

CURRENT AFFAIRS for UPSC

28 MAY TO 3 JUNE 2023

DreamIAS



INTERNATIONAL

US DEBT CEILING CRISIS AVERTED: WHAT ARE THE KEY POINTS OF THE BILL PASSED IN US HOUSE OF REPRESENTATIVES?

The US House of Representatives passed a bill to suspend the \$31.4 trillion debt ceiling on Wednesday (May 31), a few days after US President Joe Biden and House Speaker Kevin McCarthy agreed on a deal. This was thanks to majority support from both Democrats and Republicans to overcome opposition from hardline conservatives.

The Democrats-led US government had in January hit its debt ceiling — the amount it is legally allowed to borrow for its expenses. With no new money coming in, Treasury Department Secretary Janet Yellen had warned that funds would run out by the first week of June, and the government would then fail to discharge its financial obligations, such as paying salaries and welfare cheques. Now, the limit is suspended until Jan. 1, 2025.

The Republican-controlled House voted 314-117 to send the legislation to the Senate, which must enact the measure and get it to President Joe Biden's desk before a Monday deadline. Here are the key points of the bill.

A cap and a raise

Under the deal struck earlier by Biden and McCarthy, the \$31.4 trillion debt ceiling will be suspended until January 2025 — until after Biden's current term. Till then, the government can keep borrowing to fund itself. In return, the White House has agreed to cap non-defence discretionary spending at 2023 levels in 2024, and increase it by 1% the year after. The agreement keeps non-defence spending flat next year, with a 1% rise in 2025, the BBC reported.

This is a climbdown, as Republicans had earlier demanded that the spending be capped at 2022 levels.

THE SHIFT IN THE U.S.'S APPROACH TO CHINA

The story so far:

The Trump-era focus of the U.S. to decouple from China is being phased out by a new concept. The U.S. has expressed that it is shifting its policy on China from decoupling to de-risking. The EU has already declared that its approach to China will be based on de-risking. The recently concluded G-7 summit at Hiroshima, through its Leader's Communique, has also expressed the grouping's consensus on de-risking.

What is 'de-risking'?

After the establishment of diplomatic ties between the U.S. and China in 1979, both the countries embarked on a path of increasing economic interdependence. China gained immensely from this relationship, as it helped the country drastically widen and deepen its diplomatic and economic engagement with the rest of the world. As China's economic and military power grew, its ambition to challenge the primacy of the U.S. in the international system became increasingly apparent. China's rise not only came at the expense of America's global clout, but also the latter's domestic industry, which got "hollowed out" in its four-decade old economic embrace with China.



By the time Donald Trump took over the reins of power in the U.S., dealing with the techno-economic challenge from China became a matter of urgency. The Trump administration made it a point to attack the gargantuan bilateral trade imbalance in favour of China. It also wished to keep the U.S.'s high technology sector out of China's reach. In a series of moves, Trump raised tariffs on Chinese imports which invited retaliatory tariffs from China. The U.S.-China 'trade war' started, and bilateral relations were set on course for a "decoupling" from the American standpoint. This approach was marked by a rare sense of bipartisanship in an otherwise polarised domestic political climate in the U.S.

Therefore, the Biden administration which took over from the Trump administration continued with the latter's China policy. However, over time, the Biden administration added its own features into the China policy inherited from Trump. Most recently the label of "decoupling" has been changed to "de-risking". According to the U.S. National Security Advisor Jack Sullivan, "de-risking fundamentally means having resilient, effective supply chains and ensuring we cannot be subjected to the coercion of any other country". While decoupling stands for an eventual reversal of the four-decade old project to enmesh the two economies, de-risking aims to limit such an effect only in areas where it undercuts the national security and industrial competence of the U.S.

This shift has been articulated by the Biden administration in two recent landmark speeches — by the Treasury Secretary Janet Yellen on the "U.S.-China Economic Relationship" at the Johns Hopkins School of Advanced International Studies on April 20, followed by that of Jake Sullivan on "Renewing American Economic Leadership" at the Brookings Institution on April 27. Recent legislations in the U.S. such as the Bipartisan Infrastructure Law, CHIPS and Science Act as well as the Inflation Reduction Act have been subsumed under this new approach. The U.S.'s geo-economic initiatives like the Partnership for Global Infrastructure and Investment as well as the Indo-Pacific Economic Framework for Prosperity are also supposed to reflect the spirit of de-risking.

Why de-risking?

In order to understand the rationale behind the U.S.'s shift from decoupling to de-risking, it is important to comprehend the timing of the move. The policy change has been announced in the wake of several events of high geopolitical significance. The world has just emerged out of the tentacles of the pandemic after three disruptive years and the global economy is hoping for a resulting rebound. The U.S.-China rivalry had peaked in the past few months — from the ratcheting of tensions across the Taiwan Strait to the acrimonious spy balloon episode between the two countries. China also witnessed Xi Jinping beginning his second decade of rule over China in an unprecedented third term as the General Secretary of the Communist Party of China, Chairman of the Central Military Commission and President of the People's Republic of China, ever since the dawn of the reform era. In parallel, a year has passed since Russia began its special military operation in Ukraine, with the conflict going on without any end in sight. Mr. Xi, after starting his third consecutive leadership term, made his first foreign visit to Russia where he proposed a peace plan. He has also, in his third leadership tenure, extended his "peacemaking diplomacy" to West Asia, striking gold in normalising the frayed Saudi-Iran ties. All of these developments have necessitated the U.S. to recalibrate its posture towards China. In such a situation, casting the U.S.-China relations as a new Cold War and a zero-sum game appears to be risky for the U.S. Bringing more nuance into its earlier decoupling approach could bring down China's guard and give the U.S. more room to re-consolidate its strength.



Perhaps, the Russia-Ukraine conflict could have played a pivotal role in enabling the U.S.'s policy shift towards China. The Biden administration, unlike its predecessor, has made it a point to reassure its European allies. At a time when China has been backing Russia in its shadow battle in Ukraine against the West, the idea of decoupling hardly appeals to the European Union (EU). The EU has in fact been looking to woo China in order to convince it to stop supporting Russia from skirting Western sanctions.

In this context, a watered down version in the form of de-risking could better achieve the objective of getting Europe on board the U.S.'s efforts to counter China. It is therefore no surprise that the U.S.'s recent articulation of its de-risking approach repeatedly draws references to the European Commission President Ursula von der Leyen's milestone speech on "EU-China relations" to the Mercator Institute for China Studies and the European Policy Centre on March 30. In her speech, Ms. von der Leyen stressed that the EU's strategy to China will be based on de-risking. This was a precursor to her visit to China in April, along with the French President Emmanuel Macron, with the Russia-Ukraine war as the main agenda. In fact, China policies of the U.S. and the EU have been witnessing a significant convergence of late — recent developments may have only triggered the Trans-Atlantic consensus on de-risking vis-à-vis China.

What could be the geopolitical ramifications of de-risking?

The U.S. efforts to keep its allies closer in its geopolitical rivalry against China by adopting the path of de-risking has already won a significant victory in Japan at the G-7 summit. The leaders at the summit declared that they will coordinate their "approach to economic resilience and economic security that is based on diversifying and deepening partnerships and de-risking, not decoupling". China has expressed its scepticism to the West's de-risking approach, portraying it as a façade to the decoupling agenda. Moreover, China has expressed its disapproval in painting China as the actor responsible for heightening geopolitical risks. According to China, the real source of risks is the U.S., which it alleges to have created instability across the world by pursuing political and military interventions and perpetuating a Cold War mindset.

The continuing emphasis in de-risking to diversify supply chains away from China demonstrates that the Trump-era spirit of decoupling is being carried forward, albeit with some changes. This could also make the West's moves to counter China's rise much more sustainable by facilitating a united front among allies. However, its effectiveness could be questionable, as it has dialled down U.S.'s rhetoric against China which could be read by the latter as a sign of its adversary's weakness. Though countries like India will stand to benefit from de-risking by leveraging its benefits like attracting supply chains and confronting China's aggressive moves, it could also come at a cost. With the Russia-Ukraine conflict and the consolidation of the European alliance being the major triggers behind this shift, de-risking could lead to U.S. focus on the Indo-Pacific being diluted, at least for the short term.

CAN CHINA'S MICRON BAN BENEFIT SAMSUNG AND SK HYNIX?

The latest in a series of tit-for-tat trade moves between the U.S. and China is the latter's ban on Micron Technology products in key infrastructure. Major Chinese companies are now not allowed from buying Micron Technology products.

The ban targeting the U.S. memory chipmaker comes after China's cyberspace regulator found Micron products sold in China as posing national security risks to the country. The Cyberspace Administration of China (CAC) initiated the investigation into Micron's products in early April to



review China's supply chain in critical information infrastructure. The ban has now left Chinese firms scouting for an alternative memory chipmaker to source the critical component needed to build their technology.

Micron makes memory and storage chip sets that are used in flash drives, memory cards, and the computer. Memory chips are also used in data centres. These chip sets help in faster transfer of digital information and are used in automotive, electronics and telecommunication equipment.

The Chinese market is important for the U.S.-based memory chip maker as it accounts for about 10% of its annual sales in 2022 — a little over three billion dollars. Some other estimates point out that the American company has a 25% market share in China.

The memory chipmaker had anticipated some amount of disruption from China as a result of ongoing trade manoeuvres. In its 2022 annual report, it noted that China's government may restrict it from competing effectively in the country.

Korean presence

Closing the door on Micron could open a window of opportunity for Samsung and SK Hynix. The two Korean multinationals, along with Micron, are the top three memory chipmakers globally.

Among the three, Samsung has a clear lead in memory chips. It has a 43% market share in Dynamic Random-Access Memory (DRAM), and a 35% share in the NAND flash product. Its memory chip portfolio generated \$55 billion in revenue in 2022. The South Korea-headquartered company continues to ride the semiconductor wave as it pushes the boundaries of memory chip technology.

The electronics major also continues investing in infrastructure to meet mid- and long-term demand in the market. In the short-term, the company plans to optimise its production as it shifts to cater to companies that operate data centres, build autonomous vehicles and provide computing power for artificial intelligence (AI). Separately, Samsung has a large memory chip making facility in China. The unit based out of the Chinese city of Xian manufactures about 40% of the company's global NAND flash production. According to government estimates, this facility accounts for about 10% of the world's NAND flash production.

Memory chip prices went sky-high at the peak of the pandemic, and then started cooling off in late 2021. Following this period, quarter-on-quarter decline got steeper due to microeconomic woes and geopolitical uncertainties.

Chinese options

While geopolitics and market dynamics play out, China may have home-grown alternatives to fill Micron's vacuum. Yangtze Memory Technologies (YMTC) makes NAND flash chips and ChangXin Memory Technologies (CXMT) makes DRAM chips. These firms are poised to fill Micron's shoes in the region.

China's large businesses may start making a connection with YMTC and CXMT to beef up their technologies as Samsung and SK Hynix choose between patriotism and business.

EXPRESS VIEW ON TURKEY'S ELECTION RESULTS: ERDOGAN'S HOUR

The "bad boy" of the North Atlantic Treaty Organisation has won a historic re-election, upsetting many calculations based on an assumed impending political change in Türkiye. Recep Tayyip

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

Telegram: http://t.me/DreamIAS_Jamshedpur



Erdogan won a run-off against his closest rival Kemal Kilicdaroglu, after the first round failed to yield a winner with a clear majority.

Erdogan's victory with 52 per cent of the vote, over Kilicdaroglu who received 48 per cent of the votes cast, has given him a sweeping fifth term in office, from the first decade of the 21st century to its third. The result has shown a near equal divide, a polarisation among Turkish voters, with the conservative mainland Anatolians on Erdogan's side, while the Kurds and the more modern, liberal and secular Turks on the country's Europe-facing rim, have rejected him.

Sadly, there are no second prizes in elections, only winners and losers, and the winner takes all. The Turkish election brought out clearly that economic misery, shoddy governance, allegations of corruption, the choking of dissent, and mis-steps during a natural disaster are not enough reasons for voters in a democracy to reject a populist leader.

Erdogan pulled ahead of his rival because more voters are on the side of his religious-nationalist, conservative agenda, and trust him to lead the country at a time of great changes in the world. Much to the irritation of the US and Europe, the independent-minded Erdogan is an outlier in NATO, steering a firm neutral course on the war in Ukraine. Turkey remains close to Russia — Russian president Vladimir Putin was the first to congratulate Erdogan — and supplies weapons to Ukraine. His leverage with Moscow saw it give passage to Ukrainian ships carrying wheat that eased a global grain crisis. He alone has stood between Sweden and its membership of NATO.

Now that the Turkish strongman has won yet another mandate, he may use it to better effect Sweden's entry into the alliance as a bargaining chip for the F16s he wants from the US.

Turkey's stakes in the Syrian conflict and in Egypt make it an important player in the region. Erdogan appears to have pushed down his Ottomanic ambitions and has been steadily improving ties with Saudi Arabia and the UAE. Despite Erdogan's pro-Pakistan positions on Kashmir, Delhi has considerable engagement with Ankara, including in defence contracts. With Turkey too wooing India for business, especially tourism, this engagement is set to grow.

DJOKOVIC SAID KOSOVO IS THE 'HEART OF SERBIA' — WHAT IS THIS BALKAN STORY OF CONTESTING NATIONAL CLAIMS AND DEEP ETHNIC DIVIDE?

After winning a match against Hungary's Márton Fucsovics on Monday (May 29) at the ongoing French Open tennis championship, Serbian great Novak Djokovic wrote on a camera lens in Serbian: "Kosovo is the heart of Serbia. Stop the violence."

Djokovic, arguably the greatest men's singles player of all time and winner of the most career Grand Slam singles titles (along with Rafael Nadal of Spain), was referring to this week's violence in the Kosovan town of Zvecan where Serbian protesters clashed with NATO peacekeepers, leading to more than 60 injuries — the worst violence in the region in more than a decade.

French Sports Minister Amelie Oudea-Castera told Djokovic that his comments were "not appropriate" and that there needed to be the "principle of neutrality for the field of play".

Djokovic responded: "Of course I'm aware that a lot of people would disagree, but it is what it is. It's something that I stand for. So that's all." Radio France Internationale quoted the current World No. 3 in ATP rankings as telling Serbian media: "Kosovo is our cradle, our stronghold, centre of the most important things for our country... There are many reasons why I wrote that on the camera."



Why was Djokovic criticised by some for his comments on Kosovo?

The French tennis federation (FFT), which organises the tournament, told Reuters that there were “no official Grand Slam rules on what players can or cannot say”, and it would not, therefore, “be making any statement or taking any stance on this matter”.

However, the player received criticism from several quarters for what he said. But why?

Djokovic belongs to Serbia, a landlocked country in eastern Europe that shares borders with, among other countries, Hungary, Romania, and Bulgaria, and he is perhaps the world’s best-known Serbian.

Kosovo is a region that lies to Serbia’s southwest, sharing borders with North Macedonia, Albania, and Montenegro. Kosovo declared independence from Serbia in 2008, but Serbia does not recognise Kosovo’s statehood.

The current round of violence took place after ethnic Serbs — who are a minority in Kosovo but are in a majority in northern Kosovo — tried to prevent Albanian mayors taking charge in local councils. The Albanians took control of the councils after Serbs boycotted local elections in Kosovo’s north in April. Results of the elections, which saw a turnout of less than 3.5%, were rejected by the Serbs as a sham.

Northern Kosovo has seen frequent tensions that have their roots in the larger ethnic and political divide between the ethnic Serbs and the Albanians.

What was the Kosovo conflict about?

Serbs and Albanians are ethnicities who have been living in this region for centuries. Serbs are Eastern Orthodox Christians, while the Albanians in Kosovo are majority Muslims. Other ethnic groups, such as the Bosnians and the Turks, are minority populations. Serbs are in the majority in Serbia while Albanians are in the majority in the Kosovo region.

For many Serbians, the Kosovo region, as Djokovic said, is the “heart” of its national and religious identity — and home to numerous cherished mediaeval Serb Orthodox Christian monasteries. Serbian nationalists view the 1389 Battle of Kosovo between the Serbian prince Lazar Hrebeljanovic and the Ottoman Sultan Murad Hudavendigar as a defining moment in their national struggle.

On the other hand, Kosovo’s majority ethnic Albanians view Kosovo as belonging to them, and accuse Serbia of occupation and repression.

What happened during the 1998-99 war between Kosovo and Serbia?

From 1945, after the end of World War II, until 1992, the area in the Balkans comprising present-day Bosnia and Herzegovina, Croatia, Macedonia, Montenegro, Serbia, and Slovenia, was one country, officially known as the Socialist Federal Republic of Yugoslavia (SFRY), or simply Yugoslavia, with its capital at Belgrade, which is now the capital of Serbia.

As part of Yugoslavia, the republic of Serbia included the regions of Kosovo and Vojvodina. Within Serbia, Kosovo and Vojvodina held the status of autonomous provinces.

In the early 1990s, as the USSR collapsed, Yugoslavia followed — and each of these republics broke away to become independent countries, beginning with Slovenia in 1991. The International



Criminal Tribunal for the former Yugoslavia (ICTY), a United Nations court of law that dealt with war crimes committed during this time, noted that coinciding with the collapse of communism and resurgent nationalism in Eastern Europe during the late 1980s and early 1990s, Yugoslavia experienced a period of intense political and economic crisis.

“Central government weakened while militant nationalism grew apace. Political leaders used nationalist rhetoric to erode a common Yugoslav identity and fuel fear and mistrust among different ethnic groups,” it said.

Ethnic Albanian rebels launched a rebellion under the Kosovo Liberation Army (KLA) in 1998 to rid the country of Serbian rule. Serbia’s brutal response under President Slobodan Milošević prompted an intervention by NATO in 1999, which forced Serbia to cede control to international peacekeepers.

NATO then carried out a 78-day-long campaign of air strikes against targets in Kosovo and Serbia. In response, Serb forces further intensified the persecution of the Kosovo Albanian civilians, having accused them earlier of changing the demography of their nation.

Ultimately, Milošević agreed to withdraw his troops and police from the province of Kosovo. Some 750,000 Albanian refugees came back home, and about 100,000 Serbs — roughly half the province’s Serb population — fled in fear of reprisals.

In June 1999, Serbia agreed to the international administration of Kosovo with the final status of the province still unresolved. Several Serb leaders, including Milošević, were indicted by the UN’s war crimes tribunal for their role in the war.

What has been the status of Kosovo since then?

While Kosovo declared independence in 2008, Serbia still considers it to be an integral part of Serbian territory. Countries such as India, China, and Russia do not recognise Kosovo as a separate country, while the US, the majority of EU countries, Japan and Australia do so.

Djokovic’s comments can be situated in the larger context of the recognition and status of Kosovo, and the deep ethnic fault lines in the region. He has referred to the war earlier too, and said in a CBS documentary of his memories as a child, “We were waking up every single night at 2 am or 3 am for two and a half months because of the bombings.”

Djokovic, who was born in 1987 and was a pre-teen at the time of the war, has also spoken about training with fellow Serbian player Ana Ivanovic in an empty swimming pool that was converted into a tennis court at the time. When air raid sirens would warn of an impending bombing, they would halt their practice and take cover, he had said.

At the end of his match on Monday, he said, “I empathize with all people, but the situation with Kosovo is a precedent in international law.” He called Kosovo, “our hearthstone, our stronghold,” and said, “Our most important monasteries are there.”

NEW ANTI-LGBTQ LAW IN UGANDA IMPOSES CAPITAL PUNISHMENT

Uganda’s President Yoweri Museveni has signed one of the world’s harshest anti-LGBTQ laws, including the death penalty for “aggravated homosexuality”, in defiance of Western condemnations and potential sanctions from aid donors.



Same-sex relations were already illegal in Uganda, as they are in more than 30 African countries, but the new law further targets lesbian, gay, bisexual, transgender and queer people.

It imposes capital punishment for some behaviour including having gay sex when HIV-positive, and stipulates a 20-year sentence for “promoting” homosexuality.

“The Ugandan President has today legalised state-sponsored homophobia and transphobia,” said Clare Byarugaba, a Ugandan rights activist.

She and other activists have vowed a legal challenge to the law. The 78-year-old Museveni has called homosexuality a “deviation from normal.”

U.S. President Joe Biden slammed the draconian law and called for the immediate repeal of the tough new measures. “The enactment of Uganda’s Anti-Homosexuality Act is a tragic violation of universal human rights,” Mr. Biden said in a statement.

TWO HUNDRED YEARS OF STRUGGLE

Of the many tumultuous chapters in Sri Lanka’s history, the one on Malaiyaha (hill country) Tamils is often glossed over. As members of the community commemorate this year the 200th anniversary of their South Indian ancestors’ arrival in Ceylon, it is yet again evident how their present realities are constantly weighed down by past injustices.

Brought down by British planters, to work at coffee and tea plantations, the Malaiyaha Tamils have played a crucial role not only in Sri Lanka’s export economy, but also in building the island’s road and railway infrastructure. The community identifies as a distinct ethnic group, separate from the Tamils of Sri Lanka’s north and east, who have a much longer history in the island nation. Its members speak a dialect of Tamil that is different from that spoken in the north or east, and closer in intonation and vocabulary to how it is spoken in Tamil Nadu.

Even today, some 1.5 lakh people, mostly women, from among the Malaiyaha Tamils said to total over a million — these official figures from the decade-old state census are heavily contested — work on the tea and rubber estates across Sri Lanka’s Central Province, Sabaragamuwa Province and Uva Province. About double the number are in the labour force in other sectors, while some work as professionals, or in commerce and trade. They constitute the fourth largest ethnic group on the island, after the Sinhalese, ‘Sri Lankan Tamils’, and Muslims.

During the economic crisis last year, the hard labour of the Malaiyaha Tamils employed on the tea estates fetched over \$1 billion for the foreign exchange-starved country. But their work remains underpaid, exhausting, and dangerous, fraught with leeches and wasp attacks. In a determined campaign, estate workers relentlessly agitated for three years for a pay increase. With their earnings tied to an ambitious productivity target, even their hard-fought and won daily wage of LKR 1,000 (roughly ₹273) is out of reach for most, while the community is among the poorest in Sri Lanka.

