



# CURRENT AFFAIRS for UPSC

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DREAMIAS



## INTERNATIONAL

### WHAT DID TRUMP SAY ABOUT NATO FUNDING AND WHAT IS ARTICLE 5?

Former US President Donald Trump raised a storm of criticism from the White House and top Western officials for suggesting he would not defend NATO allies who failed to spend enough on defence and would even encourage Russia to attack them.

#### **What is NATO?**

Founded in 1949 to counter the Soviet Union with Cold War tensions rising, the North Atlantic Treaty Organization is a political and military alliance of countries from North America and Europe.

Enshrined in Article 5 of its founding treaty is the principle of collective defence – the idea that an attack on one member is considered an attack on all of them. NATO takes decisions by consensus but the political and military strength of the United States means that it is by far the most powerful country in the alliance, with its nuclear arsenal seen as the ultimate security guarantee.

#### **Which countries are in NATO?**

NATO currently has 31 members – most of them European nations, plus the United States and Canada. The newest member is Finland, which joined last April in reaction to Russia's 2022 invasion of Ukraine. Sweden applied to join along with Finland but is waiting for Hungary to ratify its application as the final major step before membership.

During the Cold War, NATO's main focus was protecting Western Europe from the Soviet Union. After the 1989 fall of the Berlin Wall, NATO expanded to take in former communist bloc countries from Central and Eastern Europe.

NATO's members range from large countries such as Britain, France, Germany and Turkey to small nations such as Iceland and Montenegro.

#### **What did Trump say about NATO?**

As US president from 2017-21, Trump often lambasted NATO and members such as Germany, accusing them of not paying enough for their own defence and relying on Washington to protect them. He openly questioned the collective defence principle.

Other US administrations have also accused Europeans of not spending enough on defence, but in less strident terms. Trump took his criticism to a new level at a campaign rally on Saturday in Conway, South Carolina,

#### **How is NATO funded?**

Trump has often accused other NATO members of not paying their dues, giving the impression that the alliance is like a club with membership fees.

But NATO operates differently. It has some common funds, to which all members contribute. But the vast bulk of its strength comes from members' own national defence spending – to maintain forces and buy arms that can also be used by NATO.



However, NATO members have committed to spending at least 2% of their Gross Domestic Product (GDP) every year on defence – and most of them did not meet that goal last year.

#### **How many NATO members meet the defence spending target?**

According to NATO estimates from July last year, 11 members were expected to meet the 2% target in 2023. Those members were Poland, the United States, Greece, Estonia, Lithuania, Finland, Romania, Hungary, Latvia, Britain and Slovakia.

Germany, Europe's economic heavyweight, was estimated at 1.57%. But German officials have said they expect to meet the 2% target this year, partly thanks to a special 100-billion-euro fund established in response to Russia's war in Ukraine.

The lowest spenders as a share of national GDP were Spain, Belgium and Luxembourg, according to the NATO figures. NATO is expected to release updated figures in the coming days that will show more allies meeting the 2% target, according to people familiar with the data.

#### **What is NATO's Article 5?**

In Article 5 of the founding treaty, NATO members declared that an armed attack against one or more of them in Europe or North America "shall be considered an attack against them all".

They agreed they would "assist the Party or Parties so attacked by taking forthwith, individually and in concert with the other Parties, such action as it deems necessary, including the use of armed force".

However, Article 5 stops short of a commitment to an automatic military response to help an ally under attack. That means the strength of Article 5 depends on clear statements from political leaders that it will be backed up by action. This is one reason Trump's comments caused such a furore, particularly as they came at a time of heightened alarm in NATO about Russia's intentions, following its invasion of Ukraine.

By suggesting he would not take military action to defend an ally, Trump undermined the assumptions that give Article 5 its power. "Any suggestion that allies will not defend each other undermines all of our security, including that of the U.S., and puts American and European soldiers at increased risk," NATO Secretary General Jens Stoltenberg said on Sunday.

### **NAVALNY DIES IN PRISON: HOW THE ANTI-CORRUPTION CRUSADER BECAME PUTIN'S BIGGEST RIVAL**

The death of Alexei Navalny, a vociferous Vladimir Putin critic and Russia's most prominent opposition figure, has triggered widespread speculation of a Kremlin-orchestrated political assassination.

#### **Anti-corruption crusader**

Navalny, 47, was a lawyer who rose to prominence as an anti-corruption crusader in the late 2000s. He was convinced Putin's system of personal rule was completely reliant on sycophancy and corruption.

At the forefront of the 2011-12 anti-Putin demonstrations, Navalny was among the first to be arrested. Upon his release, he continued to protest against Putin, and in 2013, ran in the Moscow



mayoral elections. Against all odds, with next to no media coverage and facing incumbent Putin ally Sergey Sobyanin, he garnered over 27 per cent of the vote, but was subsequently barred from running for public office.

Nonetheless, Navalny remained in Russia's national consciousness, in addition to gaining admiration from the West. In 2013, he launched his YouTube channel where he produced slick videos lampooning Putin and exposing the opulent lifestyles of Russia's elite. Today, this channel boasts of over 6.2 million subscribers, and has continued to produce extremely popular anti-Kremlin content, even after Navalny's 2021 arrest.

### **Persecuted by the Kremlin**

The Kremlin has gone to great lengths to portray Navalny as an "extremist", and a "CIA puppet".

In August 2020, Navalny fell ill on a flight from Siberia to Moscow. He survived and was flown to Berlin, where he was treated for the effects of Novichok, a neurotoxin developed in the Soviet Union, and a weapon of choice for Russian secret agents.

Despite the attempt at his life, he returned to Russia in 2021, where he was arrested on arrival for violating his parole. He had been in prison ever since. In August 2023, he was handed a 19-year sentence on charges ranging from creating and funding an extremist organisation and "rehabilitating Nazism", to "involving a minor to commit illegal acts" (stemming from the fact that people under 18 attended Navalny's rallies).

Navalny, however, maintained his innocence, saying that all charges against him were fabricated to keep him out of public life. Amnesty International recognised him as a "prisoner of conscience" — a term used to refer to people who have been incarcerated for the non-violent expression of their conscientiously-held beliefs.

### **Sent to Arctic prison**

In December 2023, he was moved to the IK-3 penal colony, also known as the Polar Wolf colony, some 1,900 km northeast of Moscow, and inside the Arctic Circle.

One of Russia's toughest penal colonies, "inmates endure long, dark, cold winters as well as clouds of mosquitoes in the summer," The NYT reported. He also spent more than 280 days in isolation, his spokesperson Kira Yarmash said last month.

Navalny was the last prominent Putin critic still in Russia. Others have either fled the country or died under mysterious circumstances. In 2015, opposition leader Boris Nemtsov was shot dead on a Moscow bridge, a stone's throw from the Kremlin. In August 2023, Wagner chief Yevgeny Prigozhin died in a plane crash, weeks after leading an armed mutiny.

Putin heads to polls next month, all but unchallenged, as he seeks to extend his reign till 2030.

## **EXPRESS VIEW ON FRANCE'S IMMIGRATION POLICY: THE MAYOTTE DILEMMA**

French interior minister Gérald Darmanin's declaration of an "extremely strong, clear, radical measure" to address an immigration crisis in the French Indian Ocean island of Mayotte is an indication of the tightrope that France has been walking on the issue. In a country that grants citizenship through parentage ("droit du sang") and birthplace ("droit du sol"), the new plan,



announced by the minister and applicable only to Mayotte, scraps birthright citizenship — it “will no longer be possible to become French if you are not the child of a French parent”.

Mayotte, which had voted in a 1974 referendum to remain with France and became a French department only in 2011, has been mired in protests against rising levels of crime, poverty and a steady influx of indigent migrants from neighbouring Comoros Island. Darmanin’s announcement came in part to assuage the weeks-long unrest in the island and has been taken up by the country’s right wing for implementation in mainland France too.

The announcement reflects the Macron government’s larger struggle to strike an elusive balance between guaranteeing the rights of immigrants, migrants and asylum seekers and an increasingly restive French society caught in a flailing economy.

In recent years, France’s immigration policy, once among the most liberal in Europe, has reflected the country’s — and Europe’s — growing anxieties around the unprecedented migrant crisis, especially in a post-Covid economy. Last June, the shooting of a 17-year-old French-Algerian youth in Nanterre had seen protests across the country. While President Macron has insisted that France will continue to welcome international students and skilled labour in sectors facing shortage, his own weakened stature has seen a greater capitulation to the demands of the right wing, especially when it comes to immigration.

The Mayotte announcement comes soon after a new immigration legislation that had sparked a rebellion in Macron’s government in December and found favour with the country’s right. It stands to, among other things, weaken the right to appeal for asylum seekers, introduce migration quotas that put a cap on residency permits and citizenship and potentially delay access to welfare benefits.

These policies also show that immigration is a subject whose complexity does not make for easy solutions. In December last year, the European Union reached an agreement to overhaul its asylum policies and limit the number of people coming in to protect its interests; the UK’s Supreme Court recently struck down the government’s plan to send asylum seekers to Rwanda. In a strife-torn world where resources are limited and the clamour for balance louder than ever before, there are no easy answers to this humanitarian crisis.

## STRONGMAN AT THE HELM

In Indonesia’s presidential election, Defence Minister Prabowo Subianto, a former general linked to violent actions by the military in East Timor, Aceh, and West Papua, appears likely to emerge victorious after early trends indicated more than 57% of votes in his favour. His probable win indicates a vote for continuity, as he had the torch passed to him by his predecessor, the popular Joko Widodo, suggesting that the latter’s policies on non-alignment in the strategic tussles between the U.S. and China and plans to build a new capital city, Nusantara, will be pursued as before. While full results are not expected for the next few weeks, the “quick counts”, or government-approved polling samples, suggest that Mr. Subianto succeeded in winning the support especially of younger voters, who might have been impressed by his image makeover on social media, including Tik Tok appearances hinting that he was more a friendly grandfather figure than a 72-year-old strongman leader with a shadowy past and questionable human rights record. In a sense, his political career has come full circle too, because his likely win will wipe his slate clean of memories of bitter rivalry with Mr. Widodo, to whom he lost the presidential race in 2014 and 2019. Their conciliatory moves that followed the 2019 election paved the path to



political redemption and renewal for Mr. Subianto, as he was transformed from Mr. Widodo's rival to his trusted aide and Defence Minister.

While Indonesia held out hope at the turn of the century as one of Asia's great tiger economies with immense potential for developmental uplift impacting the lives of the poor, the persistence of populist political leadership, with echoes of the dictatorship era under Suharto, has vexed those who hoped for democracy to take deeper roots. For example, Mr. Subianto already has a reputation for pushing populist policies such as support for Islamist extremists and denigrating ethnic and religious minorities such as the Chinese and Christians. There is also an unsavoury thread of nepotism favouring the elites within political circles, such as his bringing in Mr. Widodo's 36-year-old son, Gibran Raka, as his running mate despite the latter falling short of the age threshold to run for high public office. Indonesia is a critical nation on the global stage, not only because its strategic calculus matters to the great power game between the U.S., China, India and others but also because it is a potential ray of hope for Asian resurgence in a post-COVID world. Yet, if it falls into the trap of populist nativism heralded by iron-fisted authoritarians, its prospects for steady economic progress could be hobbled by the baser collective instincts of its polity.

## PAKISTAN IN TURMOIL

Pakistan's elections, on February 8, were not held on a level-playing field. Former Prime Minister Imran Khan, arguably the most popular politician, has been in jail since May 2023, facing multiple cases and serving convictions. His party, the Pakistan Tehreek-e-Insaf (PTI), was barred from using its symbol on the ballot paper, forcing it to field independent candidates. Many of its leaders were also in jail or on the run, while others were forced to quit politics or defect to another party. What Pakistan saw in the run-up to the elections was a systematic effort by powerful quarters to dismantle Mr. Khan's political vehicle. Pakistan Muslim League-N (PML-N) leader Nawaz Sharif, once the nemesis of the army, who returned from exile in London, led his party's campaign with the establishment's blessings. But if the generals thought these measures would destroy the PTI's political leverage and catapult their favourites to power, they were proven wrong by voters. Independents won 101 of the 265 seats (93 went to PTI-linked candidates), the PML-N secured 75 seats while the Pakistan People's Party (PPP) won 54, and the Karachi-based Muttahida Qaumi Movement-Pakistan took 17. To form a government, 134 seats are needed.

This does not mean that the PTI, whose independent candidates form the largest bloc, would be able to form the next government. When it was evident that no bloc had an absolute majority, Nawaz Sharif called on every party, barring the PTI, to form a unity government. With Army Chief Gen. Asim Munir backing Mr. Sharif's call, what followed was an in-principle agreement between the PML-N and the PPP "to work together for political stability". All these developments point to political manoeuvring aimed at stitching together a unity government that will keep the PTI and Mr. Khan out of power. The independents could also come under pressure to switch to the coalition parties. The PTI, which has already alleged electoral irregularities, has called for street protests, triggering memories of the widespread clashes in May 2023 after Mr. Khan's arrest. The military may have wanted to turn the page of Mr. Khan's challenge and create a new political reality through the electoral process, but the results have underscored his popularity and public anger towards the establishment. For a long-term solution, the generals should make peace with Mr. Khan and allow the spirit of the results to prevail — an unlikely outcome. As political parties that finished second and third are moving ahead with their plans with blessings from the establishment, public discontent and distrust would remain the unresolved issues. With the PTI's challenge from the streets, Pakistan could face another cycle of instability and chaos.



## NATION

### HOMEWARD BOUND

The release of all eight former Indian naval personnel from Qatar, just about three months after they were ordered a shocking death sentence, is a matter of great relief. Ever since the eight men — seven senior retired naval officers, and a sailor — who worked for the Qatar-based Dahra technologies, were arrested in 2022, the details of their case have been sparse. While their families denied reports that the men had been accused of espionage, possibly for a third country, namely Israel, the charges must have been serious enough to have invoked the death penalty. An appeals court did, in December, commute the death penalty to imprisonment terms, but upheld the conviction. It is to the government's credit that it was able to bring about the release of all the eight, seven of whom have now returned. The success seems attributable to the strategies New Delhi employed: to pursue the case in court, showing respect to the Qatari legal system, while providing the accused with full legal support and counsel; avoid all escalatory rhetoric and public sparring; and, to take the case to the highest levels, with Prime Minister Narendra Modi discussing it with the Qatari Amir, Sheikh Tamim bin Hamad Al-Thani, during a meet in Dubai in December. That Mr. Modi announced an unscheduled leg of travel to Doha on Wednesday, after his ongoing trip to the United Arab Emirates, signifies his personal involvement and his desire to thank the Qatari Amir.

The Qatar case is a timely reminder of the importance of quiet diplomacy at a time of brinkmanship and geopolitical conflict, particularly when it comes to relationships where so much else is at stake. For India, Qatar is an important West Asian power, with increased heft during the Israel-Gaza conflict as an important interlocutor between the West and Hamas. For Qatar, ties with India are historic and dependable, consistent even when Qatar was boycotted by its Gulf neighbours some years ago. Qatar supplies India with a third of its natural gas import needs, and the signing of a \$78 billion LNG deal last week may have been an early sign that the deal for the prisoners' release had been sealed by then. More than 8,00,000 Indians provide important services to Qatar and bring in critical remittance earnings for India. New Delhi's decision not to seek international intervention, as it did in the case of former naval commander Kulbhushan Jadhav, who has been convicted of espionage and terror charges in Pakistan, nor to counter Qatar's charges with the kind of harsh diplomatic countermeasures seen in the aftermath of the Nijjar assassination case in Canada, eventually provided an outcome satisfactory for all.

### PM MODI TO INAUGURATE BAPS TEMPLE IN UAE: ITS SPECIAL FEATURES, ARCHITECTURE, SIGNIFICANCE

During his two-day visit to UAE, Prime Minister Narendra Modi will inaugurate the BAPS Swaminarayan temple in Abu Dhabi, the first Hindu temple in the Gulf nation.

