



# CURRENT AFFAIRS FOR UPSC

19 to 25 March 2023



## INTERNATIONAL

### THE 'PREDATOR' IN THE SKY

On March 14, the U.S. Air Force (USAF) ditched an MQ-9 Reaper in the Black Sea after a confrontation with two Russian Su-27 jets over international waters west of Crimea. The U.S. said a Russian fighter jet dumped fuel on the drone and in the second instance, flew very close and struck its propeller. It later released a 42-second video that captured the incident.

Featuring unmatched operational flexibility, the MQ-9A 'Reaper' has an endurance of over 27 hours, speeds of 240 KTAS (knots true airspeed) and can operate up to an altitude of 50,000 feet, according to General Atomics Aeronautical Systems, the manufacturer of the High Altitude Long Endurance (HALE) remotely piloted aircraft (RPA).

#### India's links

The curious coincidence is that India has a connect with both the military platforms. While the Su-30MKI, the backbone of the Indian Air Force fighter strength, is a derivative of the Su-27, the Indian Navy is currently operating two MQ-9As on lease. A bigger proposal for procuring 30 armed MQ-9As, popularly called Predator-B, has been delayed.

The Reaper is a significant technological leap from the original RQ-1/MQ-1 Predator that heralded the arrival of long endurance armed drones at the end of the twentieth century. Armed with AGM-114 Hellfire missiles, it became a symbol of the U.S. war on terror, having being extensively deployed in Afghanistan and the tribal areas of Pakistan in the early 2000s. The RQ-1 Predator, which was first flown by the USAF in 1995, was retired in 2018 and replaced by the Reaper.

According to the USAF, the Reaper is employed primarily as an intelligence-collection asset and secondarily against dynamic execution targets. "Given its significant loiter time, wide-range sensors, multi-mode communications suite, and precision weapons, it provides a unique capability to perform strike, coordination, and reconnaissance against high-value, fleeting, and time-sensitive targets."

It is remotely operated by a two-person team — a pilot and an aircrew member to operate the sensors and weapons. MQ-9As are operated by the U.S., U.K., France, Italy, the Netherlands, Spain and on order by Belgium. Japan recently inducted the MQ-9B Sea Guardian, the maritime configuration.

Indian Navy leased the two MQ-9As in 2020, which has since been extended. In November 2022, General Atomics announced that the RPAs completed 10,000 flight hours during a period of two years, with the maiden flight taking place on November 21, 2020. "Our MQ-9As have helped the Indian Navy to cover over 14 million square miles of operating area," Linden Blue, CEO of GA, had said.

On the deal for 30 armed MQ-9Bs, Navy Chief Admiral R. Hari Kumar said last December that the case was in progress and at a stage "where we are discussing if numbers need to be rationalised or kept as it is."

At Aero India in Bengaluru last month, Hindustan Aeronautics Limited (HAL) and General Atomics announced that the turbo-propeller engines which power the MQ-9B will be supported by HAL's engine division for the Indian market. The companies are looking to formulate a comprehensive



engine Maintenance, Repair and Overhaul (MRO) programme for upcoming HALE RPA projects, a joint statement had said.

## ARREST WARRANT AGAINST VLADIMIR PUTIN: WHAT POWERS DOES THE ICC HAVE AGAINST THE RUSSIAN PRESIDENT

The International Criminal Court (ICC) issued an arrest warrant against Russian President Vladimir Putin on March 17, for the alleged war crime of unlawfully deporting and transferring children from occupied areas of Ukraine to the Russian Federation.

The crimes were allegedly committed in occupied territory from February 24, 2022. Apart from Putin, an arrest warrant was also issued against Russia's Commissioner for Child Rights, Maria Lvova-Belova, a press release on the ICC website said.

### Why are the arrest warrants being issued?

Putin and Belova are allegedly responsible for the war crime of unlawful deportation and transfer of children from Russian-occupied areas of Ukraine to the Russian Federation under articles 8(2)(a)(vii) and 8(2)(b)(viii) of the Rome Statute.

While the former relates to the "unlawful deportation or transfer or unlawful confinement", the latter relates to the direct or indirect transfer of its own civilian population by an occupying power into the occupied territory or the deportation or transfer of the population of the occupied territory within or outside its territory.

The ICC said that it has reasonable grounds to believe that Putin bears individual criminal responsibility for the crimes of (i) having committed the acts directly, jointly with others, and/or through others under article 25(3)(a) of the Rome Statute (ii) his failure to exercise control properly over civilian & military subordinates under his effective authority, committing or allowing the commission of such acts, as per article 28(b) of the Rome Statute.

### What is the ICC?

The ICC, headquartered in The Hague, Netherlands, was established under a 1998 treaty called the "Rome Statute". It "investigates and, where warranted, tries individuals charged with the gravest crimes of concern to the international community: genocide, war crimes, crimes against humanity and the crime of aggression."

Presently, 123 countries are party to the Rome Statute, including Britain, Japan, Afghanistan, and Germany. However, the USA has kept its distance, maintaining that ICC should not exercise jurisdiction over citizens of countries that are not a party to it. Similarly, India and China have also abstained from membership.

The ICC was established to prosecute the most heinous offenses only when a country's own legal machinery fails to act, as was the case in former Yugoslavia and Rwanda. Unlike the International Court of Justice (ICJ), which deals with countries and inter-state disputes, the ICC prosecutes individuals. However, the ICC's jurisdiction is limited to offences occurring after it came into effect on July 1, 2002.

Additionally, the offences should be committed either in a country that ratified the agreement or by a national of a ratifying country. The ICC can also practice its jurisdiction over cases referred by the UN Security Council to it.

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### Does the ICC have the power to prosecute Russia?

While Ukraine's President Volodymyr Zelenskiy said the move would lead to "historic accountability", Kremlin spokesman Dmitry Peskov said that Russia found this "outrageous and unacceptable". He also said that any decision of the court was "null and void" due to Russia not being an ICC member, the news agency Reuters reported.

However, this move creates a situation where Putin risks arrest every time he travels. According to The New York Times, this move, along with the existing sanctions in the West, will further deepen his isolation and limit his overseas movements. Moreover, if he travels to a state party to the ICC, then that country must arrest him according to its obligations under international law.

Moreover, this is the first time that the ICC has issued an arrest warrant against one of the five permanent members of the UN Security Council.

In November 2022, an ICC prosecutor sought to move ahead with charges of war crimes against Ugandan militant and founder of the Lord's Resistance Army, Joseph Kony. Despite Kony turning kidnapped children into soldiers and being accused of murder, cruel treatment, slavery, rape, and kidnapping, he is still a fugitive and continues to be free.

### A THREE-WAY ALLIANCE IN THE INDO-PACIFIC

On March 13, Anthony Albanese, Rishi Sunak and Joe Biden, leaders of Australia, the U.K. and the U.S., appeared in front of the USS Missouri, a Virginia-class nuclear-powered attack submarine, in San Diego, California, to unveil the AUKUS agreement. The three countries had announced a security alliance in September 2021 and had since then been in talks to thrash out the details of the pact. Last week, the leaders outlined how AUKUS (acronym for Australia, the U.K, and the U.S.) is going to implement its decades-long partnership in undersea military systems and strategic technology. "We're putting ourselves in the strongest possible position to navigate the challenges of today and tomorrow together," Mr. Biden said during the meeting. Others readily agreed.

At its crux, the AUKUS partnership is about helping Australia, the island continent in Oceania right outside the "second island chain" in the Pacific, build a fleet of at least eight nuclear-powered submarines. The origins of the agreement go back to a visit by Andrew Shearer, the Director-General of Australia's Office of National Intelligence, to the U.S. in April 2021, according to a report in the Wall Street Journal. Mr. Shearer had an extraordinary request from the then Prime Minister, Scott Morrison — Canberra was looking at acquiring nuclear submarines.

#### Dragon in the Pacific

Australia had six Collins-class diesel-electric boats, which were ageing and should be replaced by the early 2030s. The country had reached an agreement with France to buy diesel subs. Nuclear-powered submarines, however, can stay underwater for far longer than diesel boats and travel at greater distance. Australia will be able to operate such subs stealthily for prolonged periods, collect intelligence more robustly and deploy troops quickly. The leaders of the three countries held a top-level discussion in June that year on the sidelines of the G-7 summit in Britain.

What brought them together was the dragon in the Pacific. All three countries were facing the heat of China's rise. The U.S. was already pivoting to Asia, seeking to reinforce its conventional might, strengthen and streamline coordination with existing allies and build new alliances. It had already identified China as a "revisionist" power and a threat to the "rules-based order". Britain, which



wanted to play a bigger role in the Indo-Pacific in line with the U.S. pivot, also saw China, as it recently described, as an “epoch-defining challenge”. For Australia, a non-nuclear power that had been dependent on its western partners for security guarantees, China’s rapidly growing military capabilities posed fresh challenges. The three of them moved fast. In September 2021, they announced the AUKUS trilateral alliance. And in 18 months, they have an agreement, probably binding all of them together in defence partnership for generations.

The plan is to make nuclear submarines based on British design and using American technology, which will be called SSN-AUKUS. The agreement will be implemented in phases. In the first phase, the U.S. will rotate up to four of its Virginia-class subs through a port in Perth from 2027. The U.S. will train both Australia’s shipyard workers and naval personnel to operate nuclear subs. Britain will rotate one of its Astute class nuclear boats through the base. In the second phase, Australia will buy three Virginia class submarines from the U.S. at a discount, with an option to purchase two more. The U.S. plans to deliver the first of these by 2032 — roughly the time Australia will have to retire its ageing diesel boats.

In the third phase, Australia will have its own nuclear subs. Britain will build the first of the SSN-AUKUS boats in England. Then Australia will build its own in Adelaide. The hulls will have the vertical launching technology of the U.S. — tubes that can carry more advanced missiles in greater numbers than the traditional launchers. It will be a unique blend of U.S. technology, British design and Australian investment. Australia will get its first SSN AUKUS sub by the early 2040s.

The phased implementation will require huge investments in all three countries. The U.S. Navy currently has a fleet of 50 nuclear powered submarines and has plans to extend the fleet to 66. It will urgently have to expand its defence industrial base if it has to both expand its submarine fleet and sell subs to Australia. At present, the U.S. takes almost a year to add one submarine to its fleet. The Pentagon has said it will invest \$4.6 billion to expand the U.S.’s submarine production base, while Australia will pump over \$2 billion into the industrial bases of the U.S. and U.K. in four years. In the long term, Australia will have to spend up to \$245 billion in 32 years to acquire the whole fleet. This needs the commitment and resolve of successive administrations of all the three countries. That the current leaderships of the countries entered into such an agreement is a testimony to their assessment that the competition with China is a generational challenge.

### **Proliferation fears**

While America’s allies have largely taken a favourable view of the agreement, China and Russia have responded sharply. Both have raised questions about nuclear non-proliferation as Australia, a non-nuclear power, will get advanced nuclear subs. The U.S. and Britain have maintained that the submarines will be nuclear-powered, but not nuclear armed (they will have conventional non-nuclear weapons). But critics say the subs will use highly enriched uranium, which could be diverted for weapons. U.S. and British officials counter such criticism saying the reactors at the nuclear plants on the boats are sealed shut. The International Atomic Energy Agency, the UN’s nuclear watchdog, says it will hold talks with AUKUS countries to monitor nuclear risks and inspect the subs both before and after their deployment.

But beyond the discussion on technicalities, the bigger picture is the intensifying competition between the U.S. and China. Unlike the U.S., which is protected by and has seamless access to the world’s two greatest oceans, China has wrinkles in its immediate naval periphery. Japan, South Korea and the Philippines are America’s allies. Taiwan, the self-ruled island located just 160 km off Chinese shores, is dependent on the U.S. for security guarantees. Guam, an island in the





Western Pacific, is an American territory. Beyond the presence of the U.S. forces and weapons across these geographies, China also faces the hurdles of the first, second and third island chains in force projection across the Pacific. To tackle its limitations, it has built the world's largest navy and sought to establish its dominance in the South China Sea.

The U.S., which had been the unquestionable superpower in the Pacific since Japan's surrender in 1945, wants to counter China's influence. It is holding frequent military drills with South Korea; planning to sell hundreds of cruise missiles to Japan; upgrading a marine regiment in Okinawa; and has recently secured access to four additional military bases in the Philippines. The pivot is under way in full scale. And in AUKUS, it sees a comprehensive, multi-national and multi-phased agreement to bolster its grip on the region and counter China's influence as the new cold war is gradually taking shape.

### CONFRONTING AN INTENSIFYING RIVALRY WITH THE U.S., XI IS TURNING TO OLD ALLIES

Arriving in Moscow on Monday on a visit laden with symbolism — the first of his third term as Chinese President — Xi Jinping hailed the China-Russia relationship as “a new model of major country relations”.

“China and Russia are committed,” Mr. Xi wrote in an article in the Russian Gazette published on the day of his arrival, “to no-alliance, no-confrontation and not targeting any third party in developing our ties. We firmly support each other in following a development path suited to our respective national realities and support each other's development and rejuvenation.

Mr. Xi's visit to Russia this week has underlined not just the growing closeness of a relationship described by both sides as having “no limits” and being “the closest in any period in history”, but the emerging contours of what is likely to be the focus of the Xi foreign policy in his precedent-defying third five-year term.

If the last three years of Mr. Xi's second term hit the pause button on Chinese diplomacy largely due to the isolation fuelled by his “zero-COVID” regime, Beijing has now launched a new diplomatic push with the start of the new term, which has coincided with the reopening of China's borders.

#### **‘Severe challenges’**

Confronting an intensifying rivalry with the U.S. — the abiding current focus for Mr. Xi, who in this month's annual National People's Congress, in a departure from the past, singled out the U.S. by name accusing it of “containing and suppressing” China leading to “severe challenges” — Mr. Xi is turning to old allies, from Russia and Pakistan to China's Central Asian neighbours.

Two key showpiece diplomatic events have been lined up for 2023 — a summit to be hosted by Mr. Xi with leaders of Central Asian countries, as well as the third Belt and Road Forum, which is likely to feature several leaders from South and Southeast Asia. Mr. Xi is doubling down on Chinese allies regardless of challenges in relations with them, from the Ukraine crisis for Russia to continuing political and economic instability in Pakistan.

One of the first foreign officials hosted in Beijing, days after the NPC, was Pakistan's Foreign Secretary Asad Majeed Khan. The new Chinese State Councillor and Foreign Minister Qin Gang told him “the iron-clad friendship between China and Pakistan has withstood the test of time and the changing international landscape” and pledged that Beijing would “strive for greater



development of the building of the China-Pakistan Economic Corridor and bilateral cooperation across the board”.

Mr. Qin, in his first press conference as Foreign Minister during the NPC, outlined the broad priorities for Mr. Xi's third term, saying Beijing “will take it as our mission to defend China's core interests and firmly oppose any form of hegemonism and power politics.” “China has had a growing network of friends, made more and more new friends, and strengthened ties with old ones,” he said. “We will offer more, better Chinese insight and solutions to help meet humanity's common challenges.”

#### **Global initiative**

Against the backdrop of worsening China-U.S. relations, Mr. Xi is with increasing frequency extolling what he calls “Chinese modernisation” as an alternative to Westernisation and liberal democracies.

Mr. Xi on March 15 unveiled what he called a “Global Civilisation Initiative” — the fourth such idea he has promoted, following the Belt and Road Initiative, the Global Development Initiative and the Global Security Initiative — which, he described when arriving in Moscow, as “part of China's response to the changes of the world”.

### **DWINDLING ALLIES**

By formally establishing diplomatic relations with China on March 26, 2023, Honduras has joined a growing list of countries that have recently switched recognition from Taipei to Beijing. Taiwan now has only 12 countries, besides the Vatican, with which it has diplomatic ties, including four small Pacific island nations, Eswatini in southern Africa, Paraguay, and six central American and Caribbean nations. Chinese Foreign Minister Qin Gang, who signed the communiqué with his Honduran counterpart Eduardo Reina, said it showed Honduras made “a choice to stand on the right side of history...”. Taiwan has accused Honduras of seeking financial assistance as a precondition to continue relations, and President Tsai Ing-wen said, after the switch, that Taiwan “will not engage in a meaningless contest of dollar diplomacy with China”. She also accused China of “persistently [using] any and all means to suppress Taiwan's international participation, intensify its military intimidations... and disrupt regional peace”.

The switch by Honduras, as well as Taiwan's concerns about its shrinking international space, point to the growing stress on the current status quo across the Taiwan Strait. The status quo has generally served both sides across the strait well, preserving peace against tall odds. In Taiwan, a thriving democracy with a highly developed economy, the status quo remains the popular choice for most people, according to numerous public opinion surveys. A minority support Taiwan declaring independence or unification with China. However, both Beijing and Taipei have been accusing the other of changing this status quo. In Taipei's view, Beijing has exerted growing diplomatic pressure to isolate Taiwan as well as stepped up military muscle-flexing, as seen in exercises that surrounded the island last year following the visit of then U.S. House Speaker Nancy Pelosi. In Beijing's view, the ruling DPP in Taipei, with the support of Washington, bears responsibility for the tensions by pursuing de facto independence. Beijing had warmer relations with the previous KMT regime, with a landmark meeting between leaders Xi Jinping and Ma Ying-jeou in 2015. The Xi government has warned the U.S. that Taiwan remains a red line for China, but with worsening relations between the two countries, Taiwan has yet again emerged as a friction point, as seen by the Pelosi visit last year. Beijing continues to refuse to rule out the use of force



for what it calls reunification, should Washington or Taipei cross what it sees as a red line. The tussle between the world's two biggest powers has left the 23 million people of a vibrant and prosperous island caught in the middle.

## THE PROTESTS IN FRANCE OVER PENSION REFORMS

### The story so far:

On March 17, protesters in France clashed with the police at the Place de la Concorde in Paris amid growing unrest over the government's decision to change the state pension age from 62 to 64.

### What is the new pension reform?

In France, all retirees get a state pension. Mandatory payroll taxes paid by those currently working fund the pension of retirees, meaning generations have been able to retire with assured, state-backed pensions. The government now argues that as life expectancy in France increases, so does its ageing population which means more retirees than new entrants in the workforce. This would cause the current pension system to fall short in the coming decades. According to the administration's projections, while there were 2.1 workers putting money into the system for every one retiree in 2000, this figure dropped to 1.7 workers per retiree in 2020, and is expected to further slide to 1.2 by 2070.

The government says the measure to gradually raise the legal retirement age by three months every year, till it reaches 64 by 2030, is "indispensable" in order to balance the pension system and keep it financially viable. While announcing the last-minute decision to use a special provision in the Constitution to push through the contentious pension reform without holding a vote in the National Assembly, French Prime Minister Elizabeth Borne said: "We cannot gamble on the future of our pensions. That reform is necessary."

However, there are some exceptions. Those starting work between the ages of 14 to 19 will be able to seek early retirement, as will public workers engaged in physically or mentally arduous jobs. But the minimum retirement age only applies to those who have worked enough years to qualify. French newspaper Le Monde notes that like in the present system, many women who pause their careers to raise children and people who study for longer and start their careers late, must work till the age of 67 to retire with full pension benefits.