Housing and land rights remain elusive, as scores of families continue to live in colonial-era line homes, without basic facilities of sanitation, water and sometimes electricity.

Fight for survival

Brutal exploitation and discrimination have been running themes in this community’s history spanning two centuries. The Citizenship Act of 1948, passed months after Sri Lanka’s

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



Independence, effectively rendered members of the community stateless and their fight for citizenship continued until as late as 2003. Following the 1964 Pact, signed by Prime Ministers Sirimavo Bandaranaike and Lal Bahadur Shastri, at least half a million Indian origin Tamils were repatriated to India. Those who remained have had to struggle, both for survival, and for acceptance in Sri Lanka.

The Malaiyaha Tamils in Sri Lanka faced communal violence in the anti-Tamil riots of 1958, 1977, 1981 and 1983. These targeted attacks forced several thousands from the community to move to the north and east, where many still reside, at times braving discrimination by Tamils there. During the civil war, the LTTE recruited thousands of hill country-origin youth as combatants.

For many decades, the Ceylon Workers' Congress has been the dominant force in the trade union movement in the plantations, as well as the political landscape, often aligning with the ruling party from the Sinhalese-majority south. More recently, a stable alternative has emerged, to challenge the CWC. In particular, the Tamil Progressive Alliance, now in opposition, has sought to amplify concerns of Malaiyaha Tamils, including those outside the estates. Despite their historical connection with India, the Malaiyaha Tamils have, over time, distanced themselves from the "Indian-origin" tag, seeing it as an obstacle to their accessing their political rights and social entitlements as lawful citizens of Sri Lanka. Yet, their struggle, for equal treatment, continues.



DreamIAS



NATION

BRICS FM MEETING IN SOUTH AFRICA: WHAT'S ON THE AGENDA?

External Affairs Minister S Jaishankar is in Cape Town, South Africa, to attend a meeting of the foreign ministers of BRICS — a grouping comprising Brazil, Russia, India, China and South Africa, which is seen as the closest that the 'Global South' has come to organising itself as a collective to challenge a western global narrative.

The foreign ministers' meeting will finalise the agenda for the 15th BRICS summit scheduled to be held in South Africa in August. Two items on the agenda are attracting notice for their potential for a greater geopolitical consolidation of the grouping: a plan to expand the membership of BRICS, and a common currency.

South Africa, which is in the chair this year, is hosting a Friends of BRICS meeting on Friday, with 15 foreign ministers from Africa and the Global South.

Looking for multipolarity

As many as 19 countries are said to be in the queue to join BRICS. Among the countries that have been mentioned frequently since last year: Argentina, Nicaragua, Mexico, Uruguay, Venezuela from Latin America; Nigeria, Algeria, Egypt, Senegal, Morocco from Africa; Saudi Arabia, the UAE, Türkiye, Syria, Iran from West Asia; Kazakhstan from Central Asia; Bangladesh and Afghanistan from South Asia; and Indonesia and Thailand from South-east Asia.

It is not clear which countries might be admitted, but any expansion can be seen as strengthening the group's heft as a spokesperson of the developing world. By admitting some key countries in the list, BRICS could lay claim to representing more than half the world's population. Significantly, the list includes big oil producers Saudi, Iran, the UAE, Nigeria, and Venezuela.

Rajiv Bhatia, Distinguished Fellow at the policy think tank Gateway House and a former Indian diplomat, said the rush towards BRICS is driven by two basic impulses: "First, there is considerable anti-US sentiment in the world, and all these countries are looking for a grouping where they can use that sentiment to gather together. Second, there is a lot of appetite for multipolarity, for a platform where countries of the Global South can express their solidarity."

China in BRICS

The idea of BRICS came between 2001 and 2003 from then Goldman Sachs chief economist Jim O'Neill, who projected that the four emerging markets of Brazil, Russia, India, and China would be the future economic powerhouses of the world, with South Africa being added later.

While the economic performance of BRICS has been mixed, the war in Ukraine — which has brought the West together on the one hand and strengthened the China-Russia partnership on the other — has turned it into an aspiring bloc that appears to be challenging the western geopolitical view.

China is driving the expansion of the group. After a meeting of BRICS officials in February, China's foreign office said "membership expansion has become part of the core agenda of BRICS", but sought to dispel the impression that this was intended to create a bloc.



“Rather, it is for the purpose of creating a bigger living space for the Global South,” the statement said — and quoted South Africa’s President Cyril Ramaphosa’s view that BRICS was about allowing the “voices of the marginalised to actually be heard”.

Significantly, China does not use the word multipolarity — instead using “multilateralism” whenever it hits out at “US hegemony”. The theme of BRICS 2023 is: “BRICS and Africa: Partnership for Mutually Accelerated Growth, Sustainable Development, and Inclusive Multilateralism”.

India in BRICS

If India’s presence at the G7 summit in Hiroshima, where Prime Minister Narendra Modi also participated in an informal Quad summit, was seen as a sign of New Delhi’s US tilt, the importance it attaches to the “anti-West” BRICS is an apparent contradiction — much like the several others it has negotiated through the last year.

Bhatia said India should not be seen as ganging up with an anti-West coalition. “A lot of countries are misunderstanding this. India is also part of the Shanghai Cooperation Organisation (SCO), and despite problems, it has relations with Russia, with China. While China does want BRICS to be an anti-western group, the Indian view is that it is a “non-western” group and should stay that way,” he said.

Some analysts see BRICS as an improbable grouping, with hostiles like India and China unlikely to ever find common ground — a situation that could get pronounced as it adds members. One view on the expanding membership is that it could sideline India’s role in the group.

Common BRICS currency

The idea of a common currency was proposed by Russia’s President Vladimir Putin at the Beijing BRICS summit last year. The idea got a cautious reception, with the leaders deciding to set up a committee to study its viability.

The last year of war has seen economies around the world feel the impact of the sanctions on Russia, the resultant spike in energy prices, combined with the rising value of the dollar. An insulation from the dollar is a tempting proposal, but not all members believe that it is an idea whose time has come.

South African foreign minister Naledi Pandor told Bloomberg earlier this year that the idea needed to be “properly” discussed. “I don’t think we should always assume the idea will work, because economics is very difficult and you have to have regard to all countries, especially in a situation of low growth when you are emerging from crises,” she said.

There are other complications, such as the setting up of a common central bank of member countries that have different economic and political systems and are located on different continents.

An option is for members to trade with each other in their respective currencies — but as the India-Russia example has shown, this is not easy either. Moscow wants payments in dollars because it does not import enough from India to use rupee payments. Negotiations are stuck.

Asked if India was on board with the idea of a common currency, Jaishankar told a press conference in Mozambique in April: “Individual countries have their own position on the matter.”



China has hit out against the “hegemony of the US dollar” as the source of all instability in the world, and is already trying to push the yuan as a trading currency in Central Asia. But there is no evidence that it is ready to dump the dollar yet.

NINE-MONTH ORDEAL ENDS FOR INDIAN SAILORS DETAINED IN NIGERIA

A nine-month ordeal of 16 Indian seafarers, detained in Equatorial Guinea and later in Nigeria, is over after the Nigerian navy released their ship on Sunday. MV Heroic Idun, the Norwegian vessel with the men on board, is now sailing to Cape Town in South Africa, from where they are expected to fly home on June 7.

In Kerala, it has been the end of harrowing wait for the families of three of the men, who were among those detained in the ship since August last year. Over the last several months, the families have knocked on the doors of the state and central governments, pleading for their release.

The vessel was on its way to pick up crude oil from Equatorial Guinea and Nigeria when it was stopped by a naval ship off Equatorial Guinea in international waters on August 12. It had 26 sailors, including 16 from India, on board. Others hailed from Sri Lanka, Philippines and Poland.

Nigerian authorities had alleged that the crew had stolen crude from their terminal. When a Navy patrol boat followed it, the M V Heroic Idun mistook it for sea pirates and did not stop. The ship sailed to Equatorial Guinea, but was intercepted there following an alert from Nigeria. In November last year, Guinea handed over the ship and its sailors to the custody of Nigerian authorities. They were charged with conspiracy, evasion of lawful interception, and unlawful export of crude oil.

On April 28, a federal court in Nigeria acquitted the sailors of all charges, but the release was delayed pending payment of a fine by the ship owner, Norway’s OSM Maritime Group, for unauthorised entry into Nigerian waters. Sources said that aspect was settled out of court since “the judicial process could have run into years”.

MOST SOLDIERS KILLED IN ACTION DURING UN MISSIONS WERE INDIAN

The United Nations observed the 75th anniversary of its peacekeeping missions last Thursday. During a ceremony to pay tribute to the more than 4,000 peacekeepers who have died on duty, Secretary-General of the UN, Antonio Guterres, requested hundreds of military officers and diplomats in uniform to observe a moment of silence in their honour. He then awarded medals to ambassadors from the 39 home countries of the 103 peacekeepers who lost their lives in 2022.

The first military observers were sent by the UN Security Council to oversee the Israeli-Arab Armistice Agreement in May 1948. Indian troops and experts have played a significant role in the UN’s peacekeeping missions. Data show that since the inception of UN peacekeeping missions, most of the lives lost during peacekeeping missions due to malicious acts were of Indian troops.

In total, 1,115 peacekeepers have died on the field due to malicious acts, of which 69 were from India followed by Chad (64), Ghana (53), Nigeria (44) and Pakistan (44). In total, 4,298 peacekeepers have died — 1,481 due to illness, 1,386 due to accidents, 316 due to other causes, and the rest due to malicious acts.

The United Nations Operation in the Congo (ONUC) between July 1960 and June 1964 proved to be the deadliest for Indian troops and experts, with 15 dying due to malicious acts. A front-page



article published on November 24, 1960, in the The Hindu described the attack of the Congolese soldiers on Indian officers in detail. It spoke of how Indian Army Majors were taken out of their residences at bayonet point and severely injured with rifle butts. A colonel who was in charge of the Indian contingent was stopped by Congolese soldiers who had submachine guns and his car was taken away. By the end of March 1963, most Indian troops returned. The then Deputy Defence Minister, D.R. Chavan, said in the Lok Sabha that 36 Indian armed force personnel were killed during the mission.

Following the ONUC, the United Nations Operation in Somalia II (UNOSOM) between March 1993 and 1995 resulted in the loss of 12 Indian troops and experts due to malicious acts. Among ongoing missions, the United Nations Mission in South Sudan (UNMISS) recorded the deaths of seven Indian troops.

The country-wise number of military/police personnel, mission experts and staff officers currently serving in UN peacekeeping missions: With 6,097 such personnel, India stands third after Bangladesh (7,237) and Nepal (6,264). It is followed by Rwanda (5,935) and Pakistan (4,334). Four of the top five contributions come from the Indian subcontinent. Notably, most of the troop and expert contributions have come from poor- or middle-income countries. The 71 operations conducted till date have seen participation from 2 million peacekeepers from 125 nations.

The number of troops, experts, formed police units and staff officers from India who are part of the ongoing peacekeeping missions: Most Indians (2,426) are part of the UNMISS, followed by the UN stabilisation mission in Congo (MONUSCO: 1,971) and United Nations Interim Force In Lebanon (UNFIL: 875).

Mr. Guterres lamented that those striving to guide countries out of conflict are now situated “on the front lines in some of the world’s most dangerous places.”

EXPRESS VIEW ON NEPAL PM’S INDIA VISIT: UPBEAT NOTES

The four-day visit by Nepal Prime Minister Pushpa Kamal Dahal “Prachanda” is expected to cement an outreach to Delhi that began last year when Sher Bahadur Deuba was in office. Nepal’s location between India and China has turned it into an arena of geopolitical rivalries, in which the United States is the latest entrant.

On the equally treacherous ground of Nepal’s domestic politics, Prachanda has decided that his own future in office is better served, at least for the foreseeable present, by making friends in Delhi than in Beijing. His skilled post-election navigation to become PM saw him join hands with Khadga Prasad Oli, whose pro-China tilt as PM did not make him popular in Delhi. But as Prachanda wobbled in March after Oli’s withdrawal of support, his fall was broken by the Deuba-headed Nepali Congress, an old India friend and the very party that the new PM had ditched as he shopped for the top job.

Not surprising then that Delhi, which was wringing his hands at Prachanda’s shock move to team up with Oli six months ago, gave the Maoist leader who had once threatened India with a “tunnel war” a warm welcome. Prime Minister Narendra Modi added a rhetorical flourish with his promise of a “superhit” relationship that would scale “Himalayan heights”.

The upbeat notes for the visit were set with newly elected President Ram Chandra Paudel giving his assent — hours before Prachanda’s departure to India — to a controversial amendment to



Nepal's citizenship law that grants citizenship and guaranteed political rights to women foreigners who marry Nepalis. It will enable Indian women in the Terai region who marry Nepali men to become citizens without the earlier seven-year cooling-off period. But the new law is unlikely to please China, which views this as a move to give descendants of Tibetan refugees citizenship and property rights in Nepal. The previous president had blocked the law for months. Prachanda also visited Ujjain in Madhya Pradesh to worship at the Mahakal temple on the second day of his four-day trip.

The real substance of the relationship, however, is economic co-operation, particularly in the hydropower sector, and in the land-locked country's access to markets abroad through India, and, in the people-to-people relationship. The two sides have signed an agreement under which India will buy 10,000 MW of electricity from Nepal in the coming year. This follows changes that Nepal has made to bring its hydropower policies in line with Delhi's new rule of not purchasing electricity from a project which has Chinese involvement.

With this, the boot is now on the other foot. India has to step up to the challenge of delivering projects on time. A transit agreement to help Nepal trade via India's inland waterways, and other connectivity agreements were also signed during the visit. While the open border with Nepal has helped to keep up ties between people on both sides, India's perceived "micro management" in Nepal, as Prachanda once called it, does not go down well. Kathmandu has wanted to regulate the movement across the border as part of an overall revision of the 1950 India-Nepal Friendship Treaty. The border issue remains live. India has to be mindful of its "big brother" image in a country where the domestic political power play produces a new surprise every few months.

IN UDAIPUR, COURT INJUNCTION A NEW DETERRENT AGAINST CHILD MARRIAGES

Legal action through court injunctions — a provision that existed in law but was rarely invoked earlier — is being hailed as a major step towards stopping child marriages in the tribal-dominated region of Udaipur district in Rajasthan.

It was used here for the first time in April when Khairwara Judicial Magistrate Yatindra Chaudhary issued an injunction under Section 13(1) of the Prohibition of Child Marriage Act, 2006, on an application filed by Gayatri Seva Sansthan.

It declared that a child marriage in the town solemnised in contravention of the order would be void ab initio (since the beginning) and violators would draw a jail term of up to two years and fine up to ₹1 lakh.

The district administration, the District Legal Services Authority, Gayatri Seva Sansthan and several public-spirited citizens have joined hands for "practical application" of Section 13(1), which has been seldom used since the enactment of the legislation.

With the injunction declaring the child marriage null and void, the bride and bridegroom are not required to wait till they become adults to take legal action to get their marriage dissolved. Section 13(3) of the Act also empowers the court of the judicial magistrate to take suo motu cognisance of a child marriage on the basis of any reliable report.

Giving information

While the administration's 'child marriage-free Udaipur' campaign will continue in the district till June 30, people have started coming forward to inform nodal officers about the weddings.



The administration has also announced a cash prize of ₹2,100 for giving information on helpline numbers.

The campaign's convener and former member of the Rajasthan State Commission for Protection of Child Rights, Shailendra Pandya, said task forces appointed at the district, panchayat samiti and village levels were monitoring rural families to ensure that no child was forced into wedlock.

Integrated Child Protection Scheme deputy director Meena Sharma said about half-a-dozen child marriages had been stopped since the campaign was launched and the process was under way for getting the injunction orders for them.

According to the National Family Health Survey-5, released in May 2022, 24.5% of women aged 20 to 24 in Rajasthan reported that they were married before 18 years of age.

WHAT IS THE MODEL PRISONS ACT ANNOUNCED BY THE MHA?

The Ministry of Home Affairs (MHA) announced that it has finalised the preparation of the Model Prisons Act, 2023, to replace the existing 130-year-old colonial law in an attempt to shift the focus of incarceration from “retributive deterrence” to “reform and rehabilitation”.

Intending to provide guidance and address gaps in the existing prison laws, the 2023 Act seeks to bring in the use of technology in prison management, make provisions for the grant of parole, furlough, and remission, and introduce special provisions for women and transgender inmates.

What is the backdrop against which the 2023 Act is being introduced?

Announced on May 12, the Model Prisons Act, 2023, is being introduced following the spate of killings and gang violence within prisons. One such incident was the killing of 33-year-old Tillu Tajpuriya, who was allegedly stabbed to death by members of a rival gang inside Tihar jail.

Besides this, last year, in November, the National Investigation Agency (NIA) asked the Union Home Ministry to shift several dreaded gangsters lodged in north India's prisons to those in the southern states. The NIA's request to move nearly 25 gangsters was driven by the presence of a “criminal nexus operating from inside prisons in Delhi, Punjab, Haryana, and Rajasthan.”

Moreover, Union Home Minister Amit Shah had announced that a change in the prison law was in the works while calling for a rehabilitative view of prisoners and jails. Speaking at the inauguration of the 6th All India Prison Duty Meet 2022 in Ahmedabad, Shah had said that India's incarceration system is prone to abuse since it was set up by the British to subjugate political prisoners.

Similarly, MHA's statement from May 12 read that the pre-Independence Prisons Act, 1894, focused on keeping criminals in custody and enforcing discipline and order in prisons, leaving “no provision for reform and rehabilitation of prisoners”. Owing to new perspectives evolving on prisons and prison inmates, globally” in the last few decades, the Ministry reasoned that prisons are not seen as “places of retributive deterrence” today but instead as “reformatory and correctional institutions” where prisoners transform and rehabilitate back into society as law-abiding citizens.

Thus, the MHA assigned the task of revising the Prisons Act, 1894, to the Bureau of Police Research and Development. The bureau, after holding wide-ranging discussions with state prison



authorities and correctional experts, among others, prepared the draft, which culminated in the 2023 Act.

What are the new provisions being proposed?

In an attempt to overhaul the colonial 1894 Act, the Model Prisons Act seeks to create provisions for the grant of parole, furlough, and remission to prisoners to encourage good conduct.

Additionally, it aims to provide separate accommodation for women and transgender inmates, ensure the physical and mental well-being of prisoners, and focus on the reformation and rehabilitation of inmates.

The new Act also intends to bring about “attitudinal change towards prisoners” and initiate vocational training and skill development for prisoners for their reintegration into society.

The 2023 Act also seeks to bring about “transparency in prison management” and includes provisions for security assessment and segregation of prisoners; individual sentence planning; grievance-redressal; prison development board; use of technology in prison administration; and protecting society from criminal activities of hardened criminals and habitual offenders. Provisions for establishing high-security jails and open, semi-open jails have also been inserted.

Apart from this, new measures for prisoners to video conference with courts have also been introduced. However, if a prisoner is using prohibited items like mobile phones in jail, they will be punished for it.

Along with the Prisons Act, 1894, the Prisoners Act, 1900, and the Transfer of Prisoners Act, 1950’ have also been reviewed by the MHA, and their relevant provisions have been assimilated into the Model Prisons Act, 2023.

What were the previous prison laws?

The first legislation that governed the management and administration of prisons in India was the Prisons Act, of 1894. It defined a “prison” as “any jail or place used permanently or temporarily under the general or special orders of a State Government for the detention of prisoners”, excluding police custody and subsidiary jails. Further, it demarcated prisoners into three different categories according to the nature of their crimes, such as “criminal prisoner”, “convicted criminal prisoner” and “civil prisoner”.

The 1894 Act dealt with provisions for accommodation, food, clothing, bedding segregation, and the discipline of prisoners, including solitary confinement. It also laid down provisions for the prisoners’ employment, health, and visits. However, the act had no provisions for reformation or rehabilitation and permitted “whipping, provided that the number of stripes shall not exceed thirty,” albeit for only male prisoners. Moreover, this Act did not apply to “civil jails in the State of Bombay, outside the city of Bombay, and those jails administered under the provisions of Sections 9–16 of the Bombay Act, 1874.

Thus, the Prisoners Act 1900 was introduced with the objective of consolidating the “several acts relating to prisoners” and replacing the “separate enactments by a single act, expressed more simply and intelligibly.” The Act dealt with the prisoners within presidency towns and those outside; it also included provisions on how to deal with lunatic prisoners and allowed prisoners to be removed from prisons on conditions like receiving death sentences and maintaining good behaviour within prisons.



Besides these, there were other legislations, like the Transfer of Prisoners Act, 1950, which also provided for the removal of prisoners from one state prison to another.

However, presently, the jail manuals of each state also deal with the administration and management of its prisons.

Is the Model Prisons Act, 2023, binding on states?

As per the provisions of the Constitution, 'prisons' and 'persons detained therein' fall under the State List. This means that the responsibility of prison management and administration solely vests with the state government, which alone is competent to make appropriate legislative provisions in this regard.

However, the MHA stated that owing to the critical role played by "efficient prison management" in the criminal justice system, the Centre finds it crucial to support the States and UTs in this regard.

Moreover, since there were "several lacunae in the existing Prisons Act, which regulates the prison administration" in most states and UTs, the government thought it fit to revise the law to align it with "modern day needs and requirements of prison management". The ministry also clarified while announcing the 2023 Act that it "may serve as a guiding document for the States" so that they may benefit from its adoption in their jurisdictions.

20 THINGS YOU MUST KNOW ABOUT INDIA'S NEW PARLIAMENT

Prime Minister Narendra Modi will on Sunday, May 28, inaugurate India's new Parliament building, part of the revamped Central Vista project. The construction of the new building, designed by architect Bimal Patel, began in 2019.