The inauguration of the 108-ft high temple marks a significant moment for the Hindu community in UAE, as well as for the two countries' bilateral ties.

#### What is BAPS?

The temple has been built by the Bochasanwasi Akshar Purushottam Swaminarayan Sanstha (BAPS), a denomination of the Swaminarayan Sampradaya, a Vaishnav sect of Hinduism.



BAPS has a network of around 1,550 temples across the world, including the Akshardham temples in New Delhi and Gandhinagar, and Swaminarayan temples in London, Houston, Chicago, Atlanta, Toronto, Los Angeles, and Nairobi.

It also runs 3,850 centres and 17,000 weekly assemblies globally.

**How did the demand for such a temple come up? Does Abu Dhabi have a big Swaminarayan community?**

A BAPS spokesperson said Pramukh Swami Maharaj, the tenth spiritual guru and head of the sect, on April 5, 1997 had envisioned a Hindu temple in the desert sands of Abu Dhabi which could bring countries, communities and cultures together.

“In addition to this was the need of the local Indian community to have a significant place of worship,” the spokesperson added.

The Indian diaspora is almost 3.3-million strong in UAE, a huge percentage of the country’s population. Of these, some 150 to 200 families are BAPS Swaminarayan devotees.

**What are the features of the temple?**

The Abu Dhabi temple is a traditional stone Hindu temple with seven shikhars. Built in the traditional Nagar style, the temple’s front panel depicts universal values, stories of harmony from different cultures, Hindu spiritual leaders and avatars.

Spread over 27 acres, the temple complex is on 13.5 acres, with a parking area of 13.5 acres that can accommodate around 1,400 cars and 50 buses. The 13.5 acres of land was gifted by Sheikh Mohammed Bin Zayed Al Nahyan, the President of the UAE in 2019.

The height of the temple is 108 ft, length 262 ft and width 180 ft. While the external facade uses pink sandstone from Rajasthan, the interior uses Italian marbles. A total of 20,000 tonnes of stones and marble was shipped in 700 containers for the temple. More than Rs 700 crore was spent on the temple’s construction.

The temple has two central domes, Dome of Harmony and Dome of Peace, emphasising human coexistence through the carvings of earth, water, fire, air, and plants.

A Wall of Harmony, one of the largest 3D-printed walls in the UAE, features a video showcasing key milestones of the temple’s construction. The word ‘harmony’ has been written in 30 different ancient and modern languages.

The seven shikhars (spires) are representative of the seven Emirates of the UAE.

Other amenities include an assembly hall with a capacity of 3,000 people, a community centre, exhibitions, classrooms, and a majlis venue.

**Who can visit the temple?**

Like all BAPS temples around the world, it is open to everyone.

**What are the key architectural features?**

The temple was judged the Best Mechanical Project of the Year 2019 at the MEP Middle East Awards, and the Best Interior Design Concept of the Year 2020.





Among the key architectural features are 96 bells and gaumukhs installed around the path leading to the temple. These 96 bells are a tribute to Pramukh Swami Maharaj's 96 years of life. Nano tiles have been used, which will be comfortable for visitors to walk on even in the hot weather.

On the top left of the temple is a stone carving of the scene of Pramukh Swami Maharaj envisioning the temple in Abu Dhabi in 1997.

No ferrous material (which is more vulnerable to corrosion) has been used in the temple.

While many different types of pillars can be seen in the temple, such as circular and hexagonal, there is a special pillar, called the 'Pillar of pillars', which has around 1,400 small pillars carved into it.

Buildings surrounding the temple are modern and monolithic, with their colour resembling sand dunes.

Deities from all four corners of India have been featured in the temple. These include Lord Ram, Sita, Lakshman and Hanuman, Lord Shiv, Parvati, Ganpati, Kartikeya, Lord Jagannath, Lord Radha-Krishna, Akshar-Purushottam Maharaj (Bhagwan Swaminarayan and Gunatitanand Swami), Tirupati Balaji and Padmavati and Lord Ayappa.

The temple also has some special features, like a 'holy river' surrounding it, for which waters from Ganga and Yamuna have been brought in. The river Saraswati has been depicted in the form of white light. A Varanasi-like ghat has been created where the 'Ganga' passes.

Apart from 15 value tales from Indian civilisation, stories from the Maya civilisation, Aztec civilisation, Egyptian civilisation, Arabic civilisation, European civilisation, Chinese civilisation and African civilisation have been depicted.

#### **What is the significance of the temple?**

A BAPS spokesperson said, "A Muslim king donated land for a Hindu Mandir, where the lead architect is a Catholic Christian, the project manager a Sikh, the foundational designer a Buddhist, the construction company a Parsi group, and the director comes from the Jain tradition."

Gujarat, especially Ahmedabad and Gandhinagar, has recently seen increasing interest from and presence of realtors from the UAE.

Sheikh Mohammed Bin Zayed Al Nahyan, President of the UAE, was the chief guest for the Vibrant Gujarat Global Summit 2024 held in January in Gandhinagar, where PM Modi personally received him at the Sardar Vallabhbhai International Airport in Ahmedabad.

When PM Modi reached UAE on Tuesday (February 13), he was received at the airport by President Zayed, and the two leaders hugged each other.

### **EXPLAINED: CHINA'S 'XIAOKANG' BORDER DEFENCE VILLAGES ALONG THE LAC, NOW BEING OCCUPIED**

The Chinese people have started occupying several of the country's model 'Xiaokang' border defence villages, along its border with India's northeastern region.



Since 2019, China has been building villages along the Line of Actual Control (LAC), which separates India and China, but they were unoccupied until a few months ago.

Some villages along the LAC, and opposite the Lohit Valley and the Tawang sector of Arunachal Pradesh, are now being occupied by residents, The Indian Express has learnt from officials.

#### **What are these Xiaokang border defence villages?**

China has been constructing 628 such Xiaokang or “well-off villages” along India’s borders with the Tibet Autonomous Region for over five years now. These have been constructed all along the LAC, including the Ladakh and Arunachal Pradesh borders.

The structures include mostly double-storey, large and spacious buildings. The construction for most of these planned villages has already been completed, as per officials.

The exact purposes of these villages have remained unclear, but they were understood to be dual-use infrastructure — can be used both for civil and military purposes — and have thus been a concern from a defence perspective. The strategic community looks at it as a way to assert Chinese claims over certain areas along the LAC.

Notably, the exact extent of the LAC has been a source of contention between the two countries for years. India considers it to be 3,488 km long, while China says it is around 2,000 km.

#### **Has any law been introduced concerning these villages?**

A new law on China’s land borders was brought into effect from January 1, 2022. The law was passed in 2021 by the Standing Committee of China’s National People’s Congress (which is China’s rubber-stamp Parliament), for the “protection and exploitation of the country’s land border areas”.

China’s official news agency Xinhua stated: “The law also stipulates that the state shall take measures to strengthen border defense, support economic and social development as well as opening-up in border areas, improve public services and infrastructure in such areas, encourage and support people’s life and work there, and promote coordination between border defense and social, economic development in border areas”.

Thus, this border law covers the border defence villages programme.

#### **How is India responding to it?**

The Indian government announced the Vibrant Villages Programme in 2022 to develop its border villages into modern villages with all amenities and as tourist attractions. The programme builds on the existing Border Area Development Programme (BADP) under the Union Ministry of Home Affairs.

Under the programme, India plans to develop 663 border villages into modern villages in the first phase. Of them, at least 17 such border villages along the borders with China in Ladakh, Himachal Pradesh, Uttarakhand, Sikkim and Arunachal Pradesh, have been selected for development as a pilot project.

In Arunachal Pradesh, villages in the eastern part of the state and the Tawang region have been identified such as Zemithang, Taksing, Chayang Tajo, Tuting and Kibithu.



### What other infrastructure is being developed by China along India's northeast?

China has been constantly building infrastructure all along the LAC, including in Arunachal Pradesh's Tawang region and the Siang Valley.

This includes the construction of new roads and bridges to improve connectivity through the passes. China has also been constructing houses and other infrastructure in Bhutanese territory.

India has also focused on strengthening its border infrastructure and improving forward connectivity with the construction of new roads, bridges, and helipads. There has also been a push to develop alternate routes to the LAC and improve inter-valley connectivity in the northeast.

### SC SAYS JAIL, NOT BAIL, IS THE RULE UNDER THE UAPA: HOW COURTS HAVE BEEN GRANTING BAIL IN UAPA CASES

Underlining that the oft quoted phrase, 'bail is rule, jail is the exception', does not find any place in the stringent anti-terror Unlawful Activities Prevention Act (UAPA), the Supreme Court on February 7 denied bail to Gurwinder Singh, an accused in an alleged "Khalistan module."

Singh was arrested when he was found hanging cloth banners on which "Khalistan Jindabad" and "Khalistan Referendum 2020" was written. He is now accused of a being part of a larger conspiracy with Sikhs for Justice, a pro-Khalistan group banned by the Indian government.

While the higher bar for granting bail under the UAPA is indeed antithetical to ordinary criminal law, there are some cases in which courts have granted bail. How have courts interpreted Section 43D (5) of the UAPA? Why do courts deny bail in most cases despite some rulings that have raised the bar for the state to argue against bail?

#### The law

Section 43D (5) reads: "Notwithstanding anything contained in the Code, no person accused of an offence punishable under Chapters IV and VI of this Act shall, if in custody, be released on bail or on his own bond unless the Public Prosecutor has been given an opportunity of being heard on the application for such release.

"Provided that such accused person shall not be released on bail or on his own bond if the Court, on a perusal of the case diary or the report made under section 173 of the Code is of the opinion that there are reasonable grounds for believing that the accusation against such person is prima facie true."

The law essentially says that while relying only on the police version — the case diary and the police report — the accused must show to the court that it is unreasonable to believe the accusations are prima facie (Latin for "at first sight") true. In shifting the onus on the accused, the cardinal principle of criminal law that a person is innocent till proven guilty is upended in the alternate framework of the UAPA.

#### Narrowing the room for bail

In 2019, the Supreme Court in a two-judge bench headed by Justice A M Khanwilkar ruled in Zahoor Ahmed Shah Watali v NIA, that for granting bail under UAPA, courts must not examine the evidence but only accept it at face value. The SC in this case was hearing an appeal against a Delhi HC ruling by a bench headed by Justice S Muralidhar granting bail to a Kashmiri businessman.



“The Court is merely expected to record a finding on the basis of broad probabilities regarding the involvement of the accused in the commission of the stated offence or otherwise,” the apex court had said.

Once charges are framed in the case, the court in Watali said, effectively an accused “may have to undertake an arduous task to satisfy the court that despite the framing of charge, the materials presented along with the charge-sheet (report under Section 173 of Cr.P.C.), do not make out reasonable grounds for believing that the accusation against him is prima facie true” in order for the court to grant bail.

Legal scholar Gautam Bhatia illustratively wrote in his blog Indian Constitutional Law and Philosophy, that for the lawyer of an accused in a UAPA case arguing for bail would be “participating in a swimming competition with both arms tied behind their backs: they cannot deploy any part of the arsenal open to the defence team in a regular criminal trial, and they are only permitted to try and point out internal contradictions within the Prosecution’s case, or show how even when you assume the Prosecution’s case to be true, it does not meet the UAPA threshold.”

The Watali judgement “effectively tied a dumbbell to the defence’s legs in addition to its arms being tied behind its back, when it further restricted what materials the Court could consider in a UAPA bail hearing,” he wrote.

#### **Post-Watali ruling**

The Watali judgement effectively closed the window, especially for trial courts, to look at the prosecution’s case critically while granting bail. If the prosecution’s case is flimsy, courts cannot question it, raising concerns about the liberty of an individual.

Courts have, however, granted bail in several cases, including in some high-profile cases.

The Delhi High Court in 2021 granted bail to three student activists- Asif Iqbal Tanha, Devangana Kalita and Natasha Narwal in the anti-CAA protests in North East Delhi. The HC applied the Watali precedent but placed the burden of making out a prima facie case on the police instead of the court itself having to make out a case. The court said that specific, individual charges must be made out by the prosecution and not broad speculations and inferences. The Court said it did not locate a “specific factual allegation” and said that it was “of the view that the mere use of alarming and hyperbolic verbiage in the subject charge-sheet will not convince us (the Court) otherwise.”

#### **The SC stayed this ruling, though.**

Even the Bombay High Court in granting bail to Dalit rights activist Anand Teltumbde, the Bombay HC simply referred to the material before the court and found no specific link to an overt act by Teltumbde. “...prosecution needs to show the nexus and link of Appellant with the present crime or any specific overt act,” the court said. The SC dismissed the state’s appeal against this ruling.

In February 2021, in Union of India vs KA Najeeb, a three-judge Bench of the Supreme Court headed by then CJI N V Ramana allowed bail under UAPA when the accused had undergone incarceration for a significant period. This, however, was carved out while acknowledging that bail under UAPA is an exception but it needs to be balanced with the right to a speedy trial.

The Supreme Court in Vernon Gonsalves v State of Maharashtra, in July 2023 differed with the Watali ruling on how the “prima facie true” test would apply. “In our opinion, however, it would



not satisfy the prima facie “test” unless there is at least surface-analysis of probative value of the evidence, at the stage of examining the question of granting bail and the quality or probative value satisfies the Court of its worth,” the bench comprising Justices Aniruddha Bose and Sudhanshu Dhulia said while granting bail to Gonsalves.

However, since both the Watali and the Gonsalves ruling are by benches of the same strength, it will have to be seen how future benches apply the test. If there is substantial disagreement between different two-judge benches, then a larger bench will have to settle the law.

In the Gurwinder Singh case, the two-judge bench headed by Justice M M Sundaresh relied on the Watali ruling entirely without considering the Gonsalves ruling.

## WHAT IS BEHIND LADAKH’S UNREST?

### The story so far:

Thousands returned to Leh’s streets in sub-zero temperatures earlier this month, demanding full Statehood for Ladakh and inclusion in the Sixth Schedule to safeguard land, culture, language, and environment. The ‘Leh Chalo’ protest led by Leh Apex Body (LAB) and the Kargil Democratic Alliance (KDA) resulted in a shutdown. The Ministry of Home Affairs (MHA) set a date for the second round of discussions, but the movement, backed by engineer-activist Sonam Wangchuk’s fast unto death proposal, is expected to intensify.

### Why has Ladakh turned to protests?

Ladakh has experienced multiple shutdowns, marked by frequent street protests and demonstrations over the past four years after the region was carved out of Jammu and Kashmir as a separate UT, leading to concerns among locals about the loss of identity, resources and bureaucratic overreach.

The growing resentment can be traced to August 2019 when the dilution of Article 370 abrogated the special status of the erstwhile State of J&K. Ladakh, which was then one of three divisions of J&K, was established as a UT without a legislature, unlike J&K. Ladakh had been represented by four members in the J&K Assembly and two in the Legislative Council before the abrogation. The Ladakh Autonomous Hill Development Councils of Leh and Kargil, formed to administer the region, also have limited powers.

The reorganisation took Ladakhis by surprise. Initially, there was optimism as religious minorities in the region had for long supported the demand for UT status, alleging discrimination at the hands of Kashmir-centric parties. Prime Minister Narendra Modi asserted that a new era had begun in Ladakh. The jubilation, especially in Leh, however, soon gave way to caution, uneasiness and anger. Ladakhis worried that opening up the region to non-locals and industrialists would impact the region’s demography, eventually leading to the alienation and loss of distinct identity.

Dorjay Lakruk, former president of the local BJP unit, told The Hindu, “We are not saying that we will shut Ladakh for investments but we should get a say in it, which area will be developed and for which purpose? When they talk about mega solar power projects, thousands of acres of land are required, and it’s not like the land is lying unused — it sustains wildlife, medicinal herbs grow there and nomads keep migrating. [But] people from outside think that the land is of no use.”



