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# CURRENT AFFAIRS for UPSC

DreamIAS

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## INTERNATIONAL

### AS TRUMP INVOKES BAGRAM, STORY OF THE STRATEGIC AIR BASE IN AFGHANISTAN

US President Donald Trump on Thursday claimed that China now occupies the Bagram Airfield, which American forces had vacated weeks before pulling out from Afghanistan in 2021.

- Trump claimed that the Americans were going to “keep” Bagram which is “an hour away from where China makes its nuclear weapons”. But “they (presumably the Joe Biden-administration) gave Bagram up, and right now, China occupies Bagram,” he said.
- It is unclear which Chinese nuclear facility Trump was referring to. The closest known testing site is 2,000 km away at Lop Nur in Xinjiang, where China tested its first atom bomb in 1964. The closest nuclear weapons facility is the Koko Nur complex, further east in the Qinghai province.
- Bagram Airfield, the largest air base in Afghanistan, lies some 60 km to the north of Kabul, in the strategic Parwan province.
- Experts say that in Parwan lie the keys to controlling much of Afghanistan. The 2.6 km-long Salang tunnel here connects Kabul to Mazar-e-Sharif and other cities in the north, while highways provide linkages to Ghazni and Kandahar in the south, and Bamiyan to its west.
- The air base was originally built by the Soviets in the 1950s, during the early days of the Cold War, when both the US and the USSR were jockeying for influence in Afghanistan. In 1959, for his landmark visit to the country, then US President Dwight Eisenhower landed in Bagram.
- During the Soviet-Afghan War from 1979-89, Bagram became a vital Soviet base. Troops from airborne divisions were deployed from Bagram, and Sukhoi Su-25s flew daily missions against mujahideen in the mountains from the base. The base was fortified, and began housing military personnel.
- After the Soviet withdrawal, in the 1990s, the abandoned Bagram base became a frontline in a war between the Taliban, who held Kabul to the south, and the Northern Alliance fighters based in mountain gorges to its north. The airbase was heavily damaged as a result.
- After the September 11, 2001 attacks, the US and its allies took over the Bagram Airfield. Over the next two decades, as the “War on Terror” raged on, Bagram became the epicentre of the American presence in Afghanistan.
- The previous Trump administration in 2020 signed a deal with the Taliban, which provided for a pullout of all NATO troops from Afghanistan soil. US forces had vacated Bagram on July 2, 2021; the base fell to the Taliban on August 15.
- The base is under Taliban control today. That said, the US has long been concerned over China making inroads into Afghanistan after its exit. Even as most countries have been wary of fully engaging with the Taliban, China gave the Taliban representative in Beijing ambassador credentials last year.

#### Do You Know:

- Afghanistan’s geopolitical significance extends far beyond India and Pakistan. It is a multi-ethnic, landlocked country that has been at the centre of global politics primarily because of its location



— its proximity to Central Asia, the Middle East and South Asia. Its unique location has always attracted the interest of major global as well as regional powers.

#### WHY CRIMEA MATTERS TO RUSSIA

The Crimean peninsula had been “handed to” Vladimir Putin by Barack Obama, but now, “Crimea will stay with Russia”, United States President Donald Trump told Time Magazine in an interview published on Friday.

- Earlier this week, Trump pressed Ukraine to accept a peace deal under which the US would reportedly recognise Crimea — which Russia seized in 2014 — as Russian territory. Formally accepting Crimea as part of Russia would reverse a major American foreign policy position.

- Experts have pointed out that while it may be acceptable — even reasonable under the circumstances — to concede an indefinite illegal occupation of Crimea, it is quite another thing to officially condone a change of Ukraine’s national borders by force.

- Importance of Crimea: Geography is a key determinant of what makes a place strategically valuable. At very few places in the world does this statement ring truer than in Crimea, whose strategic value arises not only out of its own geography, but that of the larger Russian Federation.

1. QUEST FOR WARM WATER PORTS: Russia’s coastline stretches more than 37,000 km. However, much of it is to the north of the Arctic Circle, where sea ice makes many Russian ports unusable in the winter. As such, the quest for warm water ports has guided centuries of Russian foreign policy. “The history of Russia may be written in terms of its search for ocean ports. The Russian Bear will not be content until it finds warm water...,” the geographer George Babcock Cressey wrote in his influential book, *The Basis of Soviet Strength* (1945).

2. GATEWAY TO MEDITERRANEAN: The Black Sea is by far the warmest marine feature bordering Russia. It is also the only way for Russia to directly access the Mediterranean Sea — through the vital Turkish-controlled Bosphorus and Dardanelles straits — and by extension, southern Europe, Africa, West Asia, and beyond. Since the late 18th century, Russia has projected power and secured its access to the Mediterranean with its Black Sea Fleet military unit.

3. IMPORTANCE OF SEVASTOPOL: The Black Sea ports of Sochi and Novorossiysk, in the Krasnodar Krai in southern Russia, are fairly shallow and require ships to moor offshore. This makes them less-than-ideal bases for the Black Sea Fleet, unlike its historic home: the deep water port of Sevastopol in Crimea.

- Sevastopol lies at the heart of Crimea’s importance to Moscow, especially since the disintegration of the Soviet Union. In the 1990s, control over Sevastopol was central to the tensions between Russia and nascent Ukraine. Out of negotiations to manage these tensions arose the Kharkiv Pact of 1997, which gave Crimea to Ukraine but allowed Russia to keep control of Sevastopol until 2017. In 2010, the lease was extended up to 2042, before Russia pulled out of the treaty in 2014.

4. THE QUESTION OF WATER: Crimea is arid, with insufficient rainfall to meet the needs of its roughly 2.5 million population. So the erstwhile USSR had built the 400-km-long North Crimean Canal to carry the water of the Dnieper river from mainland Ukraine to the peninsula.



- Soon after Russia annexed Crimea in February-March 2014, Ukraine dammed the canal ahead of its entry into the peninsula. According to a study from 2015, the canal was supplying up to 85% of Crimea's water at the time it was shut down.
- Two days after invading Ukraine in 2022, Russian forces blew up the dam on the canal. "In order to guarantee the supply of water in the long term, Putin wants to control the canal all the way to the Dnieper river, which means occupying the province of Kherson...", Russia expert Peter Rutland wrote for Responsible Statecraft, the online magazine of the Washington-based Quincy Institute.
- The city of Kherson, on the western bank of the Dnieper, is currently under Ukrainian control. But Russia occupies much of the territory in the oblast to the east of the river — and effectively controls the fate of the North Crimean Canal.
- Crimea had been part of Russia's empire for hundreds of years until 1954, when the Soviet leader Nikita Khrushchev transferred control over the peninsula to Kyiv as a "gift". Putin does not accept this, and Trump's proposal backs and legitimises his position. By freezing Ukraine's political map as it stands today, the US will secure Crimea — and the canal — for Moscow for the long term.

**Do You Know:**

- In 2014, a massive pro-Western political movement ousted then President Viktor Yanukovich of Ukraine, who was seen in his country as a Russian puppet. Yanukovich fled Ukraine on February 22 that year, and Russian forces took control of Crimean strategic sites days later.
- In mid-March 2014, after Crimean authorities declared independence and asked to join Russia, the peninsula was formally incorporated as part of Ukraine's giant neighbour. Moscow's action was guided by two primary considerations.
- FIRST, Russia wanted to secure control over Sevastopol. SECOND, the new pro-West dispensation that took power in Kyiv following the Maidan Revolution was expected to push to join NATO, as other former Warsaw Pact members including Romania and Bulgaria, also on the Black Sea, had already done.
- Ukraine joining the US-led, anti-Russia military alliance would leave Russia deeply vulnerable in the Black Sea, once regarded as a "Soviet lake". Taking full control of Crimea was vital in the context of a possible future invasion of Ukraine, for which the peninsula would provide the required foothold and launchpad. Putin finally invaded eight years later — in February 2022. Apart from the larger insecurity with the possible expansion of NATO to its doorstep, Crimea played a crucial role in Russia's decision.

**LIBERAL RALLY**

When Justin Trudeau resigned as the Prime Minister of Canada in January, it seemed that his party, the Liberals, who were trailing the Conservatives by 25 points in opinion polls, was headed for an electoral debacle. Mr. Trudeau, in power for nearly a decade, had become highly unpopular amid economic woes. Pierre Poilievre, the Conservative leader, built his campaign on a call for change, branding the three consecutive terms of the Liberal party as "the lost decade" for Canada. Yet, in a stunning political turnaround, the Liberal Party beat the Conservatives in the April 28 national election. Two pivotal developments between Mr. Trudeau's exit and the elections reshaped the country's political landscape. First, Mark Carney, an economist and former banker, was chosen as Mr. Trudeau's successor. Mr. Carney distanced himself from Mr. Trudeau's legacy and reframed



the election as an opportunity to rebuild Canada's economy. Second, Donald Trump's rhetoric about making Canada "the 51st State" of the U.S. galvanised Canadian nationalism and offered a new purpose and perspective to Mr. Carney's electoral battle. He presented himself as the best candidate equipped to stand up to Mr. Trump's threats and tariffs. His record as a successful central banker who led Canada through the 2008-09 recession and the U.K. through the chaotic Brexit years also helped his cause.

The results were not entirely disappointing for the Conservatives. According to the preliminary figures, the party won 41.4% of the vote, surpassing its 2011 majority with 39.6% votes. But what happened this time was a more unified consolidation of progressive and liberal votes favouring the Liberals. When Mr. Poilievre talked about a crackdown on fentanyl, opposed tax hikes and threatened to withhold federal funding for universities, non-conservative voters saw these as Trump-style rhetoric, and gravitated towards the Liberal Party. The New Democratic Party, led by Jagmeet Singh, saw its vote share plummet from 18% in 2021 to just 6%, while the Liberals surged from 32.6% to 43.5%. While Mr. Carney deserves credit for the turnaround, he should prepare the country for the path ahead. Despite the Liberals' surging popularity, they are still projected to fall short of the 172-seat majority mark in the 343-member Parliament. A coalition government dependent on smaller parties could complicate his legislative ambitions. Moreover, Mr. Carney and Mr. Trump agree that the traditional relationship between Canada and the U.S. is over, which means the leaders will have to launch talks for a new economic and security framework. Mr. Carney must also take swift measures to offset the impact of the Trump tariffs and revitalise economic growth, all the while standing firm against American pressure and for Canada's sovereignty.

#### GERMANY'S AFD IS BRANDED AS 'EXTREMIST' BY SPY AGENCY

The German domestic intelligence service said on Friday it has classified the Alternative for Germany (AfD) party, which placed second in national elections in February, as a "right-wing extremist" organisation — making it subject to greater and broader surveillance of its activities.

The Federal Office for the Protection of the Constitution described the party as a threat to the country's democratic order, saying it "disregards human dignity" — in particular by what it called "ongoing agitation" against refugees and migrants.

Germany's move to classify the AfD as a right-wing extremist group means its officials can now use informants and other tools such as audio and video recordings to monitor its activities nationwide. But it also risks fuelling the party's claims of political persecution. Far-right parties have been gaining ground across Europe and the AfD attracts international attention.

Party leaders Alice Weidel — who met with U.S. Vice President J.D. Vance after the February elections — and Tino Chrupalla condemned the move as "a severe blow to German democracy," given that the party has grown into one of the country's most popular political forces. They alleged that it was politically motivated, a claim the government denies.

"The AfD will continue to legally defend itself against these democracy-endangering defamations," they said.

In its ruling, the intelligence service said that AfD's understanding of German identity as being based on ethnicity is "incompatible with the free democratic basic order."





It added that the party's political positions have underpinned "continuous agitation" against minorities and stirred fear and hostility toward them.

#### WILLPOWER, THE SECRET WEAPON OF THE VIETNAMESE DURING THE WAR

In Satyajit Ray's classic *Pratidwandi*, set in the late 1960s in Kolkata, the protagonist Siddhartha, played by Dhritiman Chatterjee, goes for a job interview. The panel asks, "What would you regard as the most outstanding and significant event in the last decade?"

With little hesitation, Siddhartha responds: "The war in Vietnam".

"More significant than the landing on the moon?"

"Yes," he says. "We were not unprepared for the moon landing. We knew about advances in space technology. It was remarkable but not unpredictable. On the other hand, the Vietnam War revealed the extraordinary power of resistance of the Vietnamese people... the ordinary people... peasants... nobody knew they had it in them. This isn't just technology, it's about plain human courage, and it takes your breath away."

Prompt comes the question: "Are you a communist?"

Siddhartha replies, "I don't think one needs to be one to admire the Vietnamese".

This may be a dialogue from a film, but it is still a powerful reflection of how thinking and informed people across the world, especially among the poor and developing countries, perceived the Vietnamese struggle for reunification of their partitioned country. Faced with the onslaught of a much superior and heavily armed superpower, the Vietnamese relied on their collective spirit and ingenious ability to use their terrain and peasant knowledge. While they did get help from other countries of the former Socialist bloc, their success was largely owed to the implementation of their own ideas and their hunger for freedom.

I got an opportunity to study the thought process of that generation recently. I was one of the many journalists who was invited to cover the 50th anniversary of Vietnam's reunification, celebrated with pomp on April 30. Vietnam is today among the fastest-growing and upper-middle-income economies in the world. Ho Chi Minh City — the present-day name of Saigon, the outpost and capital of South Vietnam, and the fall of which signalled the end of the Vietnam War — betrays little about the war-torn city that it was five decades ago. However, a few miles away from the city, the Cu Chi tunnels showcase how the Vietnamese managed to outwit their opponents through sheer willpower.

Using just shovels and wicker baskets, the Vietnamese resistance forces built a 250-km-long, three storey tunnel complex. This consisted of simple ventilation provisions, water wells, resting rooms, kitchens (with carefully designed chimneys to avoid smoke detection), military bunkers, medicinal facilities, and camouflaged areas facilitating shooters to attack the enemy. Most of the implements used to build this complex were as old as the Iron Age, but they were still enough to cause terror among the Americans and the South Vietnamese infantry.

The Vietnamese also retold stories of guerrilla fighters in the Can Gio mangrove forest, located about 70 km from Ho Chi Minh City. Here, the Viet Cong guerrillas, many wearing simple loincloths to wade and swim across crocodile-infested waters, used harsh terrain such as mangrove forests and the Lòng Tàu River, to plan raids and ambushes on U.S. vessels and South Vietnamese



facilities. When firebombs, including the use of the notorious napalm bombs, and heavy artillery were dropped on them, the survivors used the remains of the unexploded ones to be repurposed for their own artillery. The remarkable feature of the armed resistance was the steadfast emphasis on collectivism and the avoidance of a personality cult, except for the strong reverence for the tallest leader of the Vietnamese liberation movement, Ho Chi Minh. On this anniversary of reunification, it is worth remembering how forceful ideas and willpower in fighting for a just cause can triumph over brute force.

## THE VIETNAM WAR ENDED 50 YEARS AGO, BUT BATTLE WITH AGENT ORANGE CONTINUES

The Vietnam War ended on April 30, 1975, when the South Vietnamese capital of Saigon fell to Communist forces. But millions of people still face daily battles with its chemical legacy.

Nguyen Thanh Hai, 34, is one of millions with disabilities linked to Agent Orange. Born with severe developmental challenges, it's a struggle for him to complete tasks others take for granted: buttoning the blue shirt he wears to a special school in Da Nang, practising the alphabet, drawing shapes or forming simple sentences.

Mr. Hai grew up in Da Nang, the site of a U.S. air base where departing troops left behind huge amounts of Agent Orange that have lingered for decades, leaching into food and water supplies in areas such as Mr. Hai's village and affecting generations of residents.

Across Vietnam, U.S. forces sprayed 72 million litres of defoliants during the war to strip the enemy's cover. More than half was Agent Orange, a blend of herbicides.

Agent Orange was laced with dioxin, a type of chemical linked to cancer, birth defects and lasting environmental damage. Today, three million people, including many children, still suffer serious health issues associated with exposure to it.

Vietnam has spent decades cleaning up the toxic legacy of the war, in part funded by belated U.S. assistance, but the work is far from complete. Now, millions in Vietnam are worried that the U.S. may abandon Agent Orange clean-up as President Donald Trump slashes foreign aid.

When the war ended, the U.S. turned its back on Vietnam, eager to turn the page on a painful chapter in its history.

### **Dozens of hotspots**

But Vietnam was left with dozens of dioxin hotspots spread across 58 of its 63 provinces.

Vietnam says the health impacts last generations, threatening the children, grandchildren, and even great-grandchildren of people exposed to the chemicals with health complications ranging from cancer to birth defects that affects the spine and nervous system.

But the science about the human health impact — both to those exposed to Agent Orange and the generations that follow — remains unsettled. This is partly because when the two countries finally started working together in 2006, they focused on finding dioxin in the environment and clearing it instead of studying the still-contentious topic of its impact on human health, said Charles Bailey, co-author of the book *From Enemies to Partners: Vietnam, the U.S. and Agent Orange*.

"The science of causality is still incomplete," Mr. Bailey said.



Vietnam identifies Agent Orange victims by checking family history, where they lived, and a list of health problems linked to the poison. And Mr. Hai's disabilities were very likely linked to the spraying of the defoliant, Mr. Bailey added.

The 34-year-old began attending a special school only five years ago.

The contamination also denuded Vietnam's natural defences. Nearly half of its mangrove trees, which shield shores from strong storms, were destroyed. Much of its tropical forest was irrevocably damaged, while the herbicide also leached the soil of nutrients in some of Vietnam's most climate-vulnerable areas.

In the decades after the war ended, the recovering country fenced off heavily contaminated sites like Da Nang airport and began providing support to impacted families.

But the U.S. largely ignored growing evidence of health impacts — including on its own veterans — until the mid-2000s, when it and began funding clean-up in Vietnam. In 1991, the U.S. recognised that certain diseases could be related to exposure to Agent Orange and made veterans who had them eligible for benefits.

Since 1991, it has spent over \$155 million to aid people with disabilities in areas affected by Agent Orange or littered by unexploded bombs, according to the U.S. State Department. The two countries have also cooperated to recover war dead, with the U.S. aiding Vietnam's search for its own missing.

Cleaning up Agent Orange is expensive and often dangerous. Heavily polluted soil needs to be unearthed and heated in large ovens to very high temperatures, while less contaminated soil can be buried in secure landfills.

Despite years of work, large sites still need to be cleared.

Vietnam now has to negotiate a new reality where the U.S. President Donald Trump says the country can no longer afford to help other countries.

# DreamIAS



**NATIONAL****NEW FACE OF TERROR**

The killings of 25 tourists, including one Nepali, and a local pony operator by a group of terrorists trained in jungle warfare in a meadow of Pahalgam's Baisaran in south Kashmir's Anantnag district on April 22 shook the entire nation. It turned the spotlight on The Resistance Front (TRF), an outfit that initially claimed responsibility (a claim it later withdrew) for the attack.

Security agencies in Kashmir see the TRF as an offshoot of the Lashkar-e-Taiba (LeT). The nomenclature, many security experts in Kashmir believe, was aimed at presenting itself as a "new-age ideological force" and distancing itself from other Islamist groups such as al-Qaeda and Jaish-e-Muhammad.

The TRF emerged on the militancy landscape of Jammu and Kashmir after the Centre abrogated the provisions of Article 370 in 2019. Kashmir has seen around two dozen militant outfits active since the militancy started in the 1990s. Many smaller groups have eventually vanished from the scene. The TRF came into the crosshairs of the security agencies in April 2020 when a group of terrorists engaged security forces in a firefight for four days close to the Line of Control (LoC) in Kupwara's Keran Sector in snow-filled mountain passes. The killing of five elite commandos of the Army in extreme weather conditions in Keran signalled the changing tack and tactics of terrorists in Kashmir.

One senior police official said the major shift the TRF brought was a higher level of training, online propaganda and high-end weaponry and body cameras to film the attacks live and stream them online. The outfit operates on social media platforms "to promote their cause and lure unemployed youth to carry out terror activities", according to the National Investigation Agency's (NIA) probe.