01

The triangular shape

The new building is triangular in shape, mostly because the plot of land that it is built on is a triangle. According to architect Bimal Patel, the shape is also a nod to the sacred geometry in different religions. Its design and materials are meant to complement the old Parliament, with the two buildings expected to function as one complex.

02

Built-up area

The new Parliament building has three storeys and a built-up area of 64,500 sqm. The Lok Sabha chamber will have 888 seats, up from the existing 543, with the option of expanded seating up to 1,272. The Lok Sabha will be used for joint sittings of both Houses in the absence of a Central Hall, which was the fulcrum of the old building.

03

The entrances

The building has three ceremonial entrances on three sides for the President, the Vice-President, the Lok Sabha Speaker and the Prime Minister. The entrance for the public, including visitors for

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



the Parliament tour, is likely to be on Parliament Street, near the Press Trust of India building, where a temporary reception has been functioning throughout the construction period.

04

Environment friendly

Built using green construction techniques, the new building is supposed to reduce electricity consumption by 30 per cent, compared to the old one. Rainwater-harvesting and water-recycling systems have been included. It has been designed to be more space efficient, and meant to function for the next 150 years, according to the Ministry of Housing and Urban Affairs.

05

Earthquake-safe

As per building codes, since Delhi is in seismic zone-V, the building is primed to be earthquake-safe. While arguing against the legal challenges to the project, the government had said the existing Parliament building was at risk from earthquakes.

06

Lok Sabha

The new Lok Sabha chamber has a peacock theme, with designs drawn from the national bird's feathers carved on the walls and ceiling, complemented by teal carpets. The Rajya Sabha chamber has been decorated with the lotus as its theme, with red carpets. In both the Lok Sabha and the Rajya Sabha, two MPs will be able to sit on one bench and each MP will have a touch screen on the desk.

07

Rajya Sabha

The Rajya Sabha chamber can accommodate 384 Members of Parliament (MPs), as opposed to the existing capacity of 250. The increased capacity of both chambers is meant to cater to any future increase in the number of MPs following delimitation.

08

Constitution hall

The new building has a Constitution Hall, where the journey of Indian democracy has been documented.

09

Facilities for MPs

MPs will have access to a lounge, dining hall and library. The building opens into a central courtyard with a banyan tree.



10

Office Space

There are six new committee rooms in the new building, as opposed to three in the old building. In addition, there are 92 rooms as offices for the Council of Ministers.

11

Material from across India

For the interior and exterior of the building, construction materials have been brought in from across the country, including sandstone from Sarmathura in Dholpur and granite from Lakha village in Jaisalmer, Rajasthan. Similarly, the wood used in the decor is from Nagpur and craftsmen from Mumbai have led the wooden architecture design. Bhadohi weavers from Uttar Pradesh have made the traditional hand-knotted carpets for the building.

12

Gandhi statue

The 16-foot-tall bronze statue of Mahatma Gandhi, which has been the site of numerous protests and gatherings by MPs and photo-ops for students, will remain on the lawn between the old and new buildings. The statue, which was installed at the main entrance of the Parliament in 1993, was shifted during construction. Made by Padma Bhushan-awardee sculptor Ram V Sutar, the statue now faces the old building, near the entrance used by the Lok Sabha Speaker.

13

National symbols

The building is replete with national symbols, including the national emblem — the Lion Capital of Ashoka — that weighs 9,500 kg and is 6.5 metres in height, and is visible from a distance. To support this massive bronze sculpture, a structure of 6,500 kg was constructed on top of the central foyer. At the entrance, the Ashoka chakra and the words 'Satyameva Jayate' have been carved in stone.

14

The cost of building it

The cost of the new Parliament, however, remains unknown. The initial contract was given for Rs 861.9 crore to Tata Projects, but by the time the project started the cost revved up to Rs 971 crore. Since then, government officials say the cost has gone up to Rs 1,200 crore. This includes Rs 200 crore for the artwork procured by the Culture Ministry. The government is yet to announce the final completion cost.

15

Golden sceptre

A golden sceptre, given to Jawaharlal Nehru on the eve of Independence to mark the transfer of power from the British, will sit in the new Lok Sabha chamber, near the Speaker's podium. This sceptre was given to him by priests from Tamil Nadu.

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

19



16

Going digital

In line with the environment-friendly focus of the new Parliament, all records — House proceedings, questions and other business — are being digitised. Besides, tablets and iPads will become a norm.

17

Galleries in the building

A gallery called 'Shilp' will exhibit textile installations from across India, along with pottery items made from the mitti of all Indian states. The gallery 'Sthapatya' will exhibit the iconic monuments of India, including those from the different states and UTs. Besides monuments, it also amalgamates yoga asanas.

18

vaastu shastra

At all the entrances of the building, auspicious animals as guardian statues will be exhibited, based on their importance in Indian culture and vaastu shastra. These include the elephant, the horse, the eagle, the swan, and mythical creatures shardula and makara.

19

Recognising the workforce

The contributions of around 60,000 workers — on-site and in various locations across the country — can be seen in the new building. Since the building was constructed during the pandemic, health clinics and vaccination camps were organised for the workers at the site and labour camps.

20

From recreational to a new House

Before being selected as the site for the new Parliament building, the 9.5-acre plot opposite the old Parliament House was earmarked for "recreational use" in the Delhi Masterplan 2021. While it was supposed to be developed as a park, in reality the site was used for parking and to house utilities for the Parliament complex. The Delhi Development Authority changed the land-use of the plot to "Parliament House" in March 2020.

SYMBOLS, SUBSTANCE

The inauguration of the new Parliament building by Prime Minister Narendra Modi on Sunday was true to a style he has mastered: using every occasion to advance a form of politics that many of his critics find problematic. Mr. Modi presented the aesthetics of the new building as a representation of India's myriad diversity, its rich cultural heritage and its soaring aspirations. A multi-religious prayer was a part of the ceremony, but there was no mistaking that Hindu ritualism overshadowed all else. By weaving an artful tale around a Sengol, a sceptre gifted to the first Prime Minister of India by a Shaivite sect of Tamil Nadu, the current dispensation has sought to reimagine the founding principles of India's republican sovereignty. A Sengol symbolised divine

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

20



right and is now installed in the Assembly of people's representatives. The symbolism strengthens Tamil Nadu's connection to the political centre of India, and the Bharatiya Janata Party (BJP) is trying to make political gains from it. It is also notable that the day of the inauguration was also the birth anniversary of V.D. Savarkar, the founding father of Hindutva. A quest to transition Indian republicanism to a new iteration was apparent in the style and substance of the ceremony.

The new building also turns the spotlight, tangentially, on an approaching challenge of representation that will be upon India within the next decade. A nationwide delimitation will reallocate representation as per the current population, leading to a significant, relative reduction of the voice of linguistic minorities of the southern States in Parliament. The size of the Lok Sabha and the Rajya Sabha will likely expand in order to avoid an absolute reduction of representation of States that have stabilised their populations. But that may not be enough to assuage the feeling of disenfranchisement that is already palpable among many regions due to the geographical fragmentation of Indian politics. The BJP wins its parliamentary majority from its strongholds while many States remain outside its sphere of influence. On 38% of popular votes, the BJP has 55% of Lok Sabha seats currently. This imbalance will be aggravated after the delimitation. The BJP's outreach to regions and communities outside of its current catchment areas is to be welcomed. But the Centre and the BJP will have to show more seriousness, sensitivity and maturity to deal with the regional imbalances of India. For this, they will need to take recourse to more than just symbolism.

A FOUCAULT PENDULUM SWINGS INSIDE THE NEW PARLIAMENT

One of the features of the new Parliament building in New Delhi, inaugurated on Sunday, is a Foucault pendulum suspended from its 'Constitutional Gallery' area. It has been designed and installed by the National Council of Science Museums (NCSM), Kolkata.

The Foucault pendulum is named for Léon Foucault (1819-1868), the French physicist who devised the apparatus in the 19th century. It is a deceptively simple device used to illustrate the earth's rotation. At the time Foucault set up the first public display of the pendulum, the earth's rotation was a well-established fact.

His achievement, instead, was to provide a proof that didn't involve intricate astronomical observations and calculations.

The pendulum consists of a bob suspended at the end of a long, strong wire from a fixed point in the ceiling. As the pendulum swings, the imaginary surface across which the wire and the bob swipe is called the plane of the swing.

If the pendulum is installed at the North Pole, it will basically be swinging as the earth rotates 'below'. But someone standing on the earth's surface doesn't notice the planet's rotation (without looking up at the sky from time to time); instead, to them, the plane of the swing will seem to rotate by a full circle as the earth completes one rotation.

If the pendulum is installed over the equator, the plane won't appear to shift at all because it will be rotating along with the earth. On any other latitude, the plane will shift through 360 degrees in "one sidereal day divided by the sine of the latitude of its location", as per a Brown University note.

A Foucault pendulum is not a simple matter of setting up a pendulum with large parts. It must be designed, installed, and set swinging in such a way that the bob's motion is influenced to the extent possible only by gravity.



In 1991, the then-new Inter-University Centre for Astronomy and Astrophysics, Pune, commissioned the country's first Foucault pendulum for public display from the NCSM. After several studies and failed tests, the NCSM installed the set-up in 1993.

A SYMBOL OF VIRTUE

Nothing encapsulates the importance of Sengol or sceptre more than the words spoken by Chera King Cheran Senguttuvan in Silapathikaram, the first Tamil epic with the common man and woman as hero and heroine. When he heard about the death of Pandiyan Nedunchezian, the King of Madurai, Chera King Senguttuvan says, "Pandiyan offered his life and restored the uprightness of Sengol bent by the fate of injustice."

Pandiyan fell from his throne and died after realising that he had committed an injustice by mistakenly ordering capital punishment to Kovalan, the hero and husband of Kannagi. "Am I a king? I am a thief," he utters before his death.

Sengol has drawn the attention of the nation after the BJP government led by Prime Minister Narendra Modi decided to keep in the new Parliament building the sceptre presented by the Thiruvavaduthurai Math to the country's first Prime Minister, Jawaharlal Nehru, on the eve of India's Independence.

Sceptre, a decorated rod made of gold and studded with precious stones, is held by kings and queens as a symbol of authority and power on ceremonial occasions, particularly in Western countries. Recently, during the coronation of King Charles III of the U.K., the Archbishop of Canterbury placed a golden sceptre in his hand.

In Tamil tradition, it represented the idea of righteousness rather than an object.

Fair governance

In the Kanal Vari songs in Silapathikaram, Kovalan attributes the flowing of the Cauvery river in all its beauty to the uprightness of the Sengol of the Chola king.

"Sengol symbolises a just and fair governance by a king. Its converse is authoritarianism or Kodungol in Tamil. Sengol finds reference even in Tholkappiyam, the earliest treatise on Tamil grammar," explained R. Kalaikovan, founder, Rajamanickanar Institute of Historical Research, Tiruchirappalli.

Sengol was one of the 10 constituents of a kingdom besides venkottra kudai (white umbrella), murasu (drum), kodi (flag), thanai (Army), aaru (river), malai (mountain), thar (garland), yaanai (elephant) and kuthirai (horse). Different literary works have included different things.

That Sengol is a concept is clearly explained by the chapter on Sengonmai, or the Right Sceptre, in Tirukkural. "All earth looks up to heav'n whence raindrops fall; All subjects look to king that ruleth all," translates missionary scholar G.U. Pope. Not lance gives kings the victory, but sceptre swayed with equity, says another couplet.



MANU S PILLAI ON SENGOL: FOR SOME, REDISCOVERY IS CULTURAL RENASCENCE, FOR OTHERS, POLITICAL HINDUISATION OF A NATIONAL SYMBOL

What is a Sengol? What was the tradition associated with it? What period can we date it to and which dynasty/dynasties was it associated with?

A sengol — or chenkol — is a royal sceptre, signifying kingship, righteousness, justice, and authority, among other qualities linked to the correct wielding of power. Its origins lie in Tamil Nadu, and it served as a kingly emblem. Among the Madurai Nayakas, for example, the sengol was placed before the goddess Meenakshi in the great temple on important occasions, and then transferred to the throne room, representing the king's role as a divine agent.

It was also, therefore, a legitimising instrument: the Sethupatis of Ramnad, for instance, when they first attained kingly status in the seventeenth century acquired a ritually sanctified sengol from priests of the Rameswaram temple. It marked the ruler's accountability to the deity in the exercise of power, as well as his graduation from chiefly status to a more exalted kingly plane.

As such, the sengol may be described, in its historical context, as a symbol of dharmic kingship.

What do we know about the 1947 ceremony in which Nehru was reportedly handed over a sceptre?

Not enough. What seems to be in the air at the moment stems from some oral accounts mixed with a few scattered facts. It appears that Nehru was presented a sengol by Hindu leaders from Tamil Nadu, and that he accepted it.

But claims that it was a major event, and that Lord Mountbatten handed it over in a ceremonial fashion to signify the transfer of power, seem exaggerated. Something of that nature — given the importance of the moment — would have been widely recorded and reported. Mountbatten himself — a great lover of pageantry, with an inflated sense of his own centrality to events — would not have omitted to make a big hoo-ha about the affair.

The very obscurity of this sengol and the absence of adequate contemporary evidence suggests it was not a key episode in 1947, but an incident on the margins. The Hindu leaders presented it to Nehru as a mark of honour, and he, in turn, received it in good spirit. But that was that. From what is known of Nehru's personality, besides, he was not the type to be drawn to kingly rituals. It is not surprising that the item was packed off to a museum.

The government said it was C Rajagopalachari who suggested the particular ceremony to Nehru. Is this true? If yes, why did Rajagopalachari suggest it?

Only the government can answer this. One trusts they have done their research and will put into the public domain the requisite documents and information backing their stand. After all, the claim being made is big; it must be sustained with equally firm evidence. It is likely that beyond the fact of Tamil Hindu leaders presenting Nehru a sceptre, the rest of the tale is gloss, accumulated over several retellings, and which came to be believed in some circles.

This kind of thing is not unusual in our country, and historians often discover that seductive tales have a grain of truth, with the rest being wishful colour and romance. We often encounter situations where there is enough fact to make the narrative seem credible, until on closer examination, the story falls apart, leaving a pale residue. But that said, this residue is never attractive in terms of public imagination; people often prefer the heady narrative to the facts.



The government also said the Sengol was the symbol of transfer of power from British to Indian hands. Is it true? If not, what did the sceptre signify?

Again, this is for the government to explain. If it was a critical symbol of the transfer of power, it is somewhat surprising that very few had heard of this until the summer of 2023. Yes, the persons presenting the sengol meant it that way, and yes, that is what the object represents: the recognition of legitimate authority. But the event seems to have been a marginal one.

It is, however, possible that the government wishes to highlight it today as part of the larger project of constructing a Hindu political history. In a sense, Nehru's sengol is a means to add to the legitimacy and status of the present government rather than the first government of independent India. Think of it as an act that holds meaning in terms of cultural assertion. The government desires to raise a new symbol, a new set of meanings.

What Nehru and his successors saw as belonging in a museum, our present rulers visualise as part of a tradition to be resurrected.

What then, is the significance of Prime Minister Narendra Modi re-enacting the 1947 ceremony during the inauguration of the new Parliament and installing the historic sengol near the Lok Sabha Speaker's seat?

The new parliament is a monument meant to mark a break with the past. It is not just a utilitarian building. The erection of statues, the construction of the Ram temple, and such projects supported and/or encouraged by the government are a reorientation of the national narrative — a narrative which, for much of its post-1947 history, was dominated by a different set of values, parties, and players.

The Prime Minister is not appealing to constitutional norms but to a cultural — or some might say, a civilisational — legitimacy. The placement of the sengol near the Speaker's chair is to give that chair — which derived meaning so far via Western parliamentary conventions that we adopted and adapted — a more visibly Hindu quality and casing.

The Prime Minister and his supporters will see it as an act of cultural renaissance; others will bewail the political Hinduisation of one more national symbol.

PM MODI RELEASES RS 75 COIN ON NEW PARLIAMENT INAUGURATION DAY: FEATURES, HOW TO GET IT

To mark the inauguration of the new Parliament building, Prime Minister Narendra Modi released a commemorative coin of Rs 75 denomination on Sunday (May 28).

In a notification released on Thursday (May 25), the Ministry of Finance first announced the launch of the coin. "The coin of Seventy-Five Rupees denomination shall be coined at the Mint for issue under the authority of the Central Government on the occasion of the inauguration of the New Parliament Building," it said.

India has been issuing commemorative coins since the 1960s for several reasons such as paying homage to notable personalities, spreading awareness about government schemes, or remembering key historic events.



What are the features of the new Rs 75 commemorative coin?

As per the Ministry of Finance notification, the latest Rs 75 coin is circular in shape with a diameter of 44mm. The composition of the coin is of a quaternary alloy — 50 per cent silver, 40 per cent copper, 5 per cent nickel and 5 per cent zinc.

“The face of the coin shall bear the Lion Capitol of Ashoka Pillar in the centre, with the legend “सत्यमेव जयते” (Satyameva Jayate) inscribed below, flanked on the left periphery with the word “भारत” (Bharat) in Devnagri script and on the right periphery the word “INDIA” in English,” the notification said.

It added that the other side of the coin displays an image of the new parliament building. The inscription “Sansad Sankul” is written in Devanagari script on the upper periphery while the words “Parliament Complex” in English on the lower periphery of the coin.

How can one get commemorative coins and can we spend them?

If someone wants to acquire commemorative coins, they can do so by visiting the website of the Securities of Printing and Minting Corporation of India Limited (SPMCIL). Most often, such coins are meant to be just collectables as their worth may not necessarily be the same as their face value — they are partially made of precious metals such as silver or gold; as mentioned above, the latest commemorative coin is 50 per cent silver.

For instance, in 2018, the government issued a commemorative coin of Rs 100 denomination to honour former Prime Minister Atal Bihari Vajpayee but it's currently available on SPMCIL's website for ₹5,717. This coin is 50 per cent silver, and has other metals.

Who has the power to design and mint coins?

The Coinage Act, 2011 gives the central government the power to design and mint coins in various denominations. In the case of coins, the role of the RBI is limited to the distribution of coins that are supplied by the central government.

Speaking about commemorative coins, the central government regularly releases them according to its choice, but it also mints such coins at the request of third parties, according to a report by The Indian Express.

In 2017, the government issued commemorative coins to pay homage to Indian actor and politician Late MG Ramachandran and Carnatic singer MS Subbalakshmi. The decision was taken after “the request was placed by Sri Shanmukhananda Fine Arts & Sangeetha Sabha for the MS Subbalakshmi commemorative coins and by the Tamil Nadu government for the MG Ramachandran commemorative coins,” the report said.

All coins are minted in the four mints owned by the Government of India in Mumbai, Hyderabad, Kolkata and Noida.

When was the first time India issued a commemorative coin?

The country released its first commemorative coin in 1964 in honour of Jawaharlal Nehru, who had passed away that year.



HISTORY OF THE AKHAND BHARAT IDEA, AND IN THE IMAGINATION OF THE RSS

On May 28, Parliamentary Affairs Minister Pralhad Joshi tweeted a picture of a mural in the new Parliament that depicts the ancient Indian landmass without modern-day geographical boundaries, and wrote in Kannada, “The resolve is clear — Akhand Bharat”.

Asked what he meant by his tweet, Joshi told The Indian Express on Thursday: “The concept of Akhand Bharat comes from ancient Indian culture. The new Parliament building depicts various facets of Indian culture, representing every region and all its facets.”

The mural has triggered some concern in Nepal where a few politicians have demanded that the visiting Prime Minister Pushpa Kamal Dahal should raise the issue with New Delhi. Nepal’s former PM Baburam Bhattarai has said the mural could cause unnecessary diplomatic disputes, PTI reported.

The Mural in Parliament

On Friday, Ministry of External Affairs spokesperson Arindam Bagchi said: “The mural in question depicts the spread of the Ashokan empire and the idea of responsible and people-oriented governance that he (Ashoka) adopted and propagated.”

The artwork occupies one of the 16 niches in the Constitutional Foyer of the new Parliament building. Murals in the other niches are dedicated to Indian sages, ancient texts, and the Ramayana; one of them is dedicated to Sardar Vallabhbhai Patel and Jawaharlal Nehru.

The official description of the mural says: “Between 265 and 238 BC, Ashoka spread the message of Buddhism and got it inscribed at many places”.

Akhand Bharat

The Sangh Parivar has long imagined an Indian nation that existed from the time of the Ramayana, covering the landmass stretching from today’s Afghanistan to Myanmar and Tibet to Sri Lanka. A map titled “Punjabhoomi Bharat” published by the RSS-run Suruchi Prakashan, labels Afghanistan as “Unganathan”, Kabul as “Kubha Nagar”, Peshawar as “Purushpur”, Multan as “Moolsthan”, Tibet as “Trivishtap,” Sri Lanka as “Singhaldweep”, and Myanmar as “Brahmadesh”.

Back in 1944, as the Muslim League pressed for a separate Pakistan, the historian Radha Kumud Mookerji first articulated the idea of Akhand Bharat in his presidential address delivered at an “Akhand Bharat Conference”.

“...The homeland of the Hindus through millenniums of their history has been nothing short of the whole of India stretching in its continental expanse from Kashmir to the Cape, from Nanga Parvat and Amarnath to Madura and Rameshwaram and from Dwarka to Puri,” Mookerji said.

Akhand Bharat was a fact of geography, he argued: “India has been fashioned by Nature as an indisputable geographical unit marked out from the rest of the world by well-defined boundaries and fixed frontiers about which there can be no doubt or uncertainty.”

The RSS position

In 2015, RSS leader Ram Madhav, when asked about a map that showed Pakistan and Bangladesh as part of India, told Al Jazeera: “The RSS still believes that one day these parts, which have for



historical reasons separated only 60 years ago, will again, through popular goodwill, come together and Akhand Bharat will be created.”