Jamyang Tsering Namgyal, BJP MP from Ladakh raised the issue in Parliament. He urged the Centre to fulfil the aspirations of the people, demanding constitutional safeguards through the amendment of the Ladakh Autonomous Hill Development Council Act.

A jobs crisis and lack of political representation added to the unrest.

These apprehensions led to a string of protests in the Muslim-majority Kargil which wanted to remain a part of the erstwhile State and not join the Buddhist-majority Leh. Civil society and religious outfits in Leh also felt vulnerable with the reorganisation taking away the protection enshrined under Article 35A. Hundreds joined Mr. Wangchuk in his five-day hunger strike in January and a week-long 'climatic fast' in June last year. In an interview with The Hindu, Mr. Wangchuk said Ladakh was better off with Article 370 which prevented industries from exploiting their resources.

#### **Who is behind the agitation and what do they want?**

The growing anger over unfulfilled promises prompted two ideologically distinct factions to join forces. After hectic parleys, the Leh Apex Body and the Kargil Democratic Alliance — an alliance of civil society, religious, political and student organisations — reached a consensus and finalised a four-point agenda in 2021. The umbrella organisations have since spearheaded the campaign, organising protests not only in Ladakh but also in J&K and Jantar Mantar in New Delhi, calling for shutdowns on multiple occasions. Their main demands include having a full-fledged legislature, constitutional safeguards under the Sixth Schedule, separate Lok Sabha seats for Leh and Kargil districts, and job reservations for locals. Activists and leaders of the socio-political bodies are demanding an increase in the number of Lok Sabha seats from one to two (one each for Kargil and Leh) to ensure representation of Ladakhis in Parliament and a full-fledged elected legislature.

“Earlier we had four MLAs in the State Assembly [of Jammu and Kashmir], now we have zero representation. The L-G, who is an outsider, is sent to govern us. 90% of the ₹6,000 crore allocated to Ladakh is at the dispensation of a non-elected person. By the time he understands the issues, it will be time for him to leave. We demand full Statehood so that our voices are heard,” Mr. Wangchuk had said.

The LAB and KDA have demanded the government to extend Ladakh's territorial control up to Gilgit-Baltistan in Pakistan-occupied Kashmir (PoK) and demanded reservation of seats for the area. In a memorandum to the MHA, the alliance reiterated that Statehood will ensure stability in the region and highlighted the geopolitical importance of Ladakh to counter the twin threat of China and Pakistan. The other demand, for constitutional safeguards has served as a major rallying point, with the LAB and KDA urging the government to grant special status to Ladakh on the lines of Mizoram, Tripura, Sikkim and other northeastern States. The Schedule protects tribal populations and provides autonomy to the communities through autonomous development councils. This assumes significance considering nearly 80% of Ladakh's total population of 2.74 lakh are tribals. Mr. Wangchuk says the Schedule will ensure that the local population is consulted on decisions that impact them.

The separation from J&K shrunk the region's share in the State pool, and the Centre has also failed to create new avenues for the locals in the past four years. “Ever since Ladakh became a UT, there have been no gazetted job openings in the region while two batches have already been commissioned in J&K and the third batch is going to get commissioned soon... Ladakh immediately needs to have a Public Service Commission of its own...,” Haji Ghulam Mustafa, legal adviser of the group, said.



### How has the Centre responded?

The Union Minister of State for Home Affairs, Nityanand Rai, is scheduled to meet representatives from the region on February 19 in New Delhi. All eyes will be on the meeting which will determine the tone of protests in the coming days as the country goes to the polls.

## WHAT ARE THE CHANGES IN THE NEW WATER ACT?

### The story so far:

The Lok Sabha this week passed the Water (Prevention and Control of Pollution) Amendment Act, 2024. The legislation, which was introduced and passed in the Rajya Sabha on February 5, makes important changes to the Water (Prevention and Control of Pollution) Act, 1974.

### What is the Water (Prevention and Control of Pollution) Act, 1974?

This Act was the first piece of legislation in independent India that identified the need to have an institutional structure to address contamination of water bodies. This led to the creation, in September 1974, of the Central Pollution Control Boards (CPCB) and State Pollution Control Boards (SPCB) that were charged with monitoring and preventing public water resources from getting contaminated by sewage and industrial effluents. This Act made it mandatory for industrial units to get permission from their respective State boards before setting up factories and submitting themselves to checks on whether their manufacturing and other processes were complying with prescribed norms.

“The Parliament of India in its wisdom enacted the Water (Prevention and Control of Pollution) Act in 1974 with a view to maintaining and restoring wholesomeness of our water bodies. One of the mandates of the Central Pollution Control Board (CPCB) is to collect, collate and disseminate technical and statistical data relating to water pollution,” the website of the CPCB notes. While the CPCB is empowered to conduct checks and provide guidance on technical standards to be adhered to, the SPCB files cases and is expected to enforce compliance. Violating the provisions of the Water Act can mean industries being shut down; monetary fines as well as imprisonment of up to six years. That said, there have been no instances of companies or people in India having been imprisoned due to environmental violations.

### What are the amendments?

Water is a State subject, and the Centre cannot directly pass legislative laws influencing water management. However, the Centre can create legislation, if two or more States demand it, and this can be made applicable by States over their territories if they adopt the legislation in their Assemblies. The amended version of the Act, passed by both Houses of Parliament, will currently apply to Himachal Pradesh and Rajasthan and the Union territories. The original Act, passed in 1974, is applicable in 25 States. The most important change is that it removes the provisions of imprisonment for several violations, deemed “minor”, and replaces them with fines, to the tune of ₹10,000 extending up to ₹15 lakh.

As per the original Act, the SPCB’s permission is needed for establishing any industry or treatment plant, which could discharge sewage into a water body, sewer, or land. In the amendment, the Bill specifies that the Centre, “... in consultation with the CPCB, may exempt certain categories of industrial plants from obtaining such consent....”



However, operating or establishing an industrial unit without SPCB consent can still land you in jail for six years along with a fine.

The Bill also adds that the Centre may issue guidelines for the grant, refusal, or cancellation of consent granted by the SPCB. It also penalises tampering with monitoring devices used in determining whether any industry or treatment plant can be set up. The penalty will be between ₹10,000 and ₹15 lakh. The amended Act also empowers the Centre to frame rules to select the chairpersons of SPCBs and frame guidelines that States can follow on matters for establishing industries and new operating processes.

#### **What has been the response?**

Explaining the rationale behind the amendments, Environment Minister, Bhupendra Yadav, who steered the Bill, said outdated rules and regulations caused a “trust deficit.” The imprisonment provisions for minor violations, which are simple infringements and did not lead to any injury to humans or damage to the environment, often caused “harassment” to businesses and citizens and was not in consonance with the spirit of “ease of living and ease of doing business,” he added. In discussions on the Act in the Lok Sabha, Members of Opposition parties raised concerns that the amendments weakened the laws that protected rivers and water bodies from industrial pollution. They argued that the fear of imprisonment acted as an effective deterrent to industrial units that were lax with complying with strict regulations.

### **WHAT DOES UTTARAKHAND’S UCC ENTAIL?**

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

On February 7, the Uttarakhand Assembly passed the Uniform Civil Code (UCC) Bill, becoming the first legislature in independent India to pass a law that proposes common rules on marriage, divorce, inheritance of property, and live-in relationships for all citizens, irrespective of their religion. This stems from Article 44 of the Constitution (Directive Principles of State Policy) which although not enforceable, obligates the State to strive to implement such a uniform law. The Bill will now be sent to the President for her assent after which it will become a law.

#### **Who is the Bill applicable to?**

It applies to all residents of Uttarakhand except the tribal community which constitutes 2.9% of the State’s population. The community has been averse to a UCC from the very beginning. Accordingly, Section 2 stipulates — “Nothing contained in this code shall apply to the members of any Scheduled Tribes within the meaning of clause (25) of Article 366 read with Article 142 of the Constitution of India and the persons and group of persons whose customary rights are protected under Part XXI of the Constitution of India.”

#### **How does it regulate live-in relationships?**

The Bill imposes an obligation on all heterosexual couples (irrespective of whether they are residents of Uttarakhand or not) to register their live-in relationships by submitting a “statement” to the concerned Registrar. Even if such a relationship is terminated, the Registrar has to be kept informed. In case either of the partners is less than 21 years old, the declaration will also be sent to their parents or guardians.





Subsequently, the Registrar will conduct a “summary inquiry” to ensure that the relationship does not fall under any of the prohibited categories mentioned under Section 380 — if a partner is married or in another relationship, if he or she is a minor, and if his or her consent was obtained by “coercion, fraud or misrepresentation”. The Registrar will then have to decide within 30 days. If the registration is refused, reasons have to be conveyed in writing.

Notably, a woman is eligible to claim maintenance in case she is “deserted” by her live-in partner.

In case a couple has spent a month without registering their live-in relationship, they can face a jail term of up to three months or a maximum fine of ₹10,000, or both. Any false statement by them will also attract the same jail term, but a higher fine amount of ₹25,000, or both. Upon being issued a notice, if they still do not register, they may face six months of imprisonment or a fine of ₹25,000 or both.

The Bill abolishes the concept of “illegitimate children” by extending legal recognition to children born in void and voidable marriages, as well as children born in live-in relationships.

#### **Is bigamy or polygamy permitted?**

One of the conditions stipulated under Section 4 for a valid marriage is that neither party should have “a spouse living at the time of the marriage” thus prohibiting practices such as bigamy or polygamy. The minimum age of marriage, however, will remain the same.

#### **Do marriages have to be registered?**

Marriages that occur after the enactment of the law have to be compulsorily registered within 60 days. This applies to marriages solemnised within the State or outside its territory, provided that at least one party to the marriage is a resident of Uttarakhand. Although non-registration of marriage will not invalidate it, parties can attract a penalty of up to ₹10,000. A three-month jail term and a fine of ₹25,000 will be also awarded in case false information is intentionally rendered during marriage registration.

Marriage ceremonies can be conducted in accordance with any religious and customary rites detailed under legislations such as The Anand Marriage Act, 1909, Arya Marriage Validation Act, 1937, and The Special Marriage Act, 1954, among others.

#### **What about divorce proceedings?**

No marriage can be dissolved without a court order or else it can attract imprisonment up to 3 years. Grounds for divorce also include religious conversion but not “irretrievable breakdown of marriage” despite the latter being recognised in several Supreme Court judgments.

Importantly, Section 28 prohibits the initiation of divorce proceedings unless one year has elapsed since the date of marriage. However, an exception can be made if the petitioner has suffered “exceptional hardship” or if the respondent has exhibited “exceptional depravity”. Women can specifically seek a divorce in case the husband has been found guilty of rape or any kind of unnatural sexual offence or if he has more than one wife. Following a divorce, the custody of a child up to 5 years remains with the mother.



### How are inheritance rights affected?

A distinct feature of the Bill is that it abolishes the coparcenary system governing ancestral property under the Hindu Succession Act, 1956. Thus, the same scheme of succession will now apply to both ancestral and self-acquired property for Hindus.

In the event of intestate succession, the Bill guarantees equal property rights for the spouse, children, and parents — a departure from existing personal laws that limit such rights. If there is no immediate family, the property will be equally divided among second-line relatives — first cousins from the paternal side. Others can also stake a claim if no eligible claimants are found.

### Does the Bill criminalise Muslim personal law practices?

Existing Muslim personal law practices governing marriage and divorce such as nikah halala, iddat, and triple talaq have been criminalised without explicitly naming them. For instance, Section 30(1) stipulates that the right of a person to remarry the divorced spouse can only be exercised without any condition, such as marrying a third person before such a marriage. This therefore prohibits the practice of nikah halala.

Section 32 further provides that anyone who “compels, abets or induces” to observe any such condition before remarriage will be punished with imprisonment up to three years and also be liable to pay a fine of ₹1 lakh.

### What do experts have to say?

“The mandatory registration of live-in relationships is intrusive and definitely in breach of the fundamental right to privacy as it forces you to submit yourself to the state on something as intimate as a personal relationship,” says Alok Prasanna Kumar, Co-Founder and Lead at the Vidhi Centre for Legal Policy in Bengaluru.

Madhya Pradesh and Gujarat have also appointed committees to initiate the formulation of a UCC. This, Mr. Kumar says, effectively defeats the purpose of Article 44 since the Constitution framers did not intend for every State to have its own different version of a UCC.

## WHAT IS NAZOO LAND, BEHIND RECENT DISPUTE AND VIOLENCE IN HALDWANI?

Violence erupted in the city of Haldwani in Uttarakhand’s Nainital district on Thursday (February 8), after the administration conducted a demolition drive at the site of a mosque and madrasa allegedly on Nazool land, killing five and injuring many more.

### What is Nazool land?

Nazool land is owned by the government but most often not directly administered as state property. The state generally allots such land to any entity on lease for a fixed period, generally between 15 and 99 years.

In case the lease term is expiring, one can approach the authority to renew the lease by submitting a written application to the Revenue Department of the local development authority. The government is free to either renew the lease or cancel it — taking back Nazool land.

In almost all major cities of India, Nazool land has been allotted to different entities for a variety of different purposes.



### **How did Nazool land emerge?**

During British rule, kings and kingdoms which opposed the British frequently revolted against them, leading to several battles between them and the British Army. Upon defeating these kings in battle, the British would often take their land away from them.

After India got Independence, the British vacated these lands. But with kings and royals often lacking proper documentation to prove prior ownership, these lands were marked as Nazool land — to be owned by the respective state governments.

### **How does the government use Nazool land?**

The government generally uses Nazool land for public purposes like building schools, hospitals, Gram Panchayat buildings, etc. Several cities in India have also seen large tracts of land denoted as Nazool land used for housing societies, generally on lease.

Very often, the state does not directly administer Nazool land, but rather leases it to different entities.

### **How is Nazool land governed?**

While several states have brought in government orders for the purpose of framing rules for Nazool land, The Nazool Lands (Transfer) Rules, 1956 is the law mostly used for Nazool land adjudication.

### **Is the Halwani land where the demolition drive took place registered as Nazool land?**

As per the administration, the property where the two structures are situated is registered as Nagar Nigam's (Municipal Council's) Nazool land. The administration says that for the last 15-20 days, a demolition drive has been underway in connection with Nagar Nigam properties to free roads from traffic congestion.

"A notice, issued on January 30, required the encroachment to be removed within three days or for ownership documents to be provided. On February 3, several locals visited the Nagar Nigam to discuss with our team. They submitted an application and requested time to appeal to the High Court, agreeing to abide by the court's decision," the DM said, insisting that the demolition took place after the court's go ahead.

However, Shakeel Ahmad, Councillor of Ward Number 31, where the incident took place, said that the locals had requested the administration to wait till the next date of hearing in the High Court on February 14.

## **THE MANY LOWS OF THE 17TH LOK SABHA**

Of all the Lok Sabhas with completed terms, the 17th Lok Sabha witnessed several regrettable firsts. It was the first to not appoint a Deputy Speaker, it recorded the lowest number of sittings, it passed significant legislation such as criminal reform Bills when more than 70% of the Opposition MPs were suspended, and the Prime Minister did not answer any questions orally and only one in writing. While these developments mark a new low in parliamentary functioning, this is not an anomaly; rather, it is a trend that has continued for more than 30 years.



The annual average of Bills passed declined from 65 in the 1952-1990 period to 48 in 1991-2023. The number of Bills sent to committees for scrutiny also dwindled consistently, with the 17th Lok Sabha sending only 16% of Bills for scrutiny, the lowest in the past four Lok Sabhas.

The declining number of sitting days and hours in the Lok Sabha limits the scope for debates and diminishes MPs' participation. Prior to 1990, each Lok Sabha typically convened for over 550 days on average, spanning 3,500 hours. However, post-1990, an average Lok Sabha only meets for 345 days, spanning less than 1,800 hours. The 17th Lok Sabha had the least number of sittings (274).

Parliamentary tools allow MPs to ensure executive accountability and remediate potential issues for their constituents.