**Urban militancy**

Around 200 TRF cadres have been killed since 2019 in Kashmir. At present, the TRF, which was mandated by its handlers across the border to revive militancy in urban pockets in Kashmir, remains a faceless outfit. The killing of Muhammad Abbas Sheikh, a resident of Kulgam, in 2021 and Basit Dar, also from Kulgam, in May 2024 left the outfit faceless. According to the police records, Sheikh, who was active since 1996, was the brain behind the TRF's actions and revival of militancy in Srinagar. Dar, who joined the TRF in 2021, was involved in 18 FIRs before being killed in Kulgam in a chance encounter, officials said.

Departing from attacking security forces' patrols and installations, the TRF in 2021 started a series of targeted killings of the members of minorities, including a well-known chemist, Makhan Lal Pandita, and a school principal, Supinder Kaur. Several non-local labourers were targeted by the group. These killings resulted in mass migration of Kashmiri Pandits from the Kashmir Valley that year.

So far, the NIA has zeroed in on a Pakistani national Habibullah Malik alias Sajid Jutt, from Kasur district in Pakistan's Punjab as the TRF's main handler. Malik is seen as the brain behind the expansion of the TRF operations from the Kashmir Valley into the Pir Panjal Valley in the Jammu region. He is accused of "motivating vulnerable Kashmiri youth to join the TRF for carrying out terrorist activities in J&K".



The TRF first attributed the attack on tourists in Pahalgam to the increasing number of domicile certificates issued to outsiders in J&K. With pressure mounting globally over the massacre, the TRF in an online statement distanced itself from the attack, saying the outfit “unequivocally denies any involvement in the Pahalgam incident”. “Any attribution of this act to the TRF is false, hasty, and part of an orchestrated campaign to malign the Kashmiri resistance”. It termed the release of the earlier statement online as “a result of a coordinated cyber intrusion”.

As security agencies claim the TRF support structure stands dismantled in the Kashmir Valley, the latest attack only shows how delicate peace remains in Kashmir with challenges being posed by such organisations as the TRF with new tactics and targets.

#### NOT STRONG ENOUGH

The UN Security Council’s statement on Friday, condemning “in the strongest terms” the terrorist attack in Pahalgam, was necessary, but inadequate. According to the statement, which expressed condolences to India, and to Nepal which lost one citizen, the members of the Security Council, that include Pakistan as an elected, non-permanent member this year, “reaffirmed that terrorism in all its forms and manifestations constitutes one of the most serious threats to international peace and security”. The statement also spoke of the need to bring the perpetrators and their sponsors to justice. However, the UNSC did not name The Resistance Front (TRF) that initially claimed responsibility for the attack, and did not refer to the group’s linkages to a UNSC-designated terror outfit, the LeT. Nor did it expressly speak of cooperation with the Government of India, as it had in the past. Finally, the statement made no mention of the terrorists’ intent to target non-Muslims — an abhorrent act aimed at instigating communal tensions. A comparison with previous such statements would make it clear that the language was “watered down” given that Pakistan is a member of the Council (2025-26) and had China’s support. China has in the past sought to veto statements critical of Pakistan. It is also disappointing that the statement, which was negotiated by France’s envoy, the current UNSC President, did not bring stronger inputs from others on the Council including the U.S., Russia and the U.K.

As the government and security forces discuss counter-terror operations within Jammu and Kashmir to apprehend the terrorists and possible military options across the border, India’s next option may be to bring a more strongly worded statement to the UN General Assembly, as various countries have done in the Ukraine and Gaza conflicts. The government would no doubt be preparing to have those terrorists it has identified from the attack and the TRF itself, designated by the UNSC, much the same way as it was able to bring the designation of Pakistan-based Jaish-e-Mohammad chief Masood Azhar as a terrorist after the Pulwama attack. In addition, India could build its case at the Financial Action Task Force, which put Pakistan on a “greylist” from 2012-15 and 2018-22, and revive its plans to pass a Comprehensive Convention on International Terrorism at the United Nations. On the bilateral front, expecting assistance from Pakistan has been a dead-end in the past, despite its promises after Mumbai (2008), Pathankot (2016), and Pulwama (2019). Given the state of bilateral relations and the lack of diplomatic engagement, this is even less likely. Only a multi-pronged effort on the global stage, and the patience it showed with the extradition of Tahawwur Rana from the U.S., will ensure that India is able to follow all the threads in bringing those responsible for this brutal attack to justice and establish a durable peace.



## INDIA WORKS TO THROTTLE PAK TERROR FUNDING, GET IT BACK IN WATCHDOG FATF 'GREY LIST'

AS PART of its escalatory matrix against Pakistan for the terror attack in Pahalgam on April 22, India is considering two specific moves aimed at curbing financial flows that aid the neighbour fund terror activities.

- The first is to make a concerted effort to try and bring back Pakistan into the 'grey list' of Financial Action Task Force (FATF), the global money laundering and terror financing watchdog, two people in the know told The Indian Express.
- Pakistan was put in the 'grey list' in June 2018, and faced "increased monitoring" till it was removed in October 2022. Being in this list adversely impacts FDI and capital flows as businesses have to undertake enhanced due diligence. Government officials said this had helped curtail illicit fund flows from Pakistan into India, especially into J&K.
- The second is to raise objections to the International Monetary Fund's (IMF's) continued financing of a \$7-billion aid package that commenced July 2024, citing diversion of funds by Pakistan for nefarious activities and terror attacks, people in the know said.
- To initiate a nomination process demanding a 'grey list' status for Pakistan, India would require the support of other FATF member countries. "There has been a discussion on the steps that could be taken on the financial front. Demanding a 'grey list' for Pakistan at the FATF is on the table. But there is a nomination process in FATF and members can ask for taking up the matter, that can be approved by the Plenary," an official in the know of developments said.
- The plenary is the decision-making body of the FATF, which meets three times a year, usually in February, June and October. The nomination will be based on specific money laundering, terrorist financing (TF), or proliferation financing risks or threats faced by a country.
- The FATF has 40 members, and over 200 jurisdictions have committed to the FATF recommendations through the FATF-Style Regional Bodies. New Delhi has its task cut out since it would have to rally adequate support among member countries for a move of this nature.
- A gauge of this support comes from the condolence messages New Delhi received from as many as 23 FATF member countries, including the UK, the US, France, Germany, Australia, European Commission, and Gulf Cooperation Council heavyweights such as Saudi Arabia and the UAE.
- Pakistan is not a member of FATF, but of Asia Pacific Group on Money Laundering (APG), the largest FATF-Style Regional Body. India is a member of APG as well as of the FATF.

### Do You Know:

- The FATF is the global money laundering and terrorist financing watchdog. The Paris-based intergovernmental organisation was formed in 1989 as a G7 initiative to examine and develop measures to combat money laundering. In 2001, the FATF expanded its mandate to also combat terrorist financing.
- The FATF, a 40-member body, has outlined a framework of measures to help countries tackle illicit financial flows. These are listed as 40 Recommendations that are divided into seven distinct areas: (1) AML/CFT Policies and coordination, (2) Money laundering and confiscation, (3) Terrorist financing and financing of proliferation, (4) Preventive measures, (5) Transparency and



beneficial ownership of legal persons and arrangements, (6) Powers and responsibilities of competent authorities and other institutional measures, (7) International cooperation.

- India became a member of FATF in 2010. Prior to this report, the FATF had undertaken an evaluation for India in June 2010. India was then placed in the “regular follow-up” category, but was subsequently removed after a follow-up report in June 2013. Due to the pandemic and pause in the FATF’s assessment process, the next round of mutual evaluation had been postponed to 2023. India’s onsite assessment by FATF happened in November last year, while the assessment came up for discussion in the plenary discussion in June 2024.
- The FATF monitors countries to ensure they implement the FATF standards fully and effectively. FATF mutual evaluations are in-depth country reports that analyse the implementation and effectiveness of measures taken against money laundering, terrorist and proliferation financing.

## NEW FRIENDS

Amidst the shock over the Pahalgam terror attack, the resultant diplomatic measures against Pakistan and the likelihood of a military escalation, New Delhi’s attempts to strengthen ties with three of Pakistan’s closest allies may have been missed. But support from Saudi Arabia, the UAE and the Taliban regime in Afghanistan will be important to building India’s case against the perpetrators. Prime Minister Narendra Modi was in Jeddah when he received news of the attack. Although he cut short his visit, he discussed the attack at some length with Saudi Crown Prince Mohammed bin Salman. The joint statement recorded their strong condemnation of the attack, rejecting any attempt to “link terrorism to any particular race, religion or culture”. The wording marks the strongest such language used and is the culmination of the process begun in 2006 with the India-KSA Delhi Declaration, followed by the 2010 Strategic Partnership agreement that turned the compass in the Saudi Kingdom on terrorism. In 2012, Saudi authorities assisted India in securing the arrest of Sayed Zabiuddin Ansari alias Abu Jundal, an LeT Indian co-conspirator being tried for the 26/11 attacks. The assistance marked a turnaround in ties, given the Kingdom’s history of funding Islamist extremist groups at madrasas in Pakistan and other countries. Ties have now been transformed with technological cooperation and the promise of \$100 billion Saudi investment.

With the UAE, India has made strides in cooperation, boosted by the signing of the Strategic Partnership in 2017, and at least six visits by Mr. Modi, leading to a stark turnaround since the 1990s, when India pleaded unsuccessfully for the extradition of Dawood Ibrahim and in intervening in the 1999 hijack of flight IC-814. In April, New Delhi rolled out the red carpet for Sheikh Hamdan bin Mohammed bin Rashid Al Maktoum, Crown Prince of Dubai and the UAE’s Deputy Prime Minister and Minister of Defence, cementing ties with a country that has been one of Pakistan’s closest backers. Finally, this week saw a surprise visit to Kabul by the MEA’s point-person for Pakistan-Afghanistan-India and a meeting with Taliban acting foreign minister Muttaqi as well as a “categorical condemnation” by the Taliban of the Pahalgam killings — a far cry from the Taliban’s past in targeting Indian interests in Afghanistan in collaboration with Pakistani agencies and terror groups. It would not be pragmatic to assume a full change of heart with the Taliban, but the support against terrorism is bound to be one more pressure point on Pakistan. The salutary impact of well-timed diplomacy in turning around ties with countries that had refused India cooperation three decades ago is noteworthy.





## DON'T WANT PEOPLE GOING AFTER MUSLIMS, KASHMIRIS, SAYS WIFE OF NAVY OFFICER KILLED IN PAHALGAM ATTACK

Himanshi Narwal, the wife of Navy Lieutenant Vinay Narwal, who was among the 26 people killed in Jammu and Kashmir's Pahalgam last month, said on Thursday that the family did not approve of "hatred against Muslims and Kashmiris in the aftermath of the terror attack".

Interacting with media-persons on the occasion of a blood donation camp coinciding with the birth anniversary of her late husband, Ms. Narwal said she did not want hatred towards anybody, and the family only wanted peace. "I don't want any hatred towards anybody. The people going against Muslims and Kashmiris... we don't want this. We want peace and only peace," she said.

Following the Pahalgam terror attack, a number of Kashmiri people, mostly students enrolled in colleges in different parts of the country, have reportedly been attacked or threatened by local residents.

Ms. Narwal, a resident of Haryana's Gurugram, said she wanted the entire nation to pray for her husband so that he "stayed healthy, in good spirits, and at peace wherever he was". Demanding justice for her late husband, she said those who killed him should be punished.

The Narwal family had taken part in the blood donation camp held by local social groups at Maharaja Agrasen Bhawan in Karnal's Sector 8 on Thursday.

Just six days after the couple had tied the knot on April 16, the 26-year-old officer was shot dead by terrorists during the attack at Baisaran valley. The couple had landed at Pahalgam just a day before the terror attack after their visas to Switzerland for the post-wedding vacation were rejected.

### 'Accord martyr status'

The family has demanded that the late officer be accorded martyr status. Local MLA Jagmohan Anand, who was present at the camp, said he would raise the issue in the Assembly.

Narwal had been serving at the Southern Naval Command in Kochi for the past one and a half years after joining the Navy in 2022.

## J&K'S ECONOMY AND TOURISM IN PERIL AFTER PAHALGAM MASSACRE

The targeted killings of tourists in Pahalgam in Jammu and Kashmir took place at a time when the region was witnessing a tourism boom. The number of visitors was at a 15-year high and the Union Territory (UT)'s own revenue generation had started showing signs of improvement. The home States of the victims reflected the diversity of tourists that the Valley had begun attracting. Now, with several key destinations in Kashmir deemed unsafe by the government, over 80% of upcoming bookings have been cancelled. Amid escalating tensions at the border, the tourism sector is bracing itself for a bleak year.

Though attacks on tourists are rare, civilians in the Valley have increasingly become targets in recent years. In 2024, the share of civilians in militancy-related deaths in J&K was the highest in nearly two decades. If the latest killings are included, this year marks the highest share of civilians killed (data till April 30). Notably, when districts are ranked according to civilian deaths, Anantnag — home to Pahalgam, the site of the latest attack — ranks among the worst-affected in many years.





## THE JIHADI GENERAL

Fighting India, overtly and covertly, has historically been the *raison d'être* of the Pakistan Army. So when Pakistani terrorists shot dead 26 civilians near Pahalgam on April 22, all eyes turned to the Pakistan Army and its proxies.

- Only a week ago, Chief of the Army Staff General Asim Munir, the most powerful man in Pakistan, had made a provocative speech which New Delhi views as having encouraged the terrorists.
- Calling Kashmir Pakistan's "jugular vein" — a framing first used by Muhammad Ali Jinnah — the Pak Army chief said in Islamabad on April 15 that Pakistan "will not leave its Kashmiri brothers."
- In February, at an event in Muzaffarabad in Pakistan Occupied Kashmir (PoK), Munir had gone a step further. "Cutting the jugular vein off the body means the end of life," he had said, adding that "Allah's... (Muslim fighters) will always prevail based on faith, piety, and jihad in the way of Allah."
- As Pakistani generals go, Munir, 57, is an outlier in more ways than one.
- Ramanathan Kumar, who headed the Pakistan desk at R&AW from 2015 to 2020, had earlier described Munir to The Indian Express as Pakistan's first "mullah general". While posted as a military attaché in Saudi Arabia, Munir, then a 38-year-old Lieutenant Colonel, had memorised the Holy Quran, a feat that earned him the title of Hafiz-e-Koran.
- As the Pak Army chief, Munir freely uses Quranic verses and Islamic theology in his speeches, switching seamlessly from English or Urdu to classical Arabic.
- Clues to Munir's religiosity lie in his origins. Unlike many of his peers in the top echelons of the Pak Army, he does not belong to a pedigreed military family. Instead, his father, who arrived in Rawalpindi from Jalandhar in 1947, was a school principal and the imam of the local mosque.

### Do You Know:

- Unlike many Pakistani generals, Munir has never served in the West or received training in British or American military institutes. He is, however, understood to be a soldier to the core — a reputation that is responsible for his somewhat improbable rise in the Army, as well as him being nearly cast into oblivion in 2019.
- Munir was serving as a Brigadier in the Force Command Northern Areas at the Indian frontier, when he caught the attention of then X Corps Commander Lt General Qamar Javed Bajwa. Their relationship would be instrumental in Munir's eventually succeeding Bajwa as the Army chief.
- In early 2017, Munir was posted as Director General of Military Intelligence (DGMI), the Pak Army's administrative intelligence apparatus that maintains organisational security, and also gathers intelligence on the capabilities of adversaries' ground forces.
- In March 2018, then Major General Munir was awarded the Hilal-e-Imtiaz, Pakistan's second-highest state honour. In September, he was promoted to the rank of Lieutenant General, before being made the chief of the Inter-Services Intelligence (ISI) in October.



## WHAT'S THE REASON FOR TARGETING SIMLA PACT?

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

In response to India's decision to suspend the 1960 Indus Waters Treaty in the aftermath of the Pahalgam terror attack, Pakistan's government said it could hold the 1972 Simla Agreement and "all other bilateral agreements with India" in abeyance.

### **What does the Simla Agreement entail?**

The agreement was signed in Shimla on July 2, 1972 after three days of talks between Prime Minister Indira Gandhi, victorious from the 1971 Bangladesh War, and Pakistan Prime Minister Zulfikar Ali Bhutto who had suffered a crushing defeat and the division of Pakistan in the war. The talks, for which the Soviet Union did much of the preparatory discussions through Indian and Pakistani envoys in Moscow, focused on two major issues. First, the future of post-war ties between India and Pakistan, including the return of more than 93,000 Pakistan prisoners of war; second, the resolution of the dispute over Jammu and Kashmir, where they agreed to "settle their differences by peaceful means through bilateral negotiations or by any other peaceful means mutually agreed upon between them". In addition, the Simla agreement saw the first formal recognition of Bangladesh as a sovereign entity in a bilateral treaty.

### **What was the reaction in both countries?**

The Simla Agreement led to severe criticism of Mrs. Gandhi in India, for not forcing Pakistan to make the ceasefire line the International Border, instead renaming it the Line of Control (LoC); and of Mr. Bhutto in Pakistan for agreeing to resolve the dispute peacefully and without recourse to the United Nations or other third-party mediators. In Srinagar, Sheikh Abdullah's criticisms stemmed from the fact that neither side had consulted the Kashmiri people.

### **How has Pakistan violated the pact?**

In the years that followed, Pakistan violated the agreement many times, by funding and arming terror groups in Kashmir as well as sending troops across the LoC that led to the Kargil conflict in 1999. It has approached the UN and other countries over the issue, which is a breach of the terms both sides had agreed upon. The Indian Parliament's declaration in 1994 that all of Kashmir including Pakistan Occupied Kashmir, was an integral part of India, and the 2019 amendment of Article 370, had made the Simla agreement quite irrelevant. Former diplomat Avtar Singh Bhasin, who profiled the agreement in his book, *Negotiating India's Landmark Agreements*, says the impact of the announcement will be "minimal or nothing on both sides". He says that "the Simla Agreement was not meant as a long-standing agreement — and most of it — return of [Pakistani] POWs, restoration of trade, transport, telecommunication linkages were meant to happen immediately after," and calls the paragraphs on J&K "essentially symbolic".

### **What will be the impact?**

It should be noted that the statement issued by the Pakistan PMO on April 24 said that "Pakistan shall exercise the right to hold all bilateral agreements with India including but not limited to Simla Agreement in abeyance", leaving it unclear whether Islamabad had issued any formal notification on the issue. India has not received any letter from Pakistan on the matter. The immediate impact would be seen in terms of its meaning for the Jammu and Kashmir dispute, and whether Pakistan will now also disavow the LoC that was first named in the Simla accord. Analysts



suggest that if Pakistan attempts to cross it, India could also then disregard the LoC and launch operations to claim parts of Pakistan occupied Kashmir.

**What are the 'other agreements' that Pakistan referred to that could be affected?**

While Pakistan did not name any other agreement by name, the Shehbaz Sharif government's reference to "all other" bilateral agreements could refer to a number of different accords the two countries have signed over the years after being in armed conflict several times from the first Kashmir war in 1948 to Kargil in 1999. The Nehru-Liaquat pact signed in 1950 relates to the treatment of minorities in their respective countries. The Bilateral Protocol on Visits to Religious Pilgrimages signed in 1974 facilitates hundreds of Hindu and Sikh pilgrims to 15 temples and gurdwaras in Pakistan, as well as Muslim pilgrims to five mosques and shrines in India. For the moment, both sides have indicated that the Kartarpur corridor agreement in 2019 between the Narendra Modi and Imran Khan governments will remain in place.