Now, with the BJP in power, some RSS leaders have said Akhand Bharat is in fact a “cultural idea”. All RSS publications also insist that Akhand Bharat is a “cultural” entity, not a national or political one.

However, the RSS began propagating the idea of “re-uniting” India almost immediately after Partition. At a press conference in Delhi on August 24, 1949, M S Golwalkar, the second Sarsanghchhalak, said: “As far as possible, we must continue our efforts to unite these two divided states... Nobody is happy with Partition.” Golwalkar repeated this at a press conference in Kolkata on September 7, 1949.

At its meeting held in Delhi on August 17, 1965, the Bharatiya Jana Sangh, the BJP’s predecessor, passed a resolution: “India’s tradition and nationality has not been against any religion... Muslims will integrate themselves with the national life and Akhand Bharat will be a reality, unifying India and Pakistan once we are able to remove this obstacle [of separatist politics].”

The BJP’s stand

The Narendra Modi government has never spoken of Akhand Bharat in the same way as RSS leaders. However, BJP leaders have articulated the idea in political speeches.

Union Home Minister Amit Shah has invoked “Akhand Bharat” in the context of the scrapping of Article 370, and while remembering the contributions of Sardar Patel. However, these articulations have largely been an assertion of the territorial integrity of independent India.

HITS AND MISSES OF 9 YEARS OF NARENDRA MODI GOVERNMENT

The NDA government headed by Prime Minister Narendra Modi will complete nine years on May 30. The past nine years have witnessed several landmark events, including demonetisation of high-value currency notes (2016), the introduction of Goods and Services Tax (2017), the outbreak of Covid-19 pandemic, a call for making India self-reliant (Aatmanirbhar) amid aggression on borders, and an emergence of a new class of beneficiaries — the “Labharthi Varg”.

Modi, who ascended to the top post by getting a clear majority and took oath as the PM on May 26, 2014, is the fourth-longest serving PM after Jawaharlal Nehru, Indira Gandhi and Manmohan Singh, and the longest serving PM from a non-Congress party. Here are nine charts showing the journey of the last nine years:

1. Uneven growth trajectory

India became the world’s fifth largest economy by overtaking the United Kingdom last year. It is now behind only the US, China, Japan and Germany. However, India’s GDP growth trajectory has remained uneven in recent years. The main reason is Covid-19, a global outbreak with severe domestic repercussions that resulted in a contraction of the economy during the financial year 2020-21. Even before Covid halted economic activities, the economy was on a downward track after registering over an 8% growth rate in 2016-17 — the year that saw demonetisation of high-value currency notes of denominations Rs 1,000 and Rs 500. In the following years, India’s growth rate slowed down to 6.8% in 2017-18 — as the businesses adjusted to the change in indirect tax system after the introduction of GST with effect from July 1, 2017. It came down further to 6.45%



in 2018-19 and 3.87% in 2019-20. During the Covid lockdown (financial year 2020-21), the growth plummeted to -5.83%. However, it bounced back to 9.05% in 2021-22, primarily on the previous year's low base. In 2022-23, the growth again moderated to 7%.

Per capita income followed the same trajectory as the rise and fall in the GDP. The annual rate of growth in the Per Capita Income has been recorded in the range of -8.86% to 7.59% during the last nine years.

2. FDI scaled new heights before registering a fall

One area that has remained in focus of the Modi government is investment. The Centre has taken various steps to encourage domestic entrepreneurs and to attract Foreign Direct Investment (FDI). Be it 'ease of doing business', focus on minimising compliance, liberalisation of the FDI policy for various sectors of the economy or ushering in legislative reforms, the government has taken several initiatives to create a favourable atmosphere for investment. These efforts have yielded some fruits. For instance, FDI inflows increased from \$45 billion in 2014-15 to \$84.83 billion in 2021-22. However, it registered a fall in the following year and declined to \$70 billion in 2022-23.

3. Rural distress

One of the indicators of rural distress is the performance of the National Rural Employment Guarantee Scheme, which was launched to provide a guarantee of 100-day employment in a financial year to every rural household whose adult members volunteer to do unskilled manual work. The rise in the number of NREGS beneficiaries is a sign of growing distress in rural areas. Data available on the NREGS portal shows that 4.14 crore families availed the rural job scheme in 2014-15. This number peaked during Covid and reached 7.55 crore during 2020-21, when many migrants walked back to their villages in view of the pandemic. Thereafter, it came down marginally to 7.25 crore in 2021-22. However, it is still over the Rs 6 crore mark (6.18 crore families availed the scheme during 2022-23).

4. Focus on infrastructure, the highways story

Infrastructure has been one of the priority areas of the Modi government in the last nine years. Be it roads, railways, or airports, infrastructure projects have increased in number and size. This has reflected in the growing capital expenditure on them over the years. One of the success stories has been highways construction. However, several big-ticket projects, like the bullet train project, are yet to see the light of day. The total length of highways in the country had increased from 97,830 km in 2014-15 to 1,44,955 at the end of December 2022.

5. Low health expenditure

One of the biggest challenges the NDA government has faced in the last nine years was the Covid pandemic. However, data shows that health expenditure (as a percentage of the GDP) has not seen a big change. In the period 2014-15 to 2022-23, the expenditure on health remained in the range of 1.2-2.2%. The Central government's share in the current health expenditure is just a little over 2%. According to National Health Accounts Estimates for India 2019-20, "Of the Current Health Expenditures, the Union government's share is Rs. 72,059 crore (12.14%) and the State Governments' share is Rs.1,18,927 crores (20.03%). Local bodies' share is Rs. 5,844 crore (0.99%), households' share (including insurance contributions) is about Rs. 3,51,717 crore (59.24%), out-of-pocket expenditure being 52.0%.



6. Education expenditure also low

Like health expenditure, spending on education too has remained low. Though the education sector has witnessed a big reform push with the introduction of the New Education Policy, the expenditure on education (as percentage of GDP) has remained in the range of 2.8-2.9% during the last nine years.

7. Low tax-GDP ratio, continuing high currency usage

The government took a bold decision to demonetise high-value currency notes in November 2016. The move was expected to hit the black economy and move towards lesser use of cash. However, data shows that neither has the tax-GDP ratio increased, nor has the use of cash gone down. For instance, the direct tax-GDP ratio has remained in the range of 4.78-6.02% during the last nine years. On the contrary, the currency to GDP ratio has increased from 11.6% in 2014-15 to 14.4% in 2020-21. However, it came down marginally to 13.7% in 2021-22. This shows that despite a push for digital transactions through new initiatives like UPI, the use of cash is still on the rise.

8. Stagnating share in world merchandise exports

In recent years, the government has focused on Make in India. It even launched the Aatmanirbhar Bharat initiative during the Covid-19 pandemic. However, data shows that India's share in world merchandise exports has stagnated in recent years. From 1.69% in 2014, it has increased marginally to 1.77%. (See Chart-8)

9. Emergence of the 'labharthi varg'

The last nine years have seen the emergence of the 'labharthi varg' — a new class of beneficiaries of Central government schemes. The Modi government used the architecture of the DBT (Direct Benefit Transfer) scheme, which is based on JAM (Jan-dhan, Aadhar, Mobile) trinity. Between 2014 and 2023, 49 crore bank accounts were opened under the Pradhan Mantri Jan Dhan Yojana. The figure of deposits in the Jan Dhan accounts has increased from Rs 17,219.70 crore in May 2015 to Rs 1,97,193.67 crore in May 2023. Besides, other welfare schemes like the Swachh Bharat Mission, Pradhan Mantri Awas Yojana, PM Ujjwala Yojana and PM Mudra Yojana have seen an unprecedented scale of implementation in recent years. For instance, 11.72 crore toilets were built under the Swachh Bharat programme, while over 3 crore rural and urban houses were built under the PM Awas Yojana. The government also provided free foodgrains to 80 crore people under PM Garib Kalyan Anna Yojana.

EXPRESS VIEW ON WFI PROTEST: GOVERNMENT MUST BREAK ITS SILENCE

Three of India's most successful wrestlers in a huddle at the banks of the Ganga in Haridwar Tuesday evening, wiping their tears and about to immerse their Olympics, Asian Games and Commonwealth Games medals protesting against alleged sexual harassment is not an image of a confident nation that cares for its finest. Fortunately, well-wishers intervened and persuaded them to rethink their decision. The wrestlers suggested that they will go ahead with their plan if, in the next five days, the government refuses to respond to their demand for action against Brij Bhushan Sharan Singh, president of Wrestling Federation of India and BJP MP. Singh faces charges of sexual harassment, including under POCSO provisions. The five-day window is a reprieve for the government: It must not stand on prestige, it needs to reach out to the wrestlers, and convince them that justice will be theirs, that they are the nation's pride and they aren't alone.



The wrestlers first flagged their complaint against Singh in January. The authorities were slow and cold in their response. It took the Supreme Court's intervention for Delhi Police to file the first FIR. The complainants, frustrated at the attempts to wear them out, began a protest at Jantar Mantar in Delhi in the last week of April. Though Opposition leaders, civil society actors and a handful of sportspersons extended solidarity to the protest, the government sat stiff, and silent. Singh, a history-sheeter with a record of being booked under TADA for alleged links with terrorist Dawood Ibrahim, runs an education empire and is politically resourceful. The Modi government and BJP leadership's response has been: the law is taking its course so what's the problem. By doing so, they gloss over the fundamental reality of most sexual harassment cases where a person in authority is the accused: Surely, the law will take its course but a clear signal has to be sent upfront, before the legal process starts, that the accused cannot and will not interfere with due process. That's why the government's silence is perceived as support for Singh. For his part, Singh's response to the allegations have ranged from denial to patriarchal condescension and conspiracy theories. His supporters have called for a Jan Chetna Maharally in June, he has even got sadhus to call for a relook at POCSO and its abuse. All this while, no political heavyweight from the government has said a word of comfort or assurance. That a new Parliament was inaugurated with the Prime Minister underlining dignity and justice while the nation's finest wrestlers were being dragged into police vans doesn't a good image make. Of a nation that will host the annual session of the International Olympics Committee, where it hopes to pitch for a bid to host the Games. No wonder the IOC has taken note and sent a strong cautionary note.

The Modi government has always underlined welfare and empowerment of the girl child as its priorities. In the nine-year celebrations, a lot has been said about the success of Beti Bachao, Beti Padhao, and initiatives like Khelo India. The image of the Prime Minister talking to the disappointed women's hockey team in Tokyo after their defeat was a powerful one signalling the role of the government not just as a facilitator and enabler — but as an ally during defeat and distress. That's why the government's silence is perplexing, that's why it needs to ends it.

EXPRESS VIEW ON BIHAR'S PROHIBITION POLICY: A COSTLY BAN

The Nitish Kumar government Tuesday amended the stern Bihar Prohibition and Excise (Amendment) Act to enable release of vehicles impounded for transporting liquor, against the payment of 10 per cent of their insurance cover, as against the 50 per cent mandated earlier. This tweaking of the 2016 policy had become necessary because police stations were running out of space to keep these vehicles — over 50,000 four-wheelers are parked in 800 police stations across Bihar since the owners often prefer to abandon their vehicles rather than pay hefty fines to take them back. Tuesday's amendment is only the latest in a series of changes that Nitish has had to make to moderate the liquor law since April last year. For instance, first-time drinkers can now walk free if they pay a fine of Rs 2,000 to Rs 5,000 — imprisonment was mandatory in the beginning. The government has removed community fines, reduced the term of imprisonment for drinking from 10 years to five. Another major change concerns ex gratia payment in hooch deaths: In February, the government restored the Rs 4 lakh compensation to the next of kin of victims, a provision Nitish had suspended after the first hooch tragedy in 2016.

These piece-meal changes are, in effect, admissions that Nitish's liquor policy has failed. As the experience has been with prohibition elsewhere, Bihar's liquor ban has led to a spike in illicit trade, hooch deaths, and arrests, disproportionately, of the poor and vulnerable. According to official estimates, 199 persons have died in hooch tragedies since April 2016. Over 3.75 lakh cases have been registered — 90 per cent of them related to consumption of liquor — with over 4.25



lakh arrests. At least 25,000 people have been imprisoned for violating the liquor ban — most of them are poor and from Other Backward Castes, Extremely Backward Castes and Dalits, ironically the political base of the JD(U)-RJD Mahagathbandhan.

Nitish introduced the law, ostensibly as a response to complaints from women that the men in the family spent all their earnings on alcohol and beat them. But its potential as an election sop to win over women voters may have been exhausted – JD(U)'s vote share and seats have been declining. As he sets out to project himself nationally as a coordinator if not a leader in the anti-BJP space, which is the site for staking out a liberal challenge to Hindutva politics, Nitish should start by reversing the liquor ban that is both draconian and counter-productive.

MEKEDATU DAM RISES BETWEEN 'FRIENDS' CONG AND DMK: WHAT IS THIS LONG-RUNNING DISPUTE

Barely 10 days after Karnataka's Congress government took over at a ceremony that was attended by Tamil Nadu Chief Minister M K Stalin, the two state governments, run by parties that are southern allies against the BJP, clashed this week over a project to supply drinking water to Bengaluru.

What has happened?

After Karnataka Deputy Chief Minister D K Shivakumar expressed the resolve to build a dam and reservoir on the Cauvery at Mekedatu close to the state's border with Tamil Nadu, DMK general secretary Durai Murugan issued a sharp response — pointing out that the Mekedatu project was not part of the awards of the Cauvery Water Disputes Tribunal (CWDT) or the ruling of the Supreme Court.

Any unauthorised construction across the river could harm Tamil Nadu and violate both the 2007 final order of the CWDT and the 2018 verdict of the SC, Durai Murugan, who is water resources minister for the state, said.

The main opposition in Tamil Nadu, AIADMK, has warned of protests if Karnataka proceeds with the construction of the contentious dam project. AIADMK general secretary K Palaniswami criticised Shivakumar's remarks. Palaniswami claimed that under the Inter-State River Water Disputes Act, 1956, Karnataka is legally prohibited from obstructing or altering the natural course of a river. He also referred to the final judgment on the Cauvery water dispute, asserting that no irrigation project can start without the lower riparian states' consent.

In December 2018, when he was Chief Minister, Palaniswami had written to the Prime Minister, urging him to stop a feasibility study being conducted for the project in Karnataka.

What is the Mekedatu project?

The Mekedatu dam project is located in Ramanagaram district about 100 km south of Bengaluru, close to where the Cauvery enters Tamil Nadu. The project has been contentious for years.

The dam, with a proposed capacity of 48 TMC (thousand million cubic) feet and an estimated cost of Rs 6,000 crore, aims to supply drinking water to Bengaluru and replenish the regional groundwater table.

In November 2014, the Karnataka government under Chief Minister Siddaramaiah invited expressions of interest in the project and, in its 2015 Budget, allocated Rs 25 crore for a detailed

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



project report. Shivakumar was Water Resources Minister in Siddaramaiah's government at the time.

The Mekedatu dam will be larger than the Krishnaraja Sagar project on the Cauvery. The Central Water Commission (CWC) had cleared a feasibility study for the project in 2018. In his statement this week, Shivakumar said Rs 1,000 crore has been earmarked for the project. In 2018, he had defended the project, saying it would "not come in the way of releasing the stipulated quantum of water to Tamil Nadu, nor will it be used for irrigation purposes". He had said that the Karnataka government was ready to hold talks with Tamil Nadu on the Mekedatu issue.

What is the history of opposition to the project?

Tamil Nadu witnessed widespread protests against the dam in 2015, with a statewide bandh that was supported by various stakeholders. The state Assembly passed unanimous resolutions against the project in December 2018 and January 2022.

Ahead of the 2016 Assembly polls in Tamil Nadu, Captain Vijayakanth of DMDK had led a delegation of Opposition leaders to meet the Prime Minister on the issue. Siddaramaiah too had led an all-party delegation from Karnataka to the Prime Minister seeking the Centre's cooperation in the project.

In August 2021, Tamil Nadu approached the Supreme Court against the project. Tamil Nadu's key arguments are that Karnataka is attempting to modify the flow of the river by constructing two reservoirs on it.

The action violates the final award of the CRWT, and would impound the flow in the intermediate catchment below the Krishnaraja Sagar and Kabini reservoirs, and Billigundulu, along the border of Karnataka and Tamil Nadu, the state has argued.

FROM THE MARGINS

For the second year in a row, the top three ranks of the Civil Services Examination, 2022, conducted by the Union Public Service Commission have been secured by women. In a spectacular achievement, results announced on Tuesday show that 12 women are in the top 20. The 26-year-old topper, Ishita Kishore, who graduated from Delhi University's Sri Ram College of Commerce and is a resident of Greater Noida, reached the pinnacle in her third attempt. Thanking her family for their support, Ms. Kishore said she read up on current affairs and practised writing at length because the examination process can be draining. The second-rank holder, Garima Lohia, 24, from Buxar and is also a Delhi University graduate, cleared the examination in her second attempt; and Uma Harathi N., 28, who stood third, is an engineering graduate from Telangana and cleared it in her fifth attempt. The young women's reflections on success and failure, the need to persevere against all odds and the importance of an empathetic ecosystem are significant pointers for future students, teachers and parents. For students, especially girls, the courage and commitment of these women is inspiring. One can only hope that teachers and parents will create the right environment for girls to fulfil their dreams; too many girls have had to give up half way in a largely patriarchal society.

This year, 933 candidates, of an approximate 11.5 lakh who took the examination, have been recommended by the UPSC for appointment to the Indian Administrative Service, Indian Foreign Service, Indian Police Service and Central Services, Group A and B; 63% (588 candidates) are from the economically weaker sections, Other Backward Classes, Scheduled Tribe and Scheduled Caste



categories. This should help fill the gaps in policy in key sectors such as education and health for the needy. For all the success in the classroom, the students will now have to test their strength on the field. In a country as diverse as India, the challenges are different every few kilometres; they may have to contend with hate, violence, prejudice, discrimination and other adverse circumstances. The trail-blazers in the IAS, many of them women, had their first postings, as is the norm, in rural or semi-urban areas, and by keeping their ear to the ground, picked the issues they would campaign for, like the right to education for children, to give just one example. As women civil servants forming the steel framework of the administrative system, they may have to work under pressure, but their service will be vital for the well-being of a young India, especially women who often find themselves on the margins.

HOW CAN CITIZENS FILE CENSUS DETAILS ONLINE?

The story so far:

India had conducted the Census every 10 years since 1881, but in 2020, the decennial exercise for Census 2021 had to be postponed due to the pandemic. Though the government has not announced fresh dates for the Census, the groundwork is being laid and details are emerging about some of the features. It will be the first digital Census giving citizens an opportunity to “self-enumerate”. The NPR (National Population Register) has been made compulsory for citizens who want to exercise the right to fill the Census form on their own rather than through government enumerators. During self-enumeration, Aadhaar or mobile number will be mandatorily collected.

What is the status of the Census exercise?

A January 2 notification extending the deadline for the freezing of administrative boundaries in States till June 30 has ruled out the exercise at least till September. As preparation and training takes at least three months, the Census will have to be pushed to next year. Around 30 lakh government officials will be assigned as enumerators and each will have the task to collect the details of 650-800 people through both online and offline mode, covering an estimated population of 135 crore people. The Lok Sabha election is due in April-May 2024 and it is unlikely that the Census will be carried out before that since the same workforce will be dedicated to the elections.

The completion of both the phases of the Census will take at least 11 months, even if done at an accelerated pace from October 1.

What is holding up the Census?

One reason which is holding up the exercise is the amendments proposed to the Registration of Births and Deaths Act, 1969. The government wants to have a centralised register of births and deaths that can be used to update the population register, electoral register, Aadhaar, ration card, passport and driving licence databases. The centrally stored data will be updated in real time without human interface leading to addition and deletion from electoral rolls when an individual turns 18 and after an individual's death respectively. A Bill to link the births and deaths register with the population register and others is expected to be tabled in the next session of Parliament, Home Minister Amit Shah has said.

What about self-enumeration and NPR?

On May 22, Mr. Shah inaugurated the new Janganana Bhavan (Census building) in New Delhi, and released a report, ‘The Treatise on Indian Censuses Since 1981’ containing details about the



questions to be asked in the forthcoming Census and other aspects. The report said that “self-enumeration for Census will be provided to only those households that have updated the NPR [National Population Register] online”.

The NPR, unlike the Census, is a comprehensive identity database of every “usual resident” in the country and the data proposed to be collected at the family level can be shared with States and other government departments. Though Census also collects similar information, the Census Act of 1948 bars sharing any individual’s data with the State or Centre and only aggregate data at the administrative level can be released. According to Citizenship Rules 2003 under the Citizenship Act, 1955, NPR is the first step towards a compilation of the National Register of Indian Citizens (NRI/NRC). Assam is the only State where an NRC has been compiled based on the directions of the Supreme Court, with the final draft of Assam’s NRC excluding 19 lakh of the 3.29 crore applicants. In 2020, the NPR was opposed by several State governments such as West Bengal, Kerala, Rajasthan, Odisha, Bihar, Andhra Pradesh, Telangana, Punjab and Chhattisgarh and civil society organisations due to its link with the proposed NRC as it might leave many people stateless for want of legacy documents.

There are apprehensions that the Citizenship Amendment Act (CAA), 2019 that allows citizenship on the basis of religion to six undocumented religious communities from Pakistan, Afghanistan and Bangladesh who entered India on or before December 31, 2014 will benefit non-Muslims excluded from the proposed citizens’ register, while excluded Muslims will have to prove their citizenship. The government has denied that the CAA and NRC are linked and that there are currently any plans to compile a countrywide NRC.

What is the current status of NPR?

The NPR was first collected in 2010 when the Congress government was in power at the Centre. It was updated in 2015 and already has details of 119 crore residents.

In March 2020, the Ministry of Home Affairs (MHA) amended the Census Rules framed in 1990 to capture and store the Census data in an electronic form and enabled self-enumeration by respondents. The NPR is scheduled to be updated with the first phase of Census 2021. For this phase (houselisting and household phase), 31 questions have been notified, while for the population enumeration — the second and main phase — 28 questions have been finalised but are yet to be notified.