A half-hour discussion enables MPs to deliberate on responses to parliamentary questions. Before the 1990s, there were 88 such discussions per Lok Sabha. Post-1990, there were only 11 half-hour discussions per Lok Sabha. The 17th Lok Sabha permitted only one such discussion, marking an all-time low.

Short duration discussions, permitting members to initiate discussions on matters of public importance, were prevalent before 1990, averaging 46 per Lok Sabha. Post-1990, this number diminished to 39, with the 17th Lok Sabha engaging in only 13 such discussions.

Calling attention, a vital tool allowing MPs to draw attention to issues and elicit responses from ministers, was extensively used between 1957 and 1990, with an average of 300 notices allowed per Lok Sabha. Post-1990, only 40 notices have been allowed per Lok Sabha. The 17th Lok Sabha allowed only one such discussion.

The adjournment motion, employed to address urgent issues with a subsequent vote, serves as an expression of disagreement with the government's policies. Pre-1990, the Lok Sabha permitted discussion and voting on four such motions on average. Post-1990, this number decreased to three. The 16th and 17th Lok Sabha allowed no adjournment motions.

There has also been a substantial decline in the time spent on discussing the Union Budget, Ministry-wise demands, and the Finance Bill, from around 120 hours annually before 1990 to a mere 35 hours post-1990. Notably, ministry-wise demands have been passed without discussion only five times since 1952 — and all of them after 1999 (Chart 4).

Scholars and experts identified this trend early on, with a notable instance being a 2000 paper authored by Dr. Subhash C Kashyap, the former Secretary-General of Lok Sabha. He proposed the establishment of a Parliamentary Reforms Commission or a 'Study of Parliament Group' outside parliamentary confines. Urgent and comprehensive parliamentary reforms are imperative to restore the efficacy of parliamentary procedures and practices.

## THE REAL TRAVESTY

The Governor's customary address to the legislature at the first session of every year is being increasingly politicised. More often than not, those responsible for such unseemly controversies overshadowing the solemn occasion are the incumbents in Raj Bhavan. In the latest instance, Tamil Nadu Governor R.N. Ravi has expressed his inability to read out the address prepared by the DMK-run government, citing what he termed "misleading claims and facts" in numerous passages. Reading them out, he claimed, would have made the Governor's address "a constitutional travesty". Compounding this constitutional mischief with a partisan claim, he



sought to make much of the fact that the national anthem is played only at the end of the address and not at the beginning also. Anyone who understands the Governor's role in a parliamentary democracy will know that it is the one declining to read out the address prepared by an elected government who reduces the address to a travesty. Governments are run by parties that contest elections on a political platform, and it is only to be expected that they would seek to trumpet their achievements, real or exaggerated, in policy statements. It is the role of the political opposition and the people to judge the content of the address, and not that of the Governor.

A simple test to ascertain the tenability of Mr. Ravi's claim that he declined to read out the customary address on factual and moral grounds is to raise the question whether either the President or a Governor in a Bharatiya Janata Party-ruled State would ever do so. He did not spell out what exactly the misleading or factually wrong points were, but it is not constitutionally sustainable to claim that the Governor's address should contain no criticism of the Centre or make no policy pronouncements against the Centre's policies. However, his point that the Speaker should not have launched a tirade against him after reading out the Tamil version of the Governor's prepared speech is justified. Such conduct by constitutional functionaries detract from the Assembly's dignity. The larger issue is still the propensity of Governors to act as political agents of the ruling party at the Centre. It is an unfortunate feature of India's constitutional system that the country is never short of grey eminences eager to occupy gubernatorial office, but once appointed, they are equally eager to enter the political thicket. It is as if they believe that their duty is to obstruct and undermine State governments run by political adversaries. The real travesty is not in a formal address containing questionable claims, but in a Governor who disagrees profoundly with its policy while remaining in office.

#### SCUTTLING OPPOSITION

In a politically loaded move, the Income-Tax department has raised a demand of ₹210 crore in penalty and as dues from the Congress, which the party says has effectively stalled the operation of all its bank accounts. On the face of it, the action seems disproportionate to the charges, and an appellate tribunal has subsequently allowed the political party to operate the accounts on the condition that an amount of ₹115 crore is kept in lien until the case is heard next week. The party says it does not have such amounts in its current accounts. Just weeks before the general election, the principal Opposition party of the country finds itself restrained by a central agency. It is worrying that this falls into a pattern of enforcement agencies targeting those fighting the ruling Bharatiya Janata Party (BJP). The Income-Tax department action against the Congress relates to tax returns filed by the party for FY2018-19. The party had missed the deadline of December 31, 2019 by about 45 days to file the returns. Of the receipts of ₹199 crore recorded in the income-tax returns, ₹14,40,000 was in cash, which the party says was given by its Members of Parliament and Members of the Legislative Assembly. The demand of a penalty of ₹210 crore is for a 45-day delay in filing the returns, and a discrepancy, if at all, of ₹14.40 lakh. The Income-Tax department's action appears high-handed and is clearly meant to paralyse the Congress.

This unusual I-T move came to light a day after the Supreme Court of India expanded on the link between money and politics in a verdict that held the secretive electoral bond scheme to be unconstitutional. Money has the power to influence politics, and disparity in access to funds can create political inequality and distort electoral outcomes. The Court's judgment echoed this in its verdict which held the electoral bond scheme as violative of fundamental rights. The BJP has championed the scheme that allows anonymous donors to contribute unlimited amounts to parties as an instrument to combat electoral corruption. Stalling the bank account of the



Opposition, regardless of the Income-Tax department's allegations, cannot be viewed as routine law enforcement. Weaponisation of the law against political opponents of the ruling party has become a serious threat to India's democracy. The brazen partisanship of central agencies that target the critics of the government is undermining the political system. The claim that all this is being done for fighting corruption and ensuring transparency cannot be taken at face value. All stakeholders must be accountable in a democracy, and the ruling party more so. When accountability is invoked for scuttling the political activity of the Opposition, that can only bode ill for democracy.

#### EXPRESS VIEW ON POLITICAL CROSSOVERS INTO BJP: ONE BY ONE

Three high-profile desertions from INDIA and Congress and cross-overs to the BJP-led NDA, in quick succession in the run-up to parliamentary polls, underscore the state of political play. In Bihar, Nitish Kumar's JD(U), a flag-bearer of Mandal politics, which was also being seen as a pillar of the national Opposition front, has walked back into the saffron fold. In UP, the RLD, rooted in an agrarian politics that was once seen, in local contexts, as a countervailing force to Hindutva, has tied up with the NDA. And in Maharashtra, former chief minister, Ashok Chavan, after 38 years in Congress, and having been targeted for alleged corruption by the BJP, has cast his lot with the BJP. All three highlight the BJP's predatory politics — the party is determined to not just put together the numbers, but also to shore up total domination. But they also turn the spotlight on the continuing deshability of Congress and the unchecked shrinking of INDIA even before it is fully formed.

The contrast only grows starker as the general election draws closer. The BJP shows agility and political imagination, and uses carrot as well as stick, weaponising its control of Central agencies like the ED-CBI now, and strategically holding out the Bharat Ratna then, to court parties and fold in constituencies that are not traditionally counted as its own, in order to spread its net wider, expand and layer its appeal. In Maharashtra, Chavan's switch follows the split of both the Shiv Sena and the NCP, one of the two halves of both aligning with the BJP. And the latest Bharat Ratna announcements at the national level — Karpoori Thakur, P V Narasimha Rao and Charan Singh — underline the BJP's incursions into political territory once thought to be dominated by ideologically differing if not antagonistic forces. This is after it has sealed its "core" promise of a Ram temple at Ayodhya with the grand consecration. On the other side, Congress is not all there to either guard its base or stitch up seat-sharing with potential INDIA allies — because its top leader Rahul Gandhi, who may no longer be party president but still runs the show, is on an ill-timed yatra. In a critical time, this manifests in a lack of urgency and unconscionable delays in the party's decision-making. The AAP has already said that it will go it alone in Punjab and made a take-it-or-leave-it offer to Congress in Delhi. And in West Bengal, Mamata Banerjee has predicted, unflatteringly, that Congress may not win even 40 LS seats.

The unchecked weakening of the Opposition bodes ill for a democracy that, at any given point, and whichever the party or parties in government, requires a competitive polity to be the best version of itself. The movement of leaders and parties only in one direction, ahead of an important election, points to a realpolitik with gloves off, and to a polity in search of a new equilibrium.



## ON WHAT GROUNDS RBI, EC OBJECTED TO ELECTORAL BONDS SCHEME

At the time it was being conceived, the electoral bonds scheme faced stiff challenges from two key institutions — the Reserve Bank of India (RBI) and the Election Commission of India (ECI). While both had differing concerns, prevention of money laundering was a common ground.

### **RBI's objections**

There were multiple rounds of discussions between the RBI and the Finance Ministry on electoral bonds. In January 2017, the RBI first objected to the proposal to enable other banks to issue electoral bearer bonds for donations to political parties before the Finance Act 2017 was enacted. The RBI had three main arguments:

Such an amendment would enable “multiple non-sovereign entities to issue bearer instruments”. The RBI had argued that this proposal — to allow any other bank to issue EBs — “militated against RBI’s sole authority for issuing bearer instruments which has the potential of becoming currency”. RBI was of the opinion that if such EBs are issued in sizable quantities, they “can undermine the faith in banknotes issued by the Central Bank.

The RBI also noted that while the identity of the person or entity purchasing the bearer bond will be known because of the Know Your Customer requirement, the identities of the intervening persons/entities will not be known. “This would impact the principles of the Prevention of Money Laundering Act 2002,” it stated.

The RBI was of the opinion that the intention of introducing electoral bonds — that the electoral contributions be paid out of tax-paid money — can be accomplished by cheque, demand draft, and electronic and digital payments. “There is no special need for introducing a new bearer bond in the form of electoral bonds,” it stated.

As the discussions continued, the RBI persisted with its view that it should be the only authority to issue such bonds. In September 2017, when it was presented with the draft scheme, the RBI stated that permitting a commercial bank to issue bonds would “have an adverse impact on public perception about the scheme, as also the credibility of India’s financial system in general and the central bank in particular.” The RBI reiterated “the possibility of shell companies misusing bearer bonds for money laundering transactions”. It also warned that the “issuance of electoral bonds in the scrip form could also expose it to the risk of forgery and cross-border counterfeiting...”

### **What ECI said**

The Election Commission’s main objection was that EBs would have a “serious impact on transparency of political finance/funding of political parties.” In May 2017, the ECI wrote to the Ministry of Law and Justice about the amendments to the IT Act, the Representation of the People Act, and Companies Act introduced by the Finance Act 2017.

In it, the ECI stated that “the Amendment which has been made” — that any donation received by a political party through electoral bond is out of the ambit of reporting under the Contribution Report as prescribed in the Representation of the People Act 1951 — “is a retrograde step as far as transparency of donations is concerned and this proviso needs to be withdrawn”.

Further, referring to the deletion of the provision in the Companies Act requiring companies to disclose particulars of the amount contributed to specific political parties, the ECI had



recommended that “companies contributing to political parties must declare party-wise contributions in the profit and loss account to maintain transparency in the financial funding of political parties.”

The ECI had also recommended that “the earlier provision prescribing a cap on corporate funding be reintroduced because unlimited corporate funding would increase the use of black money for political funding through shell companies”.

## ELECTORAL BONDS: HOW SC STRUCK DOWN AMENDMENTS IN THREE KEY LAWS, RESTORED STATUS QUO RESTRICTING POLITICAL DONATIONS

Along with the Electoral Bonds Scheme (EBS), the Supreme Court on Thursday (February 15) struck down several amendments that the government made in key laws to facilitate corporate donations to political parties. The amendments were made through The Finance Act, 2016, and The Finance Act, 2017, before the EBS was introduced in January 2018.

Before the two Finance Acts were passed, political parties were required to declare all contributions more than Rs 20,000 with no exceptions, and to maintain a record of all donations more than Rs 20,000 for purposes of taxation. Also, there was a cap on the amount of money that a company could donate to a political party in a financial year: companies could contribute a maximum of 7.5% of their average net profits from the preceding three years.

The Finance Act, 2017 amended The Representation of the People Act, 1951 (RPA), The Income-tax Act, 1961, and The Companies Act, 2013. The amendments allowed electoral bonds to cut through many of the restrictions on political party funding by completely doing away with the donation limit for companies, and removing the requirements to declare and maintain a record of donations through electoral bonds.

Thursday’s judgment by the Supreme Court has restored the status quo that existed before the Finance Act, 2017 was passed, in all of these statutes. This is what the relevant provisions of these laws say.

### **The Representation of the People Act, 1951**

Section 29C of the Act requires political parties to prepare a report detailing the donations received by them in a financial year. Parties are required to declare all contributions higher than Rs 20,000 in this report, and specify whether they were received from individual persons or from companies.

**WHAT FINANCE ACT, 2017 DID:** The Finance Act, 2017, amended the RP Act to include an exception to Section 29C. It said that the requirement to declare all donations in excess of Rs 20,000 would not apply to donations received through Electoral Bonds.

**WHAT THE SC SAID:** The Supreme Court struck down the amendment, and observed that the original requirement to disclose contributions of more than Rs 20,000 did an effective job of balancing voters’ right to information with the right to privacy of donors, as donations below this threshold were far less likely to influence political decisions.

### **The Companies Act, 2013**

A number of changes were made to Section 182 of the Act, which details the prohibitions and restrictions a company must abide by when giving political contributions.





Prior to the amendment, Section 182(1) placed a cap on the amount of money a company could donate in a single financial year, limiting it to 7.5% of the company's average net profits during the previous three financial years. Section 182(3) required a company to disclose any amount contributed to any political party along with the particulars of the amount donated and the name of the receiving party.

WHAT FINANCE ACT, 2017 DID: This section was amended to remove the cap on the amount of money a company could donate to a political party. Also, only the total amount contributed had to be disclosed — and the company would no longer be required to declare which political party it had sent a donation to, nor the specific amount.

WHAT THE SC SAID: The court struck down this amendment. Chief Justice of India (CJI) D Y Chandrachud observed that “permitting unlimited corporate contributions authorises unrestrained influence of companies in the electoral process”. The court held that this violated the right to free and fair elections, and restored the original provision which is meant to curb corruption in electoral financing.

#### **The Income-tax Act, 1961**

Section 13A(b) of The Income-tax Act says that a political party shall not include voluntary contributions as part of its total income, but it is required to maintain a record of all contributions received that are above Rs 20,000. This record must include the name and address of the person who has made the donation.

WHAT FINANCE ACT, 2017 DID: The Act amended this section to include the words “other than contribution by way of Electoral Bond”. Also, a new Section 13A(d) was added, which required that all donations exceeding Rs 2,000 must be given through certain methods, which included Electoral Bonds.

WHAT THE SC SAID: The court held that exempting political parties from maintaining a record of donations received through Electoral Bonds would violate the right to information of voters under Article 19(1)(a) of the Constitution. The court struck down both the amendment to Section 13A(b), and the new Section 13A(d).

### **ELECTORAL BONDS VERDICT: HOW THE PROPORTIONALITY TEST WAS APPLIED IN THE CASE**

Underlining that the restrictions on free speech by the electoral bonds scheme are not “proportional” to its goal, a five-judge Constitution Bench of the Supreme Court, headed by Chief Justice of India (CJI) DY Chandrachud, unanimously struck down the scheme.

Essentially, the judicial review of the electoral bonds scheme involved examining whether the extent of the state's encroachment into the rights of individuals was proportional to achieve its objectives — curbing black money and protecting donor privacy.

#### **What is the proportionality test? How does the Court decide whether the state action is proportional?**

A law passed by Parliament cannot interfere with Part-III of the Constitution that lists out the inviolable fundamental rights. The only interference with Article 19(1) — which guarantees the fundamental right to free speech — permissible is to the extent that the “reasonable restrictions”



listed in Article 19(2) are not flouted. The test to decide whether an action is a reasonable restriction is the proportionality test.