Other agreements, that relate to confidence-building measures and information sharing could also be affected. In 1988, India and Pakistan signed an agreement to inform each other of their nuclear installations and facilities every year on January 1. In 1991, they signed an agreement for the pre-notification of flight testing of all ballistic missiles, as well as an agreement on preventing airspace violations. Since February 2021, India and Pakistan have a ceasefire agreement in place, that was first agreed to in 2003. Any military operation by India on terror camps or other locations in Pakistan, to which Pakistan has threatened to retaliate, could see the ceasefire agreement collapse. In addition, India's decision to suspend the Indus Waters treaty could also have a follow-on effect, with Pakistan threatening to take India to international courts and calling the stoppage of any water an "act of war". While India is an upper riparian state to Pakistan and Bangladesh, it is also a lower riparian state to China, that has on occasion withheld cooperation with India on the Brahmaputra and other rivers. All three neighbouring countries will follow India's actions on the Indus closely.

## STORM BENEATH THE WATERS

On November 30, 1960, the Lok Sabha witnessed an extraordinary debate. The debate was initiated by Congress MP Iqbal Singh from Punjab as Prime Minister Jawaharlal Nehru looked on. Within seconds, the exchange took a curious turn as several members from the ruling Congress party, who were present in the hall to debate the newly signed Indus Waters Treaty (IWT), began to criticise the Nehru government.

Most surprisingly, during the 150-minutes long discussion, the strongest criticism to the treaty came from the Congress MPs from Punjab and Rajasthan — the two States that were part of the Indus-waters network. H.C. Mathur of the Congress took to the floor and gave out the bitterest criticism, saying the treaty would adversely affect Rajasthan. Iqbal Singh, who started the debate, argued that the treaty would affect food production in Indian Punjab. As Prime Minister Nehru waited for his chance to rise to the defence of the treaty that was signed by him and Gen. Ayub Khan of Pakistan on September 19, 1960, members termed the Indus Waters Treaty "appeasement and surrender to Pakistan". Asoka Mehta of the Congress argued that the country had been betrayed by those who were supposed to defend its interests.

The members of the ruling party that had been overseeing nearly 12-year long river water dispute that began soon after Partition of British India, were upset about the fact that Pakistan would get ₹83 crore in foreign exchange (to be financed by the World Bank) as part of the execution of the



treaty. Rising to the defence of the treaty, Nehru described the critics as “narrow-minded” and said, the agreement was arrived at after “long and bitter negotiation” between the two sides mediated by the World Bank. Three weeks later, the Indian Parliament ratified the IWT.

The IWT did not have an exit clause. Article XII (3) and (4) provide for modification of treaty provisions through a “duly ratified treaty”, which will replace the present one with the condition that it cannot be abrogated unilaterally. The main treaty provisions were that India has the exclusive rights over the eastern rivers (Ravi, Beas and Sutlej) with a combined average annual discharge of 33.8 million Acre Feet (MAF) and Pakistan has exclusive rights over the three western rivers (Indus, Jhelum and Chenab) with annual discharge of 135.6 MAF. As per the treaty, India has the right to store a volume of 3.6 MAF of water.

The “long and bitter negotiation” that Nehru referred to began soon after the Partition of India that led to several lasting problems between the two countries. The problem first flared up in 1947-48 in the backdrop of the first India-Pakistan conflict over Kashmir. While the war over Kashmir was the main focus in the first year of the existence of two newly separated entities, the sub-text of this conflict was visible in the clashing narrative over sharing of the waters of the Indus through the canal system built in Punjab during the British colonial period. Water historians say when India halted water of the Indus, Prime Minister Liaquat Ali Khan arrived in New Delhi, leading to the 1948 agreement. The water dispute, however, did not disappear, and played out as part of the larger network of issues that defined the India-Pakistan relationship ever since.

While starting from 1951-52 India became a parliamentary democracy with a stable political leadership, Pakistan began a tentative journey towards the future plagued by language problem, rivalry between the West and the East Pakistan and lack of participatory democracy at home. These power rivalries exploded on the surface in the late 1950s when East Pakistan-origin Gen. Isqander Mirza became the President of the struggling country.

#### **World Bank mediation**

Mirza scrapped the constitutional dream of Pakistan and prohibited political parties only to be deposed weeks later by Gen. Ayub Khan. The Pakistan that came to the table to conclude the Indus Waters Agreement under the mediation of World Bank chief Eugene Black was therefore a military-ruled state that was in a hurry to prove its domestic critics wrong by resolving certain congenital problems that its political leaders had failed to solve in the previous decade. A settlement of the Indus dispute suited the Nehru government politically as that would remove one of the major festering problems with Pakistan and prove Nehru’s critics wrong. A solution suited the Pakistani general as well as the scholarly Indian PM.

Ayub Khan threw a grand welcome for the Indian team and put up a show of internal normalcy at the time of the signing ceremony in Karachi. Nehru travelled across Pakistan and visited Murree, Nathiagali, Rawalpindi and Lahore and both leaders agreed that eradication of poverty was the common goal of both sides. Yet, within weeks of signing the IWT, Gen. Ayub Khan delivered a provocative speech in Muzaffarabad saying, Indo-Pakistan relation would not stabilise “till the Kashmir issue is resolved”.

The second test of the IWT came during 1965 Indo-Pak. war when the focus was on Kashmir. Following the Tashkent Accord, Ayub Khan sprang a surprise with the construction of the Mangla dam, the world’s largest earthen dam that was inaugurated in 1967 promising to supply water to more than 3 million acres of land and generate 600,000 KW of electricity. One problem with the Mangla dam was that the major part of the project fell in the Pakistan-occupied Kashmir. In effect,





the dam would not violate the sovereignty of India as envisioned in the IWT but in reality it trampled on India's sovereignty in Kashmir. The Parliament in India took up the construction of Mangla dam and Prime Minister Indira Gandhi responded that India's sovereign rights over Pakistan-occupied Kashmir were not diminished by the construction of the Mangla dam.

### **Water a weapon**

In the twenty-first century, China's move to build mega dams in the Himalayas, which revived the prospects of use of water as a weapon among riparian states and the spike in cross-border terrorism from Pakistan, triggered talks of a review of the treaty. In the backdrop of the 2016 arrest of former Indian navy official Kulbhushan Jadhav on charges of supporting terrorism in Balochistan and the cross-border terror attacks in Pathankot and Uri in January and September 2016, India completed the Kishanganga dam in Kashmir and pushed ahead with the Ratle hydel power project on the Chenab despite Pakistan's displeasure. The matter could not be resolved by the World Bank.

In 2023, India invoked the relevant treaty provisions to request a bilateral modification of the treaty that Pakistan declined. Before putting the Indus Waters Treaty 'in abeyance' on April 23, 2025, India in 2024 had indicated that its patience over the IWT was fast running out when it called off all meetings of the Permanent Indus Commission demanding that teams from both sides should meet and discuss the 2023 proposal for modification of the treaty. Post-Pahalgam attack, Indian declaration on holding the treaty 'in abeyance', however, has turned the clock back to where it began — a broken India-Pakistan relation as it was in the late 1940s.

## **CAN THE INDUS WATERS TREATY BE SUSPENDED UNILATERALLY?**

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

The 1960 Indus Waters Treaty (IWT) gives India unrestricted rights over the three eastern rivers — Ravi, Beas, and Sutlej. While Pakistan was given exclusive control over the three western rivers — Indus, Jhelum, and Chenab, India retained limited rights to use the waters for "non-consumptive" purposes. However, following the terror attack in Pahalgam on April 22, India announced the IWT would be held in abeyance with "immediate effect".

### **Is unilateral suspension permissible?**

The IWT cannot be altered unilaterally. Article XII stipulates that the treaty can only be terminated through a "duly ratified treaty" agreed upon by both states. The term "hold in abeyance," as used by India in its letter to Pakistan, is neither recognised in international law nor mentioned in the Vienna Convention on the Law of Treaties (VCLT), 1969, the principal treaty governing agreements between states. "The VCLT does not use the word 'abeyance'; it uses the term 'suspension,' which allows a country to suspend the operation of an entire treaty or a part of it. Suspension is distinct from termination. I believe that when India used the word 'abeyance,' it intended to mean 'suspension' rather than termination of the IWT," Dr. Prabhash Ranjan, professor at Jindal Global Law School, told The Hindu.

Article 62 of the VCLT allows a treaty to be repudiated if there has been a "fundamental change of circumstances" from those existing at the time of its conclusion. Although India is not a party to the VCLT and Pakistan has signed but not ratified it, the International Court of Justice (ICJ) in the Fisheries Jurisdiction cases affirmed that Article 62 codifies customary international law and is therefore binding regardless of formal ratification. India appears to be invoking this principle, as





its letter stated that “fundamental changes in the circumstances” require a “reassessment of obligations” under the IWT. However, Dr. Ranjan pointed out that ICJ rulings have set a high threshold for what qualifies as a “fundamental change in circumstances”. In the 1997 Gabčíkovo-Nagymaros Project dispute between Hungary and Slovakia over the construction of a dam, Hungary argued that political and economic shifts, along with the threat of environmental disaster, provided sufficient grounds to terminate the treaty. However, the ICJ rejected these arguments, noting that the political and economic changes were not directly linked to the treaty’s primary objective — joint energy production.

#### **How will this affect Pakistan?**

More than 80% of Pakistan’s agriculture and around a third of its hydropower generation depend on the waters of the Indus basin. However, experts say that India lacks the massive storage infrastructure and extensive canal systems needed to withhold tens of billions of cubic metres of water from the western rivers. “The infrastructure India possesses consists largely of run-of-the-river hydropower plants, which do not have the capacity for large-scale storage. However, the real impact lies in the uncertainty over water flow, which could severely affect Pakistan’s predominantly agrarian economy. If India begins regulating the flow using its existing infrastructure, Pakistan could experience significant disruptions,” Dr. Happymon Jacob, associate professor at the School of International Studies, JNU, told The Hindu. A senior government official earlier told The Hindu that India will explore “options that it has never considered” under the IWT, such as redesigning its hydroelectric projects to increase water storage capacity and deploying ‘drawdown flushing’ of its reservoirs. The abrupt release of large volumes of water without prior warning could potentially cause significant damage downstream in Pakistan.

#### **INDIA RAISES CONTINENTAL-SHELF CLAIM IN ARABIAN SEA REGION**

India has increased its claim in the central Arabian Sea, as part of its “extended continental shelf” by nearly 10,000 square km and also modified an earlier claim to avoid a long-standing dispute with Pakistan over the maritime boundary between the two countries, suggest documents submitted earlier this month with the United Nations.

Coastal countries have an exclusive economic zone (EEZ), which gives exclusive mining and fishing rights, up to 200 nautical miles from their coastlines. In addition to this, such States can make claims for more area in the ocean provided they can scientifically establish to a UN body, called the Commission on the Limits of the Continental Shelf (CLCS), that this claimed area extends unbroken from their landmass all the way to the seabed.

All of this oceanic area is considered part of a country’s extended continental shelf. This gives them rights to commercially mine for valuable minerals, polymetallic nodules and oil reserves. India already has 12 nautical miles of territorial sea and 200 nautical miles of the EEZ measured from the baselines.

“With the anticipated addition of approximately 1.2 million square km of extended continental shelf from the two submissions to the 2 million sq. km of EEZ, India’s seabed and sub-seabed area would become almost equal to its land area of 3.274 million sq. km,” according to the National Centre for Polar and Ocean Research (NCPOR), Goa.

India made its first claim in 2009 in vast stretches of sea spanning the Bay of Bengal, Indian Ocean and the Arabian Sea. Due to geology, the continental shelf of a country can frequently overlap with



another, and the process of scrutinising and deciding upon the claims of countries can run into years. While India's claims are still being weighed upon, Pakistan in 2021 objected to portions of India's claimed territory in the western offshore regions on the grounds that nearly 100 nautical miles overlapped with a maritime border that was under "dispute".

Specifically, this referred to a dispute between the countries over the Sir Creek, a strip of water in the marshes of the Rann of Kutch in Gujarat. The creek roughly separates the Kutch region in India and Pakistan's Sindh province. While India countered these objections, the net result was that the CLCS, in March 2023, rejected the entirety of India's claim in the Arabian Sea region. However, the commission gives leeway to countries to submit "modified claims".

It's in response to this that on April 3, India split its original claim (in the western Arabian Sea) into two "partial ones". Doing so, said an official in the Ministry of Earth Sciences (MoES), is to ensure that India's claim in the central Arabian Sea region is not affected.

"Countries can submit any number of partial claims. Overall we have increased our claim by an additional 10,000 sq. km based on additional data gathered," M. Ravichandran, Secretary, MoES, told The Hindu. "The remaining part can be discussed bilaterally. This strategy is part of our approach to ensure that at least (the region) without dispute, and which is very valuable, is awarded to us." Institutions of the MoES, such as the NCPOR, have played a key role in the technical aspects of determining India's continental shelf.

Some parts of India's continental shelf claims in the Arabian Sea overlap with that of Oman. However, the two countries have an agreement in place since 2010 that while the continental shelf between them is yet to be delimited, it is 'not under dispute'.

India has claimed about 300,000 square km in the Bay of Bengal and the Indian Ocean, though these have faced contests by Myanmar and Sri Lanka.

#### GOVT WORKING WITH AIRLINES TO ASSESS EXTENT OF IMPACT, FIND SOLUTIONS

Flight tracking data shows that some of Air India's ultra-long-haul flights to and from North America are now taking technical halts—planned stops for refuelling or crew change—at European airports, breaking the journey of the otherwise non-stop flights.

- The government is working with Indian airlines to get a better assessment of the impact of Pakistani airspace closure, and to work out the best possible solutions for both passengers and carriers, Civil Aviation Minister K Ram Mohan Naidu said recently.
- According to Naidu, options on alternative routes will also be discussed in arriving at potential solutions, and the government's priority is to try and see that the airspace closure does not adversely impact the average Indian passenger too much.
- "The very next day (after Pakistan closed its airspace to Indian carriers), we sat with the airlines. We got all the initial feedback, but I told them to work out more thoroughly what the assessment is going to be if this continues for six months or one year, what routes are going to be affected, and how the difference is going to be in future between the Indian carriers and the foreign carriers. We need to have a thorough understanding on all of this before we decide," the minister told reporters.



- With Pakistan closing its airspace to Indian airlines from Thursday evening, over 800 international flights a week operated by Indian carriers are likely to be impacted by longer durations, increased fuel burn, and a few other complexities related to crew and flight scheduling, shows an analysis of airlines' schedule data. All these flights were routinely overflying Pakistan on their way to various destinations to the west of India. The initial impact is already visible with Indian airlines' flights from North India to West Asia, the Caucasus, Europe, the UK, and North America's eastern region switching from their routine paths to longer routes.

**Do You Know:**

- The Indian carriers are working to adjust their schedules to factor in the ban from Pakistani airspace.
- IndiGo has already suspended its flights to Central Asian cities of Almaty and Tashkent as the closure of Pakistani airspace renders these destinations beyond the range of its aircraft.
- According to industry insiders, Indian airlines' costs are bound to rise, which could translate into higher airfares for passengers. Additionally, airlines from other countries will get cost and time advantage over Indian airlines as the Pakistani airspace remains open for them.
- All major Indian airlines operate international flights to destinations to the west of the country, and many of these flights were routinely overflying Pakistan. Air India operates flights to West Asia, Europe, the UK, and North America, while IndiGo operates flights to West Asia, Turkey, the Caucasus, and Central Asia. Air India Express, Akasa Air, and SpiceJet's west-bound international flights are to destinations in West Asia
- When Pakistan closed its airspace for over four months in 2019 following the Balakot airstrikes by the Indian Air Force, Indian airlines are estimated to have lost around Rs 700 crore due to higher fuel expenses and operational complications that came with longer routes and additional stopovers some of their flights were forced to take.
- Air India was the worst affected Indian carrier at the time, as it operated more west-bound international flights than other airlines. Moreover, it was and continues to be the only Indian airline that operates long-haul and ultra-long-haul flights to Europe and North America.

**THE WATER SHARING DISPUTE BETWEEN PUNJAB AND HARYANA**

Amid escalating tensions with Haryana over water sharing, all parties in Punjab came together on Friday to reject the Bhakra Beas Management Boards's (BBMB's) decision to release an extra 4,500 cusecs of water to Haryana.

- The latest stand-off began on April 23, when Haryana sought 8,500 cusecs of water from the Bhakra-Nangal project — 4,500 cusecs more than what it is currently receiving. Punjab CM Mann refused, putting the ball in the court of the BBMP.
- In a marathon BBMP meeting chaired by chairman Manoj Tripathi on Wednesday, three of BBMP's member states — the BJP-ruled Haryana, Rajasthan, and Delhi — voted in favour of releasing extra water to Haryana, effectively bypassing Punjab's opposition.
- Punjab has, however, refused to open additional sluice gates at the Nangal dam which would release this extra water to Haryana. As a result, the Haryana government on Friday said it will move the Supreme Court to secure its fair allocation.



- Conceived as early as the 1910s, the Bhakra-Nangal project is among the earliest post-Independence river valley development projects, one that Prime Minister Jawaharlal Nehru himself took a personal interest in.
- It comprises two separate but complementary dams on the River Satluj: the Bhakra dam in Himachal Pradesh, and the Nangal dam, some 10 km downstream, in Punjab.
- Before the state was split into Punjab, Haryana, and Himachal Pradesh, the Bhakra-Nangal project was under the direct control of the Punjab government. The Bhakra Management Board was established in 1966, under Section 79 of the Punjab Reorganisation Act, to administer the project in the best interests of all three states.
- This board was renamed BBMP in 1976, and given the additional task of managing projects on the River Beas, namely the Beas-Satluj Link Project (Pandoh dam), and Pong dam, both in Himachal.
- The BBMP today plays a central role in the distribution of water between Punjab, Haryana, Rajasthan, Himachal Pradesh, and Delhi. At the start of every accounting year (roughly September-August, depending on the monsoon), the BBMP determines how much water would be allocated to each state.
- For the current year, it allocated 5.512 million acre-feet (MAF) to Punjab, 2.987 MAF to Haryana, and 3.318 MAF to Rajasthan.
- Punjab claims that Haryana has already withdrawn 3.110 MAF — or 104% of its share for the whole year. Haryana said it desperately needs more water for drinking purposes, especially in the water-starved districts of Hisar, Sirsa, and Fatehabad.
- In the immediate term, the states have no option but to find common ground, noted water expert A S Dulet told The Indian Express.

**Do You Know:**

- Article 262 of Indian Constitution talks about the 'Adjudication of disputes relating to waters of inter-State rivers or river valleys.' It provides, clause (1) Parliament may by law provide for the adjudication of any dispute or complaint with respect to the use, distribution or control of the waters of, or in, any inter-State river or river valley. clause (2) Notwithstanding anything in this Constitution, Parliament may by law provide that neither the Supreme Court nor any other court shall exercise jurisdiction in respect of any such dispute or complaint as is referred to in clause (1). Using the powers given by this article, Parliament enacted the Inter-State River Water Disputes Act, 1956, to deal with disputes.

**APPELLATE COURTS CAN MODIFY ARBITRAL AWARDS: SUPREME COURT**

In a 4:1 decision, the Supreme Court on Wednesday held that appellate courts can modify arbitral awards while exercising powers under the Arbitration and Conciliation Act, 1996.

- The majority ruling by Chief Justice of India Sanjiv Khanna and Justices B R Gavai, Sanjay Kumar and A G Masih held that courts have "limited power" under Section 34 and 37 of the Act to modify arbitral awards. Justice K V Viswanathan delivered a dissenting opinion, disagreeing with the majority on certain aspects.