Though the government has claimed that the NPR form has not been finalised yet, the sample form is part of the Census of India 2021 Handbook for Principal/District Census Officers and Charge Officers in 2021. According to the Handbook, that was pulled down from the Census website after a report published in The Hindu in 2021, the NPR has retained contentious questions such as “mother tongue, place of birth of father and mother and last place of residence”, possible indicators to determine inclusion in the citizenship register. The questions were opposed by the State governments of West Bengal, Kerala, Rajasthan and Odisha in 2020.

What about the expenditure?

The report released by Mr. Shah says the initial draft prepared by the office of the Registrar General of India and circulated to key Ministries and the Prime Minister’s Office only called for the conduct of Census 2021 at a cost of ₹9,275 crore, and not the NPR. The draft Expenditure Finance Committee (EFC) note was then revised and a financial provision of ₹4,442.15 crore for updating the NPR was added on the directions of the MHA “subsequently”, it says. The proposal was cleared



on August 16, 2019 and it received the Union Cabinet's nod on December 24, 2019. It was decided that the enumerator engaged for Census would also collect details for NPR. The COVID-19 pandemic struck in March 2020 and since then both the exercises are on hold. Now, the NPR has been made compulsory if citizens want to exercise the right to fill the Census form on their own. The deleted Handbook said that it is "mandatory for every usual resident of India to register in the NPR." Census is also a mandatory exercise and giving false information is a punishable offence.

UNIT ON IQBAL AXED, NOD FOR NEW COURSE ON SAVARKAR: DU'S ACADEMIC COUNCIL APPROVES CHANGES TO UG SYLLABI

Removal of a unit on Muhammad Iqbal, introduction of a new course on Vinayak Damodar Savarkar or 'Veer Savarkar' — Delhi University's Academic Council (AC), the apex decision-making body on academic matters, approved several changes to the undergraduate syllabi on Friday.

While the content on Iqbal, the poet who penned 'Saare Jahan Se Achha' and was later designated the national poet of Pakistan, has been removed from a course titled 'Modern Indian Thinkers' taught to students of BA (Honours) Political Science, the new course on Savarkar will be offered as an elective to students who opt for the BA Programme with Political Science as their major.

Following an objection raised by some AC members against the decision to offer an elective paper on Mahatma Gandhi in the fourth year instead of the third, the head of the political science department clarified that students of BA Programme (Political Science) will be at liberty to decide which thinker they want to study in the fifth, sixth, and seventh semesters.

According to the university statement, the Centre for Independence and Partition Studies will research unknown heroes and events of the freedom movement, explore various aspects of the struggle for Independence and the causes and effects of the partition, while the Centre for Tribal Studies will be a multi-disciplinary centre focusing on the social, cultural, linguistic, religious, economic, and environmental aspects of various tribes in India, as well as studying the role and contribution of tribal leaders throughout different eras.

In the dissent note on the Centre for Independence and Partition Studies, members of the council expressed that its stated objective of studying and researching 'invasions and consequent sufferings and slavery that occurred in the past 1300 years' is offensive and could potentially promote communal divisions.

On the centres, Maya John, member of the Academic Council and history professor, said that the University has already floated certain centres like the Centre for Disability Studies and she had asked about the status of these and did not get a response. On syllabus changes, she said, "The history department has given up a generic elective called Inequality and Difference. If you remove Iqbal, you remove the debate and the diversity of views of Muslim thinkers debating nationalism and what it means for the Muslim community. If you teach Iqbal you're not endorsing Iqbal, but showing students the spectrum of understanding nationalism."

The AC meeting also considered the proposal of the philosophy department and approved three new courses on the philosophy of Ambedkar, Gandhi and Swami Vivekananda. The V-C requested the head of the philosophy department to explore the possibility of including Savitribai Phule in the curriculum, DU said in its statement.



MOST STUDENTS FROM SOUTH BOARDS TAKE SCIENCE IN CLASS 11: WHAT A GOVT STUDY SAYS

A Union government study has found major region-wise variations in the choice of academic streams at the high school level in the country, with Science being the overwhelmingly popular choice among students in most southern states, where Arts have very few takers.

While the large number of institutions offering courses on engineering and medicine in the southern states has always been an indicator of the skew, it is for the first time that the Centre has delved deep into the issue. This will be analysed further by PARAKH (Performance Assessment, Review and Analysis of Knowledge for Holistic Development), a new division under the NCERT to address such disparities.

Which are the top states where the Science stream is popular?

Science stream students far outnumbered their Arts counterparts in Andhra Pradesh (75.63 per cent); Telangana (64.59 per cent); Tamil Nadu (61.50 per cent); Uttar Pradesh (57.13); and Kerala (44.50 per cent) in the 2021-22 academic session, according to the government study. Among Northeast states, in Manipur, as many as 68.87 per cent of those who took the Class XII board exams opted for Science. As the list shows, four out of the five large states where Science is the preferred choice among students of class XI-XII are in south India.

Where is Arts the preferred choice?

The top five states where Arts was the popular pick in 2022 were Gujarat (81.55 per cent); West Bengal (78.94 per cent); Punjab (72.89 per cent); Haryana (73.76 per cent); and Rajasthan (71.23 per cent), showing a larger geographical spread than Science. In the Northeast, Arts was the popular choice in Meghalaya (82.62); Tripura (85.12 per cent); and Nagaland (79.62 per cent). While the study captures the preferences of the class of 2022 only, officials in the Ministry of Education said that the numbers are indicative of decades-long trends.

What about the Commerce stream?

According to the study, the Commerce stream “has stagnated at the same level over the last one decade”, with around 14 per cent students (national average) pursuing the discipline in high school.

Conversely, the share of students opting for Science and Arts has increased from 31 per cent to over 40 per cent (national average) during the same period. What stands out particularly is that in Andhra Pradesh, Telangana, Tamil Nadu, where Science is the dominant stream, the preference for Commerce is far above the national average, as in these states, Arts students accounted for a mere 1.53 per cent, 2.01 per cent and 2.19 per cent respectively in the 2022 board examination.

As many as 32 per cent high school students enrolled with the Tamil Nadu state education board in 2022 were pursuing Commerce, 23.54 per cent in Telangana and 13.64 per cent in Andhra Pradesh. Telangana and Andhra Pradesh also had 9.85 per cent and 8.54 per cent students signed up with the vocational stream, which has negligible takers in most other states.

Do these trends hold at the level of higher education also?

There are many indicators which clearly indicate south India’s preference for Science education. First, there are 1,229 All India Council For Technical Education-approved institutions offering

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



engineering and technological courses in the five states of south India (including 9 in Puducherry and 1 in Lakshadweep), with a student intake capacity of 5.11 lakh, according to the council's 2022-23 handbook. This is the highest among all other regions.

Tamil Nadu alone had 13.8 lakh students pursuing engineering and technical courses in 2022-23, the highest among all states. In terms of medical education, of the 596 medical colleges (both public and private) in India, as many as 225, or 37.7 per cent, are in the states of Tamil Nadu, Telangana, Karnataka, Kerala and Andhra Pradesh, according to a response furnished by the Ministry of Health in the Lok Sabha in April last year.

Moreover, the JEE advanced scores also provide some clues in this regard. For instance, in 2022, IIT Madras zone had 29 candidates in the top 100 category, along with IIT Bombay. Even in 2021, the south zone threw up 27 candidates in this category, right behind IIT Delhi and IIT Bombay zones. The zones that represent the eastern and north-eastern Indian states trail much behind. In JEE Main 2023, Telangana had the maximum (11) number of students with 100 percentile, followed by Andhra Pradesh and Rajasthan, with five each.

Why was this area chosen by the government for a study?

The study aims to bring equivalence in assessment among various education boards, and looked into many other aspects, such as pass percentages and dropout rates. However, the trends on choice of academic streams is the most significant, as parameters such as dropout rates can also be culled out from other sources, such as the Unified District Information System for Education Plus (UDISE+), while pass percentages of various boards are available publicly.

FASTER, STRONGER

Later this year, India will have a new 'supercomputer' or, more correctly, an upgraded 'high performance computing (HPC)' system that will arguably be its fastest. This system is to be made and installed by the French corporation, Atos — an information technology service and consulting company. The Narendra Modi government signed a deal in December 2018 with France to procure high-performance computers worth ₹4,500 crore by 2025. These HPC systems will run at two institutions, the Indian Institute of Tropical Meteorology, Pune, and the National Centre for Medium Range Weather Forecasting, Noida, that currently host two of India's most powerful such machines, Mihir and Pratyush. Like their predecessors, the Atos machines will be used primarily to run sophisticated weather models that, for some years now, are being used to prepare a range of forecasts, from long-term monsoon to fortnightly as well as daily weather changes. Extremely powerful machines are needed for this purpose as accurate forecasts are premised on being able to simulate the state of the atmosphere and oceans. 'Supercomputers' is a buzzword and term that is in constant flux. Supercomputers of two decades ago are today's student laptops and gaming consoles.

While many challenging research questions, apart from weather modelling, are extremely dependent on computing — protein biology, aerospace-modelling applications, and now AI-linked applications — the possession of HPCs is also used as a medallion by countries wanting to signify their technological prowess. The Top500 project has for over two decades maintained a list of the top 500 most powerful HPC machines and this is updated twice a year, with countries prominently advertising the presence of their systems if they make it to the list. Currently, a machine housed at Pune's Centre for Development of Advanced Computing (CDAC) is the only Indian machine in the top 100 with a top speed of 13 petaflops. Floating point operations per second (FLOPS) are an



indicator of computer processing abilities and 1 petaflop is a 1,000 trillion flops. The to-be installed French machines are expected to be 18 petaflops and India already has a handful of machines at multiple research institutions in the petaflop range. The possession of powerful supercomputers is certainly a reassurance that Indian scientists, wanting to solve intractable problems, can always tap these behemoths, but whether the use of these machines has translated into significant breakthroughs in fundamental science or engineering commercial products is another matter. Much like India has improved its short-term weather forecasts and made cyclone forecasts more accurate on the back of such machines, there should be greater accounting of their worth in other fields, rather than be content with epithets of speed and power.

WILL AI TOOLS HELP DETECT TELECOM FRAUD?

The story so far:

To weed out rampant cases of fraudulently procured SIM cards being used across the country for financial and other cyber scams, the Department of Telecommunications (DoT) has begun using an artificial intelligence-based facial recognition tool named 'Artificial Intelligence and Facial Recognition powered Solution for Telecom SIM Subscriber Verification' or ASTR. ASTR has already been used in multiple States such as Haryana, Gujarat, Maharashtra, Tamil Nadu, and Kerala.

Why is AI used to detect telecom frauds?

On May 25, the Punjab police said it had blocked 1.8 lakh SIM cards allegedly activated using fake identities, out of which 500 connections were obtained using one person's photo but different accompanying KYC (Know Your Customer) parameters such as names, address proofs, and so on. India is the second-largest telecom ecosystem in the world, with about 117 crore subscribers. While manually identifying and comparing the vast number of subscriber verification documents such as photographs and proofs is a massive exercise, the DoT says it aims to use the facial recognition-based "indigenous and NextGen platform" ASTR to analyse the whole subscriber base of all telecom service providers (TSPs). Besides, it points out, that the currently available conventional text-based analysis is limited to finding similarities between the proof of identities and verifying whether such information is accurate but it cannot trawl photographic data to detect similar faces.

What is ASTR?

Facial recognition is an algorithm-based technology which creates a digital map of the face by identifying and mapping an individual's facial features, which it then matches against the database to which it has access.

In 2012, the DoT had directed all TSPs to share their subscriber database including pictures of users with the department. The ASTR analyses this database provided by TSPs and put them into groups of similar-looking images using facial recognition technology (FRT). In the next step, it compares the associated textual subscriber details with pictures in the database and uses a string-matching concept called "fuzzy logic" to identify approximately similar-looking names of users or other KYC information to group them. The last step is determining if the same face (person) has acquired SIMs in multiple names, dates of birth, bank accounts, address proofs, and other KYC documents. Alternatively, ASTR also identifies if more than eight SIM connections have been obtained in one person's name, which is not allowed as per DoT rules. ASTR's facial recognition



technology detects facial features by mapping 68 features of the frontal face. It characterises two faces as similar if there's a 97.5% match.

What are the concerns associated with the use of facial recognition AI?

The use of FRT involves issues related to misidentification due to the inaccuracy of the technology. An algorithmic FRT, which is trained on specific datasets may have limits to its knowledge, that is, it might make technical errors due to occlusion (a partial or complete obstruction of the image), bad lighting, facial expression, ageing and so on. Errors in FRT also relate to the underrepresentation of certain groups of people in the training datasets. Studies on FRT systems in India indicate a disparity in error rates based on the identification of Indian men and Indian women. Extensive research globally has revealed that its accuracy rates fall starkly based on race, gender, skin colour and so on. This, in turn, can result in a false positive, where a person is misidentified as someone else or a false negative, where a person is not verified as themselves.

Other concerns about FRT, relate to privacy, consent, and mass surveillance. The Supreme Court in the Puttaswamy case had recognised the right to informational autonomy as an important part of the right to privacy enshrined in Article 21. FRT systems consume and compute vast amounts of biometric facial data, to both train and operate. In many cases, an individual may not be in control of the processing of their data or not even be aware.

In the case of ASTR, digital policy-watcher and news organisation Medianama pointed out in its findings that there was no public notification issued about the use of ASTR on user data provided to TSPs at the time of obtaining connections. An RTI filed by the publication with the DoT did not reveal any information about how ASTR safeguards data or for how long it retains customer data. This raises questions about privacy and consent even if ASTR is being used on the principle of deemed consent mentioned in the now-withdrawn data protection bill.

What is the legal framework for such tech?

In several jurisdictions world-over which are using FRT in their governance and privately, players have to adhere to the local personal data protection regimes if AI regulation is not in place. In India, there is no data protection law in place after the government withdrew the Personal Data Protection Bill, 2019 last year following extensive changes recommended by a Joint Parliamentary Committee. Secondly, India also does not have an FRT-specific regulation.

However, NITI Aayog has published papers enunciating India's national strategy towards harnessing the potential of AI reasonably. It says that the use should be with due consent and should be voluntary and at no time should FRT become mandatory. It should be limited to instances where both public interest and constitutional morality can be in sync.

EXPRESS VIEW ON SERVICE DOGS: HAPPY RETIREMENT

In an emotional ceremony on Wednesday, CISF personnel bid farewell to three of their canine comrades in the national capital. Sony, Rocky and Romeo of the Delhi Metro unit have hung up their leashes after nearly a decade of dedicated service. Over the course of an eventful career, the three explosive-detecting dogs — a female German Shepherd, a male Golden Retriever and a male Cocker Spaniel — helped sniff out and identify several unclaimed or unattended items or pieces of baggage and played an invaluable role in securing the safe passage of lakhs of commuters everyday.



While the CISF has already procured their sprightly young replacements, Sony, Rocky and Romeo have been sent to a local NGO in the hope of finding them permanent homes. This is a welcome change from the days when dogs in military, paramilitary and police service would be euthanised after being put out to pasture. This was common practice around the world — partly, it was argued, because dogs that have served in high-risk defence and security jobs would have a hard time adjusting to civilian life, being too aggressive for most ordinary families.

In India, most of the retired canines are now put up for adoption — often ending up being taken in by the handlers with whom they spent years building a bond, but frequently also finding new homes with civilian families. In 2021, the Indo-Tibetan Border Police (ITBP) showed another way forward: The force started a programme to give retired canines a second chance as “therapy dogs”, with dogs being trained at the ITBP National Training Centre for Dogs and Animals to assist in the recuperation of personnel undergoing medical treatment as well as children with special needs. Humane approaches like this can ensure that the life of a service dog, with years spent in rescuing and protecting, doesn’t have to end with retirement.

CROSS STAFFING OF ARMY OFFICERS TO IAF, NAVY SOON

In a major step towards bringing integration in the Indian military and creation of theatre commands, a large batch of around 40 Army officers will soon be posted to the Indian Air Force (IAF) and Navy establishments where they would perform similar roles as they do in the Army, The Indian Express has learnt.

Top officials told The Indian Express that the Army officers who are part of the cross-staffing postings are in the executive level in the ranks of Major and Lieutenant Colonel. A corresponding number of officers from the IAF and the Navy are also likely to be posted to Army establishments for executing similar tasks.

The officers would be transferred to missile units, for handling UAVs and for logistics, repair and recovery and material and supplies management among other roles in the two other services. This is possible because several UAVs and weapon systems, radars, vehicles, telecommunication equipment among others are common across the three services.

So far, only a handful such postings had taken place, officials said, citing examples of certain Army officers getting posted to select roles in naval operations or in flying roles in the IAF.

Defence officials said this is a significant step in creating cross functional teams which will be a primary requirement for achieving theaterisation. The officers would learn the ethos and nuances and functioning of each service from an early stage in their careers.

Greater synergy

The officers would be transferred to missile units, for handling UAVs and for logistics, repair and recovery and material and supplies management among other roles in the two other services. There are several common equipment, weapon systems and platforms across the services and the cross staffing of officers will help each other understand the service they are posted in, better, thus paving way for greater synergy and integration among them.

“This would help in overcoming the various challenges in terms of reporting procedures, procurement as well as supply chain management,” an official said, adding that the intent would be to learn the best practices from each other and subsequently create a common functional base



which would be a necessity once the theatre commands are created. “This will be a ground-up integration, and can help optimise support services,” the official added.

As reported first by The Indian Express, the armed forces are drawing up the final contours of theaterisation plans which seek to integrate the Army, Navy, and Air Force and their resources into specific theatre commands.

One of the top proposals being considered is to create joint theatre commands based on India’s adversaries in the neighbourhood to begin with, as against the four defined theatre commands planned earlier. The creation of the theatre commands is likely to take some time.

India has two joint services commands – the Andaman and Nicobar Command (ANC) and the Strategic Forces Command (SFC).

ISRO’S NEW NAVIC SATELLITE LAUNCHES SUCCESSFULLY: WHY A REGIONAL NAVIGATION SYSTEM MATTERS TO INDIA

The Indian Space Research Organisation (ISRO) launched the first of the second-generation satellites for its navigation constellation successfully on Monday morning. The 2,232 kg satellite, the heaviest in the constellation, was launched by a Geosynchronous Satellite Launch Vehicle (GSLV) rocket that lifted off from Sriharikota at 10:42 am.

Each of the seven satellites currently in the Indian Regional Navigation Satellite System (IRNSS) constellation, operationally named NavIC, weighed much less — around 1,425 kg — at liftoff. They all rode the lighter Polar Satellite Launch Vehicle (PSLV), ISRO’s workhorse launch rocket.

The last IRNSS satellite, IRNSS-1I, was launched in April 2018 to replace an older, partially defunct satellite in the constellation. IRNSS-1I was ISRO’s ninth satellite for the NavIC constellation, but is considered to be the eighth because the IRNSS-1H — launched eight months earlier in August 2017 and originally intended to replace the older satellite — was lost after the heat shield of the payload failed to open on time.

What’s new in the second-generation NavIC satellite?

As stated above, the second-generation satellite — christened NVS-01, the first of ISRO’s NVS series of payloads — is heavier. Other than that:

Atomic Clock: The satellite will have a Rubidium atomic clock onboard, a significant technology developed by India. “The space-qualified Rubidium atomic clock indigenously developed by Space Application Centre-Ahmedabad is an important technology which only a handful of countries possess,” ISRO said in a statement.

L1 signals for better use in wearable devices: The second generation satellites will send signals in a third frequency, L1, besides the L5 and S frequency signals that the existing satellites provide, increasing interoperability with other satellite-based navigation systems.

The L1 frequency is among the most commonly used in the Global Positioning System (GPS), and will increase the use of the regional navigation system in wearable devices and personal trackers that use low-power, single-frequency chips.

Longer mission life: The second-generation satellites will also have a longer mission life of more than 12 years. The existing satellites have a mission life of 10 years.



What is the significance of the atomic clock on board the NVS-01 payload?

Several of the existing satellites stopped providing location data after their onboard atomic clocks failed — this was the main reason for the launch of the replacement satellite in 2018. Since a satellite-based positioning system determines the location of objects by accurately measuring the time it takes for a signal to travel to and back from it using the atomic clocks on board, failure of clocks means the satellites are no longer able to provide accurate locations.

Currently, only four IRNSS satellites are able to provide location services, according to ISRO officials. The other satellites can only be used for messaging services such as providing disaster warnings or potential fishing zone messages for fishermen.

And what about the age of the satellites?

This is the second major concern, besides the failing atomic clocks. IRNSS-1A was launched into orbit on July 1, 2013, and the 1B and 1C satellites were launched in the following year. 1A is almost defunct — the failed 1H mission of 2018 was intended to replace this satellite — and all the three oldest satellites in the constellation are close to the end of their 10-year mission lives. At least three new satellites must be put into orbit to keep the seven-satellite constellation fully functional, ISRO officials said.

What practical purpose does the NAVIC constellation serve for users?

ISRO has been criticised by experts for not focussing on the development of the user segment until very late in the life of some of the satellites in the constellation.

Ajey Lele, senior fellow at Manohar Parrikar Institute for Defence Studies and Analyses, had told The Indian Express earlier that because of this lack of interest, no receivers were developed for the NavIC system, even though the satellites were sending signals.

A 2018 report by the Comptroller and Auditor General (CAG) of India said that even though the Cabinet cleared funding of Rs 200 crore to develop user receivers in 2006, work on the project started only in March 2017, by which time seven launches had already taken place.

The receivers have now been developed, and NavIC is in use for projects like public vehicle safety, power grid synchronisation, real-time train information systems, and fishermen's safety. "Other upcoming initiatives (such as) common alert protocol based emergency warning, time dissemination, geodetic network, unmanned aerial vehicles are in the process of adopting NavIC system," Minister of State in the Department of Space Dr Jitendra Singh told Parliament last year.