The government highlighted the potential outcomes of the pension reform, stating that new retirees will get a guaranteed minimum pension of not less than 85% of the total minimum wage — about 1,200 euros per month at current levels. The government also plans to index the pensions to inflation levels for those who receive minimum incomes, a year after retirement. It says that the pensions of the poorest 30% of retirees will increase by 2-5%.

### Why are people protesting?

France currently has one of the lowest qualifying ages for a state pension among big European economies, The Guardian notes. The French cherish the retirement system, as well as national healthcare, as it is seen as hard-earned, having been introduced by the National Resistance Council after the Second World War, when the country was reeling from the aftermath of the war.

Generations of workers have accepted high mandatory taxes to fund the pension system because it creates interdependence and guarantees state-backed pension earnings. The new system means





current workers will have to work longer to sustain pensions for the ballooning aged population. Observers also worry that the reform will negatively affect blue-collar workers who often start working young, have shorter life expectancies, or have less optimum working conditions compared to white-collar workers. Opponents of the reform argue that instead of altering the pension age, the government could have balanced the system through other measures like increasing payroll taxes paid by workers, taxing the wealthy more, or not tying pensions to inflation.

#### What's next?

After Ms. Borne used special powers to pass the Pension Bill in the Assembly without a vote, two Opposition Groups filed no-confidence motions against the Macron government. However, these motions have not succeeded. Meanwhile, protests continued to intensify, turning violent in some places, with the police banning demonstrations in parts of Central Paris. So far eight nationwide protests have taken place since mid-January. Over 10,000 tonnes of garbage piled up on the streets of Paris as sanitation workers refused to end their strike. Traffic and fuel deliveries were also impacted by protest actions. The left-wing CGT, one of the biggest trade unions spearheading the protests, has asked members to stop work at schools, factories, and other places. Teachers' unions have also called for strikes.

### THE CITIZENSHIP DILEMMA OVER ISLAMIC STATE WOMEN RETURNEES

In 2015, 15-year-old Shamima Begum and two of her friends left East London to join the Islamic State (IS), a Sunni jihadist group, in Syria. At the time, IS had strongholds in Syria and Iraq and was recruiting members to its "caliphate" through propaganda. Sometimes the group would reportedly show potential recruits videos of gruesome murders and sometimes it would promise them a utopia where Muslims could live peacefully. Begum claims she was promised such a utopia. After joining IS, Begum married an IS fighter. She had three children. (All of them later died). In 2019, during the fall of IS, a pregnant Begum said she wanted to return to the U.K., but stopped short of saying she regretted joining the group.

Her apparent lack of remorse shocked British officials, who revoked her citizenship. Since then, Begum has repeatedly petitioned U.K. courts to return. Late last month, a court said there was a credible case that Begum was trafficked, but she still posed a threat to national security. Stripping people of their citizenship has become an increasingly popular way of battling terrorism in the post-9/11 world.

The share of countries that had laws allowing citizenship to be revoked over disloyalty to one's nation in place increased from 52% to 79% in 2013 and 2020 period. There are many like Begum. Jack Letts or "Jihadi Jack" was stripped of British citizenship, but is still a citizen of Canada. Areeb Majeed was arrested after returning to India, but remains a citizen.

Although 41,490 people left their countries to join IS, only 7,366 returned, as per latest estimates. Europe saw the second-highest number of returnees after North Africa. Debates on how to handle such fighters/affiliates are most intense and complicated in these regions.

Apart from recruiting fighters, IS's promise of a utopian society attracted women, minors and sometimes even entire families. While men were mostly fighters, women were used as jihadi brides and carried out "caliphate-building" roles. The role of women and children as people who



were not foreign terrorist fighters but were still advancing IS's cause poses a dilemma for officials who examine cases such as Begum's.

Of the returnees, men make up a majority. Of the approximately 31,000 men who were IS affiliates, about 18% were able to return in contrast to just about 5% of women. A report by the International Centre for the Study of Radicalisation says there are several reasons for this. Women living under IS were unable to travel without a male guardian and were usually forced to surrender their passports on arrival. For the women, especially if they had children, to trust human smugglers was complicated and risky. The report states that in 2015, only two Western women were able to return, compared to 30% of men.

Begum is among those women who are unable to leave Syria. Given her association with IS, and her lack of regret over joining the group in 2019, the U.K. courts remain convinced that she poses a national security threat. Effectively stateless, she continues to live in the Al-Hawl refugee camp in northern Syria alongside thousands of other former jihadi brides and their children.

## RIGHTING A WRONG

Australia is on track to reckon with a dark chapter in its history after its Prime Minister, Anthony Albanese, made a promise to bring to its voters a referendum to constitutionally recognise Aboriginal and Torres Strait Islander people, thereby giving them permanent representation in the government, even if only in an advisory capacity. The specific subject of the proposed referendum, to be held later this year, is the Voice, a representative Indigenous body in the Australian Parliament, which would provide non-binding advice to Parliament on policy subjects that impact First Nations communities. As a representative mechanism, the hope is that the interests of the Indigenous people would be better addressed: as a social category they tend to be overrepresented in official figures on shorter life expectancy, higher rates of infant mortality, poorer physical and mental health, lower levels of education and employment, and higher rates of child removals, suicides, and community and family violence. However, despite the Voice proposal enjoying close to 59% public support (a recent poll), there are pockets of political resistance, including, ironically, from prominent Indigenous leaders such as Country Liberal Party Senator Jacinta Price. Ms. Price has expressed concern over wording which says that Aboriginal and Torres Strait Islander Voice "may make representations to the Parliament and the Executive Government of the Commonwealth", which she says elevates the Voice to a level surpassing a Cabinet Minister and potentially risks challenges to legislative decisions in the courts. Other Indigenous leaders favour a different prioritisation of approaches, for example, first agreeing on a treaty between Indigenous and non-Indigenous people, which would recognise that the former's lands were never ceded to the "invaders".

At the heart of the referendum proposal is the idea of reconciliation, however politically fraught it may be. Since European colonisation in 1778 of "Terra nullius", or "nobody's land", it took around 200 years for the government to express regret for the "Stolen Generations", which ripped the fabric of Indigenous society. It was also only in the late 2000s that the Australian government formally signed the "Close the Gap Statement of Intent", that committed to achieving better health and life expectancy outcomes for Indigenous peoples. The longer these national wounds are left to fester, the harder it would be to bridge and heal them. In this context, no matter what the political objections to and modalities of the Voice referendum are, the Albanese government would do well to pursue the process to its logical conclusion and give every Australian the opportunity to speak up for how they believe social harmony can be achieved for their nation.



## NATION

### EXPRESS VIEW: OBSESSION WITH KHALISTAN SEETHES AT THE MARGINS OF SIKH DIASPORA, FINDS LITTLE RESONANCE IN PUNJAB

The incidents of denigration of the Indian flag and vandalising of Indian diplomatic missions instigated by Khalistani activists and sympathisers in foreign capitals says more about the Sikh diaspora, or a small section of it, than it does about Punjab. Today, there is little or no support for the idea of Khalistan in Punjab. True, the state has its problems — the plateau and dead-ends of an unsustainable rice-wheat agricultural economy amid shrinking landholdings; declining prospects for employment generation; a widespread problem of addiction to alcohol and drugs in the young; a neighbour on the state's international border ever willing to stir up trouble; and the political short-termism of ruling elites. But Punjab knows only too well that Khalistan has zero answers to any of these questions and problems. The people want no repeat of the violence that raged in the state in the 1980s until the mid-1990s because of an armed uprising by Sikh militants, and the challenge posed by a movement fanned and fuelled by Pakistan's ISI to the Indian state. It was Punjab's youth that paid the highest price, and many in the state today have not forgotten that dark chapter.

In the context of the high drama playing in the state over the self-styled leader of the mysterious group Waris Punjab De, Amritpal Singh, the incident in London, where Khalistani activists replaced the Tricolour at the Indian High Commission with their own flag, the vandalism at the Indian consulate in San Francisco, and the protests at Surrey in Canada's British Columbia leading to the cancellation of the Indian envoy's participation in an event there, underline that Khalistan persists as a fantasy only for those who have few if any stakes in Punjab. It attracts those whose own young have to make no sacrifices, pay none of the price demanded by a violent separatist movement. Within the diaspora, the obsession with an idea that was politically defeated long ago appears to be a preoccupation of fringe elements, not the larger Sikh community settled in those countries.

Delhi is right to demand action against these groups, but at the same time, it must be careful not to put these episodes at the centre of bilateral ties with countries that have large Sikh diasporas. As open multicultural democracies, Canada, Britain and the US have for over a century welcomed immigrants, promising them equal rights and citizenship. It is possible that some may harbour anti-India views, and may propagate these from time to time. But the foreign relations of an increasingly mature and sure-footed power cannot be hostage to such aberrations.

### TIGHTROPE WALK

Since 2006, the Prime Ministers of India and Japan have exchanged visits for their "annual summit", a meeting that has steered the course of this bilateral relationship. However, it was not the India-Japan Special Strategic and Global Partnership that was at the heart of the Japan Prime Minister Fumio Kishida's mission during his quick "official visit" to Delhi this week. His focus was on two areas: coordinating the G-7 and G-20 agendas on food and energy security issues arising mainly from the Ukraine conflict as well as unveiling Japan's \$75 billion plan for a Free and Open Indo-Pacific (FOIP), to work with countries in the region on avoiding debt traps, building infrastructure, and enhancing maritime and air security. Mr. Kishida appeared to be emphasising the need for a global consensus, especially including India, in tackling the challenges from Russia and China, where Japan is aligned with western powers. In talks with Prime Minister Narendra

3<sup>RD</sup> FLOOR AND 4<sup>TH</sup> FLOOR SHATABDI TOWER, SAKCHI, JAMSHEDPUR



Modi, Mr. Kishida is understood to have been “straightforward” about the need for India, as G-20 president, to come on board with the G-7’s plans to address the Ukraine issue and call out “Russian aggression”. While he did not name China directly, it is clear that Chinese actions in its neighbourhood have left Japan concerned, and his FOIP plan includes India as an “indispensable partner”. The timing of his visit was also pointed, coinciding with Chinese President Xi Jinping’s Moscow visit. And, as Mr. Xi met with Russian President Vladimir Putin in a show of strength on Tuesday, Mr. Kishida flew to Kiev to support Ukrainian President Volodymyr Zelenskyy, his first such visit since the war began.

For New Delhi, that has close ties with Tokyo, as bilateral and multilateral cooperation (the Quad), Mr. Kishida was a welcome guest. The two countries have many collaborations that include the Japanese loan for the much-delayed “Bullet train” project, and plans to work on infrastructure projects to link Bangladesh and India’s northeast. As presidents of the G-7 and G-20, both nations have much to gain from synchronising priorities and ensuring that the Global South gets its fair share of the outcomes of both summits. An end to the Ukraine war and a pushback against China’s aggression in its neighbourhood are also common goals. However, it would be wrong to assume that they share similar positions on them. Unlike India, Japan is part of the U.S.’s alliance. Japan has also joined sanctions against Russia, while India has refused to do so. India has been vocal about its concerns over China’s actions at the Line of Actual Control (LAC) but reticent in directly criticising China’s actions in the South China Sea, Taiwan Straits, etc. With Mr. Modi set to visit Hiroshima as a G-7 special invitee in May, and later host Mr. Xi and Mr. Putin at the Summit of the Shanghai Cooperation Organisation, any shift in New Delhi’s tightrope balancing act on geopolitical issues would seem a stretch, even at the behest of a dear partner like Japan.

#### MODI, HASINA OPEN 131.5-KM OIL PIPELINE TO BANGLADESH

Prime Minister Narendra Modi and his Bangladesh counterpart Sheikh Hasina on Saturday virtually inaugurated the India-Bangladesh Friendship Pipeline that will bring diesel from Assam’s Numaligarh refinery’s marketing depot in Siliguri to Parbatipur in northern Bangladesh.

Welcoming the initiative, Ms. Hasina thanked Mr. Modi and the Chief Minister of Assam, Himanta Biswa Sarma, but skipped any mention of West Bengal Chief Minister Mamata Banerjee. The omission is being interpreted as a sign of Bangladesh’s unhappiness regarding the planned construction of hydel power projects in West Bengal that may divert the waters of the Teesta river and have been in the middle of a stalled negotiation for more than a decade.

The 131.57-km-long pipeline will bring diesel from a marketing depot in Siliguri to Dinajpur of Bangladesh. Ms. Hasina and Mr. Modi had inaugurated the works for laying the pipeline in September 2018.

In her speech, Ms. Hasina thanked India for its partnership in her country’s quest for energy security, saying, “Out of the total length of the pipeline, Bangladesh has 126.57 km and India has five kilometres. The pipeline has become operational from today. Many countries in the world are suffering from energy insecurity because of the Russia-Ukraine war, but this pipeline will help our people.” She added that at least 16 districts of Bangladesh would benefit from the pipeline.

Mr. Modi praised Ms. Hasina’s leadership, and said, “Whether it is in the field of transport, energy, electricity, or digital field, the more our connectivity increases, the more our people-to-people relations will be strengthened.”





### Subtle message

The omission of Ms. Banerjee's name is being viewed as a subtle message conveying Dhaka's unhappiness about reports of West Bengal's plans to construct hydel power projects and canals near Darjeeling to irrigate agricultural fields in Jalpaiguri and Cooch Behar that may divert the Teesta's waters.

Seheli Sabrin, spokesperson of the Foreign Ministry of Bangladesh, had said on Thursday that Dhaka may raise the issue at the UN Water Conference in New York. The water issue is also significant for Ms. Hasina, who is poised to face a general election this year where her government's inability to get the waters of the Teesta may make her a target of attack from her Opposition, led by the Bangladesh Nationalist Party.

## ARE FOREIGN LAW FIRMS NOW ALLOWED IN INDIA?

Five years after the Supreme Court allowed foreign law firms and foreign lawyers to visit India on a temporary period for giving legal advice to their clients, the Bar Council of India (BCI), a statutory body governing legal practice in India, has framed Rules that allowed them to open offices in India.

### What did the Supreme Court say?

On March 13, 2018, a division bench of Justices A.K. Goel and U.U. Lalit had ruled that foreign law firms or foreign lawyers cannot practise law in the country either on the litigation or non-litigation side. However, the court said that there was no bar on foreign law firms or foreign lawyers visiting India for a temporary period for giving legal advice to their clients. The court had also asked the BCI to make appropriate rules in this regard.

### What are the Rules?

On March 10, the BCI notified the Rules for Registration and Regulation of Foreign Lawyers and Foreign Law Firms in India, 2022. This will enable foreign lawyers and law firms to practise foreign law, international law, international arbitration, joint ventures, mergers and acquisitions, intellectual property matters etc on a reciprocal basis. The Rules mention, "This would also help to address the concerns expressed about the flow of Foreign Direct Investment into the country and would help make India a hub for international commercial arbitration. Foreign lawyers and firms have to submit an undertaking that they shall not practise Indian law in any form or before any court of law, tribunal, board or any other authority legally entitled to record evidence on oath". The legal fraternity in India is not likely to suffer any disadvantage in case law practice in India is opened up to foreign lawyers in a restricted and regulated manner. This is mainly because the principle of reciprocity in the Rules ensures that it would be mutually beneficial for lawyers from India and abroad.

### What powers does the BCI have?

For foreign lawyers and firms to practise in India, a primary qualification is required in the form of a certificate by a competent authority of their country which states that they are entitled to practise law in that country. Their registration in India with the BCI is mandatory and must be renewed every five years. Moreover, the BCI has the right to refuse to register any foreign lawyer or law firm if it is likely to become disproportionate to the number of Indian lawyers or law firms registered or allowed to practise law in the corresponding foreign country.





### What are the implications?

Nihlas Basheer, Partner Banking & Finance, Wadia Ghandy & Co., states that “Some clarity is required around what ‘reciprocity’ means before we see foreign law firms registering in India. If the foreign law firms do set up, it would be huge for the corporate legal practice in India as competition can only lead to improvement in legal services”. Advocate Abhay Nevgi states that, “Foreign law firms will now be allowed to hire Indian lawyers and advocates registered as foreign lawyers, expanding the legal job market. This move will definitely bring in AI (artificial intelligence) based technology into legal service delivery, pushing the Indian law firms to adopt.”

However, advocate Sudha Bharadwaj feels this will lead to lawyers deserting the real need in India. “This is going to add to the “corporatisation” of law practice. Already we find that students burdened with high fees of private colleges are turning away from litigation and joining corporate firms. We will see more Indian lawyers going abroad and deserting the real need in India — defending and fighting for the rights of the poor.”

### OMNIBUS APPROACH MAY NOT WORK FOR LEGISLATORS’ TRIALS: SC

The Supreme Court on Tuesday suggested a State-specific approach to setting up special courts for speedy trial of legislators even as its own amicus curiae flagged that criminal cases against lawmakers have leaped over the 5,000-mark, with 400 of them concerning heinous offences. A Bench of Chief Justice of India (CJI) D.Y. Chandrachud and Justice P.S. Narasimha indicated that a “one-size-fits-all” approach may not resolve the problem of long pendency of criminal cases involving MPs and MLAs.

“The solution will be different in each State... We will ask the High Courts what arrangements can be made... We have to know the details of the number of cases, judges,” Justice Narasimha observed.

#### Dozen courts

In November 2017, the apex court had directed the setting up of special courts to exclusively try legislators within a deadline of one year. A dozen courts were set up for this purpose. On Tuesday, a lawyer told the Bench that all 12 courts were clogged with cases which had not moved an inch all these years. Amicus curiae, senior advocate Vijay Hansaria said the number of pending cases had jumped from 4,112 to 5,112, according to reports submitted by various State High Courts to him. “Lawbreakers cannot be lawmakers,” Mr. Hansaria submitted.

“But the load is different for each judge in each State. Your own report shows that a judge in Karnataka handles anything between 13 to 196 cases, in Odisha it is zero to 30 and zero to two in Haryana... We have to look at the infrastructure and judicial space in each State before earmarking cases to judges,” the Chief Justice addressed Mr. Hansaria.

The court is also considering a plea for lifetime ban on people convicted of offences from contesting elections and becoming Members of Parliament and State Legislative Assemblies.

The Centre had, in an affidavit filed in 2020, maintained in court that disqualification under the Representation of the People Act of 1951 for the period of prison sentence and six years thereafter was enough for legislators.



## WHAT IS INDIA'S STAND ON SAME-SEX MARRIAGE?

On March 13, a Bench led by Chief Justice of India D.Y. Chandrachud referred petitions to legally recognise same-sex marriages to a Constitution Bench of five judges of the Supreme Court. The Court has listed the case for final arguments on April 18.