- The CJI reading out the conclusions said, “this limited power may be exercised” when the award is severable by separating the invalid portion from the valid portion of the award, to correct any clerical, computational or typographical errors which appear erroneous on the face of the record, to modify post-award interest in some circumstances. The SC may also modify awards by exercising powers under Article 142 of the Constitution, the ruling said, adding, it “must be exercised with great care and caution and within the limits of Constitutional power”.
- Section 34 of the Act deals with application for setting aside an arbitral award while Section 37 deals with the circumstances in which an appeal would lie against the order in an arbitral dispute.
- Justice Viswanathan held that “courts exercising powers under Section 34 and the courts hearing appeals therefrom under Section 37 have no power to modify an award”.
- Justice Viswanathan further said that “power to modify is not a lesser power than the power to set aside as the two operate in separate spheres. The inherent power under Section 151 CPC cannot be used to modify awards, as it is against the express provision of Section 34. Similarly, there is no scope to invoke the doctrine of implied powers to imply the power to modify the award. Article 142 of the Constitution cannot be exercised to modify an award, as it is well settled that Article 142 cannot be used to go by the substantive statutory provisions”.
- The five judges were answering a reference made by a three-judge bench in February 2024 on the question whether courts can modify arbitral awards.

**Do You Know:**

- The landmark 2015 amendments were aimed at establishing India as an international arbitration hub. The energy in the legal market, both domestic and international, was palpable. Until 2018, the market remained upbeat. With minimal judicial interference, India seemed well on its way. However, repeated calls for third-party funding legislation and opening the Indian market to foreign lawyers went unheeded. Legislatively, the baffling regression of reforms was evident with each subsequent amendment in 2018, 2019, and 2021, culminating in the present setback of the 2024 memorandum.
- In 2015, the Supreme Court in a decision recognised the practice of foreign law firms in a very narrow sense. In ‘AK Balaji v Government of India’, the Madras High Court also held that foreign firms cannot practise either on the litigation or non-litigation side unless they meet the requirements and rules laid down by the Advocates Act and the BCI rules. Over 32 foreign law firms from the UK, the US, France and Australia had been impleaded as respondents in the case. However, the Madras High Court created an exception. It said that there would be no ban on temporary visits or advising clients on a “fly in and fly out” basis.

**SECRET THREATS**

State surveillance must be subject to systemic checks and supervision and not mirror the nefarious activities of the dark underworld. As a Supreme Court of India Bench pointed out, the question is not whether the state can use spyware, but who could be its legitimate targets. The Bench, during a hearing on the alleged surveillance of politicians, judges, religious leaders, civil servants and journalists by some state entity, was evidently seeking to curtail arbitrary use of the powers and tools of surveillance. The government has neither confirmed nor denied that it uses Pegasus, an Israel-made military grade spyware that is sold only to state agencies, which was used to target a wide range of people. The matter reached the Court after global revelations about the

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





existence and the use of this tool, and it appointed a technical committee whose investigation was constrained by a lack of cooperation from alleged targets and the government. Several high-profile users of the iPhone, the primary target of Pegasus, continued to get security alerts from the manufacturer that they were targets of suspected state surveillance, even as the matter was before the judiciary. States the world over have used extra-legal measures to snoop on targets that tried to firewall their communication using rapidly evolving technologies. Terrorists and other non-state actors, and criminals are using encryption and other advanced technologies to evade detection as they plot to harm the wider society. Without adequate legal and technological wherewithal, the state would be ineffective in dealing with emerging national security threats. In this context, and particularly against the backdrop of the terrorist attack in Pahalgam in Jammu and Kashmir, the Court has framed a relevant question.

The tendency of the government to arbitrarily invoke national security in defence of a brazen denial of due process and transparency in law enforcement has been called out by the Court in the past. There is also the disturbing trend of government actors routinely labelling political opponents as anti-nationals. If the state is to claim more surveillance powers, corresponding and robust guardrails must also be engineered. National security cannot be an excuse for executive arbitrariness and a violation of individual rights and dignity. Protocols that ensure that clearly defined standards and steps are followed in surveillance must be established. Once the security concerns are overcome, and within appropriate timelines, these processes should be subject to oversight by other branches of government and the public at large. At any rate, no state agency can have the authority to interfere in the democratic politics of the country, or stifle dissenting voices and activism. While trying to tackle an uncertain security environment, the compass of India's constitutional democracy must stay firm.

#### SC ASKS GOVT TO DO 'SOMETHING LEGISLATIVE' OVER OTT OBSCENITY

The Supreme Court Monday agreed with concerns about obscenity on OTT platforms and social media, and said the Centre must do something within the law to address it.

- While hearing a Public Interest Litigation (PIL) by journalist and former information commissioner Uday Mahurkar and others, a bench of Justices B R Gavai and A G Masih also issued notice to the Centre and OTT platforms such as Netflix, Amazon Prime, AltBalaji, Ullu Digital, and Mubi, and social media platforms X Corp, Google, Meta Inc, and Apple.
- Advocate Vishnu Shankar Jain, who appeared for the petitioners, said the litigation is not adversarial and raises a genuine concern. Jain also submitted that the content was floating on social media platforms without any restriction.
- Justice Gavai then told Solicitor General Tushar Mehta, who appeared for the Centre, "Do something... Something legislative."
- Pointing out that objectionable content appeared even in some regular programmes, Mehta said some are so perverted that even two respectable people cannot sit and watch them together. Mehta also said there should not be censorship and added, "There is some regulation in place, some is in contemplation."
- Issuing notice, the bench said in its order, "This petition raises an important concern with regard to the display of various objectionable, obscene, and indecent contents on OTT platforms and



social media. Learned Solicitor General fairly states that the contents go to the extent of perversity. He submits that certain more regulations are in contemplation.”

- “A growing number of online spaces, including social media giants like X (formerly Twitter), Instagram, and Meta (formerly Facebook), openly facilitate the dissemination of explicit content without adequate restrictions/censorship. Simultaneously, OTT platforms such as Netflix, Amazon Prime, Ullu, ALTT (formerly, ALT Balaji), etc. continue to stream highly explicit content, some of which violates child rights and safety due to such sexually deviant material,” said the plea.
- The Supreme Court’s recent observation in a public interest litigation case titled Uday Mahurkar and others v Union of India and others, that there is a requirement to regulate “obscene” content on Over the Top (OTT) and social media platforms, has reignited the debate over the definition of obscenity and the necessity of judicial intervention to curb it down.
- Historically, India’s approach to obscenity has been deeply influenced by colonial morality. Section 294 of the Bharatiya Nyaya Sanhita (BNS), a successor to Section 292 of the Indian Penal Code, criminalises acts deemed lascivious or appealing to prurient interest.
- What is deemed “obscene” has not remained constant. Initially judged through the Victorian-era Hicklin test, to the contemporary Community Standards test laid down in Aveek Sarkar v State of West Bengal (2014), the judiciary has moved toward a more contextual understanding of obscenity. The Supreme Court has also clarified, notably in the College Romance case, that the mere use of profanity does not constitute obscenity unless it arouses sexual thoughts.
- In 2021, the National Commission for Protection of Child Rights (NCPCR) took action against the Netflix series Bombay Begums, accusing it of showing minors engaging in inappropriate and obscene behaviour. Similarly, producer Ekta Kapoor and her mother, Shobha Kapoor, were booked under the POCSO Act for allegedly showing obscene scenes involving minors in shows aired on their OTT platform ALT Balaji.
- In 2023, the Modi government released a draft bill, the Broadcasting Services (Regulation) Bill, 2023, to replace the three-decades-old Cable Television Networks Regulation Act of 1995, for regulating content on such platforms.

#### SC FINDS NO ERROR IN HC IMPEADING CENTRE AND ASI IN SHAHI IDGAH CASE

The Supreme Court on Monday found no error in the Allahabad High Court’s decision to implead the Centre and the Archaeological Survey of India (ASI) in suits filed by Hindu worshippers seeking removal of the Shahi Idgah mosque from the Mathura site they claim to be Lord Krishna’s birthplace.

- “One thing is clear. The amendment to the original plaint by the Hindu plaintiffs has to be allowed,” said Chief Justice of India Sanjiv Khanna, presiding over a two-judge bench.
- The bench, also comprising Justice Sanjay Kumar, was hearing an appeal by the mosque committee against the March 5, 2025, high court order allowing the Hindu side to amend its petition and to add the Centre and ASI as parties to the case.
- The Hindu side had sought to implead the ASI saying the mosque was under the agency and hence exempt from the application of the Places of Worship Act 1991, which requires preserving the religious character of a place of worship as it was on August 15, 1947.



- On April 4, the Supreme Court issued a notice to the Hindu petitioners. Hearing the plea again on Monday, the CJI said, “This plea is absolutely wrong...The High Court should have allowed the amendment to add the parties to the suit.”
- The court added that it would, however, assess whether the order was effective and also its impact on the mosque side seeking the rejection of the plaint.
- The Hindu side had approached the Allahabad High Court seeking impleadment of the ASI and the Centre pointing to the existence of a notification under sub-section (3) of section 3 of Ancient Monuments Preservation Act (VII of 1904) published in the official gazette on December 27, 1920, declaring the property as a protected monument.

**Do You Know:**

- The mosque was built by Aurangzeb in 1670 on the site of an earlier temple. The area was regarded as nazul land — non-agricultural state land owned by the Marathas, and then the British. Before the mosque was built, Raja Veer Singh Bundela of Orchha had also built a temple on the same premises in 1618.
- In 1815, Raja Patni Mal of Benaras bought the 13.77 acres in an auction from the East India Company. The Raja’s descendants — Rai Kishan Das and Rai Anand Das — sold the land to Jugal Kishore Birla for Rs 13,400, and it was registered in the names of Pandit Madan Mohan Malaviya, Goswami Ganesh Dutt, and Bhiken Lalji Aattrey.
- The Shri Krishna Janmabhoomi Trust was set up by Birla, and it acquired the ownership rights over the Katra Keshav Dev temple. In 1951, the 13.77 acres were placed in the trust, with the condition that the “trust property will never be sold or pledged.”
- In 1956, the Shri Krishna Janmasthan Sewa Sangh was set up to manage the affairs of the temple. In 1977, the word ‘Sangh’ in the registered society’s name was replaced with ‘Sansthan.’
- In Ayodhya, the Babri Masjid stood atop what many Hindus believe is the birthplace of Lord Ram, an opinion that the Sangh Parivar began building into a sustained campaign starting the late 1980s, leading eventually to the mosque’s demolition in 1992.
- In November 2019, the Supreme Court held the destruction “illegal” but awarded the land title to the Hindu side. On January 22, Prime Minister Narendra Modi will lead the consecration ceremony for a temple at this site.
- In Varanasi, the Gyanvapi Mosque stands cheek-a-jowl with the Kashi Vishwanath Temple. The Sangh wants the mosque brought down, saying it was built on the ruins of a temple. Meanwhile, the temple complex, which falls in the PM’s constituency, has seen a complete makeover. In the case of Mathura, the Hindu petitioners who have gone to court argue that the Shahi Idgah Mosque was built atop the birthplace of Lord Krishna, on the orders of Emperor Aurangzeb, in 1670. Today, it lies adjacent to the Krishna Janmasthan Temple.

**THE POST OF DEPUTY SPEAKER IS NOT SYMBOLIC OR OPTIONAL**

The Office of the Deputy Speaker of the Lok Sabha is not merely a ceremonial seat but also a constitutional imperative. Mandated under Article 93 of the Constitution of India, this role is not just supplementary to the Speaker’s. It is vital for the uninterrupted functioning of the lower



House of Parliament. However, in recent years, the Deputy Speaker's position has fallen into unusual and troubling neglect.

Article 93 clearly states: "The House of the People shall, as soon as may be, choose two members of the House to be respectively Speaker and Deputy Speaker...."

The phrasing "as soon as may be" implies urgency, and not discretion. The Deputy Speaker's role is not optional; the Constitution places this office on an equal footing with the Speaker in terms of its necessity to the parliamentary structure. Article 94 states that the Deputy Speaker remains in office until they resign, are removed, or cease to be a Member of Parliament.

The intent is clear: the Lok Sabha must never function without a second-in-command, a constitutional safeguard to ensure continuity, stability, and institutional balance.

The roots of this office can be traced back to the colonial period. The position originated in the Central Legislative Assembly under British rule, where it was known as the Deputy President. The first to hold the office was Sachidanand Sinha in 1921. By the time India achieved independence in 1947, the Deputy Speaker had already become an institutional fixture in legislative governance.

Post-Independence, during the Constituent Assembly (Legislative) sessions, a deliberate decision was made to maintain the role even before the Constitution was fully adopted in 1950. The first elected Deputy Speaker of India's Lok Sabha was M.A. Ayyangar, a respected parliamentarian who also served as the acting Speaker following the sudden death of Speaker G.V. Mavalankar in 1956. His appointment during a crisis established a precedent for the Deputy Speaker's importance as a ready and capable replacement.

#### **Relevance in parliamentary practice**

While the Speaker is the presiding authority of the House, no Speaker can physically preside over every session in its entirety. As noted by constitutional expert S.C. Kashyap in Dada Saheb Mavalankar: Father of Lok Sabha, the Speaker cannot chair proceedings for hours on end. The Deputy Speaker steps in during such absences, ensuring that proceedings continue without procedural disruption.

But the Deputy Speaker's role extends beyond simply "filling in". They can chair important sessions, preside over specific committees, and even handle sensitive debates that require a neutral and trusted authority. Notably, the Deputy Speaker, like the Speaker, is expected to act impartially once elected, regardless of party affiliation.

Historically, this office has also held symbolic importance in fostering bipartisan respect. A long-standing convention — though not legally binding — has been to offer the post of Deputy Speaker to the Opposition. This not only balanced power within the House but also helped to build trust and cooperation across the aisle. It has been a vital practice in reinforcing the non-partisan ethos that the Speaker's office aims to uphold.

#### **A growing constitutional vacuum**

Despite its clear constitutional basis and historic continuity, the Deputy Speaker's office has remained vacant for the entire term of the 17th Lok Sabha (2019–2024). As of this writing, the 18th Lok Sabha, formed after the 2024 general election, has also yet to elect a Deputy Speaker. This is not a procedural lapse; it is a constitutional anomaly.





Never before in India's parliamentary history has the office remained vacant for such extended periods of time. The Constitution does not prescribe a rigid timeline for the election, but the phrase "as soon as may be" cannot be interpreted as "whenever convenient". The delay — now running into multiple years — raises fundamental questions about adherence to constitutional mandates and respect for parliamentary norms.

Leaving the Deputy Speaker's position vacant undermines the institutional safeguards established by the Constitution. It centralises procedural power solely within the Speaker and the ruling party, eliminating a vital counterbalance. In an emergency, such as the Speaker's resignation, death, or removal, the lack of a designated second-in-command could lead to confusion or even a temporary leadership vacuum in the House.

The delay also signals a broader disregard for parliamentary conventions — especially the unwritten rule of offering the post to the Opposition. While not mandatory, this practice has historically promoted inclusivity and moderation in parliamentary functioning. Failing to fill the post is not just a passive oversight; it is an active sidelining of consensus politics.

The argument that there is "no urgency" to appoint a Deputy Speaker runs counter to the entire ethos of constitutional democracy. The framers of the Constitution foresaw the importance of redundancy in leadership. Positions such as the Deputy Speaker are not afterthoughts — they are foundational to the system's resilience.

Moreover, restoring the practice of appointing a Deputy Speaker from the Opposition can help rebuild institutional credibility. In an era of increasing polarisation, such a gesture would not only honour democratic convention but also inject a degree of balance into legislative proceedings.

#### **Need for legislative reform?**

The ongoing vacuum raises a larger question: should the constitutional language be tightened to set a mandatory time frame for electing the Deputy Speaker? A specific deadline — for instance, within 60 days of the first sitting of the new Lok Sabha — could close this loophole of delay and warrant compliance.

Alternatively, a statutory mechanism could be introduced to allow the President to initiate the process within a time frame, upon advice from the Prime Minister or the Speaker. Either way, the current ambiguity is untenable in a functioning democracy.

The Office of the Deputy Speaker of the Lok Sabha is neither symbolic nor optional. It is a constitutionally sanctioned position designed to uphold the integrity and the continuity of legislative functioning. Disregarding it violates the Constitution's letter and undermines the spirit of democratic balance.

It is time for Parliament to reaffirm its respect for constitutional norms and institutional integrity. Electing a Deputy Speaker is not just a formality — it is a test of the House's commitment to rule-based governance. India's Parliament must not fail this test any longer.

#### **BETTER SENSE PREVAILS**

The resignation of Tamil Nadu Electricity Minister V. Senthilbalaji and Forest Minister K. Ponmudy from the Cabinet on Sunday, after adverse remarks of the Supreme Court and Madras High Court on different issues, is a matter of relief to the advocates of morality and propriety in public life.





Their continuance in power would have caused great embarrassment to the DMK government, led by M.K. Stalin. Mr. Senthilbalaji's exit came on the eve of the expiry of the deadline fixed by the Court last week to choose between his post and his freedom while Mr. Ponmudy's departure came as the High Court, while directing the Registry to take up a suo motu writ petition regarding a derogatory speech delivered by him, observed that he had, prima facie, misused the liberty granted to him by the Court which had stayed his conviction as well as the sentence in a corruption case. Everyone in public life should uphold the dignity of the office they hold. Mr. Ponmudy evidently overlooked the importance of this principle. Mr. Senthilbalaji is on a sticky wicket, as the proceedings against him — both in respect of allegedly receiving kickbacks for jobs in the State transport corporations during his earlier tenure as Transport Minister (2011-15) in the Jayalalithaa Cabinet and money laundering — are in progress after the Court's nod about two years ago.

Corruption may not have been viewed by some as an issue that bothers the common man. Such a view may have been grounded in the fact that many politicians, accused of corruption, are successful in electoral politics and know how to stay in power. But this perception cannot deter courts of law from proceeding against those involved in acts of corruption. Rightly, in September 2022, the Court held that "corruption by a public servant is an offence against the State and society at large". At that time, the Court ordered the restoration of a criminal complaint quashed by the Madras High Court against Mr. Senthilbalaji and others accused of taking bribes in exchange for jobs in the Metropolitan Transport Corporation. Even though there are many anti-corruption activists, it appears that under the given circumstances, only the courts of law can effectively act against those in power for corruption. At times, interventions by courts against corruption might appear as acts of judicial overreach. But the episode concerning Mr. Senthilbalaji and Mr. Ponmudy, underscores the point that the top political executive in any State and at the Centre should show zero tolerance towards corruption.

#### AMID STALIN FEDERALISM PUSH, RECALLING RAJAMANNAR'S BLUEPRINT FOR STATE AUTONOMY

With Tamil Nadu Chief Minister M K Stalin setting up a high-level committee on safeguarding the rights of states and improving Centre-state relations, the question of federalism that the DMK, Tamil Nadu's ruling party, has been pushing to the centre of national politics is back in the news.

- "India, that is Bharat, shall be a Union of States," says Article 1 of the Constitution. However, the Constitution makes the polity quasi-federal, wherein legislative powers are divided into the Union List, the State List and the Concurrent List, with executive powers coextensive with legislative powers.
- However, the Centre has been offered more powers to preserve territorial unity. All residuary powers — on any subject not falling under any of the three lists — are with the Centre, and a Central law prevails when there is a clash with a state law on matters in the Concurrent List. Parliament can also alter the boundaries of any state with just a simple majority, and the office of the Governor also enhances the power of the Centre vis-à-vis the states.
- Given the diversity in the country and the formation of linguistic states, the tilt in the Constitution in favour of the Centre has often brought federal concerns to the fore, with states over the decades accusing the Centre of bias, particularly when Article 356 has been used to dismiss elected state governments and impose President's Rule. The problems became more acute



with the rise of the regional parties, when the Central and state governments were being run by different, and often antagonistic, parties.

#### Do You Know:

- **Rajamannar Committee**—In 1969, then Tamil Nadu Chief Minister C N Annadurai established the Centre-State Relations Inquiry Committee under the leadership of P V Rajamannar, former Chief Justice of the Madras High Court. The three-member committee was asked to study the Constitution and recommend steps to ensure the “utmost autonomy of the state in the executive, legislative and judicial branches ... without prejudice to the integrity of the country as a whole”.
- **Sarkaria Commission**—The Sarkaria Commission was set up in 1983 to review the evolution of Centre-state relations, to identify persistent problems and seek solutions, for, as per the Commission’s report, “stresses, strains and irritations... may stifle the working of the system and endanger the unity and integrity of the country”.
- **Punchhi Commission**—In 2007, the UPA government constituted the Punchhi Commission to “look into the new issues of Centre-state relations, keeping in view the changes that have taken place in the polity and economy of India since the Sarkaria Commission had last looked at the issue of Centre-state relations over two decades ago”. The five-member commission was headed by former Chief Justice of India Madan Mohan Punchhi.