In the 2018 SC ruling that upheld the Aadhaar Act, Justice Chandrachud in his dissenting opinion said that the proportionality test is “the dominant best practice judicial standard for resolving disputes that involve either a conflict between two rights claims or between a right and a legitimate government interest.” The test is deemed necessary to guard against arbitrary action, so that the state cannot extinguish the right entirely even in pursuance of a legitimate state interest. For example, the right to life cannot be taken away to ensure law and order.

The test was formally laid down as the best practice in the 2017 seven-judge Bench Puttaswamy ruling, which recognised the right to privacy as a fundamental right. Justice Sanjay Kishan Kaul in his concurring opinion stated the the state action to be upheld must show: (i) The action is sanctioned by law; (ii) The proposed action must be necessary in a democratic society for a legitimate aim; (iii) The extent of such interference must be proportionate to the need for such interference; and (iv) There must be procedural guarantees against abuse of such interference.”

### **The govt’s argument**

In the electoral bonds case, the government had argued that curbing black money and protecting donor anonymity are both legitimate aims for the state. While tackling black money is fairly non-contentious, the government argued that donor anonymity is also a legitimate state interest since it seeks to give effect to a fundamental right — the right to privacy of the donor.

On the extent of interference with the voter’s right to know, the government argued that the right to information only operates against information in the possession or in the knowledge of the state. It cannot operate for seeking information not in the knowledge or possession of the state, Solicitor General Tushar Mehta argued.

Finally, on the issue of safeguards, Mehta said that on a court order, all the details can be furnished for a criminal investigation.

### **How the test was used**

Justice Khanna, applying the proportionality test in his separate opinion, said that donor anonymity cannot be a legitimate state aim. He also held that voters’ right to know supersedes anonymity in political party funding.

CJI Chandrachud, however, applied the “double proportionality” test. Since the case involves balancing facets of two competing fundamental rights — the right to information and the right to privacy, the proportionality test would not be enough.

According to him, the proportionality test is for when a right is directly tested against state action, but for a “balancing” of rights, the court needs to go further. Essentially, the court will have to examine the matter from the perspective of both rights and decide if the state has adopted the “least restrictive” methods to realise both rights. Additionally, whether the measure has a disproportionate impact on any one of the two rights also has to be looked at.

The CJI in his opinion pointed out that there are less intrusive methods, such as the electoral trusts scheme, to achieve the objective of curbing black money and protecting donor anonymity.



## UNBONDED

Anonymous donations of high value tend to undermine electoral democracy and governance as they facilitate a quid pro quo culture involving donors and beneficiaries. In striking down the Electoral Bond Scheme (EBS) under which anyone could buy electoral bonds and donate them to political parties for encashment, the Supreme Court of India has recognised this malaise and struck a blow for democracy and transparency in political funding. The Court found that the entire scheme violates the Constitution, especially the voters' right to information. It further found manifestly arbitrary, the amendment to the Companies Act that removed the cap of 7.5% of a company's profit that can be donated to political parties without any requirement to disclose details of the recipient parties in its profit and loss accounts. It has also mandated disclosure of donation details since 2019. The judgment is one more in a long line of verdicts the Court has handed down to promote voter rights and preserve the purity of elections. Its earlier interventions led to the featuring of the 'None of the Above' option on the ballot, the removal of the protection given to legislators from immediate disqualification on conviction for a criminal offence, the mandatory disclosure of the assets and criminal antecedents of candidates in their election affidavits and expedited trials for MPs and MLAs involved in criminal offences.

The Court's reasoning is unexceptionable. It found that the primary justification for the EBS — curbing the use of 'black money' for political or electoral funding by allowing donations through banking channels — failed the test of proportionality, as it was not the least restrictive measure to abridge the voters' right to know. It has made the logical connection between unidentified corporate donations and the likelihood of policy decisions being tailored to suit the donors. The judgment is a natural follow-up to a principle it had laid down years ago that the voters' freedom of expression under Article 19(1)(a) will be incomplete without access to information on a candidate's background. The principle has now been extended to removing the veil on corporate donors who may have been funding ruling parties in exchange for favours. While the verdict may help ease the hold that donors may have on governance through money power, a question that arises is whether the validity of the scheme could have been decided earlier or the issuance of bonds on a regular basis stayed. How much of the thousands of crores of rupees given to parties under this scheme resulted in policy measures favourable to the donors or helped fund the deployment of additional campaign resources will never be known. This was a fit case for the grant of an interim stay.

## EXPRESS VIEW: THREE RATNAS

The timing — ahead of Lok Sabha polls — of the Narendra Modi government's decision to confer the Bharat Ratna on Chaudhary Charan Singh and PV Narasimha Rao, both former prime ministers, may be political. While the first was a leading anti-Congress voice from the late Sixties to the mid-Eighties, the latter is someone whom the current ruling dispensation has sought to portray as having gotten a raw deal from the grand old party.

But there is no doubt that both — and the third recipient of the honour, the agricultural scientist, MS Swaminathan — fully deserve the nation's highest civilian award. Narasimha Rao was the father of India's economic reforms. The success of the policy changes he unveiled in 1991 — opening up the economy to the world and private investment, both domestic and foreign — can be measured not only by the country's GDP growing some 13-fold, from \$270 billion to \$3.5 trillion, since then, but also by subsequent governments not really reversing direction.



While Rao's market-oriented liberalisation measures unleashed the "animal spirits" of entrepreneurs in India, the other two men were messiahs, no less, for the farmers of Bharat. Charan Singh's three landmark pieces of legislation in Uttar Pradesh — dismantling the zamindari system of intermediaries between the cultivator and the state, enabling consolidation of fragmented holdings, and enforcing land ceiling — transformed the agricultural economy of northern India during the 1950s and 1960s.

It helped create a new socially and politically empowered middle peasant class in the region. Their economic fortunes rose with the Green Revolution, whose key architect was Swaminathan. He was the first to recognise the potential of the new high-yielding wheat and rice varieties — less tall with strong stems that responded well to more fertiliser application and didn't bend when their ears were heavy with well-filled grains — and growing them in India. He also strengthened the national agricultural research system (NARS) that has helped boost yields in other crops as well, including through breeding of varieties resistant to pests, diseases and abiotic stresses.

The awarding of Bharat Ratna to the three eminent persons should also be a moment of introspection. Reforms have delivered growth, but not lessened poverty as much as was hoped. Rao wouldn't have been happy with rising inequality and continued misallocation of resources towards inefficient producer and consumer subsidies. In today's times, he may have batted more for direct income support.

Charan Singh's middle peasant has become a prisoner of past success and needs a new formula for boosting incomes through crop diversification, improved input use efficiency and cutting out intermediaries in the marketing of produce (similar to the oppressive zamindars of yore). The best tribute to Swaminathan would be to restore the NARS to its former glory. Farmer interest is better served by more money for research and infrastructure investments, not under-pricing of fertiliser, electricity and water.

#### EXPRESS VIEW ON BRIJ BHUSHAN SINGH'S SON AS UP WRESTLING ASSOCIATION PRESIDENT: BACK TO SQUARE ONE

At the end of last year, when office-bearers of the new Wrestling Federation of India were elected, they included no one related to BJP MP Brij Bhushan Sharan Singh, the erstwhile WFI chief who faces charges of sexual harassment by the country's top female wrestlers. But at the poll venue that day, a banner hinted that Singh's control over Indian wrestling was far from over. "Dabdaba hai, dabdaba rahega (our clout will remain)" — was the writing on a placard flaunted by one of Singh's family members. Those fears have now come true. Last weekend, Singh's son, Karan, was elected president of the Uttar Pradesh Wrestling Association. It's a no-brainer that he would now have influence in the national body since the WFI is currently headed by Sanjay Singh, a close aide of his father. And with the ban on WFI being lifted by the United World Wrestling (UWW), Indian wrestling is back to square one. The two protesting wrestlers — Olympic medalists Sakshi Malik and Bajrang Punia — have requested the government, which suspended the WFI after Brij Bhushan continued to rule by proxy, to step in. Renewed protests loom on the horizon.

In this atmosphere of confusion and chaos, the only sport that has consistently medalled at Olympics, is suffering as its athletes are left in the lurch. In the past few weeks, there have been two National Championships — one recognised by the government. There is ambiguity over the dates, venues and eligibility for selection trials for the Olympic qualifiers since the wrestlers are unsure who is in charge — the WFI that has Singh's men or the ad hoc committee set by the government.



For over a year now, wrestling administrators have stayed more in the news than the potential medallists at Paris. There is a real danger that wrestling might draw a blank since the wrestlers are distracted and ambiguity remains about who is in charge. While the mat-craft of young and talented wrestlers — Anshu Malik, Aman Sehrawat and Antim Panghal — ought to be the focus, the tug of war continues to push sports in the background. Poor results at Asian Games and World Championships are bad omens. With administrators busy plotting to retain their own dabdaba, the reputation of Indian wrestlers internationally continues to take a beating.

## FARMING CONSENSUS

Farmers from Punjab, in their thousands, have assembled at three points along the border with Haryana, where they have been stopped from marching to Delhi. The protesters are demanding legally guaranteed MSP for crops, debt waiver, cancellation of international agreements impacting the agriculture sector, and a minimum pension of ₹5,000 for farmers and agriculture labour. Some of these demands were raised during their earlier protest in 2021-22, which was called off after the BJP-led central government withdrew three controversial laws that had sought to reform the agriculture sector. The protest now is spearheaded by the SKM (non-political), a splinter group of the body that had led the earlier protest. The split signifies fissures in the interest groups across Haryana, Punjab and western U.P. and Rajasthan. There are at least three other strands of protests gathering strength. Farmers in western U.P. affected by the Jewar airport project and Yamuna Expressway are up in arms. In Haryana's Sonapat, farmers are protesting land acquisition for power cables. The original SKM and several trade unions have called for a national rural and industrial strike on February 16, with overlapping and additional demands that include the repeal of four labour codes.

The government has opened talks with the Punjab farmers, but a legal guarantee of MSP appears unlikely. The police in Haryana and Delhi have stopped the farmers more than 200 km away from Delhi as they are resolute that the farmers will not be allowed near the border of the national capital where they had laid siege in 2021-22. The MSP-based procurement by the FCI has been the bedrock of food security, but the case for its reform is strong. Surplus producers of grain have benefited from the MSP scheme, but the scheme bypasses subsistence farmers in poorer regions. This uneven geographical spread of procurement has also led to unsustainable farm practices in some areas, while farmers in other regions of the country are always on the edge of penury. All this calls for a revamping of the public support for farming, which is essential for reasons that include national food security. This can be achieved better through wide political consultation and by encouraging the beneficiaries of the current system to diversify production and increase productivity. The political undertones of the protest on the eve of the Lok Sabha election also cannot be overlooked. The farm sector needs a new model of public support. It cannot be left to the mercy of the market. The government should lead the efforts to create a national consensus on this question.

## INDIA FACES WTO PRESSURE ON FARM SUBSIDIES AMID PROTESTS FOR MINIMUM SUPPORT PRICE

The government's headroom to accede to the protesting farmers demand for a legal guarantee of minimum support price (MSP) is somewhat limited given India is under pressure on its farm subsidies at the World Trade Organization (WTO), with the latest attack by an influential group of 19 agri exporting countries. To attain greater flexibility to offer farm support, India is in the process of pushing for a permanent solution at the upcoming inter-ministerial summit at Abu



Dhabi from February 26 to 29 but a deadlock over the politically charged issues between developed and developing countries is unlikely to see a resolution.

The Cairns Group – comprising Australia, Brazil and Canada among others members — have claimed that India’s public stockholding (PSH) programme is highly subsidised and the farm support that India gives is “distorting” global food prices and “hurting” food security of other countries. Last year in November, the circulated a detailed proposal to slash trade-distorting farm support in WTO members, halving the total global entitlement to subsidize. This triggered tensions among developing nations including India. While India’s per farmer subsidy is abysmally low compared to what countries such as the US offer, the WTO rules do not consider subsidies on a per-farmer basis, thereby being heavily loaded against developing countries.

Abhijit Das, expert on international trade and the former head, Centre for WTO Studies said that the Cairns Group is trying to get India to “dismantle” the MSP scheme or “reduce its scope” and that is the reason India is fighting to get better legal protection for its MSP programme. Notably, India cannot be dragged into a dispute over its subsidies as it is protected by the ‘Peace Clause’ that was agreed by the WTO members during the Bali ministerial in 2013. But due to some of the provisions in the clause being ambiguous, India is open to face disputes.

Das explained that farmers groups have stated that agriculture should be taken out of WTO but that approach could pose problems and would restrict India and other developing nations from disciplining the subsidies being given by the developed world. “Our per farmer subsidy is abysmally low compared to what the US gives. But the WTO rules, unfortunately, are not on the basis of per farmer subsidy. If new schemes are to be implemented, then for those products we will have to comply with the 10% subsidy ceiling and they will not be protected under the ‘Peace Clause,’” he added.

This means that if the government were to agree to farmers demands for an MSP law, it will not be covered under the peace clause that gives India protection from legal disputes at the WTO. As part of its demand for a permanent solution at the upcoming ministerial meeting in Abu Dhabi, India has not only pushed for measures to amend the formula to calculate the food subsidy cap but also to include programmes implemented after 2013 under the ambit of ‘Peace Clause’.

Experts have also flagged that there will be materially high expenditure if the government agrees to the farmers demand for a MSP law. The real cost to the government, though, will be the difference between MSP and mandi prices, which works out to around Rs 21,000 crore for MY2023, Sharma added.

India had informed the WTO that the total value of its rice production in 2019-20 stood at \$46.07 billion and that it gave subsidies worth \$6.31 billion, or 13.7%, which is above the 10% limit. Government officials, however, point out that India’s subsidy to farmers comes in at \$300 per farmer, compared to \$40,000 per farmer in the US. “The government will be in a tight spot because on one hand there is peer pressure at the WTO and on the other hand there is a MSP demand from the farmers. It is not just Punjab farmers but other farmers are also seeking better MSP support. Moreover, if Punjab and Haryana farmers start moving away from agriculture, it is a threat to the country’s food security,” Biswajit Dhar, Professor, Centre for Economic Studies and Planning, JNU said.

Dhar added that India is not facing a dispute on the subsidy issue at WTO because the Dispute Settlement Body (DSB) is not functional but questions will be regularly asked by member countries over breach of subsidy limits.



## WHY INDIA WANTS TO DEVELOP HIGH-ALTITUDE PSEUDO-SATELLITE VEHICLES, POWERED BY THE SUN

For India, HAPS (High Altitude Pseudo-Satellite) is another technology area where it is entering the race at a relatively early stage. The kind of jobs that HAPS are meant to do are currently done by UAVs and satellites, but both have certain limitations.

Last week, the Bengaluru-based National Aerospace Laboratories (NAL) successfully flew a prototype of a new-generation unmanned aerial vehicle (UAV) that is being seen as a huge technology breakthrough. It was no ordinary UAV. This one can fly at great heights, about 20 km from ground, runs entirely on solar power, and can remain in the air for months on end. Such UAVs belong to a class of flying objects called HAPS, or high-altitude pseudo-satellite vehicles, or HALE, that is high-altitude long-endurance vehicles.

The primary utility of HAPS vehicles is in the field of surveillance and monitoring, but there are other situations, like disaster management, wherein it can be very useful.

HAPS technology is still under development. Several countries, and companies, have developed and flown such vehicles with encouraging success, but none has mastered the technology yet. The world record for a vehicle of this class is held by the Airbus-manufactured Zephyr, which flew continuously for 64 days in August 2022 before crashing.

The prototype tested by NAL last week spent eight and a half hours in the air. Next month, NAL, a unit of the Council of Scientific and Industrial Research (CSIR), plans to keep it in flight for at least 24 hours. The full-scale machine that NAL is trying to build, by 2027, would be aiming to remain in the air for 90 days at a stretch.