Some cell phone chipsets such as the ones built by Qualcomm and MediaTek integrated NavIC receivers in 2019. The Ministry of Electronics and IT is in talks with smartphone companies to urge them to make their handsets NavIC compatible.

What is the advantage of having a regional navigation system?

India is the only country that has a regional satellite-based navigation system. There are four global satellite-based navigation systems — the American GPS, the Russian GLONASS (GLObalnaya NAVigatsionnaya Sputnikovaya Sistema), the European Galileo, and the Chinese Beidou. Japan has a four-satellite system that can augment GPS signals over the country, similar to India's GAGAN (GPS Aided GEO Augmented Navigation).



Once fully operational — with ground stations outside India for better triangulation of signals — NavIC open signals will be accurate up to 5 metres and restricted signals will be even more accurate. GPS signals by contrast are accurate up to around 20 metres. Work is underway to set up ground stations in Japan, France, and Russia, ISRO officials said.

NavIC provides coverage over the Indian landmass and up to a radius of 1,500 km around it. In this region, NavIC signals will likely be available in even hard-to-reach areas. Unlike GPS, NavIC uses satellites in high geo-stationery orbit — the satellites move at a constant speed relative to Earth, so they are always looking over the same region on Earth.

NavIC signals come to India at a 90-degree angle, making it easier for them to reach devices located even in congested areas, dense forests, or mountains. GPS signals are received over India at an angle.

With the use of NavIC picking up, the government has been looking at the possibility of increasing the coverage area of the system. “Detailed studies are in progress on technical parameters and feasibility,” an ISRO official said.

OIL RESERVES IN SALT CAVERNS: THE POTENTIAL IN INDIA

Government-owned engineering consultancy firm Engineers India (EIL) is studying the prospects and feasibility of developing salt cavern-based strategic oil reserves in Rajasthan, in line with the government’s objective of increasing the country’s strategic oil storage capacity.

If the idea comes to fruition, India could get its first salt cavern-based oil storage facility. The country’s three existing strategic oil storage facilities — at Mangaluru and Padur in Karnataka, and Visakhapatnam in Andhra Pradesh — are made up of excavated rock caverns.

Countries build strategic crude oil reserves to mitigate major supply disruptions in the global supply chain. India, the world’s third-largest consumer of crude, depends on imports for more than 85% of its requirement — and strategic petroleum reserves (SPR) could help ensure energy security and availability during global supply shocks and other emergencies.

India currently has an SPR capacity of 5.33 million tonnes, or around 39 million barrels of crude, that can meet around 9.5 days of demand. The country is in the process of expanding its SPR capacity by a cumulative 6.5 million tonnes at two locations — Chandikhol in Odisha (4 million tonnes) and Padur (2.5 million tonnes).

India’s strategic oil reserves come under the Petroleum Ministry’s special purpose vehicle Indian Strategic Petroleum Reserve (ISPRL). EIL was instrumental in setting up the country’s existing SPR as the project management consultant.

Salt cavern-based storage, which is considered cheaper and less labour- and cost-intensive than rock caverns, could add a new, much-needed chapter to India’s SPR story.

Salt cavern-based reserves v. rock cavern-based reserves

Unlike underground rock caverns, which are developed through excavation, salt caverns are developed by the process of solution mining, which involves pumping water into geological formations with large salt deposits to dissolve the salt. After the brine (water with dissolved salt) is pumped out of the formation, the space can be used to store crude oil. The process is simpler, faster, and less cost-intensive than developing excavated rock caverns.



Salt cavern-based oil storage facilities are also naturally well-sealed, and engineered for rapid injection and extraction of oil. This makes them a more attractive option than storing oil in other geological formations, according to a report by the Environmental Solutions Initiative at the Massachusetts Institute of Technology (MIT).

The salt that lines the inside of these caverns has extremely low oil absorbency, which creates a natural impermeable barrier against liquid and gaseous hydrocarbons, making the caverns apt for storage. Also, unlike rock caverns, salt cavern-based storages can be created and operated almost entirely from the surface.

The entire SPR programme of the United States has so far been based on salt cavern-based storage facilities. The US Strategic Petroleum Reserve, the world's largest emergency oil storage, consists of four sites with deep underground storage caverns created in salt domes along the Gulf of Mexico coast in Texas and Louisiana. The US strategic oil reserves have a cumulative capacity of around 727 million barrels.

Salt caverns are also used to store liquid fuels and natural gas in various parts of the world. They are also considered suitable for storing compressed air and hydrogen.

Potential in India for storing crude, petroleum products

Rajasthan, which has the bulk of requisite salt formations in India, is seen as the most conducive for developing salt cavern-based strategic storage facilities. Plans over the past decade to build a strategic oil reserve in Bikaner did not take off — and EIL's Chairman and Managing Director Vartika Shukla said the exploration of the possibility of salt cavern-based strategic storage in Rajasthan can be seen as a renewal of that proposal.

A refinery is coming up in Barmer, and Rajasthan has crude pipelines as well; such infrastructure is conducive for building strategic oil reserves. However, no Indian company, including EIL, had the requisite technical know-how to build salt cavern-based strategic hydrocarbon storage. This gap in access to technology has been bridged by EIL's recent partnership with Germany's DEEP.KBB GmbH — a company that specialises in cavern storage and solution mining technology — Shukla said. However, it is still too early to identify a specific site or make an estimate of the project cost, she said.

Strategic petroleum reserves programme: story so far

India's strategic oil reserves are part of the effort to build sufficient emergency stockpiles on the lines of the reserves that the US and its Western allies set up after the first oil crisis of the 1970s. The three existing rock cavern-based facilities were built during the first phase of the programme.

Crude oil from the reserves are to be released by an empowered committee set up by the government, in the event of supply disruptions due to a natural calamity or an unforeseen global event leading to an abnormal increase in prices.

The International Energy Agency (IEA), a Paris-based autonomous intergovernmental organisation in which India is an 'Association' country, recommends that all countries should hold an emergency oil stockpile sufficient to provide 90 days of import protection.

In India, apart from the SPR that are sufficient to meet 9.5 days of oil requirement, the oil marketing companies (OMCs) have storage facilities for crude oil and petroleum products for 64.5



days — which means there is sufficient storage to meet around 74 days of the country's petroleum demand.

India has also decided to commercialise its strategic petroleum reserves, as part of which the Abu Dhabi National Oil Company (ADNOC) stored about 0.8 million tonnes of crude oil in the Mangaluru strategic reserve. In the second phase of the programme, the government wants to develop strategic reserves through public-private partnerships so as to reduce government spending and exploit the commercial potential of the reserves.

Taking advantage of low crude oil prices in April-May 2020, the government completely filled these reserves, leading to estimated savings of around Rs 5,000 crore. In late 2021, India released 5 million barrels from its strategic reserves as part of a coordinated US-led action by major oil-consuming countries against the joint decision of major oil-producing nations to curb output.

UNDERSTANDING THE VIOLENCE FACED BY HEALTHCARE PROFESSIONALS IN INDIA

On May 10, 2023, Dr. Vandana Das was stabbed to death in the line of duty in the Kollam district of Kerala. Amid searing outrage from the medical fraternity, the tragedy brought to the forefront the increase in workplace violence faced by doctors all over India.

Who faces what kind of violence?

It is not the first time such a thing has happened. Over the years, there have been several episodes of physical and verbal violence. Each episode has the people at large passionately arguing the issue for a few days, only for their words to fade away until the next brutal incident. Doctors also stage protests but are ultimately honour-bound to return to duty, to reprise their roles as healers. Thus, the issue remains largely unaddressed.

According to a systematic review of recent research published in the Journal of Postgraduate Medicine in July 2020, "In developing countries, more than 50% of doctors have faced patient-led verbal and physical abuse." Such violence has been on a rising trend in economically developing countries, and is lowest in developed ones. Research has also found that workplace violence is mostly directed at junior doctors and residents, with the incidence progressively dropping against more senior healthcare workers. The violence also happens more often in high-stake settings, such as in the emergency wing and intensive care units, or in departments with patients who have compromised mental faculties.

The perpetrators of workplace violence against physicians are family members or relatives of the patient in 82.2% of cases, as per a paper published in PLoS ONE in 2020. Some perpetrators become violent over concerns of the patient's condition, such as actual or perceived deterioration of their condition or doubts about the wrong treatment being administered. Some others become violent due to issues such as high payment dues and protracted waiting times. Doctors aren't responsible for either. Studies also show that female medical professionals, with lesser years of experience, are objectively more at risk of being on the receiving end of both physical and verbal workplace violence.

What effect does the violence have?

According to a 2016 paper in the National Medical Journal of India, 75% of the violence against doctors is verbal, including intimidation and threats. Most doctors who suffer them never report them; some notify their department seniors but are often told that these experiences are "part of



the job". The PLoS ONE study noted that only 25% of doctors who experienced such violence complained to the police and only 10% of them believed that their complaint was addressed adequately. Most doctors don't report at all as they think that doing so will not accomplish much.

However, being on the receiving end of verbal or physical violence has an immense psychological impact. Some studies have reported symptoms of post-traumatic stress disorder, anxiety, and depression in doctors who have faced violence from patients or their kin. In a country with a skewed doctor-patient ratio (1:854, including Ayurveda and homeopathy practitioners), doctors often decide to operate in resource-abundant settings for their own security. This in turn affects rural healthcare.

After experiencing violence, the PLoS ONE study found that doctors wish to stop offering emergency services, refer patients sooner to more specialists, and over-investigate symptoms and prescribe more tests. They also tend to offer less lifesaving medical and surgical interventions that a patient may require, over fear that a risky procedure may provoke violent action. This negatively affects the quality of healthcare.

Why do healthcare workers face violence?

Often, patients or their relatives turn to violence because the healthcare system hasn't met their expectations. To eliminate this 'threat', we must spend more money to strengthen the system from the grassroots level, such as reducing long waiting periods for treatment. The availability and accessibility of medicines, tests, and financial aid for those in need will greatly reduce their stress, instead of leaving them to hold their physicians responsible for it.

Healthcare professionals need to work on their communication skills and ensure meticulous documentation. At the same time, measures to mitigate workplace violence towards them must be multi-pronged and focus on institutional and policy measures.

Institutional measures like installing CCTV cameras and metal detectors at hospital entrances to deter relatives from carrying weapons are workable, but they are currently easier to realise in private settings and not at public facilities. Ensuring that there are counsellors to help patients and relatives in times of high emotional distress (together with people who can translate between languages) can eliminate any miscommunication regarding a patient's condition and treatment. In addition, a robust security system and not allowing more than a few relatives by a patient's bedside may also be important — as will enforcing the law well enough to bring perpetrators to book in a reasonable span of time. It is notable that despite demands for protective legislation by doctors, such provisions have not been made to this day.

Will a law work?

Like India, China has contested doctor-patient relationships to the point where it has drawn international attention. A February 2016 study published in the Journal of Medical Internet Research reported that several policies introduced by the Chinese government to strengthen their healthcare, punish illegal medical activities, and provide transparent medical-risk assessment of certain health conditions were able to partially improve public trust in healthcare workers and the healthcare system.

The finding is an indication that we can expect a similar law and that such policies in India would improve Indians' trust in the Indian healthcare system as well.



WHAT HAS INDIA DONE TO CURB UNNECESSARY HYSTERECTOMIES?

The story so far: The Union Health Ministry recently urged State governments to audit hysterectomy trends in public and private hospitals, in response to a Supreme Court petition arguing that women from marginalised locations are at risk of unjustified hysterectomies for economic gains and exploitation. The Court also gave a three-month deadline to States, directing them to implement the guidelines previously issued by the Centre.

What are the criteria for getting a hysterectomy?

The highest percentage of hysterectomies were to treat excessive menstrual bleeding or pain (51.8%); 24.94% for fibroids; 24.94% for cysts and 11.08% for uterine disorder or rupture, according to NFHS-5 data. Yet, studies have shown that “many of these causes were considered to be treatable and surgery could be avoided”. A majority of these cases were reported among socially and economically disadvantaged women. The procedure can easily be misused by either private clinics who earn profits (from insurance money) or by contractors in unorganised sectors such as the sugar-cane-cutting industry, where ‘wombless women’ are the norm to eliminate the need for menstrual care and hygiene among workers.

What measures has the govt. taken?

The Union Health Ministry in 2022 issued guidelines to prevent unnecessary hysterectomies — listing possible indications of when hysterectomy may be required and alternative clinical treatments for gynaecological issues. Further, they recommended setting up district, State-level and national hysterectomy monitoring committees to monitor and collect data on age, mortality, and occupations, among other details. The monitoring committees are also tasked with creating awareness, among both practitioners and patients, about bodily anatomy, the role of uterus and when hysterectomies are actually indicated. A 2017 study from Gujarat found most women assumed that the uterus served no role outside of pregnancy and that removing the uterus would solve their health issues. There is a dearth of awareness, experts say, and in the absence of sexual and reproductive health education, “informed consent” to conduct the procedure can never be taken.

A 2019 investigation found that women from rural areas look at hysterectomies as a way of increasing days of productive work and earning more wages. While on the one side are patients in need of medical care for different ailments, “on the other side of the table is somebody who is just out to make quick money and do quick surgery” as “people have turned healthcare into a business”, says Dr. Somya Gupta, a Delhi-based gynaecologist.

The government’s flagship health insurance programme, the Ayushman Bharat Pradhan Mantri Jan Arogya Yojana provides health cover of ₹5 lakh for 1,949 procedures, including hysterectomies. The government has authorised 45,434 hospitals to conduct these operations.

Is there an implementation gap?

The gap thrives in a culture where gynaecological care and disorders — outside of pregnancy — exist in oblivion, experts say.

The Supreme Court and Centre’s reiteration of guidelines came in response to a petition by Dr. Narendra Gupta, a public health expert. He argued that despite the provisions, private hospitals in Bihar, Chhattisgarh and Rajasthan engaged in unethical practices, unnecessary procedures and



did not inform women of side effects or take their informed consent. In doing so, they “failed in providing and regulating constitutionally mandated reproductive healthcare to women” and violated their “rights to health, bodily integrity and informed consent,” the petition said.

Hysterectomies may cause long-term injuries and disabilities, requiring follow-up and post-operative care, both rarely available or affordable. In some cases, where hysterectomies are not justified yet still done, women may continue to suffer post-surgery and might need additional surgery. “If they had pelvic pain due to endometriosis, it might not be solved by hysterectomy alone,” Dr. Gupta says. In other cases, patients may need medical support such as hormone replacement therapies. But these interventions are limited to private hospitals and remain unaffordable for low-income groups.

CLOSE TO 12% OF YOUNG GIRLS THINK MENSTRUATION IS A CURSE: STUDY

Close to 4,000 girls, aged 10-17 years from 38 districts in the country, participated in the survey for two months. The ‘Study on Knowledge, Attitude and Practice’ is part of the Period Shame campaign CRY kicked off last year. This study was conducted to develop an understanding of the status of the menstrual health scheme under the Rashtriya Kishor Swasthya Karyakram programme launched by the Union government in 2014.

The study was conducted from July to August 2022.

The sample size had 66.1% girls from urban India, 30.2% from rural and 3.7% from urban slums. About 77.8% of girls were studying in government schools and 22.2% in private schools.

According to the study, 84% of the girls were knowledgeable about the cause of menstruation and said it was a biological process, whereas 11.3% of the girls did not know the correct cause and said it was a curse from god or caused by disease. About 4.6% of the girls were not at all aware about the cause of menstruation.

As much as 61.4% of girls have accepted that a sense of embarrassment existed in society with regard to periods, the study found. Access to sanitary pads was limited to many girls, with 44.5% of girls admitting to using home-made absorbents or cloth. Hesitation or shyness to purchase pads from the shops, difficulty in disposing of pads, poor availability and no knowledge of pads were the reasons for not using sanitary pads.

The highest percentage of girls, 27.7, reported that their mother was the main source of information on menstruation, followed by 22.8% who said the main source was a friend; 15.9% said elder sister and 8.8% mentioned NGOs.

CONDOMS, BIRTH CONTROL PILLS IN ‘WEDDING KIT’ TRIGGER ROW IN MP

A mass wedding event held in Madhya Pradesh’s Jhabua district under the government’s wedding scheme for economically weaker sections got embroiled in a controversy after over 200 newly-wed couples were gifted make-up boxes containing condoms and contraceptive pills.

The event was organised under Chief Minister Shivraj Singh Chouhan’s Mukhyamantri Kanya Vivah/Nikah Yojana in Thandla where 296 couples got married.



Senior district official Bhursingh Rawat blamed the state health department, saying health officials distributed condoms and contraceptives as part of an awareness programme related to family planning.

“We are not responsible for distributing condoms and contraceptive pills. There is no provision in the Mukhyamantri Kanya Vivah for the provision of such a kit. We have told the local administration officials to keep a check on this in future and conduct a door-to-door campaign instead of distributing condoms at a mass wedding event. This is a tribal area with low literacy rate. People don’t have a lot of scientific temperament, so keeping that in view we will make sure this doesn’t happen again,” Rawat told The Indian Express.

Dr Ashok Patel, district family and welfare officer, told The Indian Express: “There was confusion at the event. We saw over 200 newly-weds at one place and thought we could target them. We had over 200 of our own health workers who educated them on the kit. But some people could not understand... there were couples who thought this was a part of dowry... It would take us over one month to track them all down and distribute these kits,” the officer said. The ‘Nai pahal’ kit is provided to newly married couples by the local ASHA workers.

The purpose of the kit is to impart best practices for family planning, “motivate newly married people to keep a gap (up to 2 years) after the birth of the first child after marriage using temporary family planning means” and has been distributed by the local health department for the past one year.

The kit contains two months worth of condoms, daily and weekly contraceptive pills, two pregnancy kits packed into a gift box. Along with these, the officials have also given a mirror, two packets of bindis, two towels and two handkerchiefs.

The Madhya Pradesh government launched the Mukhyamantri Kanya Vivah/Nikah Yojana in April 2006 to provide financial assistance for wedding of women from economically weaker sections. Under the scheme, the government provides Rs 55,000 to the bride’s family. Last month, the scheme came under fire after some brides were made to take pregnancy tests at a mass wedding event in Gadsarai area of Dindori.

Following the distribution of the “nai pahal” kit, the Congress targeted CM Chouhan. “Will BJP leaders reveal to the public what they gifted their daughters after their marriage? Why is it that only when it comes to tribal people they are publicly subjected to this? Is there no right to privacy left for them? In the past as well, mass pregnancy tests were carried out in this region by the administration,” said Congress spokesman Piyush Babele.

IRON FORTIFICATION: HEALTH RISKS OF EXCESSIVE IRON INTAKE

Iron is an essential mineral required for many bodily functions, including the formation of haemoglobin, but can be harmful when taken in excess. One of the methods suggested for the treatment of iron deficiency anaemia is fortification of food with iron.

Typically, a chosen food staple such as wheat, rice, or even salt, is fortified to provide up to two-thirds (10 mg/day) of the iron requirement of adult women, and almost the entire daily requirement of men. Thus, excess consumption of iron can occur if one habitually consumes a balanced quality diet to begin with or exceeds limits for consumption of the fortified food.



Tolerable upper limit

There is a defined level of iron intake beyond which the risk of adverse events begins to increase. This is called the 'tolerable upper limit' of intake, and is set at 40 mg/day.

It will especially be deleterious for populations who have iron overload states like patients with thalassemia.

Once iron is absorbed, it is thought that its excretion is steady and very small, except when bleeding takes place, as with menstrual bleeding. Thus, women can excrete iron from the body but men cannot. This makes men vulnerable to excess iron intake.

Recent studies showed that with fortification, there is an increased excretion of iron in children. It is not known exactly how or through what route this extra excretion takes place. It is likely that the extra iron is lost through the intestine, where cells of the intestinal lining exfoliate or drop off, and thereby deposit their iron into the intestine lumen for excretion, or through the urine.

Nevertheless, beyond the excess stores, the net effect of iron provision through fortification on haemoglobin formation is likely to be lower than thought.

To the extent that the body can, it will try to regulate iron absorption. But excess iron in the fortified diet can remain unabsorbed.

Typically, it is expected that just 5-10% of the ingested iron is absorbed. The rest is excreted.

Harmful effects

Studies have shown that unabsorbed iron can lead to inflammation in the gastrointestinal lining and disrupt the colonic microbiota with long term consequences. The irritation of the lining may present itself clinically as abdominal cramps, constipation, or diarrhoea. In addition, the irritation of mucosa can also lead to gastrointestinal blood loss. An excess of iron in the gastrointestinal tract can impair absorption of other minerals.

A more pressing worry is that excess iron has been closely linked to diabetes. Iron can cause oxidative stress in the body which can damage cells, protein, and DNA with long term consequences. This chronic oxidative stress leads to the impairment of mitochondrial beta-oxidation of long chain fatty acids. This abnormal fat oxidation leads to excessive serum triglyceridemia and excessive accumulation of triglycerides in muscle and liver tissues.

An analysis of data on blood biomarkers of chronic disease risk from the Comprehensive National Nutritional Survey in Indian adolescent children showed that for every 10mcg/L increase in serum ferritin (the storage state of iron), the risk of having high fasting serum glucose, total cholesterol, triglycerides and hypertension increased proportionately. A scenario analysis of these data showed that if an additional 10mg of iron/day were provided (by fortification), the prevalence of high fasting serum glucose could increase by 2-14% across different socio-economic groups.

In very high amounts, iron also has a role to play in the hepatic stellate cell activation and excessive deposition of extracellular matrix in the liver. This can lead to liver fibrosis, with subsequent progression to cirrhosis.



Individual approach

Even though iron fortification has been successful in addressing iron deficiency, it is important to consider the dangers of consuming too much iron. Rather than adopting mandatory iron fortification programmes where unsupervised high iron intakes are instituted across a diverse population, it is imperative to develop individualised strategies and ensure thorough monitoring to detect any adverse events at the earliest.