### **What is the case?**

The Court has been hearing multiple petitioners' requests for legal recognition of same-sex marriages under a special law. Initially, it took up the case of two partners who said the non-recognition of same-sex marriage amounted to discrimination that strikes at the root of "dignity and self-fulfilment" of LGBTQIA+ couples. The petitioners cited the Special Marriage Act, 1954, which provides a civil marriage for couples who cannot marry under their personal law, and appealed to the Court to extend the right to the LGBTQIA+ community, by making the "marriage between any two persons" gender neutral.

### **Why does the community want this right?**

Even if LGBTQIA+ couples may live together, legally, they are on a slippery slope. They do not enjoy the rights married couples do. For example, LGBTQIA+ couples cannot adopt children or have a child by surrogacy; they do not have automatic rights to inheritance, maintenance and tax benefits; after a partner passes away, they cannot avail of benefits like pension or compensation. Most of all, since marriage is a social institution, "that is created by and highly regulated by law," without this social sanction, same-sex couples struggle to make a life together.

### **Which way are the Courts leaning?**

The Courts, leaning on Article 21 that guarantees the right to life and liberty, have time and again ruled in favour of inter-faith and inter-caste marriages, directing the police and other rights organisations to give them protection when they were threatened by parents or society, pointing out that "all adults have the right to marry a person of their choice." In Navtej Singh Johar (2018), when homosexuality was decriminalised, the Court said, "Members of the LGBT[QIA+] community are entitled to the benefit of an equal citizenship, without discrimination, and to the equal protection of law"; "The choice of whom to partner, the ability to find fulfilment in sexual intimacies and the right not to be subjected to discriminatory behaviour are intrinsic to the constitutional protection of sexual orientation." Last November, the Court transferred same-sex cases pending before several High Courts to itself.

### **What is the Centre's stand?**

At depositions in courts and outside, the Centre has opposed same-sex marriage, and said judicial interference will cause "complete havoc with the delicate balance of personal laws". While filing a counter-affidavit during this hearing, the government said that decriminalisation of Section 377 IPC does not give rise to a claim to seek recognition for same-sex marriage. After the K.S. Puttaswamy verdict (2017) which upheld the right to privacy and Navtej Singh Johar (2018) that decriminalised homosexuality, there was hope that same-sex marriages would be legalised, but that has not been the case, prompting many couples to move court.

In its affidavit filed in the Supreme Court, the government said that the "notion of marriage itself necessarily and inevitably presupposes a union between two persons of the opposite sex. This definition is socially, culturally and legally ingrained into the very idea and concept of marriage



and ought not to be disturbed or diluted by judicial interpretation.” It submitted that despite the decriminalisation of Section 377 of the Indian Penal Code, the petitioners cannot seek same-sex marriage to be treated as a fundamental right and be recognised under the laws of the country. “Parliament has designed and framed the marriage laws in the country, which are governed by the personal laws/codified laws relating to customs of various religious communities, to recognise only the union of a man and a woman to be capable of legal sanction, and thereby claim legal and statutory rights and consequences” and that “any interference with the same would cause a complete havoc with the delicate balance of personal laws in the country and in accepted societal values.” The government said that even if such a right (allowing same-sex marriage) is claimed under Article 21, the “right can be curtailed by competent legislature on permissible constitutional grounds including legitimate state interest.”

The government submitted that statutory recognition of marriage as a union between a ‘man’ and a ‘woman’ is inextricably tied to acceptance of the heterogeneous institution of marriage and acceptance of Indian society based on its own cultural and sociological norms acknowledged by the competent legislature.

#### **Are the executive and the judiciary on opposing sides on this?**

With the government saying that the concept of marriage “ought not to be disturbed or diluted by judicial interpretation,” and the Court leaning towards granting equal rights, including marriage of same-sex couples, citing the Constitution and changing norms, it is clear that the two organs of the state are not in agreement on this. Even if the Court rules in its favour, the march towards equality for the LGBTQIA+ community will be hard. Enforcing something like same-sex marriage in a diverse country with well-entrenched traditions will not be easy. Rights activists are calling for awareness on sex, gender and constitutional rights from the school level to change things on the ground.

### **ABOLITION IS THE WAY**

Forty years after holding that the mode of executing prisoners by hanging cannot be termed too cruel or barbaric, the Supreme Court of India has now ventured to find out if there is a more dignified and less painful method to carry out death sentences. The idea of finding an alternative mode of execution, one considered less painful and involves little cruelty, has been part of the wider debate on whether the death penalty should be abolished. Judicial and administrative thinking have leaned towards backing both the idea of capital punishment and the practice of hanging. The Bench has sought fresh data to substantiate the argument that a more humane means of execution can be found. There are two leading judgments on the issue — *Bachan Singh vs State of Punjab* (1980), which upheld the death penalty, but limited it to the ‘rarest of rare cases’, and *Deena Dayal vs Union of India And Others* (1983), which upheld the method by ruling that hanging is “as painless as possible” and “causes no greater pain than any other known method”. The 35th Report of the Law Commission (1967) had noted that while electrocution, use of a gas chamber and lethal injection were considered by some to be less painful, it was not in a position to come to a conclusion. It refrained from recommending any change.

Even though the Supreme Court has not favoured abolition, it has developed a robust and humane jurisprudence that has made it difficult for the executive to carry out death sentences. It has restricted its use to the ‘rarest of rare cases’, mandated a balancing of aggravating and mitigating circumstances before sending someone to the gallows, and allowed a post-appeal review hearing in open court. At the same time, it has evolved a clemency jurisprudence that makes decisions on



mercy petitions justiciable and penalises undue delay in disposing of mercy pleas by commuting death sentences to life. The question now before the Court provides yet another opportunity to humanise its approach further. Empirical evidence suggests that hanging need not result in an early or painful death, while there is a body of proof that shows electrocution and lethal injection have their own forms of cruelty. The Union government contends that hanging should be retained, not only because it is not cruel or inhuman but also because it accounts for the least number of botched-up executions. The real issue, however, is that any form of execution is a fall from humaneness, offends human dignity and perpetrates cruelty. Debating the mode only deepens the moral dilemma of whether the taking of life is the best response to the taking of life. If eliminating cruelty and indignity is the aim, abolition is the answer.

#### EXPRESS VIEW: DELAY IN APPROVAL FOR BUDGET IS PART OF A WORRYING PATTERN IN DELHI

The planned allocations, earnings and expenditures of governments are — they should be — challenged in the legislature and other public forums by a vigilant Opposition. The task of the Opposition cannot be, however, to pose hurdles in the elected government's presentation of the budget. The delayed approval for the tabling of Delhi government's budget by the Union Home Ministry, with Lieutenant-Governor V K Saxena appearing to deliberately dawdle over it, reinforces the impression that procedural technicalities are being weaponised by the Centre for political ends. This latest episode is part of a larger pattern of attrition between the AAP government in Delhi and the BJP-led government at the Centre.

The budget was scheduled to be tabled Tuesday morning. On Monday, Delhi Chief Minister Arvind Kejriwal accused the Centre of "stopping" the budget. Under the Government of National Capital Territory of Delhi Act and other provisions that delineate the powers of the Delhi government vis a vis the Centre, the budget is sent to the L-G for his comments and then, to the Union Home Ministry for approval. Kejriwal and Delhi Finance Minister Kailash Gahlot have accused the Ministry and Saxena of sitting on clearance for the document — it was only on Tuesday evening that the Ministry finally gave its approval. Of course, Saxena, who assumed office in May last year, has had several run-ins with the AAP government in the past. The tussle between the government and L-G has ranged from the latter sitting on proposals to send teachers for training to Finland to the AAP crying foul over bureaucrats bypassing the elected government and taking orders directly from Saxena. On the new excise policy, the L-G recommended to the Centre that a CBI investigation be conducted into the matter — it is in this case that former Deputy CM Manish Sisodia has been arrested. No government is above the law. Yet, the use of central agencies to selectively target Opposition parties and leaders is disturbing in Delhi, as it is elsewhere.

As the main Opposition party in Delhi, the BJP can take on the AAP in the assembly and elsewhere vigorously. But the actions of the L-G and the home ministry of the government it leads at the Centre create the perception that it is using all means, fair, not-so-fair and foul, to target its political opponent. Going forward, it is incumbent on all the players in the capital's political theatre to play their roles, while acknowledging their limits.

#### A REALITY CHECK FOR RAJ BHAVANS: GOVERNOR HAS NO DISCRETIONARY POWERS

The growing distrust between the government of Tamil Nadu and its governor found its way from the Assembly to Twitter last week when #GetOutRavi trended. Representatives of the DMK subsequently met the President of India to submit a memorandum on the issue as well. For his





part, Governor R N Ravi, first, stirred up sentiments by speaking about the name of the state and then went on to omit portions of the Governor's Address to the legislative assembly. Given that the interference of governors in non-BJP states is at an all-time high, it will not be long before like-minded regional parties come together on a federal platform to review the role and scope of governors within the constitutional scheme itself.

It is conventionally inconceivable and constitutionally impermissible for any governor to suggest a name change for the state. As an unelected nominee of the Centre, the governor is expected not to be involved with political controversies let alone ideologies. Convention dictates that the occupants of Raj Bhavan display statesmanship, not one-upmanship.

The state of Madras became Tamil Nadu through the due legislative process — a unanimous resolution passed by the legislative assembly and legislative council in July 1967. Upon receipt of this resolution from the state government, the government of India introduced legislation to alter the name of the state from Madras to Tamil Nadu and enact necessary changes to the First and Fourth Schedules to the Constitution. By casually proposing a change to the state's name, Ravi has displayed ignorance of the constitutional processes as well as disrespect towards the will of the state legislatures and Parliament.

The Governor's Address given under Article 176 of the Constitution of India, much like the President's Address to Parliament, is a formal statement given by the government to the legislature to initiate a discussion among the members of the Assembly. It is nothing more than a curtain-raiser speech on the progress made over the past year and the policies of the government for the upcoming year.

It is now settled law that the governor has no discretionary powers and this has been laid down by the Supreme Court (SC) in the landmark case of *Shamsher Singh vs State of Punjab*, (1975). The Court, then, held that governor is only a short form for government. Ergo, the courts have consistently held that the constitutional scheme does not make available any powers to the governor to act beyond the aid and advice of the council of ministers.

Any scenario where the governors exercised discretion in their official functions would lead to disastrous consequences. A politically-active governor would give rise to a usurpation of the power of elected representatives. This is alien to our constitutional scheme of Cabinet responsibility. In the past, courts have been slow to interfere with the functions of those occupying high constitutional offices. *Nebam Rebia vs Deputy Speaker* (2016) saw a definitive shift with the SC holding the governor's actions unconstitutional.

There is an ideological war brewing to define the constitutional architecture of the country. The fight is essentially between ideologies that preach a conformist, unitary structure and those movements which stand for federalist principles. In many other states, especially Opposition-governed ones, governors have wantonly indulged in extra-constitutional transgressions. It is urged by some that the governors enjoy sovereign immunity and as such, no time frame can be imposed on their functioning. However, in *Keisham Meghachandra Singh vs Hon'ble Speaker* (2020), the SC issued a mandamus to the speaker to dispose of disqualification petitions within a strict time frame. Similarly, in *A G Perarivalan vs State* (2022) reiterated, the SC exercised its extraordinary powers under Article 142 of the Constitution to effectively step into the shoes of the governor and commute the sentence of the convicted prisoner.

As such, governors would be well informed that an active judiciary can always issue directions when constitutional authorities have failed to act in a reasonable manner and within a reasonable





time. Time may have now come to rethink, review, and revamp the role of governors within our evolving jurisprudential framework to suit modern constitutional morality.

## CHILLING EFFECT

The rigours of the law and the tribulations of politics have come together to bedevil Congress leader Rahul Gandhi. An election-time jibe he had made in 2019 — ‘how come all of these thieves have Modi in their names?’ — has been declared by a court in Surat to be defamatory. Mr. Gandhi has been sentenced to two years in prison, the maximum sentence for criminal defamation, and disqualified from his membership in the Lok Sabha. Both the conviction and sentence raise legal questions. Does the remark amount to defaming anyone in particular, or to people with the surname ‘Modi’ as a group? Case law indicates that the expression ‘collection of persons’ used in Section 499 of the IPC, with reference to those who can be defamed, has to be an identifiable class or group and that the particular member who initiates criminal proceedings for defamation must demonstrate personal harm or injury by the alleged defamatory statement. It is difficult to sustain the argument that all those with the surname, and not merely the three individuals including Prime Minister Narendra Modi who were referred to, can be aggrieved persons. Also, it is not clear if the complainant, BJP MLA Purnesh Modi, had shown that he was aggrieved by the alleged slur either personally or as a member of the ‘Modi’ group.

The maximum sentence is also troubling. Statutes prescribe maximum jail terms so that trial courts use their discretion to award punishments in proportion to the gravity of the crime. It is questionable whether attacking an indeterminate set of people with a general remark will amount to defamation, and even if it did, whether it is so grave as to warrant the maximum sentence. The correctness of the judgment will be decided on appeal, but the political cost to Mr. Gandhi in the form of disqualification from the House and from electoral contest will have a lasting impact, unless he obtains a stay on the conviction rather than mere suspension of sentence. In a country that often frets over criminalisation of politics, corruption and hate speeches, it is ironic that criminal defamation should overwhelm the political career of a prominent leader. A modern democracy should not treat defamation as a criminal offence at all. It is a legacy of an era in which questioning authority was considered a grave crime. In contemporary times, criminal defamation mainly acts as a tool to suppress criticism of public servants and corporate misdeeds. In 2016, the Supreme Court upheld criminal defamation without adequate regard to the chilling effect it has on free speech, and to that, one must now add, political opposition and dissent. Opposition parties expressing dismay at the verdict against Mr. Gandhi should include abolishing criminal defamation in their agenda.

## RAHUL GANDHI DISQUALIFIED AS LOK SABHA MP AFTER CONVICTION: HOW THE PROCESS WORKS

### What did the Surat Court rule?

Chief Judicial Magistrate HH Verma convicted Gandhi in a 2019 defamation case, for saying ‘why do all thieves have the name Modi’, and sentenced him to two years in prison. The remarks were made during a rally in Kolar, Karnataka, in the run-up to the 2019 Lok Sabha elections. “Why do all thieves, be it Nirav Modi, Lalit Modi or Narendra Modi, have Modi in their names,” Gandhi had said in Hindi.

Section 500 of the Indian Penal Code (IPC) prescribes for defamation a simple imprisonment for a “term which may extend to two years, or with fine, or with both.”

**3<sup>RD</sup> FLOOR AND 4<sup>TH</sup> FLOOR SHATABDI TOWER, SAKCHI, JAMSHEDPUR**



The court also approved Gandhi's bail on a surety of Rs 15,000 and suspended the sentence for 30 days to allow him to appeal.

#### **Why was Gandhi disqualified?**

Disqualification of a lawmaker is prescribed in three situations. First is through the Articles 102(1) and 191(1) for disqualification of a member of Parliament and a member of the Legislative Assembly respectively. The grounds here include holding an office of profit, being of unsound mind or insolvent or not having valid citizenship.

The second prescription of disqualification is in the Tenth Schedule of the Constitution, which provides for the disqualification of the members on grounds of defection.

The third prescription is under The Representation of The People Act (RPA), 1951. This law provides for disqualification for conviction in criminal cases.

#### **What does the RPA say?**

There are several provisions that deal with disqualification under the RPA. Section 9 deals with disqualification for dismissal for corruption or disloyalty, and for entering into government contracts while being a lawmaker. Section 10 deals with disqualification for failure to lodge an account of election expenses. A key provision, Section 11, deals with disqualification for corrupt practices.

Section 8 of the RPA deals with disqualification for conviction of offences. The provision is aimed at "preventing criminalisation of politics" and keeping 'tainted' lawmakers from contesting elections.

First, disqualification is triggered for conviction under certain offences listed in Section 8(1) of The Representation of The People Act. This includes specific offences such as promoting enmity between two groups, bribery, and undue influence or personation at an election. Senior Samajwadi Party leader Azam Khan lost his Uttar Pradesh Assembly membership in October 2022 after he was convicted in a hate speech case. Defamation does not fall in this list.

Section 8(2) also lists offences that deal with hoarding or profiteering, adulteration of food or drugs and for conviction and sentence of at least six months for an offence under any provisions of the Dowry Prohibition Act.

Section 8(3) states: "A person convicted of any offence and sentenced to imprisonment for not less than two years shall be disqualified from the date of such conviction and shall continue to be disqualified for a further period of six years since his release."

#### **How does the disqualification operate?**

The disqualification can be reversed if a higher court grants a stay on the conviction or decides the appeal in favour of the convicted lawmaker.

In a 2018 decision in 'Lok Prahari v Union of India', the Supreme Court clarified that the disqualification "will not operate from the date of the stay of conviction by the appellate court."

Significantly, the stay cannot merely be a suspension of sentence under Section 389 of the Code of Criminal Procedure (CrPC), but a stay of conviction. Under Section 389 of the CrPC, an Appellate



Court can suspend the sentence of a convict while the appeal is pending. This is akin to releasing the appellant on bail.

This means that Gandhi's first appeal would be before the Surat Sessions Court and then before the Gujarat High Court.

#### **How has this law changed?**

Under the RPA, Section 8(4) stated that the disqualification takes effect only "after three months have elapsed" from the date of conviction. Within that period, lawmakers could file an appeal against the sentence before the High Court.

However, in the landmark 2013 ruling in 'Lily Thomas v Union of India', the Supreme Court struck down Section 8(4) of the RPA as unconstitutional.

### **INDIA'S DEMOCRATIC VALUES HAVE ERODED SIGNIFICANTLY: V-DEM**

Congress leader Rahul Gandhi delivered a lecture titled 'Learning to Listen in the 21st Century' at the University of Cambridge on February 28, 2023. He stated that there were constraints on the institutional framework required for a democratic Parliament, free press and judiciary in India. The Bharatiya Janata Party demanded an apology from Mr. Gandhi for his comments. This is also one of the reasons why Parliament is in a logjam.

The crux of the debate is whether or not India's democratic values have eroded in recent years. Data from the V-Dem (Varieties of Democracy) Institute at Sweden's University of Gothenburg show that democratic values have eroded significantly in recent years in India.

Chart 1 depicts five indexes used by V-Dem to capture democratic values in India. The deliberative democracy index measures whether political decisions are made through public reasoning or emotional appeals and coercion. The egalitarian democracy index examines equal access to rights and liberties. The electoral democracy index evaluates election cleanliness and lack of fraud. The liberal democracy index measures protection of individual and minority rights against state tyranny. The participatory democracy index measures active citizen engagement in electoral and non-electoral political processes. In all these indexes, 0 is the lowest value and 1 the highest. As shown in the chart, the values of these indexes have been declining since 2014. In 2022, they reached the levels last seen during the 1975 Emergency.

### **MANISH KASHYAP – ENGINEER WHO TURNED YOUTUBER, NURSED POLITICAL AMBITIONS**

Eleven cases have been registered against Manish Kashyap, the main accused in the cases related to fake videos of purported assaults on migrant workers in Tamil Nadu, since he started his YouTube channel in 2018.

The 35-year-old had surrendered at Jagdishpur police station in West Champaran district on Saturday in connection with the fake video cases. On Sunday, a Patna court remanded him to judicial custody till Wednesday.

