighting, the scientists followed the faeces of the animal and set up five infrared cameras. Three Eurasian otters were captured on the cameras over five days in October 2020.

NO NEUTRALISING ANTIBODIES AFTER JAPANESE ENCEPHALITIS VACCINATION

A small study involving 266 children, who had received two doses of a live, attenuated Japanese encephalitis vaccine SA-14-14-2 made in China, found very low levels of neutralising antibodies IgG at different time points after vaccination. It did not measure cell-mediated immune responses (T-cell immune responses).

The results are in line with other studies conducted outside India, which too found a decline in neutralising antibody levels post-vaccination. The results were recently published in The Journal of Travel Medicine.

While outbreaks of Japanese encephalitis are reported from several places in India, the disease burden is highest in Gorakhpur region of eastern Uttar Pradesh. Immunisation of children with the Chinese vaccine began in 2006 in 11 endemic regions, and became a part of the Universal Immunisation Programme in 181 endemic districts in 2011 first with a single dose and subsequently (2013) with two doses. Despite vaccination, there have been several outbreaks in the endemic regions, particularly in Gorakhpur district.

Benefits of Jenvac

In contrast, a trial carried out using an inactivated vaccine (Jenvac), developed by Bharat Biotech in collaboration with NIV Pune using a virus strain collected in India, has found superior protection at the end of two years even with a single dose. Jenvac has been approved as a single-dose vaccine; two doses of Jenvac are used as part of the Universal Immunisation Programme.

The November 2020 trial also found significantly higher neutralising antibodies when children received two doses of Jenvac rather than two doses of the Chinese vaccine. And children who received Jenvac as the first dose and the Chinese vaccine as the second dose had higher antibody levels than those who received the Chinese vaccine as the first dose followed by Jenvac for the second dose.

The authors of the latest study have proposed a booster dose to improve the protection levels in children who have been fully vaccinated. But considering that the November 2020 trial found that two doses of Jenvac produced more antibodies than two doses of the Chinese vaccine, why should children be boosted with the Chinese vaccine, and why should the Chinese vaccine be used even for primary vaccination?

“Calling for complete stoppage of this [Chinese] vaccine would be premature, given some of the stated limitations of our study. However, our study clearly points to a marked decline of antibodies with time from receiving two doses of the vaccine,” says Dr. Abraham.



DreamIAS