#### FIRE AND SMOKE

Fourteen people, two of them children, were killed and 13 injured in a hotel fire in the Mechua market area of Burrabazar in central Kolkata on Tuesday. The fire engines had trouble accessing the congested area. It appears, yet again, that many of the victims were asphyxiated — smoke is as much a deadly killer as the flames themselves. Smoke quickly rises up and escape would require reaching the bottom areas of the building. The six-storey hotel had only one stairway, and the fire that broke out on the first floor cut off escape. One person died after jumping from the building. That there were no other accessible means of escape is, in and of itself, a violation of fire safety norms. On Thursday, a similar tragedy unfolded in Rajasthan’s Ajmer, a historic town. Fire broke out in a five-storey hotel in which four persons died. Some guests tried to jump out of the windows, and fire engines had trouble accessing the congested area.

Devastating fires in congested buildings leading to tragic loss of lives and property have become a disturbingly routine phenomenon across India, especially in Kolkata. There, Opposition leaders have rightly listed at least eight major fires in the last decade and half, starting with the AMRI hospital fire in 2011 that claimed 89 lives. West Bengal Chief Minister Mamata Banerjee has spoken about a gas cylinder explosion after the Tuesday fire. She too has talked about there being only one staircase. Ms. Banerjee has characterised such fires as accidents that could not have been prevented. But the tragedies, in Ajmer and Kolkata, were entirely preventable and mitigation could have been far more efficient. Many of India’s cities and inner cities of metropolises continue to see high volume business activities but their safety features are outdated. They do not comply with current fire and structural safety norms. Fire escapes and emergency exits are non-existent and the structures use highly flammable materials from another era. Unlike other metropolises that have seen some redevelopment of inner cities in recent decades, Kolkata seems to have missed that phase. Immediate solutions can include maintaining low-height sidewalks to allow fire engines to get closer to building fronts, retrofitting fire retardant materials in buildings, and considering the use of retractable metallic staircases to serve as emergency escapes outside the



buildings after careful evaluation by fire safety authorities. There is also a case for equipping firefighting teams with more breathing apparatuses so more personnel can rescue people in distress in such structures since their limited access routes may be smoke-filled.

## TURN AND CHURN

The Centre's decision to include caste enumeration in the next national Census marks a sharp departure for the ruling BJP from its previous position. Prime Minister Narendra Modi had in 2024 targeted the Congress election manifesto promise of a caste census as a reflection of its 'urban Naxal' thinking. During the general election last year, BJP leaders had asked the people for a massive Lok Sabha majority to remodel the Constitution. This promise of a constitutional overhaul was seen by OBC and Dalit groups as a threat to dismantle caste reservations, and partly explains why the BJP fell short of an electoral majority. In 2015, the RSS chief's call for a debate on caste-based reservation led to setbacks for the BJP in the Bihar Assembly elections. The Maharashtra and Haryana Assembly election victories in 2024 suggested that the BJP's plank of Hindu unity, and its resistance to caste-based politics, continued to retain electoral salience. But, as it turns out, the BJP was probably unsure of its electoral ground and feared or sensed an undercurrent in favour of caste census that it could no longer politically ignore, particularly in Bihar which will vote later this year.

It is now a race to claim credit. The BJP and the Opposition have accused each other of undermining social justice. National formations, which include the BJP, the Congress and the Left, have historically taken an ambiguous, if not hostile, view towards caste claims. Subaltern parties that mobilised OBC and Dalit groups in Uttar Pradesh and Bihar displaced all national parties from these States in the 1990s. The BJP responded by turning more inclusive towards the OBCs, that has culminated in its continuing electoral dominance since 2014. The Congress, under Rahul Gandhi, started espousing caste justice, in a remarkable turn in the party's history. Apart from a caste census, Mr. Gandhi now seeks the removal of the 50% ceiling in reservations, and an expansion of reservation in private educational institutions. Though there is no evidence yet that the Congress has or will make electoral gains from the new stirring, it is evident that the BJP is worried. The counting of castes and communities unleashed social forces in colonial India that continue till date, and a comprehensive caste count, the first since 1931, is set to unmake and remake many political and social realities. A caste census would not automatically result in reservation according to population figures, which is obnoxious; as Article 16(4) of the Constitution makes it clear, special provision for reservation in favour of any backward class can be made only if such community is inadequately represented in public services. A caste census should not be allowed to ossify social divisions, but only used to better target benefits of affirmative action.

## BEFORE CASTE CENSUS, THE FIRST STEPS: HOW TO COUNT OBCS, GENERAL CATEGORY CASTES

Will Other Backward Classes (OBCs) be counted as per the Central or state lists? Should every caste group — even those in the general category — be counted separately? These are the key questions before the government as it moves to operationalise its decision to include caste in the next Census, former officers involved with the Census exercise tell The Indian Express. The final decisions on these challenges, they add, will be "political calls".



- Unlike the Scheduled Castes (SCs) and Scheduled Tribes (STs), who are enumerated based on official lists notified under constitutional orders of 1950, there is no unified or single list for OBCs. The SC or ST lists, which currently include 1,170 SC castes and 890 ST communities, are periodically updated through parliamentary amendments.
- In the case of the OBCs, two separate lists are maintained. The National Commission for Backward Classes has a Central list that is used for reservations in Central government jobs and educational institutions. Simultaneously, each state maintains its own OBC list that differs from — and is often more extensive than — the Central list.
- The government now faces a critical choice: whether to limit OBC enumeration to the Central list of 2,650 communities or to expand the exercise by incorporating the various state lists — a decision that is as politically sensitive as it is administratively complex.
- The second key question is whether caste enumeration should cover all castes, including those in the “general category”. Currently, during the Census, SC and ST respondents specify their particular caste or tribe, which enumerators then match against pre-approved lists. However, the general category is enumerated as one single bloc.
- The recent caste surveys done by Bihar and Telangana counted individual caste groups under the general category. The last Census exercise was conducted in 2011. Sources in the Registrar General and Census Commissioner’s office say the census process is expected to mirror the preparation undertaken for the 2020 Census, which was eventually suspended due to the Covid-19 pandemic.
- By conservative estimates, the government will need at least six months of preparation before it can begin enumeration.
- The first step is to issue a notification in the Official Gazette declaring its intent to conduct the Census. This must then be followed by similar notifications from all state governments — a process that could take up to two months. Once these are in place, the proforma for the house listing and population enumeration phases will have to be formally notified.
- The suspended 2021 Census was set to be the first to use digital enumeration, with officials collecting data via electronic forms rather than pen and paper. With the inclusion of caste as one of the columns, the software will now need to be updated to include a new field for OBCs, along with a drop-down menu of sub-categories.

From The Ideas Page “The Telangana tutorial”

- Praveen Chakravarty writes- “On April 30, the Modi government did a somersault and announced its intent to conduct a caste census by enumerating caste in the next Census exercise but didn’t specify timelines, process — the when and how of it.”
- “Contrary to popular belief, a caste census is not just an enumeration of the population by various caste groups. It is a detailed and scientific exercise to collect various information to glean a holistic picture of the living conditions of people. The design of the questionnaire is the most critical aspect of this exercise, but the social, geographical and cultural diversity of India make it a very complex and challenging task.”
- “There is also a temptation to conflate caste census with reservation. Reservation is a policy tool to help oppressed groups overcome the handicap of lack of social networks and adequate





representation. Caste census is a scientific empirical exercise. The two are not the same. The Supreme Court in several judgments has ruled that the mere definition of a caste as backward is not enough to justify further caste-based policies. The SC has consistently held that if rigorous data, empirical evidence and analysis done by experts show extreme backwardness of certain caste groups, then such caste legislation is justifiable.”

**Do You Know:**

- Every Census in independent India from 1951 to 2011 has published data on Scheduled Castes and Scheduled Tribes, but not on other castes. Before that, every Census until 1931 had data on caste.
- However, in 1941, caste-based data was collected but not published. M W M Yeats, the then Census Commissioner, said in a note: “There would have been no all India caste table... The time is past for this enormous and costly table as part of the central undertaking...” This was during World War II.
- In the absence of such a Census, there is no proper estimate for the population of Other Backward Classes (OBCs), various groups within the OBCs, and others. The Mandal Commission estimated the OBC population at 52%, some other estimates have been based on National Sample Survey data, and political parties make their own estimates in states and Lok Sabha and Assembly seats during elections.
- The demand for a caste Census comes up before almost every Census, as records of debates and questions raised in Parliament show. It usually comes from among those belonging to OBCs and other deprived sections.

#### PASMANDA MUSLIMS LIKELY TO BE COUNTED AS OBCS IN CASTE CENSUS

IN THE enumeration of castes to be done in the forthcoming Census, as announced by the government Wednesday, Pasmanda Muslims as a whole may figure in the Other Backward Classes (OBCs) category.

- “Pasmanda Muslims will be given their due share in the national caste census,” said a senior BJP leader. Leaders of the BJP Minority Morcha and OBC Morcha confirmed the same.
- “As per the Mandal Commission recommendations, some groups among Muslims are included in the state and Central list of Backward Classes. These Muslims will be enumerated as such in the caste census (among OBCs),” K Laxman, the national president of the BJP’s OBC Morcha, told The Indian Express.
- The national president of the BJP Minority Morcha, Jamal Siddiqui, said: “Pasmanda Muslims too are citizens of this country. So they will be enumerated as per their backwardness in the caste census.”
- Supporting such a distinction for Pasmanda Muslims, a Pasmanda Muslim activist said the Ashraf Muslims (who are seen as the ‘elite’), and Pasmanda Muslims, including the Ajiafs (Backward Muslims) and Arzals (Dalit Muslims), cannot be considered as a single bloc.

**Do You Know:**

- ‘Pasmanda’, a Persian word, means the ‘ones left behind’, and is used to describe depressed classes among the Muslims. The Sachar Committee in its report put the number of OBC and SC/ST Muslims at 40% (all India 2004-05). But Pasmanda activists and scholars say that the Pasmandas make up 80-85% of the total Muslim population in India.
- This broadly tallies with the 1871 Census that said only 19% of Muslims in India were upper caste, while 81% were made up of the lower castes.
- While confirming that Pasmandas may be counted as OBCs in the caste census, Laxman made a distinction between the surveys conducted by Bihar and Telangana, both of which counted Pasmanda Muslims among backward classes.
- Muslim society in India consists of several status groups or biradaris that are broadly sorted in three categories: the Ashrafs (the ‘noble’ elite or the ‘honourable ones’), the Ajlafs (backward Muslims), and the Arzals (Dalit Muslims). Ashrafs in India are Muslims who either claim to have a foreign pedigree — descendants of Muslims from Arabia, Persia, Turkey, Afghanistan (Syeds, Sheikhs, Mughals and Pathans,) — or who are upper-caste converts from Hinduism (Rajput, Gaur, Tyagi Muslims among others).
- Ajlafs are middle-caste converts, who were into ritually “clean” occupations, while the Arzals — who were first recorded in the 1901 census — are from the lowest, “untouchable” castes like halalkhors, helas, lalbegis or bhangis (scavengers), dhobis (washermen), nais or hajjams (barbers), chiks (butchers), and faqirs (beggars).
- The momins or julahas (weavers), darzi or idiris (tailors), rayeens or kunjaras (vegetable sellers) fall in the Ajlaf bracket. While Islam does not mandate the creation of such groups, these caste categories are a lived reality for Muslims across the country. “One can discern three groups among Muslims: (1) those without any social disabilities, the Ashrafs; (2) those equivalent to Hindu OBCs, the Ajlafs, and (3) those equivalent to Hindu SCs, the Arzals. Those who are referred to as Muslim OBCs combine (2) (Ajlafs) and (3) (Arzals),” the Rajinder Sachar Committee, formed in 2005 to study social, economic and educational condition of Indian Muslims, said in its report. However, The Constitution (Scheduled Caste) Order, 1950, had restricted SC status to Hindus, keeping Dalits from other religions out of its ambit. The order was later amended (in 1956 and 1990) to include Sikhs and Buddhists.
- The implementation of the report of the Mandal Commission brought the non-Ashrafs — Ajlafs and Arzals — under the OBC category.
- The National Commission for Religious and Linguistic Minorities, known as the Justice Ranganath Mishra Commission, which submitted its report in May 2007, acknowledged that the caste system impacted all religious communities in India, including Muslims.
- In the absence of a caste census, a clear estimate of the present-day numbers and demographic distribution of Pasmanda Muslims is not available. The Sachar Committee in its report put the number of OBC and SC/ST Muslims at 40% (all India 2004-05).



### SECC 2011, THE LAST TIME CASTE DATA WAS COLLECTED (BUT NOT PUBLISHED)

The most recent data on the populations of individual castes and tribes in India were collected between 2011 and 2013 as part of the Socio Economic and Caste Census (SECC), 2011, an exercise that followed the Census of 2011.

- The SECC collected data on a range of parameters, parts of which were published in 2016. But the data on caste populations, other than the total numbers of SCs and STs, was not made public.
- The wartime Census of 1941 collected data on individual castes, which were, however, not released. Censuses in independent India have never collected disaggregated caste data.
- As such, the most recent publicly available data on caste populations at the national level are from the 1931 Census, which will serve as the baseline for the caste data that the government has now decided to collect as part of the upcoming, pandemic-delayed Census 2021.

#### Do You Know:

- SECC 2011 was a study of socio-economic status of rural and urban households, and allowed the ranking of households based on predefined parameters. The Union Ministry of Rural Development began the SECC on June 29, 2011 through a nationwide door-to-door enumeration exercise. It was mainly carried out in 2011 and 2012, but in a few states, enumeration and verification went on until 2013. The data, which were to be used for policy, research, and the implementation of various development programs, were compiled from 24 lakh enumeration blocks, each containing around 125 households.
- The caste census was under the administrative control of the Ministry of Home Affairs, through the Registrar General of India (RGI) and Census Commissioner of India. Census 2011 was carried out before the SECC, between February 9 and February 28, 2011. Personal data collected in the population Census are confidential. But all personal information in SECC is open for use by government departments to grant and/ or restrict benefits to households.

### INDIANS FEAR FAKE NEWS BUT ARE LESS CONCERNED ABOUT PRESS FREEDOM

In India, while there is widespread anxiety about misinformation and fake news, people largely do not attribute it to government influence. Instead, a relatively large share do not mind greater state censorship, according to the latest survey by the Pew Research Center.

Survey data suggests that while distrust in fake news is high, confidence in systemic solutions such as a free press remains low. In fact, a relatively large share of respondents believes that the media is free from state censorship and supports greater state control over the press. In other words, the data indicates that many citizens view misinformation as stemming from sources such as social media, WhatsApp, or other non-governmental actors, rather than from state censorship or suppression.

In India, 65% of the respondents said that made-up news and information is a very big problem in the country. This is one of the highest rates among the 35 countries surveyed and places India among the top 10 nations where this concern is most strongly felt.

At the same time, only 68% of the respondents said it is very or somewhat important for the media to report news without state or government censorship — the second-lowest rate among the 35



countries surveyed. In fact, 80% of the respondents believe that the media in India is currently somewhat free or completely free from state intervention. This is one of the highest rates among the countries surveyed and places India among the top 10 once again.

This dichotomy has serious implications for press freedom in India, which has been deteriorating rapidly. In 2024, India ranked 159 out of 180 countries in the World Press Freedom Index published by Reporters Without Borders. While India has consistently ranked below 100 since 2003, the situation has worsened significantly in recent years.

## STARLINK'S INDIA STRUGGLE: SPECTRUM, SURVEILLANCE, AND CONNECTIVITY

The vast rural expanses of India are often overshadowed by the country's urban-centric digital growth; digital isolation has long stifled progress. Starlink's ambitious satellite network now promises to turn night into day, literally and figuratively, by beaming high-speed internet across terrains where cables don't reach and towers don't exist. But as this technological advance prepared to bridge the digital divide, it became entangled in a complex web of legal, regulatory, and security challenges. At stake today is not just the rollout of a service but a broader question: can the innovation Starlink represents navigate tradition and sovereignty to bring rural and urban India closer together?

### Which regulations apply to Starlink?

In its endeavour to provide satellite-based internet services in India, Starlink must navigate a complex legal and regulatory landscape. The cornerstone of this landscape is the Very Small Aperture Terminal (VSAT) licence from the Department of Telecommunications as required by the Indian Telegraph Act, 1885.

Section 4 of the Act grants the Union government the exclusive privilege to establish and operate telegraphs (interpreted broadly to include modern communication technologies like VSAT) and empowers it to issue licences. Section 7 further authorises the government to frame rules governing such licences.

The Telecom Regulatory Authority of India Act, 1997 established the Telecom Regulatory Authority of India (TRAI), which plays an advisory and regulatory role. Section 11 outlines TRAI's functions, including making recommendations on licensing terms, spectrum management, and ensuring fair competition, thus significantly shaping the regulatory environment for Starlink.

The newer Telecommunications Act, 2023 governs the allocation of satellite spectrum. While it permits administrative allocation, it also requires Starlink to adhere to the security and pricing norms it outlines. Starlink's use of Ku-and Ka-band frequencies is subject to the telecom department's spectrum regulations, which are aligned with International Telecommunication Union standards to prevent interference with other services.

The Satellite Communications Policy, 2000 and the Indian National Space Promotion and Authorisation Centre (IN-SPACe) under the Department of Space further require Starlink to coordinate satellite operations and orbital slot use to avoid conflicts with Indian Space Research Organisation assets, and to align with national space priorities.

Finally, the Information Technology Act, 2000 and the Digital Personal Data Protection Act, 2023 impose obligations related to encryption, data storage, and cybersecurity. National security concerns require Starlink to comply with directives from the Ministry of Home Affairs and





intelligence agencies, which may include requirements such as real-time signal tracking and user verification.

#### **Why hasn't Starlink entered India yet?**

Several interlinked factors are contributing to delays in Starlink receiving its operational permits in India. First, obtaining a VSAT licence under the Indian Telegraph Act, 1885 involves rigorous technical and financial assessments by the telecom department, often requiring inter-ministerial consultation.

Second, although the Telecommunications Act, 2023 enables the administrative allocation of satellite spectrum, the pricing and conditions — especially for Ku and Ka bands — are still being negotiated between the department and the TRAI.

Third, a thorough security clearance process led by the Home Ministry and intelligence agencies is underway, complicated by concerns about foreign ownership and potential misuse. These agencies require extensive assurances on data protection and lawful usage before giving the green light.

Fourth, coordination with Indian space infrastructure under IN-SPACe and compliance with the Satellite Communications Policy, 2000 adds further procedural requirements.

All these delays have tangible consequences such as Starlink increasing operational costs and delaying market entry, potentially deterring investor confidence. Nonetheless, Starlink could transform connectivity once operational in India's remotest regions, reinforcing the need for an enabling regulatory ecosystem.

#### **Has Starlink misuse affected its security clearance?**

Reports alleging the misuse of Starlink devices for illegal activities may have likely escalated concerns within India's security establishment. Such instances, isolated or widespread, could trigger a more stringent vetting process, requiring Starlink to implement robust safeguards such as encrypted data flows, lawful interception capabilities, and enhanced user verification mechanisms.

Compliance with the Information Technology Act, 2000 and the Digital Personal Data Protection Act, 2023 will be scrutinised as well.

Such reports may also strain trust between SpaceX, Starlink's developer, and Indian regulators and increase the time taken to reach consensus on operating conditions. However, proactive engagement and transparency from SpaceX — such as demonstrating technological safeguards and a commitment to collaborate with Indian authorities — could help rebuild that trust and mitigate delays.