Bihar's economic offences unit (EOU) and the Tamil Nadu police had booked him under various sections of the Indian Penal Code for trying to create enmity between two groups and communities. One of the three recent cases against Kashyap is related to him trying to pass off a 2019 picture of arrest in another case as his arrest in latest case of fake migrants videos.



Kashyap was arrested twice in 2019, once for allegedly damaging the statue of King Edward VII in Bettiah and later for roughing up a Kashmiri shopkeeper in Patna's Lhasa Market after the Pulwama attack.

Of the seven cases against him in West Champaran, Kashyap has got bail in six. West Champaran police had in 2021 confiscated his paternal home in Majhauria's Dumri Mahanwa village after he allegedly threatened the then manager of State Bank of India's Paras Pakri branch.

Additional Director General of Police (ADGP) N H Khan, who heads the EOU, is leading the investigation in the role of Kashyap and three others from Bihar in the fake videos cases.

Bihar ADG (Headquarters) Jitendra Singh Gangwar said, "West Champaran police handed over Kashyap to the EOU which, along with the Tamil Nadu police team, interrogated him on how he shot and circulated the fake videos. One of his associates, Rakesh Tiwari from Gopalganj, had told police that they had shot one of the videos at Jakkampur, Patna. Another accused in the case, Aman Kumar, has been arrested from Jamui. Now only Yuvraj Singh, another YouTuber, is absconding."

Kashyap, who completed his civil engineering from a Pune college in 2016, started his YouTube channel, 'Sach Tak News', in 2018. He tried to make his YouTube channel stand out by questioning government officials on problems concerning him. The son of an Army personnel, he contested elections from the Chanpatia Assembly segment in West Champaran in 2020 and won over 9,200 votes. Following this, he became a more aggressive YouTuber.

Bettiah journalist Ramendra Kumar said, "He would cover petty local news. Since he spoke loudly and took up issues affecting people with local officials, he cultivated a following."

## THE OLD AND THE NEW

The Union Finance Ministry's reiteration in the Rajya Sabha recently, of the legal position, i.e., the absence of any provision to allow the accumulated corpus of members of the National Pension System (NPS) to be "refunded and deposited back" to States, should have a deterrent effect on those States contemplating a return to the Old Pension Scheme (OPS). The Ministry's stand reflects what the Pension Fund Regulatory and Development Authority (PFRDA) Act, 2013, the PFRDA (Exits and Withdrawals under the National Pension System) Regulations, 2015, and other regulations say. The Centre has also been making it clear, for the right reasons, that it is not considering any proposal to restore the OPS. As experts and the Reserve Bank of India (RBI) point out, the annual saving in fiscal resources that a reversion to the OPS entails is short-lived. The potential fiscal benefit would be overtaken by the huge liability later in the form of pension payment. The former RBI Governor, D. Subbarao, even called the idea "regressive", with more privilege for government servants than the public, many of whom have no social safety net.

However, the issue refuses to die down, as government employees or those in government-controlled enterprises have been fighting for it. Be it Maharashtra, Uttar Pradesh or Karnataka, staff have struck work, demanding, among others, the re-introduction of the OPS. But their concern about the uncertainty over the amount of pension under the NPS is genuine as they are justified in aspiring for a quality retired life. The NPS, despite being PFRDA regulated, is a market-linked and defined contribution product, while the OPS is a defined benefit pension scheme, where beneficiaries generally get 50% of their final salary, and the whole cost is borne by the government. So, the flat rejection of the demand for the OPS would only exacerbate the situation. It is time that the Centre formulated a scheme that combines features of the old and the new. While





retaining the element of employees' contribution, the scheme can have higher contributions by the government, which should also step in if the returns do not ensure the prescribed minimum pension amount. A proposal by Andhra Pradesh last year deserves attention. Holding on to the contributory character of the NPS, the proposal guarantees 33% of basic pay. If required, it can be improved upon to suit the requirements of other States too. Better health facilities that include a liberal insurance scheme can be considered. On their part, the employees should be both pragmatic and willing to resolve the issue.

#### EXPRESS VIEW | A HOMEOWNER ASKED TO SEE A PROSPECTIVE TENANT'S LINKEDIN PROFILE — IT'S NOT THE MOST UNREASONABLE DEMAND A LANDLORD HAS MADE

In none of India's big cities is it easy to be a young person on the hunt for a house to rent. Especially if you are single or female, or have the 'wrong' surname.

When a Bengaluru man recently posted on Twitter the demands that a prospective landlord had made before renting him a flat — LinkedIn profile and a "small write-up" about himself — the response his story got fell into two categories. One set of Twitterati expressed great astonishment over the incident, exclaiming about the unreasonableness of landlords. Others sighed in commiseration, sharing their own stories of the peculiar demands of homeowners — NOC from parents, copy of father's PAN card, letter from a "local guardian" and so on. As one young person ruefully observed, it's gotten to the point where landlords could demand to see your "janam kundli" and you'd be happy to give it just to be allowed to rent a house or flat.

In the past, housing societies in Mumbai and Pune have been pulled up for putting a blanket ban on single people, especially students. But as more and more young people pour into the job market each year, all looking for accommodation, the experience seems only to have become more widespread and common. In none of India's big cities is it easy to be a young person on the hunt for a house to rent.

To be sure, there are degrees of difficulty here. Being young and single is worse than just being young, but not as bad as being young, single and female. As depicted in the 2016 documentary Bachelor Girls — its name inspired by the peculiar phrase that exists only in India's rental property market — young women often have to face a barrage of intrusive questions about whether they have boyfriends and how late they work to demands that their parents live with them or that they sign an agreement that no man will enter the house. Apart, of course, from the problems that come with having the "wrong" surname. Seen in the light of these obstacles, being asked only to share one's LinkedIn profile may not be the most unreasonable demand a landlord has made.

#### RUSH TO STUDY ABROAD: WHAT THE NUMBERS SAY ON INDIAN STUDENTS, THEIR COUNTRIES OF PREFERENCE

Some 700 Indian students are facing deportation from Canada after "admission offer letters" provided by a Jalandhar-based immigration agency were established as fake. As more and more Indian students are opting to study abroad, many are falling prey to unscrupulous agents.

##### **A six-year high**

Indians now study in 240 countries around the world, the Ministry of External Affairs informed Rajya Sabha last month. Canada, Australia, the UK, and the US remain the top choices, but sizable





numbers are also travelling to Uzbekistan, Philippines, Russia, Ireland, Kyrgyzstan, and Kazakhstan.

The numbers have only risen after the pandemic, the data suggest. Indians going abroad for higher education touched a six-year high in 2022 at over 7.5 lakh, the Education Ministry told Parliament last month. India surpassed China to become the country with the most international students in the US in 2022.

## ARIF AND HIS SARUS: THE SPECIAL BOND BETWEEN CRANE, INDIAN FARMER

In February 2022, 35-year-old Mohammad Arif brought home an injured Sarus crane he found in his village of Mandhka in Uttar Pradesh's Amethi district. The bird recovered in time but never left him. Recently, the duo became famous on social media and officials came knocking. Last week, Arif was booked under the wildlife laws, and the bird was packed off first to a neighbourhood sanctuary and then to the Kanpur zoo.

### What is the problem with rescuing a Sarus or animals?

Across the globe, rescuing wildlife at will is not permitted. This is because many such animals are not in need of rescuing. For example, wild cats leave their cubs to go hunting only to find them missing (rescued) on return. Also, many rescuers may not be equipped to either help the animals or ensure they do not become a threat to public health.

In 2019, for example, a singer made headlines for keeping a sun bear in her Kuala Lumpur condominium. She claimed to have found the animal in a weakened state and decided to nurse it back to health. A Malaysian court tried her under the country's wildlife laws. More recently in 2021, a woman was charged for rescuing wildlife without a permit in Michigan, USA. The Department of Natural Resources arrested her after euthanising six of her animals, including a two-week-old deer.

### What about India?

Under Section 39 of the Wildlife (Protection) Act, no person is allowed to acquire or keep in his possession, custody or control any wildlife which is state property. If anyone does so — for example, to treat an injured bird as in the present case — she must report it to the nearest police station or the authorised officer within forty-eight hours of obtaining such possession. Further, under Section 57 of the Act, if a person is found in possession, custody or control of any wildlife, the burden of proof for establishing that the possession, custody or control is not illegal is on the person.

Clearly, WLPA does not allow anyone to take home an injured wild bird and keep it for months without written permission from the state's chief wildlife warden. But it gets a little complicated when the bird in question is a Sarus crane and the caregiver is a farmer in Uttar Pradesh.

### What is special about the Sarus?

Back in 1861, British ornithologist LH Irby wrote about Sarus cranes he observed in Oudh: "The young birds are easily reared by hand, and become very tame and attached to the person who feeds them, following him like a dog."

The behaviour was explained after 75 years when Austrian zoologist Lorenz Konrad described how young precocial birds (those born with all their feather and able to see and move around



immediately) learn to follow real or foster parents. Called imprinting, the process starts with hatching so that the chicks follow the appropriate adult for safety.

KS Gopi Sundar, editor-in-chief of the Waterbirds Society, and the co-chair of the IUCN Stork, Ibis and Spoonbill Specialist Group, who has worked on Sarus cranes since 1998, observed that the window for imprinting could remain open until a Sarus crane pairs with another.

“In all probability, the bird in question was a young unpaired one from a flock of non-breeding Sarus cranes and that is why it bonded readily during treatment,” he said, adding that the species is anyway well accustomed to farmers and has been thriving in good numbers since the Green revolution.

#### **What is farmers’ attitude to the Sarus?**

Unlike in South-East Asia, Indian farmers have traditionally tolerated the species in their fields. So much so that the species adjusted its breeding behaviour after human activities. For example, unlike elsewhere in its global range, Sarus cranes in India do not wait for the onset of monsoon to start breeding but take the cue from farmers flooding their fields in anticipation of rain.

Barring some small farmers who resent the omnivorous bird for damaging their crops, the larger community has accepted the species for its deep cultural associations. As the story goes, sage Valmiki cursed a hunter for killing the male of a pair of courting Sarus cranes and the words took the form of a perfect verse, inspiring him to compose the epic.

At the same time, the farming community also appreciates the material benefits of having Sarus cranes in their fields. The bird, particularly chicks, are voracious eaters of mice and other pests. In the night, their shrill calls alert farmers to crop-raiding nilgais and, increasingly, feral cattle.

#### **And what next?**

Given the biological inclination of the species to bond easily, individual Sarus cranes have moved with people on many occasions. For example, back in 1989, eminent photographer Raghu Rai famously documented how a Sarus crane, onomatopoeically named Kurrkutt, lived with a family in Khajuraho, feeding on chapatis.

The species is neither a novelty nor under threat in the Northern Indian landscape. Therefore, following the letter of the wildlife law blindly may set damaging precedence.

“In many zoos around the world, cranes have bonded with caretakers. Once that happens, the bird is usually not ‘fit’ for release in the wild because the chances of it bonding with another crane reduce substantially,” said Gopi Sundar.

Once treated by Arif, the Sarus crane had no future in the wild. But a happy bird does not belong to a zoo or its caregiver in jail. The wisest recourse, therefore, is to reunite the two, and let them be.

### **CEREAL SOLUTION**

Millets, a family of coarse grains and popular staple, are having an unprecedented moment in the sun. Prime Minister Narendra Modi recently inaugurated a global conference on millets, extolling them as the “door to prosperity” for India’s marginal farmers, the “cornerstone of nutrition”, and as a potential ally against “climate change”. The United Nations has declared 2023 as the



International Year of Millets and Finance Minister Nirmala Sitharaman, in the Budget speech in February, singled them out as 'Shree Anna' — roughly translated as the 'best among grains' — adding that the Indian Institute of Millets Research in Hyderabad would be supported as a centre of excellence.

Millets such as sorghum, bajra and ragi are strongly linked to Indian dietary traditions, which is why the country has for long been the largest producer of millets in the world. It is no surprise that this cereal family is popular because it is energy dense, can be grown with ease in arid soils and, relative to grains such as rice, wheat and maize, is less susceptible to pests. Why such a 'super food' got sidelined by the Green Revolution of the 1960s in favour of rice and wheat has little to do with nutrition and more with the development of high yielding varieties of rice and wheat, that produced twice or thrice per acre. Coupled with guaranteed procurement by the government, the rice-wheat combination enabled India to be food secure even in droughts and climate blights. However, this food security came at a cost such as the wanton exploitation of groundwater, a surfeit of pesticide-use, and ossified systems of grain production and procurement that, over the years, is decreasingly remunerative for the average farmer. With average global incomes having risen since the 1960s and rising demand for 'sustainable agriculture', India is looking to market millet as a global panacea. However, competing with the global rice-wheat-maize troika, which according to the Food and Agriculture Organization constitutes 89% of global cereal production, means that millet production must be many times more remunerative than now. Hybrid varieties of jowar and bajra exist, and that yields have not dramatically risen in decades despite this means that it would be unrealistic to expect quantum jumps in yield from technological tweaks alone. Dietary shifts are slow processes and promoting certain grains as 'superior' or inferior is self-defeating as it ignores the economics of production and promotes cycles of hype — as seen in cash crops. This can have consequences for marginal farmers. Letting all grains grow and helping a wider base of consumers access the cereal they want is a more sustainable enterprise.

#### ARMY TO INTRODUCE 'NATIVE, TRADITIONAL' MILLETS IN TROOP RATIONS

The Army has decided to introduce millets in rations of troops deployed in various locations, including the northern borders, to promote consumption of the indigenous grain in the backdrop of the United Nations General Assembly declaring 2023 as the International Year of Millets, the Army said on Wednesday.

"The landmark decision will ensure troops are supplied with native and traditional grains after over half a century, when these were discontinued (in 1966) in favour of wheat flour," the Army said in a statement.

It stated that millets will now form an integral part of the daily meal for soldiers of all ranks.

The Army said food made with millets has proven health benefits and is suited to the Indian geographical and climatic conditions and will thus be a vital step in mitigating lifestyle diseases and enhancing satisfaction and morale of the troops. "Millets have the benefit of being a good source of protein, micro-nutrients and phytochemicals, thus boosting the nutritional profile of a soldier's diet," it said.

Officers in the Army said the scale of rations for troops had been fixed based on studies carried out earlier to determine the calorific value of food required for soldiers deployed in various locations, to ensure they get a balanced diet.



“Special rations are provided to troops serving in high-altitude or super high-altitude areas to make up for calorie deficiencies of troops posted in difficult locations,” an officer said.

The Army has sought government sanction to procure millet flour not exceeding 25 per cent of the authorised entitlement of cereals — rice and wheat flour — in rations for troops from the next financial year.

Three popular varieties of millets flour — bajra, jowar and ragi — will be issued to troops, duly considering their preference. The grains will be procured and issued to the troops based on options they exercise and the quantity they demand.

A second officer said this means the grains to be provided to the troops at a certain location will depend on what they prefer. “For instance, troops from southern India and northeastern India prefer rice, as against wheat preferred by troops from northern India,” the officer said.

Additionally, the Army has issued advisories across commands to ensure that millets are used extensively in organised functions, such as in Barakhana, as well as in canteens.

The Army is also conducting centralised training of chefs to prepare delicacies made with millets, and there is a special emphasis on introducing value-added millet items and snacks to troops deployed along the northern borders.

According to the Army, millet foods are being introduced through CSD canteens and dedicated corners are being set up in shopping complexes. ‘Know your Millet’ awareness campaigns are also being conducted in educational institutions.

The first officer quoted above said that while millets are essentially an indigenous grain, a fresh study will help fix the percentages to be in high altitude or other difficult locations based on the troops’ calorie requirements.

The Centre has been taking several measures to promote consumption of millets, and the Ministry of Agriculture and Farmers Welfare is the nodal ministry driving this. Sources in the government said all Union ministries and departments have been asked to draft and submit their planned calendar of activities to mark the International Year of Millets.

### EXPRESS VIEW: UNSEASONAL RAINFALL AND HEAT SURGES ARE THREATENING RABI CROP

This rabi season has been unusual, and not too great, for farmers — just like the last one. 2021-22 registered surplus rainfall every month from September to January. It was followed by the hottest ever March, with the mercury spike from the middle of the month singeing the wheat crop. This time, November to February had very little rain. Not only was it a dry winter, the country also recorded the hottest ever February, raising the spectre of March 2022 being repeated or even surpassed. As it turned out, temperatures didn’t soar that much, with the maximums at 30-33 degrees Celsius till mid-March and well within limits not to cause any yield losses. But then, it poured. All-India rainfall this month has so far been 24.4 per cent above the long period average and 245.5 per cent after March 16. And with the Met Department forecasting a fresh spell of rainfall and thunderstorm activity from Thursday evening, the woes from a wet March couldn’t be worse.

In short, unseasonal rainfall has done to this year’s rabi crop what the sudden surge in temperatures did last year. Both happened after mid-March when the wheat in much of north and





northwest India was in the grain development and filling stages. The extent of damage from the current rains is yet to be ascertained. It would be more in places where the rains were accompanied by hail and thunderstorms. The crop whose earheads are heavy with well-filled grains would be the most vulnerable to lodging or bending over from high-velocity winds. It's not only wheat. Mustard, too, is still to be fully harvested. Even the harvested produce, normally kept in fields for 6-7 days to dry before threshing, is prone to damage or infestation by painted bug pests. There are also reports of damage to other crops — from grapes and mangoes to chilli, coriander and jeera — that were near to harvesting.

The difference between now and last year is that producers are more likely to be affected than consumers. The main reason for it is global prices. The failure of the last rabi crop coincided with the supply disruptions that followed the war in Ukraine. Those disruptions have since eased and world food prices come off considerably from their March 2022 highs. Even a not-so-bumper rabi crop is unlikely to result in any resurgence of inflation. That should, however, not stop the government from undertaking an assessment of losses suffered by farmers and compensate them at the earliest. For the medium and long term, there is a need for better preparedness in tackling the challenges to agriculture from climate change. Heat waves and unseasonal rains are mere manifestations of that.

#### EXPRESS VIEW: RAJASTHAN RIGHT TO HEALTH BILL IS WELCOME, CHALLENGE WILL BE TO TAKE THE PRIVATE SECTOR ALONG

On Tuesday, Rajasthan became the first state in the country to legislate a “right to health”. The Right to Health Bill passed by the Rajasthan assembly gives every resident of the state “the right to free consultation, drugs, diagnostics and emergency care at all public hospitals”. Private hospitals that have been allotted land at concessionary costs will also come under the purview of the Bill, which ticks several right boxes. It has sections that empower “residents to collect information to make themselves healthy” and clauses that give more teeth to patient-centric medical protocols like “informed consent”. The Bill’s provisions are consistent with several Supreme Court verdicts that have affirmed that the Right to Health is a key part of the Right to Life under Article 21 of the Constitution. The challenge before Rajasthan’s policymakers will now be to enforce the rights of the patient while also ensuring that the concerns of healthcare providers are not neglected — especially those of the private sector, which according to NHFS-5 services 48 per cent of the state’s population.