### **What is the need for such UAVs?**

The kind of jobs that HAPS are meant to do are currently done by UAVs and satellites, but both have certain limitations. The normal UAVs, or drones as they are commonly called, are mostly battery-powered and cannot remain in the air beyond a few hours. Continuous monitoring is not something these can do very effectively. In addition, they fly at relatively low levels, because of which their vision is restricted to small areas.

Satellites can observe much larger areas, but the ones in low-earth orbits are continuously moving with respect to Earth. They cannot be constantly keeping an eye on the target area. Geostationary satellites, located at a height of about 36,000 km above the ground, can keep a constant gaze over one area. But these are fairly expensive, and once deployed, cannot be repurposed or reoriented.

HAPS are meant to overcome all these shortcomings, and do more.

“These stratospheric vehicles (flying about 20 km above the ground) are designed to loiter over a region. By standards of flying objects, and in comparison to UAVs for example, they move really slow, at just about 80-100 km per hour. That kind of slow speed 20 km above the ground means that objects on the ground pretty much don’t move for it. You can easily keep an eye over 200 sq km of area. In fact, you can observe everything even over a 400 sq km area with a five metre resolution. If you want to focus only at one sq km, for example, you can get a resolution as high as 15 cm,” said Dr L Venkatakrishnan, chief scientist and head of Experimental Aerodynamics Division at NAL, who is leading the development of HAPS.



“HAPS can be a very powerful solution for this kind of work. They work like geostationary satellites but with added flexibility. They can be easily redeployed over another location, or can be reequipped with a different payload, something that is not possible with a geostationary satellite,” Venkatakrishnan said.

A fully working HAPS can be used for a variety of applications, from surveillance to beaming 5G waves.

They can double up as “towers in the sky” and have more flexibility than satellites, in being able to map a piece of land from above.

### **Engineering challenges of HAPS**

But developing an autonomous flying machine fuelled entirely by solar power and capable of remaining in the air for months faces major technological hurdles. That is the reason why, despite decades of work, a full-fledged HAPS vehicle has still eluded engineers. It is only now, with advanced technologies in solar cells, batteries and composite materials, that this vehicle looks possible in the near future.

The primary challenge is to generate enough solar power to keep the aircraft flying, the payloads operating, and the batteries charging. The batteries need to be enough to continue the operations through the night. Then there are design-related challenges. The aircraft needs to be extremely lightweight to minimise the power requirement, but it also has to be stable.

This is one of the reasons why this aircraft is meant to fly in the stratosphere. The region between 17 and 23 km above the earth’s surface is climatologically conducive for their flight. The wind speed is very low and ideal for light-weight aircraft to remain stable. It helps that this height, much above the region in which civilian aircraft fly, is favourable for observation and surveillance activities.

But temperatures at that height can drop to -50 degree Celsius or lower. Electronics need to be kept warmer, and that is an additional burden on power resources. Also, air density is just about 7 per cent of what it is at sea level. That creates acute complications for the aircraft, for example in producing lift and thrust.

Because of limitations of space and weight, solar cells and batteries need to have very high efficiencies. For example, Venkatakrishnan said they were looking at battery cells with an energy density of 500 watt-hour/kg. Energy density is a measure of the amount of energy stored in a battery in proportion to its weight.

For perspective, an average truck battery has an energy density of 75 watt-hour/kg, most of the satellites sent by the Indian Space Research Organisation (ISRO) have batteries with an energy density of about 190-200 watt-hour/kg, and even Tesla, one of the most advanced car companies, was right now working with energy densities in the range of 240-260 watt-hour/kg, he said.

“With HAPS, we are testing the limits of present technology. There is one company which has achieved 500 watt-hour/kg, and the battery is commercially available, even though extremely expensive. Even with other aspects of this aircraft, for example, design, materials, aerodynamics and aeroelasticity, we are working at the limits of technology. HAPS is the grand engineering challenge of aviation right now,” Venkatakrishnan said.

### **India and the HAPS**

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





For India, HAPS is another technology area where it is entering the race at a relatively early stage. In the last few years, there has been great emphasis on promoting research in emerging technologies, so that the country is not dependent on others for critical technologies of the future. Joining technology development at an early stage also results in capacity building, early adoption of technologies, control over patents, business opportunities and spin-off technologies.

Venkatkrishnan said India had moved into HAPS technology development at the right time, and the successful test flight showed that it had capabilities similar to some of the other countries trying to develop this technology.

“We are not playing catch-up. We are not the leaders, for sure, at this moment, but we can confidently say that we have lead runners firmly in sight. We are very much in the race,” he said.

“For example, none of the advanced HAPS options, including Zephyr, has flown in tropical areas, which offer a much bigger challenge, because of the presence of jet streams in upper atmosphere. We probably have an advantage here,” he said.

## IIT MADRAS ZANZIBAR: WHAT DOES IT MEAN TO BE AN IIT OUTSIDE INDIA?

IIT Madras (IITM) Zanzibar, which was inaugurated last year, became part of household conversation after Amitabh Bachchan asked a participant in the game show Kaun Banega Crorepati where the first overseas campus of an IIT was located. What does it mean to be an IIT outside India?

### History and context

The IITs were conceived and established as contributors to the human resource development of the nation. This is iterated in the “Indian” foundation of their name, the Indian institutes of Technology, and a sign in the main building of IIT Kharagpur that reads “Dedicated to the Service of the Nation” underscores this national imperative.

Four IITs in four parts of the country, envisaged in the Nalini Ranjan Sarkar Committee’s Report in the 1940s, imagined a new technological geography, and the idea of an India united by technology. Unlike the older technological institutions in Madras, Roorkee, and Shibpur (Howrah), the IITs were intended as Indian institutions of axiomatic Indianness.

The IITs at Kharagpur, Bombay, Madras, Kanpur, and later, Delhi, were built with Western assistance and tutelage. While being national and aspirational, they were notionally universal, and saw technology as acultural. Unveiling the stone tablet in IIT Madras, then President of West Germany Heinrich Lübke said: “Knowledge will be the common property of the people.” And in his first convocation address at IIT Madras in 1964, President S Radhakrishnan said Indians must pursue knowledge, which has been the hallmark of its civilisation, in collaboration with other countries — articulating a collaborative and cross-national idea of technology.

Today, as IITs are admitting foreign students and foreign universities are setting up campuses in India, the Dr K Radhakrishnan Committee has recommended the setting up of IIT campuses overseas. So, if IITs are territorial national expressions of postcolonial science, how do we reconcile the reality of the first offshore campus in Zanzibar?



## Western and Indian

Initial Western guidance was necessary for the establishment of IITs, but their Indian character was never in doubt. By contrast, the Zanzibar campus of IIT Madras continues to be Indian, not African or Tanzanian. (Zanzibar is a Tanzanian archipelago in the Indian Ocean off the East African mainland.)

When IIT Kanpur was modelled after the Massachusetts Institute of Technology (MIT), there was a debate on whether the new institute would be an “MIT in India” or “an Indian MIT”. Needless to say, the latter prevailed as Indians Indianised technology. An “MIT Kanpur” or “Technische Hochschulen Madras” or a “German IIT” (as German professors called IIT Madras), would have been a transplant lacking in Indian character.

Prof Gordon Brown, Head of Electrical Engineering at MIT, expressed reservations about using the MIT name indiscriminately; for him and his colleagues, engineering was always global and linear, and developing countries had to learn from the developed world. On the other hand, Prof Norman Dahl of the Kanpur Indo-American Program declared that IIT Kanpur was not an imitation, but an Indian institute addressing Indian problems.

Seventy years after the IIT project started delivering, IITs are making an audacious effort not just to mentor (as the Western powers did), but are ready to create a double in Zanzibar and in other cities outside India.

## Indian, Zanzibari, both?

The IIT Madras campus in Zanzibar is not a Zanzibar Institute of Technology mentored by IIT Madras. It is a deterritorialised copy while still being an Indian institute. There can be a debate on which word to emphasise — Indian, or Madras, or Zanzibar. But it must be agreed that IIT Madras Zanzibar represents the journey of a postcolonial state to become a technological powerhouse.

The first overseas campus is a declaration of aspiration by both IIT Madras and India as a nation to shoulder responsibility and share its success story. Prof Raghunathan Rengaswamy, Dean of Global Engagement at IIT Madras and one of the brains behind the campus, sees Zanzibar as the gateway to the greater African region, iterating the sincerity of India’s friendship with the continent.

On the day of the inauguration, November 6, 2023, Zanzibar’s President Hussein Mwinyi described the campus as the high point of his term in office, and hoped that IITM Zanzibar would be a driver of economic change that would help the island achieve sustainable development goals. He also said he expected the IITM campus to complement the nation’s vision 2050 that requires skilled labour to transform the economy, and invited students from the entire region to utilise the opportunity presented by IITM.

While the IITM campus feeds the aspirations of Zanzibar in the pursuit of technology, it also offers Indians a legitimate reason to look at themselves and their achievements with confidence. The opening of IITM Zanzibar also demonstrates that India does not believe in separating the producers and consumers of knowledge, nor does it reduce African students into mere beneficiaries — rather, it is brotherhood and sisterhood in action.

Some have questioned the infrastructural inadequacies of the new campus, and doubted the wisdom of IITs travelling beyond the nation’s borders. Such views must be taken as a challenge of sorts. India and Zanzibar cannot fail each other.

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



## WHERE A ROAD IS THE DESTINATION

The 31.9 km-long Khavda-Khadir road to reach the UNESCO World Heritage Site at Dholavira, a Harappan city situated on the island of Khadir, opened for tourists in 2023

Till not so long ago in Gujarat, the distance from Bhuj to Dholavira was around 240 km via Rapar and Bhachau.

But in the run-up to the G-20 Summit, the Government of India cleared 31.9 km-long Khavda-Khadir road, through the Rann of Kutch, on a priority basis (though road widening works are ongoing).

The road was originally sanctioned in 2019, but was delayed, and finally opened for tourists in 2023. Dholavira, a UNESCO World Heritage Site was once a Harappan city situated on the island of Khadir, where the remains of the famous Indus Valley Civilisation can be found.

Now, it takes just 130 km to reach Bhuj, the capital of Kutch, says Jilubha Sodha, sarpanch of Dholavira.

The Rann of Kutch is famous for its white salty desert sand and is reputed to be the largest salt desert in the world.

Motorbike tourists who shared images of the road, while it was under construction, say it was a “heavenly experience” to be riding there. And so the name ‘Road to Heaven’ stuck, as can be seen on Google Maps.

## HOW ‘CHINESE’ IS GOBI MANCHURIAN, AND WHY DID A GOAN FAIR BAN IT?

Stirring quite the pot, North Goa’s Mapusa Municipal Council recently passed a unanimous resolution banning the sale of gobi manchurian at roadside stalls during the five-day annual fair at the Bodeshwar temple zatra (fair) in Mapusa.

Gobi manchurian — essentially fried cauliflower (gobi) florets tossed in a ‘Manchurian’ red chilli masala sauce — is an Indian-Chinese staple. During the open air temple fair in Mapusa, at least 35 stalls usually serve the dish.

### **Why was gobi manchurian banned during the fair?**

Councillor Tarak Arolkar, who drafted the resolution, told The Indian Express that the dish poses a serious health hazard as it is prepared under “unhygienic conditions in roadside stalls” during the fair.

“Vendors add synthetic colours, Ajinomoto [monosodium glutamate or MSG], and poor-quality sauces... made from a powder which contains reetha [Indian soapberry, often used in shampoos and detergents ],” he said.

### **Why was the dish specifically targeted?**

Priya Mashal, chairperson of Mapusa Municipal Council, said that the council received complaints about stalls preparing the dish in unhygienic conditions, leading the civic body to intervene.



“The ban was imposed only on stalls selling gobi manchurian for the zatra. Even during the feast at Milagres Church in Mapusa recently, we restricted the sale of the dish at roadside stalls,” she said. Notably, with regards to banning other stalls, she said the council would respond to complaints “on a case-to-case basis”.

Some believe behind the specific targeting of gobi manchurian stalls in the fair may lie prevalent anti-outsider sentiments in the state.

“A lot of vendors selling gobi manchurian at stalls are not natives of Goa... there is often a sentiment that the culture of another place may come in and alter its character,” Karan Manavalan, chef-owner of a restaurant in Goa, told The Indian Express. “In Goa, gobi manchurian has become popular over the years especially among the vegetarian tourist crowd... There is no hygiene issue in the preparation of this dish,” he said.

In fact, this is not the first time gobi manchurian has been targeted. In 2022, the state Food and Drugs Administration (FDA) had issued a circular to the Mormugao Municipal Council in South Goa to restrict the number of stalls selling gobi manchurian during the fair of Shree Damodar temple in Vasco.

Gobi Manchurian is a popular Indian dish that originated in the 1980s as a vegetarian version of Chicken Manchurian, a creation claimed by restaurateur Nelson Wang in the 1970s. Chinese restaurants in India, primarily run by third-generation Chinese from Calcutta, served a bland cuisine until the introduction of spicier Chinese dishes like Chicken Manchurian. The popularity of Chicken Manchurian, made with soy sauce and masala, paved the way for vegetarian variations, with paneer and gobi (cauliflower) being popular choices. Gobi Manchurian is particularly favored in the South, where it emerged as an alternative to paneer due to regional preferences. Despite its name, Gobi Manchurian is not a Chinese dish, and Chinese chefs are often unfamiliar with it, highlighting the unique 'Chinjabi' fusion of Punjabi and Chinese influences in Indian-Chinese cuisine.

**DreamIAS**

**BUSINESS & ECONOMICS****BRAVE NEW WORLD**

Expectations are high that a free trade agreement involving India and the European Free Trade Association (EFTA) is close to fruition. However, a bone of contention relates to intellectual property rights, and has persisted as an issue since 2008. Switzerland and Norway, which are prominent members of EFTA, host several of the pharmaceutical and biotechnology companies that are responsible for several of the drugs and therapeutics that underpin health care globally. The nature of the pharma industry — it costs much to discover a useful effective drug and relatively little to make generic copies of it — with demand that is far disproportionate to affordability, means that there is a constant tussle between the inventors and the generic-drug companies. Patenting, or an exclusive monopoly for a fixed number of years to originators and a reciprocal right by governments to issue directions for ‘compulsory licensing,’ thereby selectively breaking such monopolies in the interest of public health, has brokered the peace and sustained the global pharma industry for decades. But new legal innovations such as data exclusivity continue to inveigle themselves in free trade negotiations. Under this provision, all the clinical-trial data that concerns the safety and efficacy of a drug generated by the originator firm becomes proprietary and out of bounds for a minimum period of six years. Permission to make a generic is possible if a country’s regulator can rely on supplied clinical trial data to approve a drug. For this, generic makers usually rely on the originator’s published data.

The principle of data exclusivity is present among European countries as well as in agreements involving many developing countries. Were it to take effect in India, it could significantly hinder India’s drug industry which is also a major exporter of affordable drugs. Indian officials have rejected data exclusivity as a point of negotiations in the FTA, though leaked drafts of the agreement suggest that it is alive. However, India’s rise up the drug manufacturing chain in the last few decades means that it must invest in an ecosystem that can conduct ethical drug trials and make new molecules and therapeutics from scratch. The paradigm that drug development will always be expensive and confined to the West need not be permanent, as was seen in the development of several novel technology approaches to developing vaccines in India during the COVID-19 pandemic. But as preparation, India must invest substantially more in fundamental research to incubate the local drug industry into the future.