#### **What will Starlink cost in India?**

Starlink's pricing in India remains speculative, but several indicators suggest the service may launch at a premium. The high capital cost of deploying low-earth orbit satellites combined with licensing and spectrum charges under the Indian Telegraph Act, 1885 and the Telecommunications Act, 2023 will likely drive up initial service rates.



Equipment cost, comprising the user terminal (dish), router, and setup, could also be significant for households in rural India. Monthly subscription fees may remain out of reach for low-income communities unless supported by subsidies or government-backed digital inclusion initiatives.

Although positioned as a rural connectivity solution, the service may initially cater to institutions, businesses, and relatively affluent individuals in remote areas. Its edge lies in offering high-speed, low-latency internet where terrestrial service providers struggle. Over time, as economies of scale reduce hardware costs, affordability and access could improve if regulatory support emerges.

### **Why does Starlink matter?**

Starlink's regulatory experience in India offers critical insights into the delicate interplay between innovation, law, and sovereignty.

It underscores the importance of early, structured dialogue between technology providers and government regulators, the need for globally agile companies to adapt to local frameworks, and the centrality of national security in shaping digital infrastructure policy. It also reminds us that spectrum, like sovereignty, is a finite national resource: its fair and efficient allocation demands a robust and forward-looking regime.

These lessons are especially pertinent as India positions itself as a global digital leader.

Welcoming technologies like Starlink while upholding sovereignty, security, and equity requires a regulatory environment that is transparent, predictable, and innovation-friendly.

However, perhaps more symbolically, Starlink's journey is not just about satellites and signals; it is about bridging divides. Satellite internet holds the potential to unify rural to urban not merely in connectivity but in opportunity, voice, and visibility.

Shrawani Shagun is pursuing a PhD at National Law University, Delhi, focusing on environmental sustainability and space governance.

## **LEAKY PIPELINE**

A recent report analysing public funded research and development institutions in India had some pointers that should raise an alarm. In several of the 244 institutions studied, there was a decrease in the number of permanent, scientific staff in 2022-23 compared to the previous year. There were also fewer organisations in 2022-23 compared to the previous year that reported hiring permanent staff. The institutes together had 19,625 contractual staff and 12,042 permanent staff in 2022-23. Not surprisingly, the slowdown in hiring was made up by hiring scientific research personnel on short-term contracts. These contractual staff were a 14% rise over 2021-22. The very fact that contractual workers exceed permanent staff in scientific institutions is a matter of concern. This data emerges from a study commissioned by the Office of the Principal Scientific Adviser and the institutions studied, do not include the 'strategic sectors', such as defence, atomic energy and space which consume the lion's share of India's research and development expenditure. As a report of the Parliamentary Standing Committee on Science, Technology and Environment tabled in Parliament last month observed, nearly three in five of the posts sanctioned for scientific personnel at one of India's top institutes for basic science research, the Tata Institute of Fundamental Research (TIFR), are unfilled. The TIFR is primarily funded by the Department of Atomic Energy. Further, the parliamentary report found that, on average, one in



four of sanctioned posts at the key atomic energy research institutions and nuclear power plants was vacant. Clearly the rot runs deep.

On the one hand, the government has announced missions to develop quantum computers and develop foundational artificial intelligence models. It has also declared its intent to align research and development towards industry-specific research. However, none of this will bear fruit without scientists, particularly young researchers who are engaged full-time, having long careers at institutions doing cutting-edge research. The government had once set up institutions such as the Indian Institutes of Science Education and Research (IISER) and introduced four-year undergraduate programmes in basic science, precisely because the incentives then were not strong enough to retain potential scientists. India needs to ensure that the conditions for research, such as respectable salaries, funds and equipment to do good research, are made available more widely.

#### TELANGANA HAD MORE PREVENTABLE C-SECTIONS AMONG SOUTHERN STATES

A study found that preventable Caesarean sections or C-sections constitute between 3.1% and 8.4% of all deliveries in the southern States of Andhra Pradesh, Kerala, Karnataka, Tamil Nadu, and Telangana. Among the 21,499 women studied, the percentage of preventable C-sections was 6.2%, and the percentage of C-sections was 44.3%. The percentage of preventable C-sections among overall C-section deliveries was 13.9%.

At 3.1%, Kerala had the lowest number of preventable C-sections, while Telangana had the highest at 8.4%. Preventable C-sections were 5.4% for Andhra Pradesh, 6.2% for Karnataka, and 7% for Tamil Nadu. Preventable C-section was defined as a C-section delivery that was not planned prior to the onset of labour, conducted at full term, and done without any intrapartum complications such as breech presentation, transverse lie, prolonged labour, and excessive bleeding.

The classification was based on gestational age, mode of delivery, timing of the decision, and absence of intrapartum complications.

Besides high out-of-pocket expenses, preventable C-sections result in “inefficient use of health system resources, intraoperative risk, and post-operative complications that impact the mother’s and child’s future health”, notes the study.

The study included 21,499 women in the age group 15-49 years who had given birth within the last five years. Data from the National Family Health Survey-5 was used in this study. The study was published on April 23, 2025 in the journal PLOS ONE.

At 96.5%, institutional deliveries are indeed high in the southern States and comparable with some of the countries in Western Europe and North America. These States also have substantially higher percentage of C-section deliveries — 31.5% to 60.7% — possibly due to high percentage of institutional deliveries.

It also found that primi-mothers (first-time mothers or mothers who are pregnant with their first child) had higher odds of preventable C-section deliveries. In the five States, 37% of all mothers were primi-mothers, and at least 18% of primi-mothers had opted for C-section deliveries. “Given that a previous C-section is an indication for C-section in future pregnancies, special attention is required to avoid preventable C-section among primi-mothers,” the authors write.



One reason for higher preventable C-sections could be because mothers are coupling sterilisation and C-section deliveries. Among the 21,499 women studied, sterilisation rates ranged between 27.1% and 50.1% across the five States.

As per the NFHS-4 data, sterilisation rates among women aged 15-49 years was 37% in India. High C-section rates reported in NFHS-5 could be due to high preventable C-section rates among primiparous mothers and those combining C-section with sterilisation when it is last-order births, they say.

The mothers who delivered in private healthcare facilities were nearly three times more likely to opt for preventable C-sections compared with mothers who delivered in a public healthcare facility. As per the study, private facilities account for 29.6% of all institutional deliveries, and 48% of all deliveries in the private sector were C-section deliveries.

Compared with NFHS-4, C-section deliveries in private hospitals increased by 17% in NFHS-5.

## EMISSIONS INTENSITY TARGETS

The government has notified draft Rules introducing targets for the reduction of greenhouse gas (GHG) emissions by “obligated entities” in energy-intensive sectors and industries.

- The Draft Greenhouse Gases Emissions Intensity (GEI) Target Rules, 2025, notified by the Ministry of Environment, Forest and Climate Change on April 16, puts in place a compliance mechanism for the Carbon Credit Trading Scheme, 2023 (CCTS).
- The CCTS was launched to create a framework for the trading of carbon credits, to facilitate the reduction of emissions in energy intensive industries, and to support India’s climate commitments under the Paris Climate Agreement of 2015.
- The draft Rules are open for objections and suggestions in a 60-day window from the date of their notification.

### Do You Know:

- GHGs are gases that trap heat in the atmosphere and contribute to the “greenhouse effect” that raises surface temperature on Earth. The five most abundant GHGs in the atmosphere are water vapour, carbon dioxide, methane, nitrous oxide, and ozone. Other GHGs include synthetic fluorinated gases such as chlorofluorocarbons (CFCs) and hydrochlorofluorocarbons (HCFCs).
- GHG emissions intensity, or GEI, is the amount of GHGs that are emitted per unit of product output — the amount of GHGs that are released in the production of, say, 1 tonne of cement, aluminium, or paper, etc.
- The draft Rules define GEI as “greenhouse gases emission intensity in tCO<sub>2</sub>e/ equivalent output or product”. tCO<sub>2</sub>e, or tonnes of carbon dioxide equivalent, is the standard unit used to measure the impact of all GHGs, not just CO<sub>2</sub>, based on their potential to warm the planet.
- The Rules set forth baseline emissions for 2023-24 and define gradual reduction targets for the years 2025-26 and 2026-27 as part of the mechanism to make India’s Carbon Credits Trading Scheme, 2023, operational.
- GHG intensity reduction targets and benchmarks have been set for the highly energy-intensive aluminium, chlor-alkali, pulp and paper, and cement industries. These targets, for a two-year





period starting 2025-26, cover 282 entities or industrial units in these industries — 13 aluminium plants, 186 cement plants, 53 pulp and paper plants, and 30 chlor-alkali plants.

- Among the large corporations that have been assigned targets under the Rules are Vedanta, Hindalco, Bharat Aluminium, JSW Cement, Ultratech, Nalco, JK Cement, Dalmia Cement, Shree Cement, Grasim Industries, and JK Paper. The Rules also lay down the mechanism for industries to comply with these targets, and specify penalties for their failure to do so.

## THE HISTORY AND EVOLUTION OF MONSOON FORECASTING IN INDIA

The India Meteorological Department (IMD) has forecast 'above normal' rainfall — 105% of the long-period average (LPA) — during the June-September southwest monsoon season.

- The IMD said earlier this month that all major drivers of the Indian monsoon, such as El Niño-Southern Oscillation (ENSO) in the equatorial Pacific Ocean and the Indian Ocean Dipole (IOD), were favourable.
- The four-month southwest monsoon season brings almost 70% of the country's annual rainfall. It is critical for agriculture and crops, for the economy as a whole, and to recharge reservoirs and aquifers. Accurate forecasts of the monsoon are key for the government to prepare for a range of eventualities.
- The April 15 forecast was the first of the IMD's long-range forecasts for this year's monsoon. A second-stage or updated forecast will be made in the last week of May, ahead of the monsoon striking the coast of Kerala. Long-range forecasts can be made for 30 days to up to two years into the future.
- A systematic effort to forecast monsoon rainfall began in 1877, two years after the IMD was established with the British meteorologist and palaeontologist Henry Francis Blanford as the first Meteorological Reporter to the Government of India.
- Crop failure that began in the Deccan plateau in the previous year had set off the Great Famine of 1876-78, and the effects were felt across the country by 1877. The colonial administration saw an acute need to understand the arrival of the monsoon and the distribution of rain over the country.
- "The success of the monsoons dictated agricultural production and the health of rivers, coasts, and shipping lanes — i.e., revenue generation for British interests," Ramesh Subramanian of Quinnipiac University in the US wrote in his paper 'Monsoons, Computers, Satellites: History and Politics of Weather Monitoring in India' (2021).

### Do You Know:

- According to IMD website, In the year 1875, the Government of India established the India Meteorological Department, bringing all meteorological work in the country under a central authority. A disastrous tropical cyclone struck Calcutta in 1864 and this was followed by failures of the monsoon rains in 1866 and 1871. Mr. H. F. Blanford was appointed Meteorological Reporter to the Government of India. The first Director General of Observatories was Sir John Eliot who was appointed in May 1889 at Calcutta headquarters. The headquarters of IMD were later shifted to Shimla, then to Poona (now Pune) and finally to New Delhi.



- The first tentative forecasts of the monsoon were provided by Blanford between 1882 and 1885, who analysed the relationship between Himalayan snow cover and the amount of rainfall over the Indian region.
- Blanford's forecasts were "based on the inverse relationship between Himalayan winter and spring snow accumulation and subsequent summer monsoon rainfall over India. It was assumed that, in general, varying extent and thickness of the Himalayan snow has a great and prolonged influence on the climate conditions and weather of the plains of northwest India," the IMD says in its official account of the evolution of meteorology in India.
- In 1886, Blanford made the first long-range forecast (LRF) of monsoon rainfall for the whole of India and Burma, based on this inverse relationship hypothesis. Blanford was succeeded by Sir John Eliot, who was appointed the first Director General of Indian Observatories, equivalent to the position of the head of the IMD today, in May 1889 at its Calcutta headquarters.
- Eliot took forward Blanford's work, combining data on Himalayan snow with factors such as local Indian weather conditions in April-May and conditions over the Indian Ocean and Australia to issue his LRFs. But like Blanford, Eliot still could not effectively predict droughts or the famines that followed, bringing starvation and deaths. The Indian Famine of 1899-1900, which is estimated to have killed between a million and 4.5 million people, struck in a year for which Eliot had predicted better-than-normal rain. The first colonial official who sought to incorporate the influence of global factors on the Indian monsoon was the physicist and statistician Sir Gilbert Walker, who succeeded Eliot in 1904.
- The IMD stayed with Walker's model of monsoon forecasting until 1987. The forecasts were not very accurate. "The average error of the predictions for the peninsula was 12.33 cm and 9.9 cm for NW India during the period 1932-1987," M Rajeevan, a former Secretary to the Ministry of Earth Sciences, and IMD Scientist D R Pattanaik wrote in their paper, 'Evolution of Monitoring and Forecasting of Southwest Monsoon' (Mausam, IMD's quarterly journal, 2025).
- Forecasts in recent years— —The improvement in monsoon prediction was also due to the launch of the Monsoon Mission Coupled Forecasting System (MMCFS) in 2012. This was a coupled dynamic model, which could combine data from the ocean, atmosphere, and land to provide more accurate forecasts. The IMD used MMCFS along with the SEFS for its predictions. —MULTI-MODEL ENSEMBLE: The accuracy of forecasts was further enhanced with the launch of a system based on a "multi-model ensemble (MME)" in 2021. This new MME system used the coupled global climate models (CGCMs) from various global climate prediction and research centres, including India's own MMCFS model. —BETTER FORECASTS, SCOPE FOR IMPROVEMENT: The absolute forecast error in all of India's seasonal rainfall reduced by about 21% during the years 2007-2024 compared with the same number of years between 1989 and 2006, Earth Sciences Minister Dr Jitendra Singh told Rajya Sabha.

## HIGH TEMPERATURES AND MANGO PRODUCTION

### The story so far:

"There is a drop in mango harvest. Mangoes no longer taste that sweet. Mangoes are expensive. Mangoes are arriving too early in the market. The mango pickle doesn't last through the year. The mango plant is flowering too early," these are some of the anecdotal conversations about mangoes in India over the past few years. Is this linked to higher temperatures?



### **What is the threat?**

According to the India Meteorological Department's (IMD) Annual Climate Survey of 2024, "the country's annual mean land surface air temperature during the year 2024 was +0.65°C above the 1991-2020 average. Thus, making the year 2024 the warmest year on record since 1901." IMD data shows that the last 12 years have been warmer than earlier years, defying the statistical norm where there is a see-saw of temperatures with some years cooler than others.

Anecdotal information suggests that mango productivity has been affected due to rising temperatures. Researchers in Egypt who published a paper on 'Climate change and Mango production' say that "in the near future, agriculture as a whole and mango production, in particular, will face serious threats from climate change."

### **What's the report from the orchards?**

However, empirical evidence and statistical data of the Horticulture Department in India suggest otherwise. In the quarter-century period between 2001-02 and 2024-25, mango productivity in India has swung between 5.5 metric tonnes per hectare (MT/Ha) in 2008-09 and 9.7 MT/Ha in 2017-18, averaging 7.9 MT/ha. In 2024-25, it is expected to be 9.4 MT per hectare. This is higher than the two other leading major producers of mango, which are China (8.74 MT/Ha) and Thailand (8.36 MT/Ha).

According to the Agricultural Market Intelligence Centre at the Professor Jayashankar Telangana State Agricultural University in Hyderabad, the area under mango cultivation has increased. "During 2023-24, mango acreage in India was increased by 2.34% to 24.01 lakh hectares (59.34 lakh acres) with 224.23 lakh tonnes of production (as per the 3rd advance estimates) as compared to 208.72 lakh tonnes of production from 23.46 lakh hectares (57.97 lakh acres) during last year."

### **Do heat waves affect trees?**

While the impact of higher temperatures on the human body is being studied, the jury is out on the environmental stress experienced by trees and plants. "Higher temperatures cause fruit drop, early maturity, sun scalding, and uneven ripening in mango. In a variety like Alphonso, spongy tissue disorder will be seen," points out Naga Harshita Devalla, who teaches at the College of Horticulture in Hyderabad.

The mango plant has specific weather requirements from the time buds start appearing by the end of winter. The pollination has to take place before the fruit is set. The budding stage as well as the fruit setting stage is long. Fluctuating weather patterns with intense heavy rain spells and long dry spells are changing the timing of a mango plant's budding and flowering, says a mango farmer. While rain, hail, or wind can play havoc at any of these stages and affect productivity, the hardiness of mango and higher productivity are being linked to genetic diversity.

### **Is genetic variation important?**

Indian researchers led by Rajdeep Haldar, who published a paper in the International Journal of Advanced Biochemistry Research in March 2024, draw a similar conclusion about mango production and higher temperatures in the region. He linked it to genetic diversity.

"There are multiple reasons to be optimistic about the future of mango production and agriculture. These species have significant adaptability in response to their surroundings. Mangoes possess physiological mechanisms that allow them to adjust and thrive in diverse and



demanding environments. The substantial genetic diversity provides several advantages for the transfer of traditional or modern breeding techniques and for determining how to adapt to climate change. The climatic conditions required for the growth and production of mango trees are to some extent compatible with the impacts of global climate change, including drought and high temperatures,” the research paper stated.

#### THE STORY OF GOLCONDA BLUE, AND THAT OF INDIA’S ONCE-LEGENDARY DIAMONDS

Christie’s has pulled the 23.24 carat Golconda Blue, “the largest Fancy Vivid Blue Diamond ever to be offered at auction” after “the owners...made the decision to pursue a sale of the diamond to a family member”.

- The diamond, according to the British auction house “among the rarest and most important...ever discovered throughout history”, had been expected to fetch \$35 million to \$50 million at an auction in Geneva on May 14.
- Diamonds, the hardest of naturally occurring substances, are composed entirely of carbon, and formed under great heat and pressure below the Earth’s surface. Their rarity, difficulty in extracting them, and the skill required to cut and polish them for jewellery, have historically made diamonds exclusive and expensive.

##### Do You Know:

- According to Christie’s, the blue diamond belonged to Yeshwant Rao Holkar (1908-62), the Maharaja of Indore, who, along with his wife Sanyogitabai Devi, often collected paintings, jewellery, and other fine goods in Europe.
- In 1923, Yeshwant Rao’s father visited the French luxury jewellery company Chaumet to commission a diamond bracelet set with the 23-carat, pear-shaped Golconda Blue. A decade later, Yeshwant Rao commissioned the French brand Mauboussin to set the gem in a necklace that was later worn by his wife. In 1947, the American jeweller Harry Winston bought the blue diamond, sold it briefly to the Maharaja of Baroda, reacquired it, and sold it to the current owner, whom Christie’s did not name.
- Rahul Kadakia, Christie’s International Head of Jewellery, listed other Golconda diamonds auctioned by them, such as the 78.54 carat Archduke Joseph. Some of the world’s most famous diamonds, such as the Koh-i-Noor and the pale pink Darya-i-Nur, were mined in Golconda.
- According to Christie’s, the West’s enduring fascination with diamonds began after Alexander brought back the gems to Europe from India in 327 BC. The Venetian Marco Polo wrote in 1292: “No country but India produces diamonds. Those which are brought to our part of the world are only the refuse, as it were, of the finer and larger stones... In truth they (India) possess all the treasures of the world.”

#### SATAVAHANA-ERA INSCRIPTIONS FOUND IN TELANGANA’S PEDDAPALLI

In a significant breakthrough for the study of Telangana’s ancient history, particularly concerning the Satavahana period, the Epigraphy Branch of the Archaeological Survey of India (ASI) has documented eleven inscriptions during an epigraphical survey in the Gundaram Reserve Forest, located about 10 km away near Peddapalli district headquarters.