For the past four days, medical services in Rajasthan have been disrupted because a large section of private medical practitioners has been on strike against the new legislation. They fear being hauled up before the state and district-level medical authorities — mandated by the Bill — for failing to provide emergency services which might actually be beyond their expertise. These are legitimate concerns in a state — indeed, in most parts of the country — in which only select multi-speciality hospitals offer wide-ranging critical care services. It’s also unclear if the new authorities will take over the functions of the consumer courts. Simply adding another forum for complaints could complicate the resolution of grievances.

The Bill also has a section on the “Duties of Residents” that directs patients to provide “all relevant information” to the doctor. And asks them “to treat healthcare providers with dignity”. These are significant interventions given the recent history of violence against doctors in the country. Such aggression often stems from uninformed perceptions about diseases as well as the physician’s work — ironically, for a large section, she has near-divine faculties. At the same time, much of the



debate on medical ethics in the country has been framed by the doctor-patient binary. The Rajasthan health rights bill should catalyse conversations on transcending such simplistic formulations. Civil society activists — who have been demanding this right for long — and local administrators must step up awareness initiatives. Medical educators too cannot postpone the longstanding imperative of training young doctors to bring more empathy in their interactions with patients and their families.

#### BORN-AGAIN WRITER

In a move characteristic of the times we live in, the living author Perumal Murugan announced his death on Facebook in January 2015: “Perumal Murugan the writer is dead. As he is no God, he is not going to resurrect himself. He also has no faith in rebirth. An ordinary teacher, he will live as P. Murugan. Leave him alone.”

He had been hounded with protests by local caste-based groups who had belatedly discovered a novel four years after it was published in 2010, forced to write an apology and publishers threatened to withdraw all his books from the shelves. The controversy centred on his novel *Madhorubagan*, a raw and poignant but fictional record that pointed to certain customs aligned to the Ardhanareeswarar Temple in Tiruchengode, a small dusty town in western Tamil Nadu. The caste outrage slowly grew State-wide, orchestrated by a powerful intermediate community, and pushed a sensitive writer to declaring the death of the writer in him.

Thankfully, Murugan was indeed reborn. Instead of his words, the regnal proclamation of many countries came true instead: ‘The King is dead, long live the King’. Perumal Murugan indeed had a resurrection, not in a cave, but in the corridors of the Madras High Court that struck out strongly in favour of freedom of expression. The court also called for his books to be restored for sale, and a committee to be constituted to protect the right of creative artistes to express themselves.

The International Booker Prize jury recorded this intense struggle when it put his novel *Pyre* (*Pookuzhi*), translated by Aniruddhan Vasudevan, on its long list.

# DreamIAS



## BUSINESS & ECONOMICS

### INDIA'S PUSH FOR SEMICONDUCTORS

#### The story so far:

The Union Government has disbursed around ₹1,645 crore in performance-linked incentives (PLI) for electronics manufacturers so far, as part of its efforts to bring in more of the electronics supply chain to India. The push for semiconductors, or integrated circuits, is far more pressing now, as these chips are found in practically every modern electrical appliance and personal electronics devices. More and more nations are trying to turn away from China's dominance in the space, following geopolitical pressures to de-leverage themselves from supply chain vulnerabilities.

#### Why is the government encouraging semiconductor manufacturing?

Semiconductor fabrication units, or fabs, turn raw elements such as silicon into integrated circuits that are fit to be a part of practically all electronic hardware in the world. Fabs are highly capital-intensive undertakings, costing billions of dollars for large facilities.

Semiconductor fabs of today may still be building circuits, but they require highly reliable and high-quality supply of water, electricity, and insulation from the elements, reflecting the high degree of precision, cost and capital needed to make the sophisticated circuits.

Countries have spotted strategic value in cornering segments of the value chain for fabs, even as the sophistication and capital needed to run them have climbed to historic highs. China pulled ahead of Taiwan last year, in terms of share of global sales from fabs, according to a report by the Semiconductor Industry Association (SIA).

It's not just India that is wary of this dominance. The U.S. passed the CHIPS Act last August, providing upwards of \$280 billion in subsidies and investments to manufacturers opening fabs and making semiconductors in the U.S. This has been combined with restrictions on the Chinese semiconductor industry.

#### Are fabs opening in India?

The government's Invest India agency estimates that electronics manufacturing as a whole will be worth \$300 billion by the financial year 2025–26. While facilities for assembling finished products have been steadily growing in number, fabs for making chipsets and displays, which are crucial parts of the manufacturing process for many electronics, are rarer. Minister of Electronics and Information Technology Ashwini Vaishnaw said that the first semiconductor manufacturing fab would be announced in the coming weeks.

#### Can semiconductors and finished products both be made in India?

The SIA, which represents the bulk of semiconductor manufacturers in the U.S. and elsewhere, said in a report with APCO Worldwide in February that India should lean on its strength in the electronics manufacturing value chain.

So-called "foundry companies", which turn silicon into semiconductors, require investments upwards of 35% of revenues, the SIA warned, and entry costs run into billions of dollars. But



companies that specialise in Outsourced Semiconductor Assembly and Test (OSAT) are less expensive to set up, and generate better margins, the SIA pointed out. The OSAT set-ups take care of the less capital-intensive parts of chipmaking, such as assembling the precise components that have already been manufactured, and running specialised tests to approve them.

A problem with many chip facilities in the traditional sense is that they tend to be captive units of large companies. While Foxconn's assembly facilities are being touted as creating several jobs and inviting investment into India, some of its most valuable facilities globally are dedicated to building Apple devices, which account for a fraction of handsets sold in India.

#### **What other advantage does India have?**

A large part of semiconductor manufacturing involves design and intellectual labour. India has an advantage here, as a large portion of semiconductor design engineers globally are either Indian or Indian-origin; chipmaking firms such as Intel and NVIDIA have large facilities in India that are flush with Indian talent working on design problems.

This is an advantage as China is losing control over in the face of sanctions and an ageing population.

#### **Will India's semiconductor ambition be limited?**

The opening of display and semiconductor fabs is one of the strategic and economic goals of India's electronics manufacturing incentive programmes, and breaking new ground on ambitious plans connected to popular brands such as Apple is something that the Union government and States are equally eager to accomplish.

The government appears to be developing the parts of the ecosystem that have promise for sustainable growth and fiscal feasibility.

Minister of State for Electronics and Information Technology Rajeev Chandrasekhar said at the Raisina Dialogue earlier this month that the electronics value chain would have to be an international undertaking among nations with common values to be effective.

That is, if like-minded nations each specialise in different aspects of the semiconductor and electronics manufacturing process, and work together on distribution, that still solves the geopolitical problem of Chinese dominance without simply monopolising power with a different country. No country should "delude" themselves into thinking that they will be the "king of the hill," Mr. Chandrasekhar said.

**'INDIA FAILED TO CREATE POSITIVE IMPRESSION AMONG BUSINESSES MOVING AWAY FROM CHINA'**

Despite resources, India has not been able to create a positive impression among businesses moving away from China, a parliamentary panel on commerce said in a report tabled in the Rajya Sabha on Friday. The report stated that India has not been able to take advantage of the "China Plus One Strategy," through which multinationals shifted manufacturing and production away from China. It said that other Southeast Asian countries such as Vietnam, Thailand, Cambodia, and Malaysia have become bigger beneficiaries of the strategy. The report said India's competitive position in the pharmaceutical sector is undermined by its high import dependence for bulk drugs or active pharmaceutical ingredients (APIs), especially from China.





The Ministry informed the committee that in fiscal year 2022-23, till November 30, the value of total import of APIs stood at ₹27,209 crore, out of which imports from China stood at ₹18,973 crore, nearly 70% of the total share. The import increased despite the border row with China since mid-2020, when 20 Indian soldiers were killed in violent clashes with the Chinese soldiers in Ladakh's Galwan Valley. The committee is headed by Congress leader Abhishek Manu Singhvi.

#### **PLI schemes**

The government submitted that certain steps such as Production Linked Incentive (PLI) schemes have the capability to make India a more attractive location for companies looking to diversify their supply chains away from China, adding that it is striving to simplify the compliances on businesses and to improve overall business environment in the country. It added that more than 3,500 provisions have been decriminalised by the Ministries and the States, and the Jan Vishwas Bill to amend 42 Central Acts has been introduced to enhance trust-based governance.

The committee recommended that rationalisation of direct taxes and indirect taxes must be done in sync with the international norms and laws to increase the competitiveness of domestic industries in the global markets. It also asked the government to pursue Free or Preferential Trade Agreements with countries that seek to invest in India under the 'China Plus One Strategy'.

The government informed that India has signed 13 Free Trade Agreements (FTAs) and six Preferential Trade Agreements (PTAs) so far, adding that FTA negotiations with the U.K, Canada and the European Union will be concluded in the "upcoming year".

#### **UBS & CREDIT SUISSE: WHAT WILL HAPPEN TO THE SWISS BANKS' INDIAN OPERATIONS?**

The proposed takeover of Credit Suisse by UBS – both Swiss banks – is expected to witness consolidation of the Indian operations of both the banks. While UBS and Credit Suisse are present in India in the investment banking and wealth management areas, the latter has a banking licence with just one branch operating in Mumbai.

#### **What has been the presence of UBS in India?**

In June 2013, UBS which got a banking licence from the RBI in 2009, wound up its banking operations in India and returned the licence to the RBI. The decision to exit banking in India may be partly linked to a broader global move driven by stricter capital requirements that had been brought in as part of Basel III norms. These norms have forced a number of foreign banks to curtail their operations in markets like India and also pare down investments in Indian companies.

#### **The larger presence of foreign banks in India**

As many as 45 foreign banks are present in India, but they have a relatively smaller presence in India with a 6% share in total assets, 4% in loans and 5% in deposits. They are more active in the derivative markets (forex and interest rates) where they have a 50% share. Most of them are present as branches of the parent bank with only a few present as wholly-owned subsidiaries.

Nevertheless, they retain capital, liquidity and make similar annual report disclosures as Indian banks, Jeffries said. The top five foreign banks in India by assets are HSBC, Citibank (it has now sold its consumer business to Axis), Standard Chartered, Deutsche Bank and J.P. Morgan Chase which is also the largest US bank.



## WILL THE SVB COLLAPSE IMPACT INDIAN START-UPS?

On March 10, banking regulators in the U.S. took control of the Silicon Valley Bank (SVB), which typically catered to start-ups, venture capitalists and tech firms, after it suffered a sudden collapse. Days earlier, the bank, headquartered in Santa Clara, California, had announced that it was facing a cash crunch, and failed to raise money by either selling shares — or itself — spooking investors and leading to a run on the bank. On Sunday, the U.S. administration and regulatory authorities acted in concert to guarantee that depositors' money would be repaid in full. And in India, Union Minister of State for Information and Technology Rajeev Chandrasekhar met Indian start-ups to assess the impact on them and to try and help them tide over the situation.

### What stand has the U.S. government taken?

The Joe Biden administration moved in quickly with the Federal Reserve, the U.S. Treasury Department, and the Federal Deposit Insurance Corporation (FDIC) deciding to guarantee all deposits at SVB. It also seized another bank on Sunday, New York's Signature Bank, which had a large exposure to investors in cryptocurrencies and the digital assets sector. "Your deposits will be there when you need them," President Biden said at the White House, an announcement aimed at reassuring the American public that the country's banking system was sound and had the backing of the administration.

He also made clear that taxpayers would not have to foot the bill for the government's actions, and that the money would come from the fees that banks pay into the FDIC.

### How is India's startup ecosystem affected?

According to media reports, at least 21 start-ups in India had exposure to SVB, which had approximately \$209 billion in assets and about \$175.4 billion in total deposits as of December 31, 2022. In a Twitter Spaces interaction on Thursday night, Mr. Chandrasekhar said India's start-ups collectively had about \$1 billion of their funds deposited in SVB. Earlier in the week, the start-ups had apprised the minister about the fallout including specifically about difficulties in carrying on their business due to blockages in international wire transfers, lack of communication from U.S. agencies, limits on withdrawals and so forth. Finance Ministry officials said the failure of SVB was likely to impact some Indian tech start-ups and IT firms, but that any broader "contagion" that might arise would neither reach Indian shores in a hurry nor were they likely to trigger "systemic risks".

## AN EXPERT EXPLAINS: IN IBC DISCUSSION PAPER, QUESTION OF DISTRIBUTION OF PROCEEDS AMONG CREDITORS

The Ministry of Corporate Affairs has released a discussion paper that proposes several changes to the Insolvency & Bankruptcy Code (IBC), 2016. One of the proposals is about the distribution of proceeds to different classes of creditors (Paragraph 9.6 of the discussion paper).

Under the IBC, a resolution applicant submits a plan to deal with the outstanding debts of a company by bringing proceeds under the plan. A committee of financial creditors votes on the financial viability & feasibility of the resolution plan. The quantum & manner of distribution under the Code has long been an issue of discontent for unsecured & junior creditors.



### **How are proceeds distributed among creditors under the IBC?**

A company may have various creditors — public sector banks, private lenders, non-banking financial companies, trade creditors, vendors, workmen, employees, governments, etc. The Code puts these creditors into different categories based on the nature of debt. Banks, bond issuers, and lenders are classified as financial creditors. Trade creditors & vendors are classified as operational creditors. Financial creditors are further categorised as secured and unsecured creditors, based on the security furnished by the borrower company.

Section 53 of the Code prescribes an order of priority in which proceeds will be distributed to the creditors based on the liquidation value. As per this waterfall mechanism, secured financial creditors rank the highest in the order of priority. They are followed by unsecured financial creditors, government dues and, finally, operational creditors.

The creditors receive proceeds (even if in surplus over the liquidation value) under the resolution plan in order of the above mentioned priority. Hence, financial creditors like banks have the first claim until exhaustion. Proceeds may be extinguished at the level of financial creditors itself, leaving almost nothing for other creditors in the waterfall mechanism.

### **What does the discussion paper propose?**

The discussion paper acknowledges concerns among creditors regarding inequitable distribution. It says there is a need to devise an objective formula so that the distribution is fair and equitable for all creditors. Therefore, it proposes a statutory scheme wherein the liquidation value will be distributed in accordance with the waterfall mechanism under Section 53. However, any surplus over such liquidation value shall be pro-rated amongst all the creditors in ratio of their unsatisfied claims.

### **What is the impact of this proposal?**

First, it impacts the inter-creditor distribution in an attempt to bring fairness and equity. As of now, a secured financial creditor is statutorily entitled to have his claim satisfied in priority to an unsecured financial creditor. The proposal seeks to dilute that statutory entitlement.

Say, the liquidation value is Rs 100 and the proceeds under the resolution plan are Rs 150. The claim of secured creditors is Rs 120 and that of other creditors is Rs 200. Under the present regime, secured creditors will receive their claim in full, i.e., Rs 120, and the balance proceeds of Rs 30 out of the resolution plan shall be distributed to other creditors pro-rata.

As per the proposal, secured creditors will only receive Rs 100, and the balance Rs 50 out of the resolution plan shall be distributed proportionately amongst all creditors. Hence, there is a dilution to the extent of unsatisfied claims of Rs 20 for the secured creditors.

Secondly, even inter se the same class of creditors, the proposal is bound to change the quantum of distribution. For example, it may be agreed by the committee of creditors that fully secured financial creditors will receive a higher quantum of proceeds than partially secured financial creditors. If the proposal is enacted into law, this distinction of distribution based on coverage and quality of underlying security is also diluted.



### **What is the jurisprudence on the subject?**

The Supreme Court in the case of CoC, Essar Steel India Limited versus Satish Kumar Gupta (CA No. 8766-67 of 2019) was faced with a challenge to a ruling by the National Company Law Appellate Tribunal (NCLAT) holding that securities and security interest are irrelevant, and that financial creditors must be equitably paid irrespective of the security interest.

The Supreme Court reversed the NCLAT finding and emphasised on the importance of valuing security interests separately from unsecured creditors. It held that the security interest of the financial creditors ought to be protected. The Supreme Court upheld the actions of the Committee of Creditors in paying secured creditors amounts based on their value of the security in preference to other creditors.

Further, Section 30(4) of the Code provides that the CoC while approving a resolution plan can take into account the value of security interest of a secured creditor. The United Nations Commission on International Trade Law (UNCITRAL) Legislative Guide on Insolvency Law states that secured creditors may receive payment in value of their security interest while other unsecured & junior creditors may receive nothing.

### **How will the proposal impact the insolvency regime and credit markets in India?**

The proposal seeks to partially undo what the Supreme Court held in the Essar Steel case. It is interesting to note that the report of the Banking Law Reforms Committee in 2015 (which served as a precursor to the IBC) saw the Code as a tool to strengthen the bond market and credit environment. However, the proposal may have a detrimental effect on both.

With the value and quality of security interest being no longer the only determining factor for distribution of proceeds, lenders may want to lend on financially tighter terms, or may demand higher and better security cover so as to cover larger liquidation values.

The Code was also seen as promoting resolution over liquidation. However, in the proposed scenario, it will be more beneficial for the secured creditors to push the company towards liquidation so that they can realise the full value of their security rather than sharing it with other junior creditors or creditors having inferior security interests under a resolution process. The Supreme Court has observed how ignorance of security interests could result in a stymying of the resolution process itself.

## **SPECTRE OF STAGFLATION**

The latest global financial developments and recent economic data in India are together raising fears that several major economies worldwide, including India's, may be headed for a spell of debilitating stagflation. Last week's retail inflation reading for February from India's NSO, at 6.44%, clearly belies the RBI's most recent forecast for Q4 inflation of 5.7%. With January having logged CPI-based price gains of 6.52%, prices will have to soften so sharply in March as to drag the headline number down by more than 230 basis points to about 4.1% for the RBI's projection to come true. A look at the components driving inflation shows that core inflation, which strips out the impact of food and fuel prices, still remains stuck at 6.2% for a third straight month, and continues to hover almost at or above the 6% level since May 2021. That core inflation remains persistently elevated despite the RBI having raised its benchmark interest rate by 250 basis points since last May reveals the difficulty monetary authorities are facing in tamping down on price gains by increasing credit costs so as to dampen demand. Governor Shaktikanta Das and the RBI's





two other members on the Monetary Policy Committee all cited the worrying persistence of core inflation at their last policy meeting in February as justification for deciding to continue tightening monetary policy.

Queering the pitch further is price gains across the food basket too showing disconcerting trends despite a marginal deceleration of five basis points last month in the composite food price index. Prices of four key categories in the food basket that together account for more than a fifth of the Consumer Price Index continued to register significantly high year-on-year inflation, as well as sequential hardening. If the key staple of cereals and products saw inflation accelerate to 16.7% in February, the headline reading for milk and products quickened to 9.65%, that for fruits surged to 6.38% (from January's 2.93%), with only the reading for spices slowing a tad to 20.2% (from 21.1%). With the prediction of a likely El Niño this year, the outlook for food prices is hardly reassuring. While policymakers will, therefore, need to stay focused on containing inflation, the rising uncertainty about the growth momentum sustaining in the face of the heightened risks of a recession in advanced economies raises the risk that higher credit costs may further dampen consumption. Yet, failure to engender enduring price stability could lead to stagflation. Unless supply side measures such as GST rationalisation and fuel price cuts are expedited, the overall macroeconomic outlook appears worrying.