There is no doubt that some segments of the population need the extra dietary iron but not all. Eventually, precision in public health is essential if we are to avoid the risk of iron overload and the potential for long-term chronic illnesses. As a public health strategy, the pendulum should not swing all the way to the other side.

TESTING BREAKTHROUGH CHALLENGES ‘WORLD’S WORST WILDLIFE DISEASE’

For the past 40 years, a devastating fungal disease has been ravaging frog populations around the world, wiping out 90 species. Unlike the global COVID-19 pandemic, you may not even be aware of this “panzootic” – a pandemic in the animal world. Yet it’s the world’s worst wildlife disease.

Recently published in the journal *Transboundary and Emerging Diseases*, a multinational study has now developed a method to detect all known strains of this disease, caused by the amphibian chytrid fungus.

This breakthrough will advance our ability to detect and research this disease, working towards a widely available cure.

An extreme mortality rate

Chytridiomycosis, or “chytrid” for short, has driven severe declines in over 500 frog species and caused 90 extinctions, including seven in Australia.

The extreme rate of mortality, and the high number of species affected, makes chytrid unequivocally the deadliest animal disease known to date.

Chytrid infects frogs by reproducing in their skin. The single-celled fungus enters a skin cell, multiplies, then breaks back out onto the surface of the animal.

This damage to the skin affects the frog’s ability to balance water and salt levels, and eventually leads to death if infection levels are high enough.

Chytrid originated in Asia. It’s believed that global travel and trade in amphibians led to the disease being unwittingly spread to other continents.

Frogs in regions such as Australia and the Americas did not have the evolutionary history with chytrid that could grant them resistance.

So, when they were exposed to this new pathogen, the results were devastating.

Many species’ immune systems were simply not equipped to defend against the disease, and mass mortalities ensued.

In the 1980s, amphibian biologists began to notice sharp population declines, and in 1998, the chytrid fungal pathogen was finally recognised as the culprit.



Since then, much research has focused on infection trends and how to protect vulnerable frog species. To track such trends, we need a reliable way to detect chytrid in the first place.

An imperfect swab

To find out if a frog is carrying chytrid, researchers swab the animal and run the same type of test you might recognise from COVID-19 testing – a qPCR.

It stands for quantitative polymerase chain reaction, and simply put, is a way to measure the volume of DNA from a species of interest. The test was developed at CSIRO in 2004; unlike a COVID test, however, scientists swab the frog's skin, not the nose.

Because this test was developed from chytrid in Australia, decades after the pathogen's arrival in the country, a divergence between the Australian and Asian strains meant this test could not detect chytrid in its region of origin. This has been a major limitation to the past two decades of chytrid research.

Over the past several years, a team led by researchers at the Council of Scientific and Industrial Research – Centre for Cellular and Molecular Biology in India has been working on a new qPCR test that can detect strains of chytrid from Asia. In collaboration with researchers in Australia and Panama, we have now verified the new test also reliably detects chytrid in these countries.

Furthermore, the test can detect another closely related species of chytrid that infects salamanders. The test is also more sensitive, meaning it can detect very low infection levels – thereby broadening the scope of species we can study.

PUNE'S 93-YEAR-LONG LOVE AFFAIR WITH 'DAKHHAN KI RANI'

The Deccan Queen, the superfast special train that provides a shuttle service between Pune and Mumbai, is perhaps the only train in the country whose birthday is celebrated by its commuters every year. The 93rd birthday of the iconic train was celebrated with much gusto in the presence of Pune District's Guardian Minister Chandrakant Patil on Thursday morning with regular commuters cutting a cake at the platform before the train's departure for Mumbai amid the beating of Dhol Tasha.

Every year, the birthday of the train which was pressed into service on June 1, 1930 is celebrated by the commuter organisation Railway Pravasi Sangh. In 2020, amid the pandemic, the birthday was held in absentia as the rake remained stranded in Mumbai.

The history of Deccan Queen is literally a tale of two cities. Over the last 92 years of its colourful history, the train has grown from a mere medium of transportation between two cities into an institution binding generation of intensely loyal passengers.

The train's introduction was a major landmark in the history of the Great Indian Peninsula Railway, the forerunner of the Central Railway. This was the first deluxe train introduced on the railway to serve 2 important cities of the region and was aptly named after Pune, which is also known as "Queen of Deccan" (Dakkhan ki Rani).

The train was introduced with 2 rakes of 7 coaches each one of which was painted in silver with scarlet mouldings and the other with royal blue with gold lines. The under frames of the coaches of the original rakes were built in England while the coach bodies were built in the Matunga Workshop of the GIP Railway.



Initially, it had only first class and second-class accommodation. First class was abolished on 1st January 1949 and second class was redesigned as first class, which continued up to June 1955 when third class was introduced on this train for the first time. This was later re-designated as second class from April 1974 onwards.

Today, the train is popular among commuters who travel to Mumbai from Pune to attend offices and return to the city after work. It has convenient timings for this lot and is known for plying on time.

This train holds many a record, including that of being India's first superfast train, first long-distance electric-hauled train, first vestibuled train, the first train to have a 'women-only' car.

"Deccan Queen was also the first train in the country to have a dining car, which is still an attraction. Although many trains, which had such dining cars, were stripped of them in the intervening years, Deccan Queen's facility has been upgraded and newer features introduced," Harsha Shah, President of Railway Pravasi Group, a commuters' organisation.

FRESH EXCAVATION REVEALS PRE-MAURYAN ERA SIGNS IN DELHI'S PURANA QILA SITE

A fresh round of excavations at the site of Delhi's Purana Qila (Old Fort) have uncovered evidence of the continuous history of the city since the pre-Mauryan era. The findings include shards of Painted Gray Ware pottery which are usually dated to around 1200 BC to 600 BC.

Sources said that the site could host one of the accompanying events during the G-20 leadership summit in September. The Purana Qila, built by Sher Shah Suri and Mughal emperor Humayun, is believed by many to be the site of Indraprastha, as mentioned in the Mahabharat.

The new excavations have also found remains of a 900-year-old Vaikuntha Vishnu from the Rajput period, a terracotta plaque of Goddess Gaja Lakshmi from the Gupta period, the structural remains of a 2,500-year-old terracotta ring well from the Mauryan period, and a well-defined four-room complex from the Sunga-Kushan period dating back to 2,300 years ago, besides beads, seals, copper coins and a bone needle.

Trade centre

"More than 136 coins and 35 seals have been discovered from a small excavated area, indicating the site's pivotal role as a centre for trade activities," Culture Minister G. Kishan Reddy, who visited the excavation site on Tuesday, said. This was the third round of excavations at the site, beginning from January. Earlier excavations had been carried out in 2013-14 and 2017-18.

These efforts have revealed nine cultural levels, representing different historical periods, including pre-Mauryan, Mauryan, Sunga, Kushana, Gupta, post-Gupta, Rajput, Sultanate, and Mughal.

The Culture Minister said that the Purana Qila would soon be reopened.



BUSINESS & ECONOMICS

EXPRESS VIEW ON GLOBAL DOWNTURN: SLOW AND SLOWER

Data released last week showed that the German economy has slid into a recession. GDP fell by 0.3 per cent in the January-March quarter, after a drop of 0.5 per cent in the October-December quarter of the last year, as households cut back on spending due to high inflation and aggressive monetary policy tightening. Considering that the German economy is the largest in Europe, some analysts are now estimating that the entire Euro region slowed down significantly during this period, perhaps just barely managing to escape a recession. This grim economic picture is not just limited to the Euro zone.

With the US economy seen to be losing steam, some analysts are expecting it to tip into a recession later this year. The minutes of the last US Federal Reserve meeting, released a few days ago, revealed that as economic risks had increased, the Fed officials were “less certain” about the need to raise interest rates further. Fed Chairman Jerome Powell has, in fact, previously acknowledged the possibility of the US entering a mild recession. The UK, however, might just avoid entering into a recession this year. The International Monetary Fund, which had earlier projected the economy to contract by 0.3 per cent, now expects it to grow at 0.4 per cent in 2023, driven by falling energy prices, and healthy demand, though with inflation being sticky, interest rates are likely to remain high. Then there are concerns that China’s economic recovery is losing momentum with some recent data coming in considerably below expectations. Some analysts have already begun to factor in additional support by the authorities. With the Chinese economy sputtering, and the global economic outlook weakening, Singapore, a major entrepot of trade and capital flows, contracted in the first quarter (on a quarter-on-quarter seasonally adjusted basis).

The effects of a slowing global economy on India are already evident. After growing by 17 per cent in the first half of 2022-23 (April-September), the country’s merchandise exports plummeted in the second half of the year (October-March), contracting by 3.7 per cent, with global demand coming under pressure. In April 2023, goods exports contracted further by 12.7 per cent, with most of the non-food product categories witnessing declines. With global demand likely to remain under pressure, merchandise exports are unlikely to provide a fillip to the Indian economy in the near term.

EXPRESS VIEW ON GDP NUMBERS: BEATING EXPECTATION

Surpassing most expectations, the Indian economy grew at 6.1 per cent in the fourth quarter of the last financial year, up from 4.5 per cent in the third quarter, as per the latest estimates of the National Statistical Office released on Wednesday. Buoyed by this momentum, growth for the entire financial year (2022-23) has now been pegged at 7.2 per cent, marginally higher than the earlier estimate of 7 per cent. In nominal terms, though, the economy grew at a slower pace in the fourth quarter. The full year estimates are in line with RBI Governor Shaktikanta Das’s expectations. Das had earlier said the economic indicators had pointed towards sustained momentum in the fourth quarter and that it would not be a surprise if GDP growth came in higher than 7 per cent.

The disaggregated data points towards a healthy growth momentum across most sectors. The agricultural sector grew at a robust 5.5 per cent in the fourth quarter, with growth for the full year estimated at 4 per cent. Within the non-farm sector, manufacturing, which had contracted in both



the second and third quarter, turned around in the fourth quarter. Analysts have attributed this pick up to an improvement in both volumes and margins. Alongside, construction, another labour intensive sector, has also registered a healthy performance, with growth for the full year being estimated at 10 per cent. Within services, the trade, hotels, transport and communications sector has maintained its growth momentum, while the financial, real estate and professional services sector has seen a sustained pickup over the year.

However, the continuing weakness in private consumption is difficult to reconcile. Private consumption grew by only 2.8 per cent in the fourth quarter, marginally higher than 2.2 per cent in the third quarter, reflecting in part the subdued performance of the consumer durables segment in the index of industrial production. Government consumption has also remained weak, though, on the other hand, investment activity continued to be healthy (mirroring the performance of the capital goods and infrastructure segments in the index of industrial production), while net exports were less of a drag. Over the course of the coming year, the growth momentum is likely to come under pressure as the full impact of tighter global and domestic financial conditions is felt. There are also concerns over the monsoon and its impact on rural demand. In its last monetary policy committee meeting, the RBI had forecasted the Indian economy to grow at 6.5 per cent in 2023-24. Others are, however, more pessimistic.

EXPRESS VIEW ON RBI GOVERNOR'S OBSERVATION ABOUT THE BANKING

For the better part of the last decade, the Indian economy has been plagued by the twin balance sheet problem — of an overleveraged corporate sector and bad loans in the banking system. This balance sheet problem was linked to the collapse in private sector investments in the economy.

But, recently, in the case of both the financial and the corporate sectors, an improvement has been observed across a range of financial indicators. For instance, on the corporate side, profitability has risen and there are signs of firms bringing down their debt levels. Banks too have seen a drop in their bad loans — gross non-performing assets have fallen from 11.46 per cent at the end of March 2018 to 4.47 per cent in December 2022, alongside which the stressed assets to gross advances ratio has also witnessed a similar decline.

Banks have also registered strong growth in their profits, and have bolstered their capital adequacy levels. These trends had indicated that the twin balance sheet problem had been resolved, and was no longer an impediment to growth. However, the Reserve Bank of India Governor Shaktikanta Das has now made some troubling, disquieting observations about the banking system. These warrant close attention.

Das, in his address to the board members of public and private sector banks, has raised concerns over the aggressive growth strategies and the “innovative” ways of evergreening loans being adopted by banks that was revealed during the regulator’s supervisory process. The practice of evergreening allows banks to avoid classifying a loan as non-performing. And as banks have to make higher provisions in their books if a loan turns non-performing, evergreening helps banks delay recognition, allowing them to present a healthier balance sheet.

While Das has not named the banks, considering his comments, the nature of examples given, it is possible that these are not just a few isolated cases that are being referred to. Since the regulator has been vigilant on this issue and closely monitoring the asset quality of banks over the years, the governor’s statements are a cause for concern.



That banks are evergreening loans, and are resorting to creative methods to conceal the true status of loans, points towards gaps in the regulatory architecture. It also suggests a likely buildup of stress in parts of the system. Moreover, giving more credit to weak firms leads to the misallocation of capital. This does not bode well for an investment revival. The RBI governor's comments should thus serve as a timely warning for the system. Banks need to ensure early identification of risks, take timely action to resolve bad loans, and not let the problem fester like in the past. The gaps in corporate governance noticed by the central bank need to be plugged, immediately.

EXPRESS VIEW ON CGA DATA: STAY THE COURSE

On Wednesday, data released by the Controller General of Accounts showed that the central government's fiscal position in the just concluded financial year (2022-23) was broadly in line with the revised estimates laid out in the Union budget. On the revenue side, the government's tax and non-tax revenues actually ended up being slightly higher than what the revised estimates had envisaged, though it did once again fail to meet its disinvestment target. On the expenditure side, while the Centre cut back marginally on revenue expenditure, it maintained its commitment to enhancing capital expenditure, with actual spending slightly exceeding what it had earlier projected. As a consequence of this prudent fiscal management, the Union government was able to contain its fiscal deficit, keeping it in line with what it had earlier projected in the revised estimates.

At the aggregate level, the Centre's gross tax collections grew at a healthy 12.7 per cent in 2022-23. However, while this is in line with the budget expectations, it is lower than the nominal GDP growth. The disaggregated data shows that growth in direct tax collections far outstripped revenue from indirect taxes. Direct taxes grew at almost 18 per cent, more than the increase in nominal GDP, with both corporate and personal income tax collections registering healthy growth. On the other hand, indirect tax growth was just 7.2 per cent, in part due to lower excise collections. And while the government's non-tax collections exceeded expectations, as income from dividends surpassed targets, its disinvestment proceeds (including proceeds from monetisation of highways) were again short of expectations. As against a target of Rs 60,000 crore, actual collections were Rs 46,034 crore. On the expenditure side, the Centre's capital expenditure grew by 24 per cent, driven by outlays on roads and railways. And while the fertiliser subsidy was higher than budgeted, it was offset by lowering spending in other areas such as the food subsidy.

The outlook for the ongoing fiscal year is uncertain. The budget has assumed a nominal GDP growth of 10.5 per cent. It expects gross tax collections to grow at a similar pace. In real terms, the RBI expects the economy to grow at 6.5 per cent. However, other analysts are less sanguine about the prospects of the economy. While the likelihood of fiscal slippage is low currently, if growth turns out to be below the budget's expectations, it might complicate the fiscal math. The finance minister has said that the aim is to bring down the fiscal deficit to below 4.5 per cent of GDP by 2025-26. The government must stick to the path of fiscal consolidation, and resist the urge to deviate in the run-up to the elections next year.

RBI'S PLANNED 'LIGHTWEIGHT' PAYMENTS SYSTEM FOR EMERGENCIES?

The Reserve Bank of India (RBI) has conceptualised a lightweight payment and settlements system, which it is calling a "bunker" equivalent of digital payments, which can be operated from anywhere by a bare minimum staff in exigencies such as natural calamities or war.



The infrastructure for this system will be independent of the technologies that underlie the existing systems of payments such as UPI, NEFT, and RTGS.

The central bank has not offered a timeline for the launch of this payments system yet.

Why is such a lightweight payments system needed?

In its Annual Report for 2022-23 published on Tuesday (May 30), RBI says that the lightweight and portable payment system is expected to operate on minimalistic hardware and software, and would be made active only on a “need basis”.

“Such a lightweight and portable payment system could ensure near zero downtime of the payment and settlement system in the country and keep the liquidity pipeline of the economy alive and intact by facilitating uninterrupted functioning of essential payment services like bulk payments, interbank payments and provision of cash to participant institutions,” the RBI has said.

The system is expected to process transactions that are critical to ensure the stability of the economy, including government and market related transactions.

“Having such a resilient system is also likely to act as a bunker equivalent in payment systems and thereby enhance public confidence in digital payments and financial market infrastructure even during extreme conditions,” the RBI has said.

How will the lightweight system be different from UPI?

The RBI has said that there are multiple payment systems available in the country for use by individuals as well as institutions, each of which has its distinct character and application.

According to the RBI, existing conventional payments systems such as RTGS, NEFT, and UPI are designed to handle large volumes of transactions while ensuring sustained availability. As a result, they are dependent on complex wired networks backed by advanced IT infrastructure.

“However, catastrophic events like natural calamities and war have the potential to render these payment systems temporarily unavailable by disrupting the underlying information and communication infrastructure,” the RBI said. “Therefore, it is prudent to be prepared to face such extreme and volatile situations.”

UNIVERSAL COVER

Last week, the chief of India’s insurance sector regulator unveiled a fresh blueprint to cover a larger portion of the population against risks of adverse shocks, with an eye on insuring everyone by 2047. The lynchpin of this “UPI-like moment”, being pursued by the Insurance Regulatory and Development Authority of India (IRDAI) to bridge the country’s “huge protection gaps”, is envisaged to be a simple, all-in-one insurance policy. This bundled ‘Bima Vistaar’ scheme, being worked out with life and general insurers, would provide households with expeditious monetary support in case of medical emergencies, accidents, thefts or a death in the family. With awareness about the benefits of insurance still quite low, the regulator has proposed a women-led Gram Sabha-level initiative to educate every household’s female head about how such a scheme could come in handy at times of distress. A new ‘Bima Sugam’ platform would integrate insurance players and distributors to give customers a one-stop shop experience to begin with, and facilitate claims servicing going forward. Linking States’ digital death registries to the platform, the



regulator believes, could enable life insurance claims to be settled within hours or a day at the most.

A legislative reboot is also on the anvil to ease capital requirement norms and allow a slew of new players to enter the market and serve the untapped needs of niche and specialised segments. Over two decades after the entry of private players into the once moribund public sector-led industry, India's insurance penetration (the ratio of premium payments to GDP) has risen — from 2.7% in 2001-02 to 4.2% in 2021-22. In fact, there has been a slide in the metric over the past decade from 5.2% in 2009-10, with non-life policies yet to surpass the 1% mark. Given the sheer size of India's population and poor financial literacy levels, the imperative to break from the status quo is unquestionable. The IRDAI's move to rope in State governments and set up bodies similar to State-level banking committees would help formulate granular district-wise strategies for raising awareness and coverage levels. Industry players also need to look beyond the top cities and the 'Bima Vistaar' scheme could catalyse the volumes they need to get out of comfort zones. Most of all, the Centre needs to rethink the 18% GST levy on health and life insurance premia. The notion that those who can afford to buy health cover can afford to pay so much tax is untenable in a country where one health calamity can push a household below the poverty line. Ensuring continuity of leadership at IRDAI is equally critical — situations such as the nine-month vacuum at its helm before the current chairperson's tenure are simply unacceptable.

MORE THAN \$300 MILLION DIVIDENDS OF INDIAN OIL PSUS ARE STUCK IN RUSSIA. WHY — AND WHAT NOW?

The dividend income of public sector oil companies ONGC Videsh (OVL), Oil India (OIL), Indian Oil Corporation (IOC), and Bharat PetroResources (BPRL), from their investments in Russian projects, totalling well over \$300 million, are stuck in that country, parked in an Indian bank there.

The reason? Payment channel-related issues in the aftermath of Russia's February 2022 invasion of Ukraine.

Soon after the war in Ukraine began, a number of major Russian banks were banned from the Society for Worldwide Interbank Financial Telecommunication (SWIFT) financial transactions processing system, seriously constricting Moscow's ability to access the global payments system. In addition, the Russian government too has put curbs on the repatriation of dollars in a bid to keep exchange rate volatility in check.

The Indian companies, which have invested billions of dollars in Russian oil assets, are now in a huddle to consider options to repatriate or access and use that money. But it may not be that simple. Here's why.

How much has India invested in Russian oil assets and where?

Over the years, Indian public sector companies have invested billions of dollars to pick up stake in producing oil and gas projects in Russia. These investments — adding up to almost \$6 billion according to one estimate — are part of India's energy security strategy as the country is heavily dependent on energy imports. A long-standing strategic partnership between India and Russia has been a significant factor in these deals.

OVL, the overseas investment arm of Oil and Natural Gas Corporation (ONGC), holds a 20% stake in the Sakhalin-1 project and 26% in Vankorneft field. It also owns Imperial Energy, which has



fields in Siberia. A consortium of IOC, OIL, and Bharat Petroleum Corporation's (BPCL's) upstream arm BPRL has 23.9% share in Vankorneft and 29.9% in Taas-Yuryakh Neftegazodobycha fields.

And how much dividend income is stuck in Russia, and since when?

While Indian companies were receiving regular dividend income from their investments in Russia until the invasion of Ukraine in February 2022, they have not been able to repatriate the dividend income since the war began.

To be sure, Russian companies operating the projects are releasing dividends to their Indian partners, but the money is piling up in the Commercial Indo Bank (CIBL) in Russia. The Indian companies are earning some interest on it as well.

There is no official data available for dividend income parked in CIBL. In April, a top government official had said that dividends stuck in Russia were estimated at around \$400 million at the time. But the actual sum could be higher.

The consortium of IOC, OIL, and BPRL has around \$300 million in unpaid dividends parked in CIBL. Dividends belonging to OVL are also piling up. CIBL used to be a joint-venture of SBI and Canara Bank, but the latter recently sold its stake in the venture to SBI.