Spanning a period from the 1st century BCE to the 6th century CE, the inscriptions provide critical insights into the early cultural and political landscape of the Deccan, with particular reference to the Satavahana period.

“Two inscriptions from the Gundaram rock shelter stand out for their historical value. One inscription, written in early Brahmi script, records that a person of the Hāritiputra lineage — possibly of the Chutu dynasty — excavated a cave for Buddhist monks and describes himself as a friend of Kumāra Hakusiri, a Satavahana prince,” said K. Munirathnam Reddy, Director (Epigraphy), ASI.

Another inscription begins with a trident and damaru — auspicious religious symbols — and states that the land east of the hill belonged to Siri Devarāna.

This is the first known occurrence of such religious iconography accompanying early inscriptions in South India, indicating an early association of political authority with symbolic religious elements.

## SHORT NEWS

### SPECIAL 301 REPORT

- The United States Trade Representative’s (USTR) Special 301 Report has placed India, China and six other countries on its ‘priority watch list’ for weak intellectual property (IP) protection.
- The USTR report stated that over the past year, India has remained inconsistent in its progress on IP protection and enforcement, even as it has worked to strengthen its IP regime.
- India’s R&D spending is now below the 0.83 per cent of GDP recorded in 2008, the highest in the past two decades. While neighbouring China spends 2.43 per cent of its GDP on R&D, the figure stands at 4.93 per cent for South Korea, 1.21 per cent for Thailand, 2.21 per cent for the European Union, and 3.46 per cent for the United States.
- In the 13th edition of the U.S. Chamber’s International IP Index, India is ranked 43 (score: 36.45%) out of 55 economies, highlighting the need to strengthen the ecosystem for innovation and creativity through more effective intellectual property (IP) standards. The United States is at the top with a score of 95.17%.

### RWANDA FACES CONSEQUENCES AFTER CUTTING DIPLOMATIC TIES WITH BELGIUM

Rwanda severed diplomatic ties with Belgium in March due to criticism over its support for the M23 group in the DRC, leading to unexpected consequences. Kigali banned Rwandan organizations from collaborating with Belgian institutions, forcing the Health Development Initiative, an NGO, to return \$120,000 for a health program. The Ecole Belge, an international school, was ordered to suspend its Belgian curriculum, effectively closing it. While Belgium’s aid to Rwanda is relatively small (€20 million annually), the diplomatic rift may weaken Rwanda’s EU lobbying power. Mixed reactions persist among Rwandans, and while healthcare and education face disruptions, analysts suggest Rwanda may secure alternative funding.



## INDIA TO RAISE CONCERNS AGAINST PAK FUNDING WITH ALL MDBS, SAYS OFFICIAL

India intends to speak with all multilateral development banks (MDBs) to push back against providing funds and loans to Pakistan against the backdrop of a terror attack in Kashmir last week, a senior government official said. The move to directly approach MDBs, including the World Bank, the IMF, and the Asian Development Bank, is part of the government's broader efforts to curb financial flows that aid Pakistan to fund terror activities. The government is also working towards bringing Pakistan back into the 'grey list' of Financial Action Task Force (FATF), the global money laundering and terror financing watchdog.

## INDIA JUSTICE REPORT 2025

- Last month, the fourth edition of the India Justice Report (IJR) 2025 was published, which tracks each state's structural and financial capability to deliver justice. It was first published in 2019 with the support of Tata Trusts.
- IJR uses the filters of human resources, infrastructure, budgets, workload, and diversity to assess the capacity of four core pillars of the justice system to deliver to mandates: police, prisons, judiciary, legal aid, and Human Rights Commissions.
- According to the report, the police-to-population ratio remains at 155 police personnel per 100,00 population – well below the sanctioned strength of 197. In Bihar, it is just 81 police personnel per lakh population.
- In the Judiciary, there is a 20 per cent increase in pending cases, crossing the five-crore mark. The vacancies in the high courts and district courts stand at 33 per cent and 21 per cent, respectively.
- The average overcrowding in prisons stands at 131 per cent, and Prisoners awaiting trial stand at 76 per cent.
- The report highlighted that in the district judiciary, the share of women judges has increased to 38 per cent.

## FAIR AND REMUNERATIVE PRICE (FRP)

- The Centre has decided to increase the fair and remunerative price (FRP) of sugarcane by Rs 15 (or 4.41%) to Rs 355 per quintal for the sugar season 2025-26.
- FRP is the minimum price mandated by the Government that sugar mills are obligated to pay farmers for their produce.
- It is decided by the Centre's Cabinet Committee on Economic Affairs (CCEA). This committee includes the Prime Minister, the Defence Minister, the Home Minister, the Finance Minister, the Minister of Agriculture and Farmers Welfare and some other senior ministers.
- The FRP for sugarcane is decided using the same mechanism as the one that is used to calculate the Minimum Support Price (MSP) of 23 other crops. However, while the MSP is not legally guaranteed, sugar mills are legally obligated to pay the FRP.



— The FRP is based on the recovery of sugar from the cane. Sugar recovery is the ratio between sugar produced versus cane crushed, expressed as a percentage. The higher the recovery, the higher is the FRP, and higher is the sugar produced.

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#### CERTIFICATION SCHEME TO BOOST GREEN HYDROGEN

— To boost India's green hydrogen exports and encourage energy-intensive sectors to adopt the emerging fuel, the Centre has introduced a certification scheme under the National Green Hydrogen Mission. It aims to measure, monitor, report, verify on-site, and certify green hydrogen based on a standard introduced by the Ministry in 2023.

— On April 27, the Bureau of Energy Efficiency (BEE), nodal agency for the Green Hydrogen Certification Scheme, also announced an offset mechanism for hard-to-abate sectors using green hydrogen under CCTS, to allow them to earn and trade credits.

— Green hydrogen is produced by splitting water through electrolysis, using an electrolyser that is powered by renewable energy. Green hydrogen has specific advantages. One, it is a clean-burning molecule, which can decarbonise sectors including iron and steel, chemicals, and transportation. Two, renewable energy that cannot be stored or used by the grid can be channelled to produce it.

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#### UNITED NATIONS OCEAN CONFERENCE

— The third United Nations Ocean Conference (UNOC3) is being held in Nice, France, from June 9 to 13, 2025. France will co-host the event with Costa Rica. The theme of the conference is "Accelerating action and mobilizing all actors to conserve and sustainably use the ocean."

— The first UN Ocean Conference was held in June 2017 at the United Nations Headquarters in New York City (U.S.A.), and it was co-hosted by the governments of Fiji and Sweden. The second conference was held in Lisbon in 2022.

— The UN Ocean Conference is the United Nations conference dedicated to Sustainable Development Goal 14 with the aim to mobilise action for the conservation, protection and sustainable use of the ocean, seas and the marine resources.

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#### UPENDRA NATH BRAHMA

— The Municipal Corporation of Delhi (MCD) has planned to rename a stretch of Lala Lajpat Rai Marg in South Delhi to Bodofa Upendra Nath Brahma Marg, after the prominent Bodo social activist and leader.

— Upendra Nath Brahma is called "Bodofa", which means "father or guardian of the Bodos." He served as president of the All Bodo Students' Union and dedicated his life to championing the education and well-being of the Bodo community before passing away at the young age of 34 from cancer in 1990.

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#### RAGHUJI BHONSLE I

— The Maharashtra government on April 29 reclaimed the iconic sword of Maratha warrior Raje Raghuji Bhonsle I at an auction in London for Rs 47.15 lakh.

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



- Raghuji Bhonsle I was an important figure in 18th-century Maratha history, whose power was shaped by both family conflict and strategic alliances.
- His decisive victory in 1730 after the siege of Bham marked a turning point, securing his leadership and laying the foundation for the Bhonsle dynasty's rise in Nagpur.
- In the 1751 treaty with Nawab Alivardi Khan, Raghuji Bhonsle I emerged as the key figure in bringing Odisha under Maratha rule. He played a pivotal role in reviving the Shree Jagannath Temple's activities, which had languished under Mughal rule.
- Raghuji Bhonsle I expanded the Maratha empire to Orissa, Bihar, West Bengal, Uttar Pradesh, Madhya Pradesh and Chhattisgarh. He led pivotal military campaigns in Bengal from 1745 and 1755.

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#### RISHIKESH-KARNAPRAYAG RAIL LINE

- One of India's longest transportation tunnels is in Uttarakhand's Devprayag, the 14.57-km Janasu twin tunnel, also known as tunnel no 8 (T-8). A part of the 125-km Rishikesh-Karnaprayag line is located in this.
- T-8 also has the distinction of being the first place in the Himalayas where Indian Railways has used tunnel boring machines (TBMs) to excavate hard rocks to make tunnels.
- At present, India's longest rail tunnel is the 12.77-km T-50, which lies between Khari and Sumer stations on the Katra-Banihal section of the Udhampur-Srinagar-Baramulla Rail Link (USBRL), also known as the Kashmir line.

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#### VIZHINJAM INTERNATIONAL SEA PORT IN KERALA

- Prime Minister Narendra Modi on 2nd May, 2025, inaugurated the Vizhinjam International Sea Port in Kerala in a major step towards putting the state on the global maritime map.
- The Vizhinjam Port is located in Kerala's capital city Thiruvananthapuram, and is expected to significantly boost India's presence in global shipping and trade routes.
- Built at a cost of around Rs 8,900 crore under public-private partnership (PPP) mode, the transshipment port is operated by the Adani Group, with the Kerala government holding the majority stake.
- In April, the Vizhinjam International Seaport, which began limited operations last year, received MSC Türkiye—one of the world's largest cargo ships, with a capacity of over 24,000 containers, making it the first port in India to handle a vessel of that size.
- A transshipment port includes terminals, where cargo containers are shifted from one vessel to another before they reach their final destination. Countries with robust global trade networks tend to use such ports to efficiently process large amounts of international cargo.
- Currently, India has 13 major ports and 217 non-major ports, including private ports like Adani's Mundra port and the Krishnapatnam port. Navi Mumbai's Jawaharlal Nehru Port and the Mundra Port are the largest container ports in the country, each handling upwards of 7 million containers per annum.





## BUSINESS AND ECONOMY

### CLEAN AI

The International Monetary Fund's report that pointed to the likelihood of the economic gains of Artificial Intelligence (AI) applications outweighing the environmental costs of the increased energy demand that AI data centres will require is reassuring. It underscores that this transformational technology is not fundamentally at odds with the global imperative to pursue sustainable growth strategies across the board. Countries that are better prepared with renewable energy generation are bound to see a lower social and environmental cost to pursuing their AI ambitions. India's AI infrastructure — at least the part of it that the government is indirectly funding through the IndiaAI Mission — does not rise to the level of weighing at a macro level on the nation's energy mix. Still, the need for pursuing renewables specifically for AI is necessary to follow. This is already in a sense the government's approach to the issue, outlined at the AI Action Summit in Paris earlier this year. While AI is not the sole industry where a push for renewable energy and sustainable practices is important, the sector nevertheless offers itself up for two main reasons. The first is the sheer volume of electricity that it is set to consume. The IMF's report indicates that in the United States — the single largest home for AI computing capacity globally — "AI expansion alone could increase electricity prices by up to 9 percent, adding to price pressures coming from many other sources". As such, renewable energy could play a major role in cushioning against a multifold rise in emissions that conventional energy sources would likely entail. The second is that data centres lend themselves uniquely to captive renewable infrastructure. Some Indian firms have already made moves to purchase renewable energy, and the hundreds of acres that data centres occupy are ripe for complementing equipment with solar cells. Nuclear energy may also turn out to be a welcome contribution: small modular reactors at emerging data centre clusters, in conjunction with other renewable sources, would avert a sizeable quantity of emissions.

Electricity use is not the only environmental footprint that the AI age will leave behind — the technology requires large-scale mining of minerals and water use, and produces effluents in the manufacturing of the electronics supply chain. As electronics manufacturing is another space that India aspires to grow in, these opportunities must be pursued in this area too. India's net zero target for 2070 will demand a scaling down of conventional sources of emissions, and managing the rise of industries that are poised to expand their share of global energy consumption.

### MINERALS GAMBLE

After painstaking negotiations, marked by inflammatory exchanges, Washington and Kyiv have signed an agreement that would grant the U.S. access to Ukraine's critical mineral and oil and gas resources through a joint investment fund. Ukraine has claimed that it would lead to an equal economic partnership, while its actual impact remains uncertain. The idea of a minerals deal was proposed by Ukrainian President Volodymyr Zelenskyy last year to the Biden administration as part of his "victory plan". His pitch was to open up Ukraine's vast untapped critical minerals resources (which include lithium, graphite, uranium and titanium, besides rare earth minerals) in exchange for continued American military support and security guarantees. After Donald Trump assumed the presidency, he supported a minerals deal, but an entirely different one. He insisted that Kyiv repay the billions of dollars provided as military and economic assistance during the war by granting U.S. companies access to Ukraine's resources. At one point, the disagreement escalated



into a public spat at the Oval Office between Mr. Zelenskyy and Mr. Trump. But both sides pressed ahead, which culminated in the April 30 deal.

For Ukraine, the agreement represents an improvement over Mr. Trump's previous proposals. There is no reference to aid as debt in the fine print. Under the deal, the United States-Ukraine Reconstruction Investment Fund will finance extraction projects in Ukraine's resources. Kyiv will share 50% of the revenues from these projects towards the fund. While the agreement omits any reference to past U.S. aid, future American assistance will be considered as capital contributions to the fund — Ukraine will have to repay future aid through resource revenues. More importantly, although Mr. Zelenskyy originally envisioned a minerals deal as a pathway to securing security guarantees from the U.S., the final agreement offers no explicit American security commitments to Kyiv. Ukrainian officials have portrayed the deal, which needs to be ratified by Parliament, as a win-win. But it actually underscores Kyiv's growing vulnerabilities in a war that shows no sign of abating. Mr. Zelenskyy and his generals are aware that if American support dries up, their embattled forces would be in peril. And Mr. Trump has already rejected Ukraine's most pressing demand — firm security guarantees. Facing limited options, Ukraine has signed the agreement in the hope that it would at least ensure continued flow of U.S. military assistance in the form of U.S. investments to the fund. But Mr. Zelenskyy's minerals gamble will pay off only if the Trump administration stays committed to helping end the war. If the war drags on, with Russia forces continuing to advance in the east, the minerals deal would mean little for Ukraine's security.

#### **Do You Know:**

- **Key Terms of Ukraine-US Resource Agreement**

—Full Sovereignty: Ukraine retains complete control over all subsoil assets, infrastructure, and natural resources.

—No Repayment to US: Ukraine is not required to repay any past US military or financial support as part of this agreement.

—10-Year Reinvestment Clause: All profits generated will be reinvested within Ukraine for the first ten years of the agreement.

—Infrastructure Priority: Initial funding will focus on developing mineral extraction, oil, gas, and related infrastructure before profit-sharing begins. The fund's profits will be reinvested exclusively in Ukraine for the first 10 years, particularly in mining, oil and gas, infrastructure, and processing projects. Ukraine will not be required to repay any debt for prior US support. The US International Development Finance Corporation will anchor the fund, with Washington contributing direct capital and military equipment — including air defence systems — while Ukraine will funnel 50 per cent of all future profits from government-owned resources into the fund.

- Ukraine holds an estimated 5% of the world's rare earth elements, which are crucial for technology like smartphones, electric vehicles, and defence systems. The country also boasts 20% of global graphite reserves, large titanium and manganese supplies, and significant lithium deposits — including one at Novopoltavske, described as among the world's largest.

However, much of Ukraine's mineral wealth remains untapped, with some sites located in Russian-occupied territory. The lack of accurate geological data and decades of underdevelopment further hinder progress.



## 'DON'T BLAME RENEWABLES FOR SPAIN'S POWER OUTAGE'

While it may be tempting to blame the unprecedented power outage that hit the Iberian peninsula this week on the rapid growth of wind and solar power in Spain, reliance on renewables is not to blame.

Rather, the issue appears to be the management of renewables in the modern grid. The massive blackout on Monday – the biggest in Europe's history – should be a stark warning to governments: investments in power storage and grid upgrades must go hand in hand with the expansion of renewables generation. Spanish authorities are investigating causes of huge outage, as power continues to be gradually restored. But here is what we know so far:

At around 12:30 p.m. (1030 GMT), electricity generation in Spain dropped rapidly from around 27 gigawatts to just over 12 GW. The 15 GW loss was equivalent to 10% of Spain's installed capacity.

### **Destabilising flow**

The sudden drop in grid load destabilised electricity flows, which require an extremely stable frequency of 50 Hertz to maintain supply. This, in turn caused a break in the Spanish and French electricity interconnection that goes through the Pyrenees mountains, resulting in the total collapse of the Spanish power system.

Spain exports electricity to Portugal, so the collapse of power in Spain quickly spread throughout the Iberian Peninsula. Some areas in France also suffered brief outages on Monday. The cause of the initial drop that led to the catastrophic cascade of events is unclear, though a collapse in Spain's solar power system was certainly involved.

Data from Spanish grid operator Red Eléctrica shows that on Monday solar generation dropped at 12:30 p.m. from around 18 GW to just under 5 GW by 1.35 p.m., so this accounted for the vast majority of the overall drop. But it remains unknown why this occurred or why it caused the entire system to collapse so rapidly.

### **Grid inertia**

One possible contributor is the lack of so-called 'grid inertia' as a result of the relatively small share of nuclear and fossil fuel generation in Spain's power mix.

Inertia is the kinetic energy created by the rotation of spinning generators. In the case of a sudden loss of power, this provides a temporary supply of energy that can help maintain grid frequency, thus acting as a shock absorber. Inverter-based wind and solar power, which generated just under 70% of Spain's total electricity at the critical moment on Monday, does not involve physical rotation and therefore inertia could not compensate for the sudden loss of power.

An obvious short-term solution to avoid a repeat of the blackout would be to maintain a higher base load of rotating power generation. Over the long term, however, power systems will need to invest heavily in battery capacity to store electricity as well as technologies for synchronising the grid that are critical to maintaining the 50 Hz frequency.

In theory, this should be doable, as battery costs have declined sharply in recent years and are being deployed at scale around the world.



But all this would still require heavy investments. While spending on new solar capacity reached around \$500 billion last year, investment in grids was only at around \$400 billion, becoming bottlenecks for the energy transition, according to the International Energy Agency.

The power outage that hit Spain and Portugal should be a wake-up call for both governments and power companies. Developing a modern power grid will require comprehensive investment in the entire power infrastructure, including the unsexy parts that don't generate headlines – until they stop working.

#### U.S. PUTS INDIA BACK ON IPR WATCH LIST

The U.S. on Tuesday again placed India on its 'priority watch list' stating that New Delhi remains one of the world's most challenging major economies with respect to protection and enforcement of intellectual property (IP) rights.

The US Trade Representative's (USTR) 2025 Special 301 report said that over the past year, India has remained inconsistent in its progress on intellectual property protection and enforcement. It said that although India has worked to strengthen its IP regime, there continues to be a lack of progress on many long-standing IP concerns.

It added that patent issues continue to be of particular concern in India.

Stakeholders continue to express concerns over vagueness in the interpretation of the Indian Patents Act, it alleged. "While steps to improve IP Office operations and procedures are to be commended, India's overall IP enforcement remains inadequate," it said.

China, Indonesia, Russia, Argentina, and Venezuela are among others on the list. It has also placed 25 countries, including Pakistan and Turkey, on the list.

India maintains high customs duties directed to IP-intensive products such as information and communications technology (ICT) products, solar energy equipment, medical devices, pharmaceuticals, and capital goods. Furthermore, stakeholders have reported continuing problems with unauthorised file sharing of video games, signal theft by cable operators, commercial-scale photocopying and unauthorised reprints of academic books, and circumvention of technological protection measures.

Companies also continue to face uncertainty due to insufficient legal means to protect trade secrets in India. These concerns could factor into the Trump administration's negotiations with many countries over tariffs and non-tariff barriers, giving the report greater significance this year.