#### TELCOS AND THE RETURN OF THE NET NEUTRALITY DEBATE

Since November 2022, the Cellular Operators Association of India (COAI), which represents Bharti Airtel, Vodafone Idea, and Reliance Jio, the three major telecom operators in India, has been demanding that platforms such as YouTube and WhatsApp pay a share of revenue as network costs. This has reignited the debate around Net neutrality.

In an immediate response to the demand, the Broadband India Forum (BIF), which represents Internet firms such as Meta and Google, wrote a letter to the Department of Telecommunications (DoT) rebutting the COAI's demands.

"This concept of paying for the use of infrastructure is an excellent concept wherein any entity that uses another entity's infrastructure should pay for it," Debashish Bhattacharya, senior deputy director of BIF, wrote. "However, the revenues earned by the infra provider [telecom operators] should also be shared with the entity using it in the same proportion."

Mr. Bhattacharya also hit out at the apparent claim by the telecom operators that content providers do not build any of this infrastructure on their own. "The infrastructure for any communication network also includes data centres, undersea cables, content hosting centres, content delivery networks (CDNs) and so on — all of which are built by the OTT platforms," he said.

In 2016, Internet activists celebrated as the Telecom Regulatory Authority of India (TRAI) ruled in favour of Net neutrality, the concept that all traffic on an Internet network has to be treated equally.

The telecom regulator capped a highly publicised debate on the subject, and concluded that programmes such as Free Basics by Facebook (now Meta) and telecom operators' plans to charge extra for data calls using apps such as Viber would be prohibited, as all Internet access had to be priced equally.



The Department of Telecommunications in 2018 embedded the Net neutrality concept into the Unified Licence, whose conditions all telecom operators and Internet providers are bound by.

#### **The case for a fee**

The COAI's argument is that its current demand has nothing to do with Net neutrality. "There seems to be [a] lack of appreciation of the fact that Net neutrality pertains to non-discriminatory treatment of content which has no nexus to the usage fee issue," the COAI argued in a press note on February 27.

"We reiterate that all our member TSPs [telecommunication service providers] are committed to follow the Net neutrality principles as per their licensing conditions," Lt. Gen. S.P. Kochhar (retd), Director-General of COAI, said.

However, last Monday, Amrita Choudhury, director, CCAOI, a cyber advocacy-focused public policy entity, wrote, "Charging a network fee will break the core essence of an open Internet."

Telecom operators and platforms support "each other's growth, and neither can exist without the other".

Ms. Choudhury argued that instead of this, the government could reduce spectrum fees and support telecom companies with the Universal Service Obligation Fund (USOF).

Net neutrality activists (as well as content providers) have argued that imposing such a fee, even on a limited number of large players, was a distortion of the Internet's architecture, where content providers and telecom operators enjoy a symbiotic relationship without charging each other, and users pay both, in the form of fees or advertisements, or both.

The debate takes us back a decade, when the usage fee demand was made in India by Airtel's CEO Sunil Bharti Mittal, who termed the proposal an "Internet tax" in 2013, complaining that content providers were "consuming a massive amount of resources on our network", and that "somebody's got to pay for that".

#### **Usage on networks**

In essence, telecom operators have gone from demanding payment to manage scarce resources on their networks, to demanding payment for enormous usage on their networks.

Telecom operators in the European Union are also demanding similar usage fees from content providers. The Electronic Frontier Foundation (EFF), a prominent Internet rights advocacy group in the U.S., warned against such moves.

"Fundamentally network usage fees are a ploy by the largest ISPs to extract monopolistic rents, kill competition, and further entrench their monopolistic power," the EFF said in a blog post in December. "...The costs ISPs incur for delivering traffic have not been drastically rising despite increases in traffic."

The EU is holding consultations on the issue this year before it finalises its stand. Minister for Electronics and Information Technology Ashwini Vaishnaw indicated that the Union government would wait and see what the international moves in this space are before making a call on the telcos' demands. "Telecom is an industry where everything is benchmarked to the world," Mr. Vaishnaw said in February. "Whatever we do will be in sync with the global trends."



## TAX BENEFITS FOR DEBT MUTUAL FUNDS SCRAPPED: EXPERTS SAY MORE MONEY TO FLOW AWAY FROM MFS BACK INTO DEPOSITS

As per the proposed changes in the Finance Bill 2023, the tax advantage on debt mutual funds for investments made on or after April 1 will no longer be available.

From April 1, 2023, the indexation benefits on long-term capital gains (LTCG) on debt mutual funds will be gone. Debt mutual funds from April 1 will be taxed at income tax rates as per an individual's income. According to experts, without indexation benefits, debt MF investments would now be at par with banking and other fixed-income products.

The changes in taxation have been proposed by the government in the Finance Bill 2023 which was passed in the Parliament on Monday amid continuous uproar by Opposition leaders. As per the proposed changes, the tax advantage on debt mutual funds for investments made on or after April 1, 2023 will no longer be available.

"With no indexation benefits, for long-term (>36m) holding, debt MF investments would now be at parity with banking and other fixed income products," said Lakshmi Iyer, CEO (Investment Advisory) at Kotak Investment Advisors Limited.

Indexation means adjusting the cost of funds by taking inflation into account. Indexation was applied to debt fund investors with an investment horizon of more than three years. Without indexation, investors are taxed at 10 per cent. Meanwhile, long-term capital gains (LTCG) for debt mutual funds are taxed at 20 per cent with indexation benefits.

## FREE MARKET AND EQUAL RATES OF INVESTMENT: NO LONGER BEGGARING BELIEF

Over many centuries, economists have argued that competition among entrepreneurs would ensure that the rate of return on investment would tend to be equal across industries. So, for example, if the rate of return in the car industry was abnormally high, this would cause investment (and hence resources) to move from other industries, yielding lower returns into the car industry. This, it was believed, would cause the price of cars to drop while that of other goods to rise, thus helping in a way to equalise the rate of return across industries. This widely accepted economic fact was part of the standard response from free market economists whenever critics of the market economy complained about certain businesses enjoying abnormal profits in a market economy. Competition among entrepreneurs, it was argued, would ensure that no business earned abnormally high returns over a long time.

Modern behavioural economists, however, have questioned the above traditional economic wisdom by arguing that the rate of return on investment does not tend to equalise across industries for various reasons.

In particular, they argue that ordinary human beings in the real world are different from the textbook homo economicus in three ways — firstly, they have limited cognitive abilities, secondly, they have limited self control, and thirdly, they possess some degree of altruistic rather than just purely selfish tendencies. In fact, behavioural economists note that even in an industry like finance, in which we might expect participants to be highly rational, people may not be perfectly rational. Therefore, the rates of return might vary significantly across industries even in a competitive market economy.



### A study on the streets

In “Hobo Economicus,” published in The Economic Journal, Peter T. Leeson, R. August Hardy, and Paola A. Suarez tried to find out if the doubts raised by behavioural economists regarding human rationality are valid. The researchers studied the behaviour of panhandlers, or beggars, in the Metro rail stations in Washington, DC to see if these people exhibit rational economic behaviour. Many beggars tend to suffer from mental disorders and substance abuse problems, which could surprisingly make these people excellent candidates for this study on human rationality.

The authors argue that if even beggars can be shown to behave rationally, then it would bolster the claims of traditional economic theory.

The authors of the paper studied the hourly receipts of beggars in a number of Metro rail stations and also the number of passengers who pass through these stations. If traditional economic theory is right, then beggars would tend to be attracted towards Metro rail stations frequented by the most passengers and desert other stations. This is because beggars are likely to earn more dollars per hour in the busiest Metro rail stations. Eventually, however, the process of entrepreneurial arbitrage — whereby beggars move from stations offering low rate of return to stations offering a higher rate of return — would ensure that the hourly receipts of beggars across Metro rail stations tend to be the same. The tendency of beggars to move towards Metro rail stations that offer the best return on investment is no different from the tendency of investors to invest their capital in industries that offer the highest rate of return.

The authors in fact found that, as traditional economic theory would suggest, the stations that had the highest passenger traffic also saw more beggars visiting them. To be precise, a one standard deviation increase in passenger traffic was found to be associated with a 0.53 standard deviation increase in the number of beggars. Further, it was found that the difference in the hourly rates that beggars earned across various Metro rail stations was statistically indistinguishable from zero. This suggests that there was intense competition among beggars to be at Metro rail stations where they could earn the most money. Basically, the beggars who were studied were found to behave just like the textbook homo economicus.

The findings of the study suggest that rational economic behaviour is widely prevalent, even in places where it is generally least expected, such as in the panhandling market. One reason for this could be that beggars live at the edge of subsistence and hence have a very strong reason to act rationally. If beggars do not act rationally, the consequences could turn out to be dire, such as the prospect of imminent death.





## LIFE & SCIENCE

### ACTIVE VOLCANO FOUND ON VENUS: WHAT A NEW STUDY SAYS

A new analysis of archival radar images taken around three decades ago has found direct geological evidence of recent volcanic activity on the surface of Venus, also known as Earth's twin, for the first time. Researchers have observed a volcanic vent changing its shape and getting bigger in size in around eight months, the National Aeronautics and Space Administration (NASA) said.

The new findings are described in a study, 'Surface changes observed on a Venusian volcano during the Magellan mission', published in the journal Science last week. The research has been carried out by Robert Herrick of the Geophysical Institute, University of Alaska Fairbanks (USA), and Scott Hensley of Jet Propulsion Laboratory (JPL), California Institute of Technology (USA).

For years, scientists have known that numerous volcanoes cover Venus but there wasn't any evidence up till now to show if any one of them is still active.

Speaking to The Indian Express, Herrick said, "Everyone knew that Venus would have future eruptions. However, how often eruptions occur was not known, and speculations ranged from Earth-like at several times a year, to thousands of years between eruptions. We now know that Venus is likely close to Earth-like, although extrapolating from a data set of one is always dangerous".

#### **What are the findings?**

Scientists made the new discovery by pouring over images of Venus taken by NASA's Magellan spacecraft between 1990 and 1992. During their examination, they looked at the planet's Atla Regio area, where two of the biggest volcanoes of Venus, Ozza Mons and Maat Mons, are located. Herrick noticed a vent situated on the north side of a domed shield volcano that is part of the larger Maat Mons volcano that changed significantly in shape and size between February and October 1991.

The new findings didn't come easily as Herrick had to analyse Magellan spacecraft's radar images for hundreds of hours — these images are reportedly of much lower resolution than images taken by the cameras attached to spacecraft today and are also relatively coarse. Moreover, during its mission, Magellan also changed its viewing geometry each time it flew over Venus.

Together they created "computer models of the vent in various configurations to test different geological-event scenarios, such as landslides. From those models, they concluded that only an eruption could have caused the change," NASA said. However, the scientists don't rule out that the change in the vent might have occurred due to something else.

As volcanoes act like windows to provide information about a planet's interior, the new findings take scientists a step further to understand the geological conditions of not just Venus but also other exoplanets. Apart from this, the findings give us a glimpse of what more is to come regarding Venus as in the next decade, three new Venus missions would be launched, including the European EnVision orbiter and NASA's DAVINCI and VERITAS missions. Herrick is part of both EnVision and VERITAS missions.



## TESTED UNDERWATER DRONE ABLE TO TRIGGER A RADIOACTIVE TSUNAMI, SAYS NORTH KOREA

North Korea claimed on Friday it had tested an underwater nuclear attack drone able to unleash a “radioactive tsunami”, as it blamed recent U.S.-South Korea exercises for a deteriorating regional security situation. Pyongyang carried out military drills of its own in response this week, the Korean Central News Agency said, including test-firing a new nuclear-capable underwater drone.

The mission is to “stealthily infiltrate into operational waters and make a super-scale radioactive tsunami... to destroy naval striker groups and major operational ports of the enemy,” it said. The new weapon, called Haeil which means tsunami in Korean, “can be deployed at any coast and port or towed by a surface ship for operation,” the report said.

North Korean leader Kim Jong Un oversaw the tests, and images released by Pyongyang’s Rodong Sinmun newspaper showed a smiling Kim and what appeared to be an underwater explosion.

The agency also said Pyongyang had fired strategic cruise missiles “tipped with a test warhead simulating a nuclear warhead” on Wednesday.

## WHAT IS THE IPCC SYNTHESIS REPORT AND WHAT DOES IT SAY?

### The story so far:

Highlighting the need for urgent climate action, the Intergovernmental Panel on Climate Change (IPCC) released its Synthesis Report for the Sixth Assessment Cycle on March 20 in Interlaken, Switzerland. The report emphasised the need to reduce greenhouse gas emissions and adapt to human-caused climate change through “mainstream effective and equitable action” for a “liveable sustainable future for all”.

### What does the report say?

The Synthesis Report is a compilation of the main findings of the IPCC’s Sixth Assessment Report, based on results from three Working Groups (WGs). WG I evaluated the physical science basis of climate change; WG II evaluated the impacts, adaptation, and vulnerability, and WG III evaluated the mitigation.

The report highlights the urgency of drastically reducing the emission of greenhouse gases and thereby limit rising global temperatures by 1.5°C from pre-industrial levels, set by the Paris Agreement. Despite the IPCC’s warnings in 2018, the increase in greenhouse gas emissions continued so much so that the global surface temperature has already warmed by 1.1°C over pre-industrial levels, leading to extreme and/or unpredictable weather events that risk human health, fortunes, and ecosystems.

Noting the impact of the rise in temperature, the report states that such events have made people much more susceptible to food insecurity and water shortages with vulnerable populations disproportionately facing the brunt of climate change. The report highlighted the economic loss and damages incurred due to climate change and stressed on the need for financial resolution for a more equitable world. “Climate justice is crucial because those who have contributed least to climate change are being disproportionately affected,” said Aditi Mukherji, one of the 93 authors of the report, in a press release.



### What is the way ahead?

The report suggests climate resilient development that will not only mitigate the effects of climate change but also provide wider benefits. Access to clean energy, improving air quality, increasing employment opportunities, boosting healthcare through technology, and delivering equity are among the report's recommended goals to help adapt to climate change. The report also foregrounded the role of financial investments to achieve climate goals and encouraged public funding through central banks, government and financial regulators to reduce emissions, scale up climate resilience and protect marginalised communities.

### What are the implications for India?

India's priority should be to minimise loss and damage in terms of lives, livelihood and biodiversity, and accelerate equitable action and adaptation. "The new IPCC Synthesis Report has a sobering message on impacts: warming has already reached 1.1°C, this is unequivocally due to climate change and the impacts are likely to be greater at a particular temperature than earlier thought," Navroz Dubash from the Centre for Policy Research, told The Hindu. "Several messages emerge that are salient for India: It proposes an approach emphasising 'climate resilient development'. This recognises that development is important, but the quality of that development, whether it locks us into low or high carbon choices or resilient development is important," he added. As a developing country, India can lower its per-capita emissions through energy efficiency policies already being implemented in almost every sector, Joyashree Roy of the Asian Institute of Technology and one of the authors of the report, told PTI. However, it can also decarbonise the energy sector by using cleaner options like solar and renewable energy, she added.

## WHY IS INDIA'S CAMPA AT ODDS WITH NEW IPCC REPORT?

### The story so far:

A report released on March 20, that originates in the Synthesis Report of the Intergovernmental Panel on Climate Change (IPCC), a U.N. expert body, states that not degrading existing ecosystems in the first place will do more to lower the impact of the climate crisis than restoring ecosystems that have been destroyed — a finding that speaks to an increasingly contested policy in India that has allowed forests in one part of the country to be cut down and 'replaced' with those elsewhere.

### Why is afforestation contested?

India has committed to adding "an additional (cumulative) carbon sink of 2.5-3 GtCO<sub>2</sub>e through additional forest and tree cover by 2030", as part of its climate commitments to the U.N.

Afforestation is also codified in the Compensatory Afforestation Fund Management and Planning Authority (CAMPA), a body chaired by the Environment Minister. When forest land is diverted to non-forest use, such as building a dam or a mine, that land can no longer provide its historical ecosystem services nor host biodiversity.

According to the Forest (Conservation) Act, 1980, the project proponent that wishes to divert the land must identify land elsewhere to afforest, and pay for the land value and the afforestation exercise. That land will, thereafter, be stewarded by the forest department.

### Why does CAMPA matter?

The money paid sits in a fund overseen by the CAMPA. As of 2019, the fund had ₹47,000 crore.

**3<sup>RD</sup> FLOOR AND 4<sup>TH</sup> FLOOR SHATABDI TOWER, SAKCHI, JAMSHEDPUR**



The CAMPA has come under fire for facilitating the destruction of natural ecosystems in exchange for forests to be set up in faraway places.

#### **Why do natural ecosystems matter?**

Research has found that nature ecosystems sequester more carbon.

“Creating single-species plantations in, say, Haryana does not really come close to a natural sal forest lost to a development project in, say, Central Indian forests in terms of biodiversity, local livelihoods, hydrological services, and sequestered carbon,” Sharachandra Lele, distinguished fellow in Environmental Policy and Governance, Ashoka Trust for Research in Ecology and the Environment, Bengaluru, told The Hindu by email. “Of these, sequestered carbon recovers fastest under fast-growing plantations, but even then, it will take many decades before it approaches the level of carbon sequestered in a natural forest,” Dr. Lele said.

“Within the climate action ecosystem, [the report’s finding] also means that climate action, such as technologies to combat climate change, renewable energy farms, etc., should not come at the cost of natural ecosystems,” said Neha Sinha, a conservation biologist.

#### **How do ecosystems compare to renewable energy?**

The IPCC report also found that the sole option (among those evaluated) with more mitigating potential than “reducing conversion of natural ecosystems” was solar power and that the third-highest was wind. But many solar parks in India have triggered conflicts with people living nearby because they limit land-use and increase local water consumption.

A 2018 study published in Nature Ecology & Evolution also found that wind farms in the Western Ghats had reduced the “abundance and activity of predatory birds, which consequently increased the density of lizards”.

However, the IPCC report also noted that “reducing conversion of natural ecosystems” could be more expensive than wind power, yet still less expensive than “ecosystem restoration, afforestation, [and] restoration”, for every GtCO<sub>2</sub>e.

## UNDERSTANDING WASTE-TO-ENERGY PLANTS

#### **The story so far:**

The Kerala government recently announced the State’s first waste-to-energy project in Kozhikode. The planned facility is expected to be built in two years and generate about 6 MW of power. There are around 100 waste-to-energy projects around the country but only a handful of them are operational, thanks to various production and operational challenges.

#### **What do waste-to-energy projects do?**

Waste-to-energy projects use non-recyclable dry waste to generate electricity. The process increases the State’s power generation capacity and eases the solid waste management (SWM) burden.