**CONJURING A CATHARSIS**

The Finance Ministry, in a White Paper on the economy placed in Parliament, has accused the Manmohan Singh-led United Progressive Alliance (UPA) of 2004-2014, of botching the economy. The Ministry has sought credit for the Narendra Modi-led National Democratic Alliance (NDA) government’s repair and reform job since 2014 for lifting India to the world’s fifth largest economy from one of the ‘Fragile Five’ 10 years ago. It listed 15 “high-profile” UPA “scams”, including coal, 2G spectrum, the Commonwealth Games and even a ₹44 crore misappropriation case in the Jammu & Kashmir cricket board. Hours before this, the Congress released a Black Paper on “10 years of Anyay Kaal (Era of Injustice)”. It highlights this government’s “economic blunders” such as demonetisation (something the White Paper is silent on), the flawed GST regime, the unemployment situation with stagnant wage growth, farmers’ distress, and high inflation despite crude oil prices being lower than in the UPA’s times. Finance Minister Nirmala Sitharaman questioned the UPA’s ‘extra-constitutional’ governance system and Dr. Singh’s failure to undertake reforms that were still pending after the 1991 liberalisation rush, and said this

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



government delivered on those reforms and beyond. She even invoked cases from the 1950s and 1970s to argue that corruption runs in the Congress's DNA.

The government's assertion that the White Paper will serve as a record for posterity for India's youth to know the efforts it took to undo the UPA-era damage and "restore India's glory", belies its anxiety that the young may not be adequately convinced about recent years' outcomes. That may explain the curious absence of real GDP growth and employment rates in the UPA and NDA years from the data-laden paper, which even compares waste volumes processed by urban local bodies. The paper argues the UPA failed to deliver GST and use Aadhaar effectively, but the NDA embraced and delivered on both. That a few BJP States, including Gujarat, had reservations about GST and Aadhaar at the time is a lost nuance. The NDA had a resounding majority twice, but has yet to find a consilient approach to undertake critical pending factor market reforms such as on land (an ordinance approach was abandoned in 2015) and labour (new Codes are yet to kick in), while it had to backtrack on farm sector reforms. The UPA was a rainbow coalition that navigated tricky terrains such as telecom and insurance FDI liberalisation and the India-U.S. civil nuclear deal. India's reform journey has been marked by successive governments building on past efforts, rather than reversing course, and, in hindsight, many opportunities may be considered missed or bungled. The paper seems to be an attempt to temper voters' higher expectations from a government with a majority mandate. But a pointed finger leads to three pointing right back. It is no surprise that the White begot Black.

#### EXPRESS VIEW ON GOODS DATA: STRAWS IN TRADE WIND

Data released by the Ministry of Commerce and Industry on Thursday showed that India's merchandise exports grew by 3.1 per cent to \$36.92 billion in January, from \$35.8 billion last year. Goods exports have now registered a positive growth in three of the last four months. But for the financial year so far (April-January), total goods exports have touched \$353.9 billion, down almost 5 per cent from \$372.1 billion over the same period last year. Excluding oil exports, the decline is less, with non-oil exports down around 2.5 per cent this year.

The segment wise data shows that electronic goods continued to register a healthy performance, growing at 9.31 per cent in January. For the year so far, electronic exports are up a healthy 20.7 per cent, even as overall exports have fallen. Alongside, drugs and pharmaceutical exports are also up 8 per cent. However, major labour intensive segments such as gems and jewellery, textiles, leather and products have not fared well. Alongside, goods imports also grew at 3 per cent in January. However, excluding oil and gems and jewellery, imports were 2.3 per cent lower than last year. For the year so far (April-January), imports stood at \$561 billion, down 6.7 per cent from \$601 billion over the same period last year. The segment wise data shows that vegetable oil imports are down almost 29 per cent, fertiliser around 40 per cent and coal roughly 25 per cent. Imports of petroleum, crude and products, chemicals, pearls, precious and semi-precious stones and transport equipment are also significantly lower than last year. On the other hand, imports of gold, electronic goods and machinery, electrical and non-electrical goods are up.

There were expectations that the January trade data would reflect the disruptions caused due to the conflict in the Red Sea. The region accounts for 12 per cent of global trade, and around 80 per cent of India's goods trade with Europe passes through it. Attacks by Houthi rebels on ships had forced vessels to take the longer route. As per a report in this paper, in January, India's petroleum exports to Europe had been affected by these developments. However, based on the January trade data, a report by Nomura says that, "on a value basis, there doesn't seem to be major disruption



to trade from the Red Sea escalations.” It is possible that the effects will be visible in data still to come.

#### SALUTARY REMINDER

Retail inflation data for January provides a clear reminder as to why the RBI’s Monetary Policy Committee opted last week to not only hold benchmark interest rates but also chose to remain resolutely focused on achieving durable price stability. While the data for Consumer Price Index-based price gains show the headline number having eased from December’s 5.69% to a three-month low of 5.10% last month, inflation readings for key food items including cereals, vegetables and pulses continued to stay elevated at 7.83%, 27% and 19.5%, respectively, despite moderating from December’s levels. Among the vegetables sub-group, 12 of the 19 items monitored by the Centre for Monitoring Indian Economy (CMIE) posted accelerations in year-on-year price gains last month from their readings in December, signalling that the underlying trend in inflation is persistently high. Cereals, which have the heaviest weight in the food group, also stayed stubbornly stuck in a higher trajectory, with the month-on-month inflation for the sub-group that includes the key staple of rice, barely nudging lower at 0.75%, compared with December’s 0.76%. Rice was the primary drag, with its price at non-PDS outlets accelerating both sequentially and on-year, by 1.02% and a six-month high pace of 13%, respectively. With a recent CMIE estimate for rabi sowing of rice, revealing a 2.7% drop from last year, the prospect of prices softening significantly in the near future appears remote.

The data on reservoir storage levels also add to the disquiet on the outlook for prices, particularly of food items. With water storage at 150 reservoirs showing live storage as on February 8 at 49% of capacity, and lagging appreciably behind both the year-earlier and average of the last 10-years levels, output of the rabi sown crops, including cereals and more particularly pulses, are at risk of being impacted. Given food’s large share in the overall consumption basket, food price gains pose a wider risk to overall price stability, both directly and through spillover to the prices of non-food items, as a research article by RBI officials concluded. The central bank’s survey of households’ inflation expectations found the median inflation expectation for three months ahead rose by 10 bps from the previous survey in November to 9.2%, with a greater share of respondents — 78% versus 74% two months ago — expecting inflation to accelerate in the near term. With talks between the government and some farmers’ groups breaking down and farmers threatening to intensify an agitation over demands that include assurances on a guaranteed minimum support price, policymakers face a challenge to ensure inflation does not rebound and undermine overall macroeconomic stability.

#### CONFIDENCE IN THE ECONOMY JUST SHY OF PRE-PANDEMIC LEVELS

The share of urban consumers who were pessimistic about the Indian economy continued to decline in January 2024, with less than half of them saying the economic situation has worsened compared to a year ago.

A Reserve Bank of India (RBI) survey conducted across 19 major cities between January 2 and 11. When asked to comment on their current perception about the economic situation, 40.2% said it has worsened. This is the lowest share since the pandemic outbreak. The share was mostly similar to the 37.5% who said the economic situation has improved. These levels are much closer to the figures before the pandemic.



41.3% of the respondents were pessimistic about their current employment scenario. Notably, since November 2022 the share has remained below the 50% mark. Due to the economic slowdown in 2019 and the pandemic that followed, a majority had remained pessimistic since July 2019, but that has changed.

22.1% of the respondents were pessimistic about their current income levels. This is the lowest share since the pandemic outbreak, and is only marginally higher than the pre-pandemic levels.

Worryingly, over 90% of the respondents continued to say that the price levels of commodities have increased. This share has remained above the 90% mark for three years now.

Optimism among consumers is now almost touching pre-pandemic levels as the degree of pessimism about the economy, jobs, and income levels has declined. High prices, though, are still a sore point.

The growth in new orders received by 803 manufacturing companies surveyed by the RBI. The quarter-on-quarter growth of new orders received turned positive in Q2FY24 (July-September 2023) after being in the negative in Q2FY23.

Close to 38% of companies said their order books increased in the latest quarter.

In the latest period, 48.2% of service sector companies reported that their turnovers increased, 35.9% reported that there was no change, and 15.9% said their turnovers decreased. So, the net response was +32.3% points.

. Senior loan officers were asked to assess loan demand. The latest data are for October-December 2023. The demand for loans in agriculture continued its downturn, while demand in the infrastructure sector was also poor. As has been the case for a while now, demand for retail loans continued to grow at a faster pace, while demand for loans in the manufacturing and service sectors were middling.

#### WHY HAS RBI PUT RESTRAINTS ON A CERTAIN CARD NETWORK?

The Reserve Bank of India (RBI) has ordered a certain card network to stop “unauthorised payments” made using business cards. It did not name the card network.

The regulator said that the card network was allowing businesses to make payments to entities that were not authorised to accept card payments, which was a violation of The Payment and Settlement Systems (PSS) Act, 2007. The RBI also raised concerns over non-compliance of Know Your Customer (KYC) norms in such transactions.

##### **First, what is a card network?**

Card networks connect banks, merchants, and customers (card users) to one another so that transactions can be carried out smoothly and securely. Card networks are operating in the background every time a customer uses her card to make a payment.

There are five authorised card networks in India: Visa, Mastercard, RuPay, Diners Club, and American Express.





While the RBI did not name the card network that it has restrained, it said that so far, only one card network has operationalised the arrangement that enables corporates to make unauthorised card payments via business cards in the country.

**What was the alleged modus operandi?**

In a statement, the RBI said that it had “noticed” that a card network had an arrangement that enabled businesses to make card payments through certain intermediaries to entities that did not accept card payments.

Thus, the intermediary was accepting card payments from corporates for their commercial payments, and was then remitting the funds via IMPS (Immediate Payment Service), RTGS (Real-Time Gross Settlement), or NEFT (National Electronic Fund Transfer) to non-card accepting recipients.

**So, what are the RBI’s concerns?**

A “close scrutiny”, the RBI said, revealed that “such arrangement qualified as a payment system”. Under Section 4 of the PSS Act, such a payment system requires authorisation, which had not been obtained in this case. “The activity was, therefore, without legal sanction,” the RBI said.

There were two other concerns as well, the regulator said.

First, the intermediary in such an arrangement pooled a large amount of funds into an account that was not a designated account under the PSS Act.

Second, transactions processed under this arrangement did not comply with the ‘originator and beneficiary information’ requirements, as stipulated under the ‘Master Direction on KYC’ issued by the RBI.

**What steps has the RBI taken now?**

The RBI has advised the card network to keep all such arrangements in abeyance until further orders. It has, however, clarified that no restriction has been placed with respect to the normal usage of business credit cards.

Although the RBI named no card network, Visa has issued a statement saying, “We have been directed by the regulator to ensure that all Business Payment Service Provider (BPSP) transactions be kept in abeyance till further notice. Hence, we kindly ask that all BPSP merchants registered by yourselves with Visa be immediately suspended till advised by us to the contrary.”

BPSPs offer business-to-business payment services to corporates using credit cards. It enables corporates to improve cash flow.

Visa also said that “any transaction authorised prior to the communication would be settled in the ordinary course of business”, and asked BPSPs to “send us a confirmation at the earliest that such merchants/ merchant IDs have been blocked and transactions ceased”.

**RUPAY, UPI ROLLED OUT IN MAURITIUS, SRI LANKA**

RuPay cards and Unified Payments Interface (UPI) connectivity between India and Mauritius, as well as UPI connectivity between India and Sri Lanka were established on Monday to deepen

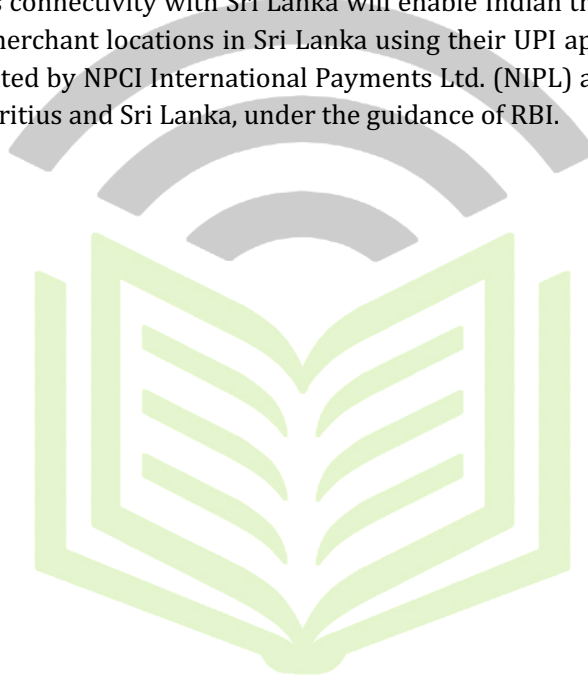


financial integration and to facilitate digital payments among citizens of the three countries, the Reserve Bank of India (RBI) said.

An Indian traveller to Mauritius will now be able to pay a merchant in Mauritius using UPI. Similarly, a Mauritian traveller will be able to pay a merchant in India using the Instant Payment System (IPS) app of Mauritius.

Further, with the adoption of RuPay technology, the MauCAS card scheme of Mauritius will enable banks in Mauritius to issue RuPay cards domestically. Such cards can be used at ATMs and PoS terminals locally in Mauritius as well as in India. "Indian RuPay cards would also be accepted at ATMs and PoS terminals in Mauritius," the RBI said in a statement.

The digital payments connectivity with Sri Lanka will enable Indian travellers to make QR code-based payments at merchant locations in Sri Lanka using their UPI apps. The projects had been developed and executed by NPCI International Payments Ltd. (NIPL) along with partner banks / non-banks from Mauritius and Sri Lanka, under the guidance of RBI.



# DreamIAS



## LIFE & SCIENCE

### EARTH-WIDE TELESCOPE CONFIRMS BLACK HOLE'S SHADOW IS 'REAL'

Scientists have unveiled new details of a colossal black hole 53 million lightyears away first photographed by the earth-wide Event Horizon Telescope (EHT) in 2017. The feat provided the first visual evidence that black holes exist, confirming a fundamental prediction of general relativity.

In a new paper published on January 18, EHT scientists have reported capturing details at the level of the behemoth's event horizon — the boundary beyond which light from the other side can't reach an observer — showcasing the formation of a distinct ring around it.

The EHT's previous run had revealed the black hole's 'shadow', a result of the event horizon's gravitational effects and a signature of its presence. The picture also helped constrain the black hole's mass and find that its size and shape align with the predictions of the general theory of relativity. The image was hailed at the time as a matter of "astonishment and wonder" for revealing "a part of the universe that was off limits".

The new data, obtained after improving the telescope's coverage and resolution, reiterated the shadow's size and shape.

"The primary finding is the confirmation of the black hole 'shadow'," Venkatesh Ramakrishnan, a postdoctoral researcher at the Finnish Centre for Astronomy with the European Southern Observatory, wrote in an email to The Hindu. "So this shows us as a first step that we are not biased towards making the black hole appear."

Dr. Ramakrishnan has been part of the EHT collaboration since 2017.

#### Many telescopes as one

The EHT is not a single telescope but a worldwide network of radio telescopes that work together to study a common object in space. They benefit from a technique called very-long baseline interferometry, where the data each telescope collects about the object is correlated with data from the others using extremely precise clocks.

In this setup, the maximum distance between the telescopes defines the network's resolution.

In 2017, the EHT reported detecting a bright, asymmetric ring of light consistent with the presence of a supermassive black hole. Independent analyses of EHT data also supported the ring's presence.

Based on these observations, scientists improved the EHT by increasing its data-recording rate, its ability to track spatial information, and by adding the Greenland Telescope to the array. The last one "improved the resolution of the EHT in the north-south direction," Dr. Ramakrishnan said.

### SCIENTISTS PLAN TO BUILD EVEN LARGER ATOM-SMASHER BY 2040

Leaders of the European Organisation for Nuclear Research, or CERN, said planning is on track for its envisioned Future Circular Collider, which is estimated to cost 15 billion Swiss francs (\$17.2 billion) and will probably start operating in a first phase by 2040.



But nothing is certain yet, aside from the interest from mostly European and Western countries that bankroll CERN, which is home to the Large Hadron Collider.