So what options, if any, are available to these companies now?

India and Russia have been regularly discussing the issue, and efforts are on from both sides to resolve it, a senior government official said. But the official also added that while the dividend dues are not small, they are insignificant in comparison to the overall oil trade between Russia and India, and have no bearing on it.

Even as the government is taking up the issue with Moscow, the Indian companies have been weighing feasible options for accessing and using that money, even if it cannot be repatriated to India immediately. Theoretically, the money can be used to partly pay for India's ballooning purchases of Russian crude. But there are multiple challenges in the way, a senior official with one of the consortium members said.

Firstly, while IOC and BPRL's parent BPCL do buy Russian oil, OIL does not. Secondly, the investments in Russian projects are through special purpose vehicles (SPVs) registered in overseas territories like Singapore. This means that any payment dealing with Russian oil in this case would also come under the jurisdiction of overseas territories, and not just Russia and India.

It is worth noting here that there are various Western sanctions against Russia and its energy sector. Therefore, cross payments for Russian oil using this dividend income could end up becoming an extremely complex exercise from taxation and accounting standpoints.

Another way to access and use the dividend income could be for future investment in the same projects. But the challenge there is that the assets that Indian companies are invested in are past their major capital expenditure cycle, and are now producing assets. This means that major cash calls, or demand for more investment in the projects, are highly unlikely in the near-to-medium term, officials said.

Suffice it to say that there appears to be no easy and straightforward way out of this situation. Any feasible and workable solution is likely to emerge only through a combination of deft diplomacy and ingenious commercial negotiations with stakeholders in Russia and elsewhere.



LIFE & SCIENCE

CELESTIAL PHENOMENA

WHAT IS IT?

Since time immemorial, humans have looked up at the universe and pondered its secrets. In the past few centuries, many of these secrets have started to unravel. One such mystery we began to pry apart very recently is the gravitational wave. Gravitational waves are ripples in space-time produced by some of the most intense phenomena in our universe.

In 1915, Albert Einstein's theory of relativity predicted the existence of gravitational waves. According to this theory, celestial objects such as black holes and neutron stars could send gravitational energy thrumming through the fabric of space-time in every direction, moving off at the speed of light.

Six decades later, in 1974, two scientists discovered two dead stars orbiting each other. After extensive research, they found that the stars were slowly moving towards one another at the exact rate predicted by the theory — a sign that they were losing energy in the form of gravitational waves. These waves contain information about the events that emitted them, so studying them can give scientists a glimpse of distant cosmic affairs.

To study them, scientists developed the Laser Interferometer Gravitational-wave Observatories (LIGO) in 1999. They directly observed gravitational waves for the first time in 2015, proving Einstein's theory. A third LIGO will be built in India this decade.

WHY IS THE 1.5 DEGREE CELSIUS TARGET CRITICAL?

The story so far:

The World Meteorological Organization (WMO) released two reports titled "Global Annual to Decadal Climate Update 2023-2027" and "State of Global Climate 2022." The decadal predictions of the WMO said that the annual mean global surface temperature between 2023 and 2027 will be 1.1-1.8 degree Celsius higher than the baseline temperature of 1850-1900 or pre-industrial levels. In 2022, it was 1.15 degrees above the baseline, and by 2027, the average will exceed 1.5 degrees, a critical point beyond which there may be no return.

What is the 1.5 degree Celsius target?

The 1.5 degree Celsius target is the global climate target that aims to limit warming to said level by 2100, in order to prevent the planet from slipping into further climate crises. For decades, 2 degree was an acceptable level of warming. The idea of 1.5 degree was perceived as unrealistic and unachievable. However, the 2 degree target was unacceptable to small island countries as it implied that their survival was compromised.

In 2010, at the Cancun COP16, countries agreed to limit the global average warming to below 2 degree Celsius. In 2015, the parties to the Paris Agreement pledged to limit the average temperature rise to below 2 degree, while actively aiming for 1.5 degree above pre-industrial levels. This was endorsed as a global target by the Intergovernmental Panel on Climate Change (IPCC) in 2018 and since then has been pursued in all climate dialogues.



Why is the 1.5 degree target critical?

In 2018, the IPCC released a special report on the impact of global warming when temperature reaches 1.5 degree Celsius above baseline. It also drew a comparison with the effects of 2 degree Celsius warming. It was estimated that anthropogenic activities would have already caused 1 degree of warming, likely to reach 1.5 degree between 2030 and 2052 at the current rate. Frequent and intense heat waves, droughts, heavy precipitation, an additional 10-centimetre rise in sea level, destruction of ecosystems and mostly irreversible changes can be witnessed at the 2 degree level.

However, discussions on the average temperature rise do not imply that the current warming is uniform across the planet. For example, warming greater than the global average is being experienced in the Arctic, with the term 'polar amplification' gaining more traction. The regional differences and the vulnerability factors spell more urgency for climate action which must limit the average planetary warming to 1.5 degree.

Why are we missing the target?

Historically, developed countries are responsible for a major chunk of greenhouse gas (GHG) emissions. Therefore, they are expected to assume more responsibility and implement climate action. However, the Climate Performance Index over the years has shown otherwise. Countries like Australia, the U.S., Japan, Russia and Canada have made little progress in meeting their pledges. Additionally, polluters like China, Iran and Saudi Arabia rank low in climate performance.

The pandemic pushed the world into a socio-economic crisis. On the road to recovery, countries pledged measures to build-back. However, in most cases there is little to no consideration for building-back in a sustainable manner. The Ukraine conflict has further added to woes and sparked an energy crisis threatening climate goals.

Are extreme weather events linked to the global rise in temperature?

The predictions of the recently released reports point to precipitation anomalies and an increase in marine heat waves as compared to marine cold spells. The El Niño, which is currently brewing, will further strengthen this year, resulting in a 98% possibility of witnessing temperatures higher than 2016 at least in one of the years in the 2023-27 period. The cryosphere is shrinking, and there is a mass loss of glaciers in High-mountain Asia, Western North America, and South America. Due to the alarming rate of warming of the Arctic Ocean, the Greenlandic ice sheet is melting at a faster pace, contributing to the increase in sea level.

Climate risks and hazards impact human population and the ecosystem depending on exposure, vulnerability, and adaptive capacity. It has exacerbated food insecurity, displacement, and deaths. Climate change has been affecting crop yield negatively and the risks posed by agricultural pests and diseases have also increased in the past few years. Countries like Ethiopia, Nigeria, South Sudan, Somalia, Yemen, and Afghanistan are facing acute food shortages resulting in malnutrition and hunger, demanding urgent humanitarian assistance. However, food insecurity in these countries is due to the complex interaction of climate conditions with other factors such as droughts, cyclones, and political and economic instability.

The heatwaves in Pakistan and India in 2022 also resulted in a decline in crop yields. The floods in Pakistan affected croplands in southern and central parts of the country and displaced eight million people within the country.



The Horn of Africa (Ethiopia, Somalia, and Kenya) has been witnessing extreme drought conditions since 2020, while at the same time, western African countries are seeing floods and heavy rainfall which has pushed millions into acute food insecurity. Such shortage of food has also led to mass displacement within and across borders. In Syria and Yemen, thousands have been displaced owing to the floods, storms, and heavy snowfall.

Aquatic and terrestrial ecosystems have also not been immune to such changes in climate patterns. Phenological shifts and mismatches have been recorded due to climate change. The population of migratory species has declined in Sub-Saharan Africa. Additionally, the warming above 1.5 degree Celsius can prove lethal for coral reefs which are already prone to bleaching. According to the WMO, extreme weather anomalies have caused the deaths of two million people and incurred \$4.3 trillion in economic damages over the past fifty years. In 2020-2021, 22,608 disaster deaths were recorded globally.

How is India impacted?

India has been increasingly facing the brunt of climate change. February 2023 was recorded as the hottest month since record-keeping began in 1901. In 2022, India witnessed extreme weather events for 80% of the days. Indian monsoons were wetter than usual last year after recording extreme heat during the pre-monsoon period, resulting in wildfires in Uttarakhand and acute food shortages.

According to the Climate Change Performance Index 2023, India ranked eighth with a high-performance after Denmark, Sweden, Chile, and Morocco. Being an emerging economy with development needs, it is attempting to balance its development needs with ongoing climate action both at the domestic and international levels. With domestic measures like the Green Hydrogen Mission and the introduction of green bonds, India is performing fairly well despite contributing only a miniscule to cumulative GHG emissions. At the international level, through the International Solar Alliance and Coalition for Disaster Resilient Infrastructure, India can prove to be a responsible climate player keeping in mind that it has a long way to go in very little time.

FRANCE BANS SHORT-HAUL DOMESTIC FLIGHTS: CAN CURBS ON AIRPLANE EMISSIONS HELP FIGHT CLIMATE CHANGE

Last week, France announced a ban on all short-haul domestic flights. A month earlier, the Schiphol airport in Amsterdam, one of the busiest in Europe, banned private jets and small business planes. There is a growing clamour in Europe for a bigger crackdown on private aviation sector.

As the world continues to fall behind in the race against time to curb global warming, desperate and non-conventional measures seem to be beginning to kick in. Aviation is a relatively small contributor to global greenhouse gas emissions, and attempts to curtail these have not been very fruitful till now. These fresh measures are also likely to yield only marginal dividends.

The French ban

France, last week, became the first country in the world to impose a ban on short-haul domestic flights. The country brought in a new law, effective from May 23, that bars air travel to destinations that can be covered by up to two-and-a-half hour journey by train. As of now, only three routes are affected by this law — those to the cities of Lyon, Nantes and Bordeaux from Paris — the Le Monde newspaper reported.

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



While the French law has great headline value, its impact on curbing emissions was unlikely to be anything more than nominal. Air transport, globally, accounts for just about 2 per cent of global carbon dioxide emissions every year, and less than two per cent of greenhouse gas emissions. The three cancelled routes would have been contributing a minuscule part of the total emissions from aviation.

Besides, there is no way to ensure that passengers prevented from taking a flight would necessarily travel by train. The law can possibly push more people to use their cars to make the journey, thus nullifying whatever little gains that could have accrued by the avoided air travel.

Crackdown on private jets

But there is a growing demand for a wider crackdown on private aviation. France, the Netherlands, Austria and Ireland last week urged the European Union to strengthen regulations to discourage travel by private jets, a Reuters report said. In fact, the Schiphol airport in Amsterdam said in April it would no longer allow private and small business aircraft to operate.

Private jets, usually far more inefficient than large commercial airliners, have always been a big eyesore from the climate perspective. In a recent report, a clean transport campaign group in Europe called Transport and Environment estimated that private jets were 5 to 14 times more polluting, per passenger, than commercial planes, and 50 times more polluting than trains. It said private planes could emit about 2 tonnes of carbon dioxide every hour, while an average person in Europe emits about 8.2 tonnes of carbon dioxide equivalent in an entire year.

And yet, the trend of using private planes has been increasing rapidly. A Reuters report last week, quoting a Greenpeace study, said private flights in Europe had increased by 64 per cent in 2022, and emitted more than 5.3 million tonnes of CO₂.

Ironically, hundreds of private planes arrive at the annual climate conference every year, with the rich and the famous jetting in to talk about the need to reduce carbon emissions.

Emissions from Aviation

Though the airline industry's contribution to the overall greenhouse gas emissions has been rather modest, it is still considered a big worry, mainly due to two reasons — it is generated by a very small fraction of global population, and it is projected to grow at a very fast pace. Also, airplanes produce non-CO₂ emissions as well, and their impact on global warming is equally significant. According to the UN Climate Change, if the non-CO₂ emissions, like water vapour, are also accounted for, the airline industry would be responsible for causing almost five per cent of historical global warming.

But a bigger worry is that emissions from international aviation falls in a grey area. The emissions from planes flying within the boundaries of a country are attributed to that country. But emissions from airlines making international flights are not attributable to any country. Along with international shipping, international aviation forms a separate class of emissions — those from bunker fuel. It also means that no country has any responsibility to curtail these emissions. These are not covered under the Paris Agreement.

Offset mechanism

But there have been attempts, nonetheless, to restrict emissions from aviation sector. In 2016, the International Civil Aviation Organisation (ICAO) put in place an offset mechanism to ensure that



any increase in emissions over 2020 levels is compensated for by the airline industry through investment in carbon saving projects elsewhere. Called Carbon Offsetting and Reduction Scheme for International Aviation, or CORSIA, the offset plan is supposed to run from 2021 to 2035.

CORSIA is considered a breakthrough, but it is not very ambitious. It only seeks to offset emissions that are over and above 2020 levels. It does not deal with total emissions.

Reducing aviation emissions through other means has not proved to be easy. Unlike road or rail travel, aviation does not have viable technology alternatives for shifting to cleaner fuels. Biofuels have been tried and so have hydrogen fuel cells. Solar powered planes have also made trips. But use of these alternative fuels for flying large commercial airliners is still some distance away.

CLEAN ENERGY FUNDS RISE, BUT MOSTLY IN CHINA, EUROPE, U.S.

The latest report by the International Energy Agency, 'World Energy Investment 2023,' shows that investment in clean energy has increased in recent years, with the transition mainly fuelled by Electric Vehicles (EVs) and renewable power. However, investments are concentrated in advanced economies and China. More worryingly, the decline in the prices of clean energy technologies has reversed slightly in the past two years.

The report shows that economic recovery from the COVID-19 pandemic coupled with global efforts in tackling energy scarcity have significantly propelled investments in the renewable energy sector. The report, which compares the International Energy Agency's 2023 forecasts with the actual data from 2021, highlights a notable finding: annual investments in green energy have outpaced those in fossil fuels during this period, recording a growth of 24% against 15%.

The report also highlights the influence of recent geopolitical events on the energy market. Specifically, it points out that Russia's invasion of Ukraine has led to substantial instability in the fossil fuel markets. Interestingly, this volatility has inadvertently accelerated the deployment of various renewable energy technologies, despite triggering an immediate scramble for oil and gas resources.

ANTARCTIC ALARM BELLS OVER SLOWING DOWN OF 'OVERTURNING CIRCULATION'

Antarctica sets the stage for the world's greatest waterfall. The action takes place beneath the surface of the ocean. Here, trillions of tonnes of cold, dense, oxygen-rich water cascade off the continental shelf and sink to great depths. This Antarctic "bottom water" then spreads north along the sea floor in deep ocean currents, before slowly rising, thousands of kilometres away.

In this way, Antarctica drives a global network of ocean currents called the "overturning circulation" that redistributes heat, carbon and nutrients around the globe. The overturning is crucial to keeping Earth's climate stable. It's also the main way oxygen reaches the deep ocean.

But there are signs this circulation is slowing down and it's happening decades earlier than predicted. This slowdown has the potential to disrupt the connection between the Antarctic coasts and the deep ocean, with profound consequences for Earth's climate, sea level and marine life.

Our new research, published today in the journal Nature Climate Change, uses real-world observations to decipher how and why the deep ocean around Antarctica has changed over the past three decades. Our measurements show the overturning circulation has slowed by almost a



third (30%) and deep ocean oxygen levels are declining. This is happening even earlier than climate models predicted.

We found melting of Antarctic ice is disrupting the formation of Antarctic bottom water. The meltwater makes Antarctic surface waters fresher, less dense, and therefore less likely to sink. This puts the brakes on the overturning circulation.

Why does this matter?

As the flow of bottom water slows, the supply of oxygen to the deep ocean declines. The shrinking oxygen-rich bottom water layer is then replaced by warmer waters that are lower in oxygen, further reducing oxygen levels.

Ocean animals, large and small, respond to even small changes in oxygen. Deep-ocean animals are adapted to low oxygen conditions but still have to breathe. Losses of oxygen may cause them to seek refuge in other regions or adapt their behaviour. Models suggest we are locked in to a contraction of the “viable” environment available to these animals with an expected decline of up to 25%.

Slowdown of the overturning may also intensify global warming. The overturning circulation carries carbon dioxide and heat to the deep ocean, where it is stored and hidden from the atmosphere. As the ocean storage capacity is reduced, more carbon dioxide and heat are left in the atmosphere. This feedback accelerates global warming.

Reductions in the amount of Antarctic bottom water reaching the ocean floor also increases sea levels because the warmer water that replaces it takes up more space (thermal expansion).

Signs of a worrying change

Making observations of bottom water is challenging. The Southern Ocean is remote and home to the strongest winds and biggest waves on the planet. Access is also restricted by sea ice during winter, when bottom water forms.

This means observations of the deep Southern Ocean are sparse. Nevertheless, repeated full-depth measurements taken from ship voyages have provided glimpses into the changes underway in the deep ocean. The bottom water layer is getting warmer, less dense and thinner.

Satellite data shows the Antarctic ice sheet is shrinking. Ocean measurements taken downstream of regions of rapid melt show the meltwater is reducing the salinity (and density) of coastal waters.

These signs point to a worrying change, but there are still no direct observations of the deep overturning circulation.

What did the scientists do?

We combined different types of observations in a new way, taking advantage of each of their strengths.

The full-depth measurements collected by ships provide snapshots of ocean density, but are usually repeated about once a decade. Moored instruments, on the other hand, provide continuous measurements of density and speed, but only for a limited time at a particular location.



AS ARCTIC WARMS, FEMALE ARCTIC SQUIRRELS END HIBERNATION

As Alaskan permafrost warms, hibernating arctic ground squirrels generate less heat, causing females to emerge from hibernation up to ten days before their male counterparts — a mismatch that could have large, cascading ecological impacts. The findings (Science) reveal both direct and indirect impacts of a warming world. In the Arctic, where warming is occurring more rapidly than other places on earth, rising winter temperatures are altering the phenology, or timing, of key seasonal animal behaviours.

MOUNT EVEREST

A new study has found that humans are leaving behind a frozen legacy of hardy microbes on Mount Everest, which can withstand harsh conditions and lie dormant in the soil for decades or even centuries.

The researchers found the presence of certain microbes that have evolved to thrive in warm and wet environments like our noses and mouths which have now become resilient enough to survive in a dormant state in such harsh conditions.

Most of the microbial DNA sequences found were similar to hardy, or extremophilic organisms previously detected in other high-elevation sites in the Andes and Antarctica.

The most abundant organism they found was a fungus in the genus *Naganishia* that can withstand extreme levels of cold and UV radiation. But even pathogens heavily associated with humans, including *Staphylococcus*, one of the most common skin and nose bacteria, and *Streptococcus*, a dominant genus in the human mouth, were found.

SOIL MICROBIOTA BOLSTER TREE RESILIENCE TO CHANGING CLIMATE

Soil microbiota transplanted from more stressful environmental conditions can enhance tree tolerance to changing climates, a new study (Science) reports. Management of soil microbiota, especially during forest restorations, could be a valuable strategy for increasing forest resilience to climate change. For trees, neither adaptation nor migration may happen fast enough to keep up the pace of climate change. But diverse assemblages of microbes that live on plants can enhance plant tolerance to environmental stress.

RESTORING NATURAL CONTROL OF MOVEMENT AFTER PARALYSIS

An implant that restores communication between brain and spinal cord can help a patient with paralysis of the arms and legs to stand and walk naturally. The device improved neurological recovery, and the patient was able to walk with crutches when the implant was switched off (Nature). The brain-spine interface enables a natural control over the movements of the legs to stand and walk. This gives hope of restoring natural control of movement after paralysis.

MOSQUITOES, INSECT VECTORS 'CANNOT TRANSMIT HIV'

Q: Sharing a needle is said to spread AIDS virus. Mosquitoes also use a needle like proboscis to suck blood from our body. Therefore will not mosquitoes spread AIDS just as they spread malaria?



A: "No," said Dr. P. Krishnamoorthy, project director, AIDS prevention and control programme, Voluntary Health Services, Chennai.

"It has been categorically proved in many ways that mosquitoes or any other insect vector cannot transmit the human immunodeficiency virus (HIV) which is responsible for causing the acquired immunodeficiency syndrome (AIDS)," he said.

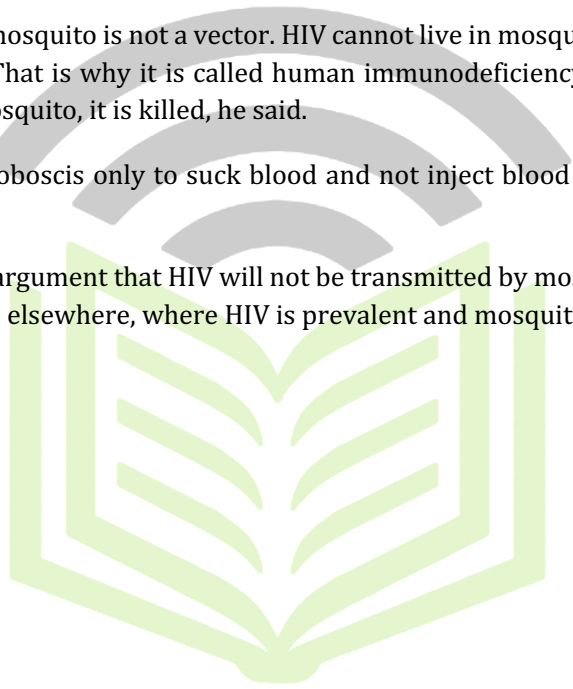
In the case of malaria or filaria, the mosquito acts as an intermediary host in which the parasite undergoes one life cycle.

The malarial parasite multiplies in the body of the mosquito and gets collected in the mouth, ready for deposition on a host. Thus it acts as a vector.

In the case of HIV, the mosquito is not a vector. HIV cannot live in mosquito blood and can survive only in human blood. That is why it is called human immunodeficiency virus. The moment HIV enters the body of a mosquito, it is killed, he said.

A mosquito uses its proboscis only to suck blood and not inject blood into our body whereas a needle is used for both.

This also supports the argument that HIV will not be transmitted by mosquitoes. Epidemiological studies from Africa and elsewhere, where HIV is prevalent and mosquitoes are plenty, also prove the point.



DreamIAS