Generally, solid waste in India is 55-60% biodegradable organic waste, which can be converted into organic compost or biogas; 25-30% non-biodegradable dry waste; and around 15% silt, stones, and drain waste. Of the non-biodegradable dry waste, only 2-3% — including hard plastics,





metals, and e-waste — is recyclable. The remainder consists of low-grade plastic, rags, and cloth that can't be recycled. This fraction of the non-recyclable dry waste is the most challenging portion of the present SWM system; the presence of these materials also reduces the efficiency of recycling other dry and wet waste.

It is this portion that waste-to-energy plants use to generate power. The waste is combusted to generate heat, which is converted into electricity.

#### **What is the Kozhikode project?**

Kozhikode has a population of about 6.3 lakh and generates approximately 300 tonnes per day (TPD) of waste. Of this, around 205 TPD is biodegradable and 95 TPD is non-biodegradable.

The municipality is currently using the biodegradable material to generate organic compost in various composting plants. Of the non-biodegradable waste, only about 5 TPD out of the 95 TPD is recycled; the remaining non-recyclable dry waste could be used to generate power at the waste-to-energy plant.

#### **Why do waste-to-energy plants fail?**

While waste-to-energy plants seem like a simple solution, they have several challenges en route to becoming feasible.

First is the low calorific value of solid waste in India due to improper segregation. The calorific value of mixed Indian waste is about 1,500 kcal/kg, which is not suitable for power generation. (Coal's calorific value is around 8,000 kcal/kg.) Biodegradable waste has high moisture content and cannot be used for power generation. The calorific value of segregated and dried non-recyclable dry waste is much higher, at 2,800-3,000 kcal/kg, sufficient to generate power. However, segregation (ideally at the source, if not at the processing plant) should be streamlined to ensure the waste coming to the facility has this calorific value.

Second is the high costs of energy production. The cost of generating power from waste is around ₹7-8/unit, while the cost at which the States' electricity boards buy power from coal, hydroelectric, and solar power plants is around ₹3-4/unit. While State electricity boards are considering purchasing power from newer renewable energy sources like waste-to-energy, the price of the power generated needs to halve. Finally, many waste-to-energy projects have failed because of improper assessments, high expectations, improper characterisation studies, and other on-ground conditions.

Waste-to-energy projects can consume only non-recyclable dry waste, which is about 25% of the waste; they are expected to only use segregated non-recyclable dry waste as well, which is the only type of waste with a sufficiently high calorific value. But often these projects are expected to manage all types of waste generated in the city which is not good.

#### **How can the plant tackle challenges?**

Kozhikode's projected population and waste generation rate could avail around 100 TPD of non-recyclable dry waste to generate power. The proposed plant could absorb another 40-50 tonnes of such waste from nearby urban local bodies (ULBs). But this quantity of material, around 150 TPD, will be available only when the people follow strict segregation practices and also process biodegradable waste. Typically, waste-to-energy projects consume 50 TPD of material to generate 1 MW of power. At this rate, the potential to generate power from Kozhikode's and other ULBs'



waste is around 3 MW. A higher capacity than this, such as the planned 6 MW, will be risky because enough material may not be available.

Operating waste-to-energy projects also depends on parameters like the municipal collection efficiency, waste segregation, moisture content, and the operational efficiency of existing biodegradable-waste-processing plants. If these plants have operational woes (as is common), the nature of waste will change drastically to have high moisture content and low calorific value, which will compromise power generation. Setting up waste-to-energy projects is complex and needs the full support of the municipality, the State and the people. To overcome its various challenges, the municipality must ensure that only non-biodegradable dry waste is sent to the plant and separately manage the other kinds of waste.

Importantly, the municipality or the department responsible for SWM should be practical about the high cost of power generation, and include the State electricity department, perhaps as a tripartite agreement between the municipality, the plant operator, and the power distribution agency. It is also crucial to conduct field studies and learn from the experience of other projects.

#### EXPRESS VIEW ON 3D-PRINTED DESSERT: WHERE'S THE JOY?

Considering the current developments in food technology, one might wonder why science fiction writers ever imagined that, in the future, we would all be eating food in the form of pills or chugging bottles of colourless liquid containing all the nutrients a human could need. The appeal of food that looks like food is far from disappearing. Even using the latest technology, scientists try to recreate familiar flavours, textures and shapes. Just look at the team of engineers at Columbia University that put cartridges filled with biscuit paste, peanut butter, strawberry jam, Nutella, banana puree, cherry drizzle and frosting into a 3D printer to produce a cheesecake.

The team which printed the cheesecake believes that this is the future of kitchens, that any ingredient which can be turned into powder or paste, can be used to make food just by pushing a few buttons. Reportedly, this has already been done with chicken, beef, vegetables and cheese. But while one might be prepared to admit that 3D printing may show promise in situations where a great quantity of food needs to be produced — in a biscuit or baked goods factory, for example — its application in the home and restaurant kitchen is questionable.

Because cooking is not merely a chore that needs to get done — it is often a solace and an art. For many, chopping vegetables, stirring soup, pan-frying fish are expressions of creativity or tasks whose mundaneness offers a comforting anchor during stressful times. In such situations, food transcends its obvious utility to become something more. A 3D printed paratha might, some day, taste like what you make today with a skillet on a stove — but it's unlikely to ever be the meditative and creative process that so many people enjoy.

#### LIFE ON EARTH

A team of Rutgers scientists dedicated to pinpointing the primordial origins of metabolism has identified part of a protein that could provide scientists clues to detecting planets on the verge of producing life (Science Advances).

This has important implications in the search for extra-terrestrial life because it gives researchers a new clue to look for. Based on laboratory studies, Rutgers scientists said that one of the most



likely chemical candidates that kick-started life was a simple peptide with two nickel atoms, they are calling “Nickelback”, because its backbone nitrogen atoms bond two critical nickel atoms.

Nickel, they reasoned, was an abundant metal in early oceans. When bound to the peptide, the nickel atoms become potent catalysts, attracting additional protons and electrons and producing hydrogen gas.

Hydrogen, the researchers said, was also more abundant on early earth and would have been a critical source of energy to power metabolism.

## DISTANT PLANETS

A new study (The Astrophysical Journal) describes how extra-terrestrial life has the potential to exist on distant exoplanets inside a special area called the ‘terminator zone’, which is a ring on planets that have one side that always faces its star and the other side that is always dark.

Such planets are common because they exist around stars that make up about 70% of the stars seen in the night sky, so-called M-dwarf stars, says a release. The terminator is the dividing line between the day and night sides of the planet. On the dark sides of terminator planets, perpetual night would yield plummeting temperatures that could cause any water to be frozen into ice. The side of the planet always facing its star could be too hot for water to remain in the open for long.

Researchers modelled the climate of terminator planets using software used to model earth’s climate. It is believed to be the first time astronomers have been able to show that such planets can sustain habitable climates confined to this terminator region, says the release.

## MILLIONS OF DEAD FISH WASH UP AMID HEAT WAVE IN AUSTRALIA

Millions of fish have washed up dead in south-eastern Australia in a die-off that authorities and scientists say is caused by depleted oxygen levels in the river after recent floods and hot weather.

Residents of the Outback town of Menindee in New South Wales state complained of a terrible smell from the dead fish. “The stink was terrible. I nearly had to put a mask on,” said local nature photographer Geoff Looney.

The Department of Primary Industries said the fish deaths were likely caused by low oxygen levels as floods recede, a situation made worse by fish needing more oxygen because of the warmer weather.

State Emergency Operations Controller Peter Thurtell said the immediate focus was to provide a clean water supply to residents. “There is no need for community concern as the initial assessment has determined multiple viable solutions to maintain water supply to the Menindee township and surrounds,” he said.

State agencies also started to release higher-quality water where possible to boost dissolved oxygen levels in the area. “Mass fish kills have been reported on the Darling-Baaka River in recent weeks. Tens of thousands of fish were found at the same spot in late February, while there have been several reports of dead fish downstream toward Pooncarie, near the borders of South Australia and Victoria states. Enormous fish kills occurred on the river at Menindee during severe drought conditions in late 2018 and early 2019, with locals estimating millions of deaths.



## THE HIGH SEAS TREATY: KEY PROVISIONS, AND THE CHALLENGES IT FACES

The nations of the world have agreed on a framework for the conservation and sustainable use of resources in the open oceans that lie beyond national territorial jurisdictions. This is why the agreement is a critical step forward in saving the planet — and also why it is important to temper expectations.

Two weeks ago, negotiators from almost every country in the world finalised a new global treaty meant for the conservation and sustainable use of biological resources in the high seas. In terms of its significance and impact, this treaty is being compared to the 2015 Paris Agreement on climate change. High seas are open ocean areas that are outside the jurisdiction of any country — the reason why the treaty is commonly known as the agreement on “biodiversity beyond national jurisdictions”, or BBNJ.

Once the treaty becomes international law after ratification by member countries, it will regulate all human activities in the high seas with the objective of ensuring that ocean resources, including biodiversity, are utilised in a sustainable manner, and their benefits are shared equitably among countries.

Oceans are an integral part of the global climate cycle, and perform a range of ecological services including absorption of carbon dioxide and excess heat, because of which this treaty is also being considered as a landmark in the efforts to keep the planet habitable.

### **The laws of the seas**

The high seas comprise 64 per cent of the ocean surface, and about 43 per cent of the Earth. These areas are home to about 2.2 million marine species and up to a trillion different kinds of microorganisms, according to the Deep Ocean Stewardship Initiative (DOSI), a network of global experts on oceans.

A number of regional, multilateral and global legal frameworks exist to govern the activities in the oceans, the most important of which is the United Nations Convention on the Laws of the Sea (UNCLOS), a 1982 agreement that has near-universal acceptance.

Among other things, UNCLOS defined the rights and duties of countries in the oceans, the extent of ocean areas over which countries could claim sovereignty, and the legal status of marine resources. It also specified a set of general rules for a range of activities in the oceans including navigation, scientific research, and deep-sea mining.

The treaty established exclusive economic zones (EEZ), ocean areas up to 200 nautical miles (370 km) from the coastline, where a country would have exclusive rights over all economic resources such as fish, oil, minerals, and gas. The high seas are the areas beyond the EEZ of any country.

The UNCLOS came into being much before climate change and biodiversity became major global concerns. Though it asks countries to protect the ocean ecology and conserve its resources, it does not provide the specific mechanisms or processes to do so. Climate change is already influencing, and is being influenced by, ocean systems, and is exacerbating the pressures on marine biodiversity from unregulated human activities. It is these specific challenges — a combination of climate change, biodiversity, and pollution — that the High Seas Treaty seeks to address.





The High Seas Treaty will work as an implementation agreement under the UNCLOS, much like the Paris Agreement works under the UN Framework Convention on Climate Change (UNFCCC).

#### **Key provisions of Treaty**

The High Seas Treaty has four main objectives:

- \* Demarcation of marine protected areas (MPAs), rather like there are protected forests or wildlife areas;
- \* Sustainable use of marine genetic resources and equitable sharing of benefits arising from them;
- \* Initiation of the practice of environmental impact assessments for all major activities in the oceans; and
- \* Capacity building and technology transfer.

**MARINE-PROTECTED AREAS:** MPAs are where ocean systems, including biodiversity, are under stress, either due to human activities or climate change. These can be called the national parks or wildlife reserves of the oceans. Activities in these areas will be highly regulated, and conservation efforts similar to what happens in forest or wildlife zones, will be undertaken. Only about 1.44 per cent of high seas are currently protected, according to the International Union for Conservation of Nature (IUCN).

In December last year, at the meeting of the Convention on Biodiversity (CBD) in Montreal, Canada, countries had agreed to put at least 30 per cent of degraded coastal and marine ecosystems under effective restoration by 2030. MPAs can become an important vehicle to achieve that goal.

**MARINE GENETIC RESOURCES:** Oceans host very diverse life forms, many of which can be useful for human beings in areas like drug development. Genetic information from these organisms is already being extracted, and their benefits are being investigated. The treaty seeks to ensure that any benefits arising out of such efforts, including monetary gains, are free from strong intellectual property rights controls, and are equitably shared amongst all. The knowledge generated from such expeditions are also supposed to remain openly accessible to all.

**ENVIRONMENT IMPACT ASSESSMENTS:** The high seas are international waters that are open for use by all countries. Under the provisions of the new treaty, commercial or other activities that can have significant impact on the marine ecosystem, or can cause large-scale pollution in the oceans, would require an environmental impact assessment to be done, and the results of this exercise have to be shared with the international community.

**CAPACITY BUILDING AND TECHNOLOGY TRANSFER:** The treaty lays a lot of emphasis on this, mainly because a large number of countries, especially small island states and landlocked nations, do not have the resources or the expertise to meaningfully participate in the conservation efforts, or to take benefits from the useful exploitation of marine resources. At the same time, the obligations put on them by the Treaty, to carry out environmental impact assessments for example, can be an additional burden.

#### **Difficult road ahead**



The treaty is the result of more than 20 years of protracted negotiations. The details of all the major contentious provisions, including environmental impact assessments, sharing of benefits from genetic resources, and mobilisation of funds for conservation activities, are still to be worked out. Many issues remain unaddressed, including the mechanisms for policing the protected areas, the fate of the projects that are assessed to be heavily polluting, and the resolution of disputes.

The process of ratification is not expected to be easy. It took UNCLOS 12 years to become international law because the necessary number of ratifications was not reached. The Kyoto Protocol, the precursor to the Paris Agreement, also took eight years to come into effect.

#### WATCH: THE MOMENT BULLFIGHT STAND COLLAPSES IN COLOMBIA, HUNDREDS INJURED

The event was part of celebrations of the San Pedro festival, the most popular in the region, where public enter ring to engage with bulls. Festivities at a traditional bullfighting event in central Colombia went awry when part of a viewing stand came crashing down. Now, video footages that showed the accident has gone viral.

The disaster took place in a stadium in the city of El Espinal in Tolima state during a traditional event called “corrалеja”. The event is part of celebrations of the popular San Pedro festival, where people enter the ring to engage with the bulls. According to the local authorities, the collapse sent spectators plunging to the ground, killing at least four and injuring more than hundred.

Videos show people cheering for the bullfighters when suddenly the three-storey wooden stand on one side of the stadium came crumbling down out of the blue. Footages show the unstable viewing gallery — made of just bamboos and wooden planks — packed with spectators scrambling for help, while bull is seen running on the ground.

The dead included two women, a man and a child, Tolima Governor Jose Ricardo Orozco said. The region’s health official said hospitals had treated 322 people of whom four were in intensive care, BBC News reported. Orozco said his regional authority would move to ban the “corrалеjas”, saying they were dangerous and cruel to animals.

#### EXPRESS VIEW: THE HAPPIEST COUNTRIES ALSO RANK AMONG THE HIGHEST IN ANTIDEPRESSANT CONSUMPTION

A swim in the cool waters of a lake during the hot summer months, berry-picking and mushroom foraging in the forests and a sauna with friends and family every saturday. Is it any wonder that Finland is, for the sixth year in a row, the happiest country in the world? According to the World Happiness Report 2023, published by the UN Sustainable Development Solutions Network, few people on the planet are as happy as the Scandinavians, with Denmark at number two and Iceland in the third spot. The ranking uses six key factors to measure happiness — social support, income, health, freedom, generosity, and absence of corruption. The other two nations of the region, Sweden and Norway, are at six and seven, respectively.

But how, then, to explain the fact that the happiest countries in the world are also among the highest consumers of antidepressants? As per the data released by the Organization for Economic Cooperation and Development, the use of antidepressants increased nearly two and half times across Europe between 2000 and 2020, with Iceland in the top spot, followed immediately by Sweden and Norway, with Finland and Denmark coming in at number eight and nine. This paradox has of late become the focal point of the criticism directed at studies of happiness, with people



from around the world, including Finns themselves, pointing out that the measures used often don't account for such things as loneliness in highly-developed societies and the fact that material well-being does not preclude conditions like clinical depression.

The debate over this year's rankings — India is ranked low at 125 out of 136 nations — highlights what might actually be a fundamental flaw in the common understanding of such reports. What they really rank is how well each nation has created the conditions for happiness among its citizens. Because happiness itself is too ineffable, individual and elusive to be contained within such prosaic things as rankings and measurements.

## WHAT IS LATE-LIFE DEPRESSION AND HOW CAN YOU NAVIGATE IT?

Is depression more difficult to treat in old age? Late-life depression (LLD) is caused by multiple factors working together. It has three broad risk factors — biological, psychological, and social.

### What are the biological risk factors?

Scientists are yet to identify a candidate biomarker — a biological molecule in blood, body fluids, or other tissues, that is a sign of a disease process — for LLD. On the other hand, studies have found some evidence for genetic contribution to LLD. Scientists have also advanced several hypotheses involving the genes that code for serotonin synthesis, norepinephrine transporter, and the neurotrophic factor, but these ideas require more tests. A subset of LLD, called vascular depression, may be associated with cerebrovascular lesions.

Stress that accumulates over one's life leads to a sustained secretion of cortisol, the hormone that regulates the body's stress response. Increased cortisol levels lead to the loss of brain cells in the hippocampus, which is implicated in memory and learning. (This brain cell loss can be partially mitigated by the use of antidepressants.)

Researchers have proposed a vascular theory based on the observation that depression is a frequent outcome in people who have had a stroke. Vascular depression is associated with brain lesions, which appear as bright spots on brain scans. These spots, called white matter hyperintensities, disrupt brain signalling and brain circuits.

Heart attacks and heart conditions often lead to LLD, as do diabetes and hip fracture. Depressive symptoms can also manifest if a person doesn't optimally recover from physical illnesses.

### What are psychological risk factors?

Personality attributes may colour the origin and expression of depressive symptoms in older adults. Neuroticism — the personality disposition to experience negative emotions, anger, irritability, and emotional instability — is consistently implicated in LLD. Depressed individuals may overreact to life events or misinterpret them. Recent adverse life events (loss of a job, bereavement, etc.) are more frequently reported among depressed elderly people than among non-depressed older adults.

The locus of control refers to the degree to which an individual feels a sense of agency in their life. A person with an external locus of control will feel that external forces — such as random chance, environmental factors, or the actions of others — are more responsible for the events that occur in their own life. The 1995 Longitudinal Aging Study Amsterdam found that the emergence and persistence of depressive symptoms were predicted by having an external locus of control.



### **What are the social risk factors?**

Lower socioeconomic status has been associated with depression across the life cycle. The construct of social support includes perception, structure of the social network, and the tangible help and assistance available. Perceived social support is the most robust predictor of LLD symptoms.

In my practice, I hear people say that while their old social networks have thinned out, many new ones have emerged — a timely reminder to not assume that older adults are bound to experience deficits in social support.

### **How is clinical assessment of depression conducted?**

Clinical assessment involves evaluating the duration of the current episode; screening for previous depressive episodes; ruling out substance misuse; looking at the course of previous episodes, if any; ascertaining the response to previous interventions, and looking at a family history of depression and/or suicide.

Assessing the cognitive status of the individual is critical to evaluate depressed older patients. This is aided by the use of screening scales such as the Mini Mental-State Examination. No assessment is complete without a thorough physical examination of all the other systems as well.