That project is perhaps best known for helping confirm the subatomic Higgs boson in 2012 after a decades-long quest for what was described as “the missing cornerstone of physics.”

The project, estimated to cost 15 billion Swiss francs (\$17.2 billion), is expected to start operating in a first phase by 2040. The feasibility study has not identified any significant technical challenges so far. The proposed collider aims to enhance understanding of fundamental physics and drive innovation in various technologies. Although the specific scientific outcomes are unknown, the collider could reach energy levels of 100 TeV, surpassing the Large Hadron Collider's capabilities. The project is still in the planning phase, with no official approval yet.

## OPENAI LAUNCHES SORA: HOW AI CAN CREATE VIDEOS FROM A TEXT PROMPT

OpenAI, the creator of the revolutionary chatbot ChatGPT, has unveiled a new generative artificial intelligence (GenAI) model that can convert a text prompt into video, an area of GenAI that was thus far fraught with inconsistencies.

The model, called Sora, can generate videos up to a minute long while maintaining visual quality and adherence to the user's prompt, OpenAI said.

Sora is capable of creating “complex scenes with multiple characters, specific types of motion, and accurate details of the subject and background,” according to OpenAI's blog post. The company also claimed that the model can understand how objects “exist in the physical world”, and “accurately interpret props and generate compelling characters that express vibrant emotions”.

However, OpenAI has cautioned that the model is far from being perfect and may still struggle with more complex prompts. Before launching Sora to the general public, OpenAI will begin its outreach programme with security experts and policymakers to try and ensure that the system does not generate misinformation, and hateful content among other things.

### Why could Sora be a big deal?

While generation of images and textual responses to prompts on GenAI platforms have become significantly better in the last few years, text-to-video was an area that had largely lagged, owing to its added complexity of analysing moving objects in a three-dimensional space.

While videos are also a series of images and could, therefore, be processed using some of the same parameters as text-to-image generators, they also have their unique set of challenges.

“The model has a deep understanding of language, enabling it to accurately interpret prompts and generate compelling characters that express vibrant emotions. Sora can also create multiple shots within a single generated video that accurately persist characters and visual style,” OpenAI said.

OpenAI posted multiple examples of Sora's work with its blog post as well as on the social media platform X. One example is a video that was created using the prompt: “Beautiful, snowy Tokyo city is bustling. The camera moves through the bustling city street, following several people enjoying the beautiful snowy weather and shopping at nearby stalls. Gorgeous sakura petals are flying through the wind along with snowflakes.”



Other companies too have ventured into the text-to-video space. Google's Lumiere, which was announced last month, can create five-second videos on a given prompt, both text- and image-based. Other companies like Runway and Pika have also shown impressive text-to-video models of their own.

#### **Is Sora available for use by everybody?**

Not yet. The company has said that it will take some "safety steps" ahead of making Sora available in OpenAI's products, and will work with red teamers—domain experts in areas like misinformation, hateful content, and bias—who will be "adversarially" testing the model.

The company is also granting access to a number of visual artists, designers, and filmmakers to gain feedback on how to advance the model to be most helpful for creative professionals.

"We're also building tools to help detect misleading content such as a detection classifier that can tell when a video was generated by Sora. We plan to include C2PA metadata in the future if we deploy the model in an OpenAI product," OpenAI said.

The company says it will leverage existing safety protocols in its products that use DALL·E 3, which are applicable to Sora as well.

"Once in an OpenAI product, our text classifier will check and reject text input prompts that are in violation of our usage policies, like those that request extreme violence, sexual content, hateful imagery, celebrity likeness, or the IP of others.

"We've also developed robust image classifiers that are used to review the frames of every video generated to help ensure that it adheres to our usage policies, before it's shown to the user," it said.

The company will also engage with policymakers, educators and artists around the world to "understand their concerns and to identify positive use cases for this new technology. Despite extensive research and testing, we cannot predict all of the beneficial ways people will use our technology, nor all the ways people will abuse it."

#### **Are there any obvious shortcomings of the model?**

OpenAI says that the current model of Sora has weaknesses. It may struggle with accurately simulating the physics of a complex scene, and may not understand specific instances of cause and effect. For example, a person might take a bite out of a cookie, but afterward, the cookie may not have a bite mark.

"The model may also confuse spatial details of a prompt, for example, mixing up left and right, and may struggle with precise descriptions of events that take place over time, like following a specific camera trajectory," it said.

### **NVIDIA RELEASES 'CHAT WITH RTX' AI CHATBOT: THE BLURRING LINES BETWEEN MAKERS OF GENAI SOFTWARE, HARDWARE**

Nvidia Corporation, the undisputed king of advanced chips that are now driving artificial intelligence (AI) applications, is releasing a new tool that lets owners of its latest series graphic cards run an AI-powered chatbot offline on a Windows PC.



The tool, called 'Chat with RTX', will allow users to customise a generative AI (GenAI) model on the lines of OpenAI's ChatGPT or Google's Bard by linking it to files, documents, and notes that they can then query.

"Rather than searching through notes or saved content, users can simply type queries," Nvidia said in a blog post on Tuesday. "For example, one could ask, 'What was the restaurant my partner recommended while in Las Vegas?' and Chat with RTX will scan local files the user points it to and provide the answer with context."

Nvidia's chatbot push comes at a time when OpenAI CEO Sam Altman is seeking trillions of dollars in investments to revamp the global semiconductor industry, The Wall Street Journal reported last week. Altman, who is behind the startup that launched ChatGPT, the fastest-growing consumer software application in history, has repeatedly voiced concern over the supply-and-demand problem with AI chips which, he has said, is limiting the growth of OpenAI.

Altman is now reportedly in talks with multiple investors for a project that could increase the global chip-building capacity, according to the WSJ report.

These announcements are being seen as indicating the direction the generative AI discourse could take going forward. This could also indicate a gradual blurring of the lines between the two most consequential players in the AI story, and the likely intersection of the interests of those who currently stand on opposite sides of the hardware-software divide.

#### **Nvidia's advantage**

The gen AI boom has been the major reason for the soaring demand for specialised chips of the kind that Nvidia makes. Graphics processing units (GPUs) — the advanced chips that were earlier targeted at gaming applications but which are now driving AI applications — have the computing power and operational efficiency to run the calculations that allow companies working on large language models (LLMs) such as ChatGPT or Bard to chomp down on massive volumes of data.

Nvidia Corp has seen its valuation surge since the LLM boom, and is now swamped with orders that it is struggling to deliver. The pioneering graphics chipmaker is already one of the world's most valuable companies, riding on its dominance in the gaming sector and now, the AI space and the potential that generative AI has to reshape the technology sector.

Analysts say Nvidia is ahead in the race for AI chips because of its proprietary software that makes it easier to leverage all of the GPU hardware features for AI applications. It also has the systems to back the processors up, and the software that runs all of it, making it a full stack solutions company.

Nvidia also offers an application programme interface (API) — which is a set of instructions that enable different applications to communicate with each other — called CUDA, which allows the creation of parallel programmes using GPUs, and are deployed in supercomputing sites around the world.

#### **Altman's opportunity**

While Chat with RTX is seen as a very early-stage product that will evolve in due course, there is clearly a recognition of Nvidia's indispensability to the AI future. Nvidia currently controls more than 80% of the AI chip market, and has a market cap of more than \$1.70 trillion, significantly higher than storied Silicon Valley competitors such as Intel and AMD.



The buoyant demand for chips to power the generative AI rush also means that Nvidia will struggle to meet the GPU demand well into the foreseeable future. And that is one ostensible reason for Altman's angst. That Nvidia is now a prominent investor, alongside Jeff Bezos, in Perplexity AI, one of the most promising GenAI startups that seek to challenge incumbents such as OpenAI, could be another factor.

Altman will need to raise between \$5 trillion and \$7 trillion for his project, the WSJ reported, citing a source.

On Wednesday, Altman posted on X that OpenAI believes the "world needs more AI infrastructure — fab capacity, energy, data centres, etc — than people are currently planning to build". He also said that "building massive-scale AI infrastructure, and a resilient supply chain, is crucial to economic competitiveness", and that OpenAI would "try to help".

Altman has always been interested in chipmaking and, just prior to his controversial ouster as CEO of OpenAI, he was said to be spearheading a new chip venture code-named Tigris to directly take on Nvidia. Earlier in 2018, Altman had put in some of his own money to back an AI chip startup called Rain Neuromorphics.

#### SCIENTISTS SEEK MORE PROTECTIONS FOR 'LIVING FOSSIL'

Environmental groups on Monday petitioned the U.S. government seeking endangered species protection for the American horseshoe crab, a "living fossil" under threat from commercial harvests for bait and biomedical use as well as from habitat loss and climate change.

These spine-tailed sea creatures, named for the shape of their body shells, were once a familiar sight to summer beachgoers along the U.S. mid-Atlantic and Gulf Coasts.

But populations have crashed in recent decades, with spawning numbers down two-thirds from 1990 in the Delaware Bay estuary that was once their biggest stronghold, according to conservation groups. Research also shows their egg densities falling more than 80% in the past four decades.

Those trends are tied to stress on other marine species that feed on their larvae and eggs, including the rufa red knot, a migratory shorebird whose own 2014 threatened-species listing cited horseshoe crab harvests as a contributing factor.

Classified not as true crabs but as marine arthropods more closely related to spiders and scorpions, horseshoe crabs are among the oldest living creatures on the earth, with fossils of their ancestors dating back some 450 million years.

"We're wiping out one of the world's oldest and toughest creatures," said Will Harlan, a senior scientist at the Center for Biological Diversity, one of 23 groups petitioning the National Oceanic and Atmospheric Administration (NOAA) for the endangered species declaration.

Such a listing would generally make it unlawful to harm or kill a horseshoe crab without a special permit. The petition also seeks designation of "critical habitat" to be protected, especially during spawning season.

The petition cites numerous threats to the American horseshoe crab, one of four living species of the animal, stemming from human activities.



Pharmaceutical companies reap horseshoe crabs in large numbers — nearly 1 million in 2022 — for their blue-coloured blood, which contains a clotting agent used to test drugs and medical devices for bacterial endotoxins, the petition said.

Regulations allow the biomedical industry to extract only a portion of a horseshoe crab's blood and then release it alive in the area it was collected, though 10-15% of harvested animals die during this process, NOAA says on its website.

The creatures also face growing habitat loss from oceanfront development, dredging, pollution, coastal erosion and sea-level rise linked to global warming from increased greenhouse gas emissions.

Mass die-offs have been observed in the past three years, with NOAA in 2023 ranking the horseshoe crab's overall vulnerability to climate change as "very high," the petition said.

## BRUMATION: WINTER IS COMING FOR REPTILES

### WHAT IS IT?

Is an alligator lying still underwater, with its snout alone sticking out, alive or dead? If this is the situation, there's a third possibility: brumation. This is the name to describe a period of dormancy or slowed activity in reptiles, much like hibernation in mammals. It typically occurs during colder months, when temperatures drop and food becomes scarce. Reptiles enter a state of brumation to conserve energy and survive these adverse environmental conditions.

During brumation, reptiles may retreat to underground burrows, rock crevices or other sheltered areas where temperatures are relatively more stable. Their metabolism slows significantly, allowing them to go weeks or even months without eating. This period of reduced activity allows reptiles to conserve energy and minimise their resource requirements.

Researchers have observed instances of brumation in various reptilian species across habitats. Such species include box turtles and painted turtles, which burrow into the mud at the bottom of ponds or lakes. Snakes may seek refuge in underground dens or caves while lizards may hide under rocks or within vegetation.

Brumation is crucial for reptiles to survive cold climes and endure challenging environmental conditions, until they can reemerge to feed and reproduce in more favourable climes.

## THE ROLE OF X CHROMOSOME IN AUTO-IMMUNE DISEASES

The higher susceptibility of women to autoimmune diseases has puzzled researchers for decades. Several factors can cause autoimmune disease such as environmental factors, genetics, hormonal imbalance and lifestyle habits. However, since women are more susceptible to these diseases, scientists previously thought that it could be related to sex hormones or faulty regulation of the X chromosome. Now, a group of scientists have found a molecular coating that is found in half of the X chromosomes in women might be the reason behind this phenomenon.

Human females (and most mammals) contain two X chromosomes while the males of the species contain one X and one Y chromosome.





The molecular coating of the X chromosome is a combination of RNA and proteins and is crucial to a process called X-chromosome inactivation which ensures that one set of X chromosomes in females remains active and functional in all the cells of the body while the other is muffled.

How is this achieved? The chromosome is wrapped in long strands of RNA called XIST that attract proteins and tamp down the expression of the gene inside.

However, not all genes are muffled in this manner and the ones that escape the X inactivation process are thought to be the cause of autoimmune diseases. Not only this, the XIST molecule too has been known to elicit inflammatory immune responses.

Additionally, one of the co-authors, Howard Chnag noted that many of the proteins that are attracted to the XIST also induced the response of autoantibodies, a type of antibody that reacts with self-antigens.

Since XIST is expressed only in cells with two X chromosomes, women are more susceptible to autoimmune diseases and attacks. Further studies in this field would help in determining exactly which XIST-related antigens contribute to sex-biased immunity resulting in expedited detection and diagnosis, the authors noted.

## THE UNTAPPED POTENTIAL OF STEM CELLS IN MENSTRUAL BLOOD

Roughly 20 years ago, a biologist named Caroline Gargett went in search of some remarkable cells in tissue that had been removed during hysterectomy surgeries. The cells came from the endometrium, which lines the inside of the uterus. When Dr. Gargett cultured the cells in a petri dish, they looked like round clumps surrounded by a clear, pink medium. But examining them with a microscope, she saw what she was looking for — two kinds of cells, one flat and roundish, the other elongated and tapered, with whisker-like protrusions.

Dr. Gargett strongly suspected that the cells were adult stem cells — rare, self-renewing cells, some of which can give rise to many different types of tissues. She and other researchers had long hypothesised that the endometrium contained stem cells, given its remarkable capacity to regrow itself each month. The tissue, which provides a site for an embryo to implant during pregnancy and is shed during menstruation, undergoes roughly 400 rounds of shedding and regrowth before a woman reaches menopause. But although scientists had isolated adult stem cells from many other regenerating tissues — including bone marrow, the heart, and muscle — “no one had identified adult stem cells in endometrium,” Dr. Gargett says.

### Several types of self-renewing cells

Such cells are highly valued for their potential to repair damaged tissue and treat diseases such as cancer and heart failure. But they exist in low numbers throughout the body, and can be tricky to obtain, requiring surgical biopsy, or extracting bone marrow with a needle. The prospect of a previously untapped source of adult stem cells was thrilling on its own, says Dr. Gargett. And it also raised the exciting possibility of a new approach to long-neglected women’s health conditions such as endometriosis.

### Testing for endometriosis

Endometrial stem cells have also been linked to endometriosis, a painful condition that affects roughly 190 million women and girls worldwide. Although much about the condition isn’t fully



understood, researchers hypothesise that one contributor is the backflow of menstrual blood into a woman's fallopian tubes, the ducts that carry the egg from the ovaries into the uterus. This backward flow takes the blood into the pelvic cavity, a funnel-shaped space between the bones of the pelvis.

Endometrial stem cells that get deposited in these areas may cause endometrial-like tissue to grow outside of the uterus, leading to lesions that can cause excruciating pain, scarring and, in many cases, infertility.

Researchers are still developing a reliable, non-invasive test to diagnose endometriosis, and patients wait an average of nearly seven years before receiving a diagnosis. But studies have shown that stem cells collected from the menstrual blood of women with endometriosis have different shapes and patterns of gene expression than cells from healthy women.

Several labs are working on ways to use these differences in menstrual stem cells to identify women at higher risk of the condition, which could lead to faster diagnosis and treatment. Menstrual stem cells may also have therapeutic applications. Some researchers working on mice, for example, have found that injecting menstrual stem cells into the rodents' blood can repair the damaged endometrium and improve fertility.



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