Frequently, physicians order tests involving the thyroid and metabolic panel, vitamin B12, folate and vitamin D levels, and some other biochemistries. Physicians also often order a brain scan for LLD. This is to rule out other possible pathologies (such as stroke or tumour), which may present with a clinical picture of depression. The physician may also order an electrocardiogram before medication.

### **How is late-life depression treated?**

Experts generally take a four-pronged approach to treat geriatric depression, involving psychotherapy, medications, brain stimulation, and family therapy.

Talking therapies, such as cognitive behaviour therapy (CBT), help to identify maladaptive thought patterns, and then restructure these patterns to help the depressed individual cope and feel better.

Maladaptive cognitions, such as “I am useless” or “It’s all going to go wrong”, are subject to empirical examination. The therapist will seek evidence in support of these ideas and alternative ways to view one’s own life. The individual may also be asked to keep a diary of activities, to set goals, and to try doing things that they fear. This is often accompanied by encouraging the individual to write down their goals and to track their progress.

Typically, there will be six to 20 CBT sessions, with each session lasting for 30-60 minutes. There is some evidence to suggest that the long-term benefits of CBT could equal that of drug therapy.

A range of safe and effective drugs are available to treat geriatric depression. When combined with talk therapy, the efficacy of either of the interventions increases. A common dictum in prescribing medications to older adults is to ‘start low and go slow’. Antidepressants are often asked to be taken for six to nine months after the remission of a depressive episode. Contrary to popular belief, these drugs are not addictive, and patients can be safely weaned off them once the course is complete.





Neurostimulation modalities such as electroconvulsive therapy (ECT) are used to treat severe forms of depression, suicidality, and psychotic depression (characterised by delusions and hallucinations). ECT continues to be the most effective treatment for people with severe major depressive episodes.

#### **Can family members help?**

The final component of therapy for LLD is working with the family. A dysfunctional family may contribute to depressive symptoms. Family support is critical for a successful outcome in the treatment of the elderly individual. Families are taught to acknowledge the individual's distress with helpful responses such as "I hear what you are saying, and I understand".

Family members are educated about the nature of the depressive disorder, and the potential risks of geriatric depression, especially suicide. They can assist the clinician by observing behavioural changes in the individual, including increased withdrawal, decreased verbal responses, and a preoccupation with medications or weapons.

The family can also help by removing possible implements of suicide from places of easy access. They can also assume the responsibility of administering medications to an older adult who may be non-adherent or whose risk of self-harm is high.

LLD is verily treatable. The onus lies on us to take care of our elderly.

### THE MEANDERING PATH OF BRAIN DEVELOPMENT

Maturity, the thinking goes, comes with age. However, this journey from childhood to adulthood is uneven: some mental attributes surface faster than others, some are more pronounced in girls, and poverty and trauma have an outsized influence on cognitive development, says one of the largest studies of its kind, spanning nearly 9,000 children and young adults from India.

#### **The C-Veda**

The study is part of a long-term project called the 'Consortium on Vulnerability to Externalising Disorders and Addictions' (C-Veda). It aims to follow up those tested over decades, and evaluate the effect of biological and environmental risk on cognitive development.

Brain development progresses from childhood to early adulthood with wide-ranging connections among neurons in multiple parts of the brain. This connectivity significantly influences abilities such as temporarily holding chunks of information, called 'working memory' (for instance, memorising a phone number before writing it down) and 'set shifting' (iterating multiple ways to solve a puzzle). These skills are classified as executive functions. Another category of functions, called social cognition help mediate relationships.

A consortium of psychiatrists, neurologists, psychologists from India and the U.K., investigating the role of environment and genetics on brain development, analysed four kinds of executive functions: verbal working memory, visuo-spatial working memory, response inhibition (the ability to stop one task and begin another), set-shifting and two kinds of social cognition: faux pas recognition (inferring social cues) and emotion recognition (inferring another's state of mind).

They report, in the April 2023 edition of the peer-reviewed Asian Journal of Psychiatry, that 'working memory' develops first, followed by inhibitory control and finally cognitive flexibility. However, certain abilities such as visual and verbal reasoning stabilised by late adolescence and



didn't rise as people aged, whereas cognitive ability and emotional cognition continued to develop even after adolescence, Eesha Sharma, the lead author of the study, told The Hindu.

The studies, spanning a range of socio-economic groups, ages, urbanisation and gender, also found that children who manifested certain traits to a high degree outperformed their peers in that skill even as they aged, while other traits didn't constitute a permanent advantage.

"Response inhibition has a ceiling. If you are low performing early on, you will catch up as you grow older. It was the other way, however, in verbal working memory. Those who did well in early childhood continued to significantly outperform their peers," said Dr. Sharma, an assistant professor at the National Institute of Mental Health and Neurosciences, Bengaluru. "However, what all this means in the real world is a question that we are still analysing."

#### **Complex abilities**

The more 'complex abilities' — response inhibition, cognitive flexibility, and emotion recognition — are "maximally impacted" by environments such as poverty or childhood adversity. "No matter which ability you are looking at, children in wealthier households do better," she said.

C-Veda expects to map the brains of those participating in the study and evaluate and compare neurological development.

### **AT A HIGH DOSE, SUCRALOSE IMPAIRS MOUSE IMMUNE RESPONSES**

A recent study, published in the *Nature*, provides evidence that high doses of sucralose — a calorie-free sugar substitute that is 600 times sweeter than sucrose and approved by the Food and Drug Administration (FDA) for use as a general-purpose sweetener — can limit immune responses in mice.

Sucralose is generally regarded as safe — the reason why the FDA has approved it. However, of late, concerns have been raised about the long-term safety of certain sweeteners. In line with these concerns, the latest study has shown that intake of high doses of sucralose in mice results in "immunomodulatory effects by limiting Tcell proliferation and Tcell differentiation".

The lead author from the Francis Crick Institute, London and other researchers have now shown that sucralose affects the membrane order of Tcells, accompanied by a reduced efficiency of Tcell receptor signalling and intracellular calcium mobilisation.

### **WITH RISING CANCER CASES, A LARGER ECONOMIC BURDEN**

On March 14, the Minister of State for Health said cancer cases in India will cross the 15 lakh mark by 2025. A research paper published by the Indian Council of Medical Research in December last year had estimated that cancer cases are likely to increase from 14.6 lakh in 2022 to 15.7 lakh in 2025 in India. In the last decade, cancer cases have risen from around 10 lakh in 2012 to 14.6 lakh in 2022.

While increasing disease burden is a concern, the economic burden is equally a worry given that cancer treatment is among the most expensive compared to other diseases. A Parliamentary Standing Committee report on cancer, released in September 2022, expressed concern about the "inaccessible and increasing cost of cancer treatment." For instance, according to the National Sample Survey (NSS) 2017-18 report, the average medical expenditure per hospitalisation case



for cancer treatment was ₹68,259 in urban areas. The average expenditure for cardiovascular disease, the second-most expensive disease on the list, was ₹47,788. The Committee said that while anti-cancer medicine costs can be regulated, the cost of treatment also depends on other expenditure such as radiotherapy. Radiotherapy machines are not manufactured in India and are therefore expensive. It said that the cost of radiotherapy cannot be regulated as it has not been declared an essential service.

Notably, a significant share of medical costs is incurred by patients in India due to relatively poor insurance penetration. According to the NSS 2017-18 report, more than 80% of hospital bills are paid out of pocket. Chart 3 shows the average medical expenditure and average out-of-pocket expenditure per hospitalisation case as per the NSS report.

While comparison data post the implementation of Ayushman Bharat, an insurance scheme launched in 2018, are not yet available, the Committee observed that doctors' "entire prescription and latest cancer therapies were not covered in the scheme." It also said that many diagnostic tests are not covered. And given that initial investigations can be "very expensive, it leads to delay in treatment."

The Committee observed that some State-specific insurance schemes have been highly beneficial to the community at large, and suggested a convergence of State and Central schemes. Its observations are accurate as the cost of cancer treatment does vary widely across States. Chart 4 shows the State-wise average medical expenditure incurred per hospitalisation case for cancer treatment in government hospitals as per NSS 2017-18. The chart shows that expenditure was lowest in Tamil Nadu and Telangana (with less than ₹1,000 spent per case) followed closely by Andhra Pradesh. This is an outcome of existing State-specific insurance schemes. While expenditure was highest in the northern and north-eastern parts of India, the central, eastern and western States were middling.

#### RACCOON DOGS LINKED TO CORONAVIRUS PANDEMIC: WHAT ARE THESE ANIMALS?

A new analysis of genetic data collected from the Huanan Seafood Market in Wuhan, China, has linked coronavirus to raccoon dogs, adding evidence to the belief that the pandemic might have originated from the infected animals sold at the site.

According to the Associated Press, World Health Organization Director-General Tedros Adhanom Ghebreyesus said, "These data do not provide a definitive answer to how the pandemic began, but every piece of data is important to moving us closer to that answer".

The genetic data was gathered from swabs taken from in and around the market back in January 2020, shortly after the Chinese government had shut down the market because of suspicions that it was linked to the outbreak of a new virus, the New York Times said. A previous analysis of the same data was published last year, showing that it contained both Covid and human DNA. Moreover, Chinese researchers at the time denied that the samples consisted of any animal DNA. The new findings have now proved them wrong and have revealed that the Covid-positive samples were rich in DNA from raccoon dogs. However, they don't prove that these animals or any other animals were responsible for triggering the pandemic.

#### What are raccoon dogs?

Raccoon dogs are neither dogs nor raccoons. They belong to the canid family and are closely related to foxes. They are the only canids that hibernate during the winter. As per Slate, there are



two species of raccoon dogs: “Nyctereutes procyonoides, the common raccoon dog (the species that was in the Wuhan market) and Nyctereutes p. viverrinus, the Japanese raccoon dog.”

These animals, weighing around 16 pounds on average, are omnivores and relish food sources such as rodents and berries. “Although they appear svelte in the summer, they pack on the pounds for winter, when their fur also becomes thicker. They are monogamous, often living in pairs,” The New York Times reported.

#### **Where are raccoon dogs found?**

Raccoon dogs are originally from East Asia and are commonly found in parts of China, Korea and Japan, where they are known as tanuki. They are also found in Europe, where they were first brought in by fur traders in the 1920s. Today, raccoon dogs are considered to be a threat to the local ecosystem in Europe and an EU report declared them “one of the most successful alien carnivores in Europe.”

However, in Japan, tanuki is revered. Slate reported, “In folklore, tanuki are fun-loving tricksters who could shape-shift and are often associated with good financial luck. They are often depicted with giant scrotums that they can expand and shape into useful objects such as umbrellas and fishing nets.”

#### **Why were raccoon dogs being sold in Wuhan?**

For decades, these animals have been farmed for their fur. Every year, according to the Humane Society of the United States, millions of them are killed in China, which is a leading producer of raccoon dog pelts. Slate reported that the US buys a huge share of the products. To meet this huge demand, sellers raise raccoon dogs in small and crowded facilities while transporting them in small cages, often stacked with those of other animals. This serves as a perfect breeding ground for the spread of different diseases.

#### **Have raccoon dogs been linked to other diseases?**

Yes. A report published by NPR said, “raccoon dogs and related mammals sold for food at a live animal market in China in 2003 were found to carry a coronavirus similar to the virus found in humans during a SARS coronavirus outbreak at the time”.

A 2022 study after taking samples from about 2,000 animals of 18 different species in China found that wild animals known to be consumed by humans, including raccoon dogs, carried 102 different viruses from 13 viral families — 21 of those posed a high-risk to humans. It also added that raccoon dogs specifically carried four canine coronaviruses that were genetically similar to those found in humans, NPR mentioned.

### **WHY TRANSGENDER FEMALE ATHLETES CAN'T COMPETE IN FEMALE EVENTS**

Transgender women have been barred from competing in the female category by World Athletics (WA), the international governing body for track and field, following a vote on Thursday. WA has followed the path of FINA, the international swimming federation, which enforced a similar ban in June last year.

#### **What does the ban mean?**





Transgender women who have experienced male puberty will not be able to compete in the female competition after March 31 this year. However, the World Athletics Council has set up a working group to conduct research “to further consider the issue of transgender inclusion”.

The former double Olympic gold medalist in the 1,500 metres emphasised on “fair and meaningful” female competition. “Decisions are always difficult when they involve conflicting needs and rights between different groups, but we continue to take the view that we must maintain fairness for female athletes above all other considerations,” Coe said.

#### **Why have transgender women been barred?**

In its ‘Eligibility Regulations for Transgender Athletes’, WA focuses on the physical advantages men have over women post-puberty. “The substantial sex difference in sports performance that emerges from puberty onwards means that the only way to achieve the objectives set out...is to maintain separate classifications (competition categories) for male and female athletes,” WA states.

The debate has raged since New Zealand weightlifter Laurel Hubbard competed in the women’s 87-kg class at the Tokyo Olympics, although she had participated in the men’s category earlier. NCAA swimmer Lia Thomas used hormone replacement therapy and moved from the men’s category to the women’s category. She started breaking records in the IVY League competition before FINA stepped in.

#### **What were the rules for transgender women before WA’s ban?**

Under the previous rules, there was no blanket ban, but transgender women had to reduce the amount of blood testosterone to 5 nanomoles per litre (nmol/L) and maintain this level for 12 months in order to participate.

#### **What had WA initially proposed?**

In January, WA had come up with the ‘preferred option’ for transgender women. Instead of a complete ban, WA said it would allow transgender women to compete in the female category but would reduce the blood testosterone limit to below 2.5nmol/L for two years — basically cutting it down by half, and doubling the time period before they become eligible to compete.

#### **So how did WA justify the change to a ban?**

On Thursday, after its council meeting, WA said that the ‘preferred option’ did not have any takers. During January and February, WA said, it had consulted member federations, Global Athletics Coaches Academy, the Athletes’ Commission, the International Olympic Council, “as well as representative transgender and human rights groups”.

“It became apparent that there was little support within the sport for the option that was first presented to stakeholders,” WA said in its statement.

#### **Which other sports have banned transgender female athletes?**

The International Olympic Committee’s Framework on Fairness released in November 2021 stated that “athletes are not excluded solely on the basis of their transgender identity or sex variations”.



But the IOC had put the onus on sports federations to put in place rules. FINA implemented a ban last year. However, it was World Rugby in 2020 which became the first international sports federation to bar transgender women from the female competition. Following this, Rugby Football League and Rugby Football Union also banned transgender women from the female competition.

Last year, British Triathlon implemented a similar ban.

#### **Have any famous sporting names weighed in?**

Tennis great and gay rights activist Martina Navratilova took FINA's side in an interview with The Australian. "It's been such a topsy-turvy situation...with the momentum totally on the side of the transgender athletes. When it comes to sports, biology is the biggest divider... So FINA, it's the first big organisation that has gone all in for fairness and maybe it will try to include as many people as possible, as is fair. But fairness has to be first," Navratilova had said.

She had also criticised the IOC for leaving the decision-making on the eligibility of transgender athletes to sports federations.

#### **Did WA also change other rules?**

DSD (Differences in Sex Development) athletes — those who have genes which are generally associated with one sex but whose reproductive organs may not be atypical — will now have to keep their testosterone below 2.5 nmol/L for 24 months to participate in the female category across events.

Earlier, DSD athletes were not required to maintain a testosterone limit unless they wanted to participate in restricted events — 400 metres to a mile. For restricted events, DSD athletes had to keep their testosterone below 5 nmol/L for six months before being eligible to participate.

### **INADEQUATE SLEEP INCREASES THE RISK OF FATTY LIVER DISEASE**

In 2018, anatomists at the Toho University Graduate School of Medicine, Tokyo, Japan, performed a sleep deprivation experiment on lab mice. Mice usually sleep for 12 hours a day. In this experiment, researchers induced sleep deprivation using the 'gentle handling method' during sleep hours so that the mice could sleep only for six hours daily.

They discovered that liver fat content in sleep-deprived mice increased without total weight gain compared to another group of mice who were allowed to sleep normally. The liver cells were stressed, and the activity of certain genes that escalate insulin resistance and fat content within liver cells also increased with sleep deprivation.

#### **Experiment on rats**

Three years later, a group of Chinese researchers at the Xinjiang Medical University went one step ahead. In this experiment, rats were severely sleep-deprived, turning into insomniacs. Liver enzymes, blood, and liver fat increased substantially. None of these changes were notable among rats who were allowed to sleep without distractions.

They also found the reason for increased liver fat in insomniac mice — the sympathetic nerves that supplied the liver, best known for their role in responding to stress and danger, were hyperactive. When insomnia was treated with a sleeping pill in these stressed rats, the liver fat was reduced with adequate sleep.



There are lessons here, of mice and men. Sleep is an underrated activity among humans. Sometimes, the intentional and forced lack of sleep 'to increase productivity' is advertised by men in power to showcase their self-proclaimed metahuman nature.

During an interview in 2011, Prime Minister Narendra Modi said that he had become a workaholic and hardly slept for 3.5 hours in a day, and that yoga and pranayama routine kept him energised and awake. But medical science has a different story to tell. A study of nearly 55,500 people from Europe showed that those who slept 7-8.5 hours daily had higher life expectancy than those who slept less than seven hours. In those between ages 50 and 75 without sleep disturbances, the expectation of living longer without chronic disease development was significantly higher.

And yoga interventions improved overall sleep quality, efficiency, latency, and duration, contrary to all claims.

### Healthy sleep

Sleep is a vital function of human life and accounts for up to one-third of the lifespan. Contrary to normal belief, during sleep, the brain is not 'resting' but is engaged in various activities necessary to improve well-being, increase life, and especially impact the liver.

The minimum required duration for 'healthy' sleep is seven hours.

When 10,000 persons with sleep disorders were followed up for one year, incident fatty liver disease was noted in 14, while in those without sleep disorders, it was only six. Non-alcoholic fatty liver disease association was significantly higher among persons with shorter sleep duration (less than six hours per night) and excessive daytime sleepiness.

A high-quality study showed that inadequate sleep duration was strongly associated with an elevated risk of developing non-alcoholic fatty liver disease, and adequate sleep helped prevent it. With every one-hour decrease in sleep time from the recommended seven-eight hours, the risk of fat deposition in the liver increased by 24% compared with those who slept adequately.

However, when people who lost sleep during the weekdays caught up on the debt during weekends (known as weekend catch-up sleep), the development of fatty liver disease reduced significantly. Compared with non-nappers, long daytime nappers (more than 60 minutes) had a higher risk of developing non-alcoholic fatty liver disease.

### Identification

Correlation may not be causation, but with non-alcoholic fatty liver disease, which is associated with other conditions such as obesity, high blood pressure, increased waist-hip ratio, low functioning thyroid, and high blood cholesterol, studying and identifying independent associations make realistic sense.

In people who sleep less than six hours at night, have a persistently poor sleep quality, or nap more than one hour during the day, independent of other disease conditions, non-alcoholic fatty liver disease development was a strong association.

The next time someone brags that sacrificing time and quality of sleep is an achievement associated with success, know that success comes with fatty liver disease. And it is not worth it.