#### US-CHINA TARIFF TALKS COULD HAVE IMPLICATIONS FOR INDIA

Amid seemingly worsening trade ties between the US and China, which has raised hopes of more US-bound orders shifting to India, China's Ministry of Commerce said Friday that it is "evaluating" the possibility of initiating tariff negotiations with the US.

- This comes as Indian exporters have started receiving more orders and inquiries from US clients, amid elevated tariffs on Chinese goods. Exporters told The Indian Express that the availability of shipping containers — which had been a constraint — is beginning to improve due to the cancellation of several Chinese shipments to the US. However, any return to normalcy between the US and China could slow the shift in business towards India.





- The biggest shift so far has been observed in the electronics sector. Apple CEO Tim Cook said that a majority of iPhones sold in the US during the June quarter will be exported from India. However, he added that he could not offer a longer-term outlook due to the evolving trade war between the US and China, where Apple currently manufactures most of its products.
- Notably, US President Donald Trump had signed a two-phased deal with China during his first term, which included broader market access for US agricultural goods. Trump had also been negotiating with several countries — including India — after threatening to raise tariffs.
- In its statement, China said that the tariff and trade wars were unilaterally initiated by the United States. If the US genuinely wants talks, it should show sincerity by cancelling its unilateral tariff hikes.
- The possibility of an eventual US-China deal also gathers as US Treasury Secretary Scott Bessent said last month that the current tariff standoff with China is unsustainable and that he expects a “de-escalation” in the trade war between the world’s two largest economies, according to the Associated Press.
- A potential US–China trade deal could quickly help Chinese exporters regain ground, due to the superior technical expertise China has built over the years. Indian manufacturers say India is currently not in a position to meet US demand in several labour-intensive sectors such as non-leather footwear.
- A US–China trade deal may not be in India’s interest, as emerging market economies like India stand to gain from the disruption caused by the trade conflict.

**Do You Know:**

- Trump initially imposed a 34 per cent tariff on Chinese goods, which was swiftly met with an equivalent retaliatory measure by Beijing. In response, the US added another 50 per cent in duties. When combined with earlier levies from February and March, the total tariff burden on Chinese imports under Trump’s second term increased to 104%, bringing fears of a near-embargo scenario.
- But amid global pushback, US President Donald Trump announced a 90-day pause on tariffs, however, China is excluded from the pause, and instead, the tariff rate has been increased to 125%.
- Beijing imposed 125 per cent tariffs on US goods from April 12, up from the 84 per cent previously announced, news agency Reuters quoted the Chinese finance ministry said on Friday. This comes after the Trump administration decided to pause tariffs for 90 days on many countries, but hit China with a 145 percent tariff amid the ongoing trade wars.
- But on April 22, the President said the current 145% tariff rate on China was “very high and it won’t be that high” over time. A day later, Treasury Secretary Scott Bessent said there was “an opportunity for a big deal” between the two countries – but added that the US would not unilaterally reduce all tariffs on China.
- China, which was America’s second-largest source of imports last year, shipped \$439 billion worth of goods to the US, compared to \$144 billion in American exports to China. The rising tariffs now threaten to hit domestic industries hard, with businesses warning of cost surges, layoffs, and reduced competitiveness.



## FLOW AND EBB

The focus should now be on reforms to improve the ease of doing business and reduce compliance burdens. These would pay off when the tide turns again in favour of globalisation

- Globalisation — the free flow of goods, services, labour, capital and ideas — has been incontrovertibly beneficial for India, lifting its average annual growth rate to nearly 6.5 per cent since the early Nineties (from 3.5 per cent during 1950-1990) and per capita GDP from \$320 to \$2,500.
- While international trade in goods may have slowed down since 2010, the other components of globalisation haven't, at least until recently.
- In fact, India's export of services, particularly software and back-office/business support operations through global capability centres, has boomed in the past decade, even as it has remained the top global recipient of remittances and continued to attract capital flows. But this phase of globalisation-aided growth is increasingly facing challenges, if not coming to an end. It's something India must be prepared for.
- The International Monetary Fund expects world goods and services trade to grow by just 1.7 per cent in 2025 and 2.5 per cent in 2026, down from its projections of 3.2 per cent and 3.3 per cent in January. The fall is even more relative to the 5.8 per cent average annual increase between 1995 and 2023, as per the World Trade Organisation's estimates.
- The slowing down of that engine will definitely hurt India, and maybe even shave a percentage point or more off its near-term GDP growth. The overall uncertain global economic environment, whether to do with Trump's trade policies or fears of Chinese dumping, could dampen investment and hiring plans by businesses. Escalating tensions with Pakistan, post Pahalgam, aren't going to help either.
- The only consolation is India's reasonably sound macroeconomic stability indicators. Annual consumer price inflation, at 3.3 per cent in March, is the lowest since August 2019. Forex reserves are at a six-month high of \$686 billion after depleting to below \$625 billion in mid-January. The rupee has also recovered to 85.4 to the dollar, from the near-88 lows of only two-and-a-half months ago.
- The focus should now be on reforms to improve the ease of doing business and reduce compliance burdens. These would pay off when the tide turns again in favour of globalisation.

### Do You Know:

- According to the Investopedia, Globalization refers to the growing interconnection of nations' economies. It represents the flow of financial products, goods, technology, information, and jobs across national borders and cultures. In economic terms, it describes an interdependence of countries around the globe fostered through free trade.
- Globalization is a social, cultural, political, and legal phenomenon.
- According to the Investopedia, the Components of Globalization: —GDP is the market value of all finished goods and services produced within a country's borders in a year and serves as a measure of a country's overall economic output. —Industrialization is a process driven by technological innovation that effectuates social change and economic development by



transforming a country into a developed nation. —The Human Development Index comprises a country's population's life expectancy, knowledge, and education measured by adult literacy and income.

## GROWTH PANGS

At 4%, India's fiscal 2025 average of Index of Industrial Production (IIP) is at its lowest in the past four years, marking a slowdown in industrial activity. This could be attributed to uncertainties in the global economic outlook leading to tepid goods exports growth, lower than expected consumption demand growth, and a dip in private capital expenditure. While the monthly barometer of the nation's industrial output, the IIP, grew in March to 3% from February's 2.7%, this has been mainly on account of a rise in power production, which cyclically peaks in summer. Power output growth almost doubled between February (3.6%) and March (6.3%). But the fall in the IIP, from 5.9% (2023-24) to 4% (2024-25), warrants a closer look at the sectors that have lagged. While mining steeply declined from 7.5% (FY24) to 2.9% (FY25), manufacturing followed with 5.5% (FY24) and 4% (FY25) and electricity at 7% (FY24) and 5.1% (FY25). What is more significant is the degrowth of -1.6% in fiscal 25 witnessed in consumer non-durables from 4.1% in the previous year. Contrasting this with the growth almost doubling in consumer durables from 3.6% (FY24) to 8% (FY25) likely indicates an uptick in urban private consumption, while lingering effects of high food inflation in the October to December quarter of the last fiscal continue to strain rural consumption. Sure, retail inflation was at its lowest in six years at 4.6% in FY25, aided by steep falls in vegetable prices in the last quarter, but this also heavily impacted farm incomes, further straining rural consumption. While a decrease in the RBI's bank lending rate to 6% in April from 6.5% in January has led to lower capex lending rates across banks, an uncertain economic and trade environment is unlikely to encourage the private sector to raise investment, without substantial domestic consumption impetus from the government.

The flat growth in goods exports in FY25 is another area that must concern policymakers as it indicates considerable strain on India's sprawling small businesses, the MSME sector, that contributes about 45.8% in exports. This sector has witnessed remarkable growth over the past five years, quadrupling in size from about ₹4 lakh crore in FY21 to ₹12 lakh crore in FY25. However, given strained trade relations with the country's largest trading partner, the United States, India must ensure that the Bilateral Trade Agreement that is under negotiation fortifies India's nearly 60 million MSMEs, the vast majority of which are classified as micro industries. Consequently, this will protect the over 250 million jobs that the sector provides.

## WHY IS UPI SEEING FREQUENT DOWNTIMES?

### The story so far:

In March and April, the Unified Payments Interface (UPI) system went down three times, causing significant disruptions in payments on apps like GPay and PhonePe, which rely on the system. One of the downtimes was caused by individual banks flooding the National Payments Corporation of India's (NPCI) systems with transaction status checks.

### How does UPI work?

UPI payments work based on an architecture that was inherited from the Immediate Payment Service (IMPS). For UPI payments to work, a bank is required to join the UPI system and allow users to access their own accounts through a linked phone number, on a Payment Service Provider



(PSP)'s app, like PhonePe or GPay. Practically every commercial bank, public or private, is on the UPI system.

UPI is designed as an interoperable system, allowing any bank's account holders to sign up for the service on any app, and even multiple apps at the same time. This resembles a peer-to-peer system, where individual banks are all talking to each other, but in reality, practically every transaction is routed through the systems of the NPCI. "The NPCI is essential in this process," said Srikanth Lakshmanan, a member of the Cashless Consumer project, as it encrypts the PIN information — which only the bank knows — and sends the payment information forward to a payer's bank, which then executes the transaction. "So if there's a downtime in the NPCI, there's no way your bank would get your PIN. This is where it is a single point of failure."

#### **Why did the NPCI have several outages?**

The NPCI as an organisation is structured as a collective of banks, with public sector banks holding the bulk of its shareholding. This, Mr. Lakshmanan said, is because of the Payment and Settlement Systems Act, 2007, which mandates that organisations involved in clearing transactions in bulk have to be majority-owned by public sector banks. Led as it is by banks, the implementation too is largely left to them, though the NPCI has played a big role in designing and presiding over the UPI system. In the last few weeks, individual banks reportedly flooded the UPI system with "check transaction" requests, which payer banks use to verify that a payment has been completed. That hit the single point of failure at NPCI, and took the system offline briefly. To reduce the impact of downtime like this, the NPCI has created something called UPI Lite, which allows users to set aside up to ₹2,000 for payments without having to punch in a PIN. But even such payments go through the NPCI's systems. "You don't do a PIN authentication, but other communication still goes through NPCI," Mr. Lakshmanan said. "The NPCI has to say this transaction originated from your device and so on. This is why even though UPI Lite doesn't involve the PIN entry and decryption, it is still routed through NPCI since it's fundamentally an interoperable system. While UPI Lite is light, it still requires NPCI to be in the middle."

#### **Why are banks peeved?**

Banks have historically had a rocky relationship with UPI. While the system has revolutionised payments in India — just on Friday, there were over 58 crore transactions worth over ₹73,000 crore — they are largely unable to collect any significant fees on transactions, even though there are costs attached to each of these.

The RBI estimated that banks incur a cost of ₹0.80 per transaction, due to SMS notification costs (which telecom operators collect for commercial messages), and the costs incurred in maintaining and updating records of each payment. However, they are not able to charge a Merchant Discount Rate (MDR) for these services, leaving them with few incentives to keep to rigorous uptime standards. Individual banks go down far more frequently than the NPCI as a whole, and these outages result in increased payment decline events. System-wide downtimes are far fewer and shorter on commercial card networks like MasterCard and Visa, Mr. Lakshmanan said, as there is robust monitoring and service level agreements to enforce performance standards.

However, he said, the Ministry of Electronics and Information Technology has tried a "carrot and stick" approach, with its annual UPI incentive programme for banks, which comes attached with conditions that penalise banks whose performance suffers over the course of a year. The subsidy scheme compensates banks for their current inability to charge an MDR. "If you're at the bottom [in terms of uptime], you get nothing," Mr. Lakshmanan said.





## HOW DOMAIN MIGRATION MAY HELP CUT DIGITAL FRAUD

To combat the increasing number of digital payment frauds, the Reserve Bank of India (RBI) has decided to operationalise the '.bank.in' domain for banks.

- The '.in' is India's Country Code Top Level domain (ccTLD). This exclusive internet domain for domestic banks will minimise cyber security threats and will help in strengthening trust in the country's digital banking and payment services. The RBI has asked banks to migrate to .bank.in domain by October 31, 2025.

- In February this year, the RBI announced the introduction of the 'bank.in', an exclusive internet domain for Indian banks. On Tuesday, the regulator decided to operationalise the '.bank.in' domain for banks. A domain name is used to find websites. It is a unique and easy-to-remember address to access websites on the internet.

- The operationalisation of the new internet domain name is through the Institute for Development and Research in Banking Technology (IDRBT), which has been authorised by the National Internet Exchange of India (NIXI), under the aegis of the Ministry of Electronics and Information Technology (MeitY), to serve as the exclusive registrar for this domain, the RBI said.

- The '.IN' domain is India's own ccTLD, which is a two-letter string (eg: <https://www.india.gov.in> or) added at the end of a domain name. A ccTLD functions as more than just a string in a web address. It is considered a symbol of national identity on the global internet.

- With the migration to the new domain, all banks in the country will have '.bank.in' as the domain name. Currently, banks are either using '.com' or '.co.in' as their domain name, which is more generic.

- Till the time banks fully migrate to the new internet domain, they are likely to have both '.bank.in' and their old internet domains. So a customer can visit their respective bank's website with the old internet domain, which will then redirect them to the bank's website with the '.bank.in' domain.

- The new internet domain will reduce cyber security threats and malicious activities like phishing; and, streamline secure financial services, thereby enhancing trust in digital banking and payment services.

### Do You Know:

- NIXI is a not for profit organisation set up for peering of Internet Service Providers (ISPs) among themselves for the purpose of routing the domestic traffic within the country, instead of taking it all the way to US/abroad, thereby resulting in better quality of service and reduced bandwidth charges for ISPs by saving on international bandwidth.

- The changing geo-political and economic shifts have compelled the Indian government to take active steps to evolve in cyberspace. This includes key initiatives such as the National Cyber Coordination Centre, Cyber Surakshit Bharat, and National Critical Information Infrastructure Protection Centre. CERT-In is the nodal agency for responding to computer security incidents when they occur.

- In 2018, the Ministry of Home Affairs established the Indian Cyber Crime Coordination Centre (I4C) as a national-level coordination centre to address cybercrime-related issues. In September

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



2024, four I4C platforms — Cyber Fraud Mitigation Centre (CFMC), the ‘Samanvaya’ platform, a Cyber Commandos programme and a Suspect Registry — were inaugurated by Home Minister. The centre was able to decline six lakh fraudulent transactions and saved Rs 1,800 crore through Suspect Registry.

- In recent years, the government has also increased the budget allocation to cybersecurity. However, challenges remain. There is a need for effective utilisation, transparency, and accountability in fund allocation. Collaboration between the government, industry, and academia is vital for a robust approach.

#### SC ASKS GOVT, RBI TO UPDATE KYC NORMS FOR DISABLED

Underlining that “right to digital access” is “an instinctive component” of the right to life and liberty, the Supreme Court Wednesday ordered the revision of digital Know Your Customer (KYC) norms to make it accessible to persons with disabilities, particularly those with visual disabilities and facial disfigurement.

- This was part of a series of directions by a bench of Justices J B Pardiwala and R Mahadevan to the Centre and different public entities, including the RBI, on two writ petitions seeking to make the digital KYC framework inclusive for those with vision impairment or low vision, and acid attack survivors.

- “In the contemporary era, where access to essential services, governance, education, health care and economic opportunities are increasingly mediated through digital platforms, the right to life under Article 21 of the Constitution must be re-interpreted in light of these technological realities,” said Justice Mahadevan, writing for the bench.

- “The digital divide, characterised by unequal access to digital infrastructure, skills and content, continues to perpetuate systematic exclusion not only of persons with disabilities but also of large sections of rural populations, senior citizens, economically weaker communities and linguistic minorities,” the bench said.

- Among other directions, the court asked various ministries to direct all the regulated entities, government or private, to follow accessibility standards and appoint a nodal officer in every department responsible for digital accessibility compliance.

- It said all the regulated entities must mandatorily undergo periodical accessibility audit by certified accessibility professionals and involve persons with blindness in user acceptance testing phase while designing any app or website, or in case a new feature is launched.

- It also asked the RBI to issue guidelines to all regulated entities to adopt alternative modes for verifying the “liveness” or capturing a “live photograph” of the customers, as mandated under the rules for the purpose of conducting Digital KYC/ e-KYC beyond the traditional “blinking of eyes” to ensure inclusivity and user-convenience.

- One of the petitions, by acid attack victims who suffer from facial disfigurement and severe eye burns, said the current norms require facial movements such as blinking and head tilting, which are impossible for them. The other, by a person suffering from 100% blindness, pointed to barriers in the KYC process, including the inability to take selfies, difficulties with handwritten signatures, and challenges with short OTP durations. These, it said, discriminated against persons with disabilities.



## IS NATURAL HYDROGEN THE FUEL OF THE FUTURE?

### The story so far:

Hydrogen is seen as the fuel of the future — one that would decarbonise world economy and stop global warming. If harvested in a sustainable manner, natural hydrogen may provide a clean and potentially low-cost fuel to satisfy the world's increasing energy needs with a considerable reduction in carbon emissions as well. And it's most likely abundant in India, too.

### How is natural hydrogen extracted?

Right now, hydrogen is manufactured mostly from natural gas through an energy-intensive and polluting process. Green hydrogen made with renewable electricity, on the other hand, is still prohibitively expensive and would require vast amounts of wind and solar power to work out at scale.

Natural hydrogen occurs as a free gas in geology, produced by processes such as serpentinisation (the interaction of water and iron-containing rocks), radiolysis of water by radioactive rocks, and from organic matter at depth.

### What is the history of its extraction?

In the summer of 1987, drillers arrived at Mamadou's village of Bourakébougou, Mali, to bore for water. After drilling 108m at one site, with no water to be found, one of the crew lit a cigarette — and a jet of flame shot into his face. The flame turned into a huge fire that shone crystal blue during the daytime with no sign of smoke around it. At night, it shone a glowing gold that lit its surroundings. It took weeks for the crew to extinguish the blaze and cap the well.

This unexpected event led the villagers to avoid the site until 2007 when Aliou Diallo, a successful Malian businessperson, politician, and chairperson of Petroma, an oil and gas firm, purchased the rights to prospect in the area around Bourakébougou. In 2012, he hired Chapman Petroleum to figure out what was emanating from the borehole. Protected from the 50°C sun in a mobile laboratory, a team of engineers found that the gas was 98% hydrogen. Hydrogen is rarely recovered in oil operations and was not thought to exist in large reserves within the earth's crust, until then.

While the presence of naturally occurring hydrogen has been known for decades, with the discovery of its presence in gas seeps, volcanic outgassing, and even mine workings being well documented decades ago, for many years, it was viewed as a geological curiosity. Majority of the scientific opinion at the time proposed that hydrogen's small size and extreme reactivity would hinder the formation of substantial underground deposits.

Now, geological environments favourable to natural hydrogen generation and accumulation are being recognised worldwide. Active mountain ranges with tectonic activity, such as the Pyrenees, Alps, and Himalayas, are also being considered as areas for geological hydrogen production. The fact that helium co-exists with hydrogen in a few reserves points towards some geological processes, such as radiolysis, playing a role in its generation.

The presence of hydrogen in coal mines points towards generation from underlying organic matter. What was previously a specialist field of geological study has therefore become a growing field with enormous implications for the future of energy.



### What about current reserves?

Although the total size of worldwide natural hydrogen reserves is still poorly known because of a lack of concentrated exploration, recent discoveries and current research indicate considerable potential. In contrast to conventional hydrocarbon exploration, dedicated frameworks for natural hydrogen exploration are still evolving.

In the Indian context, natural hydrogen potential is mostly untapped but found to be promising because of the existence of favourable geological structures like hard rock formations of diverse ultramafic/mafic and basaltic assemblages, Andaman and Himalayan ophiolite complexes, greenstone volcanic-sedimentary sequences in cratons (Dharwar, Singhbhum), sedimentary basins (for example, in Vindhya, Cuddapah, Gondwana and Chhattisgarh), basement rocks with fractures, and areas where active hydrothermal systems as represented by hot springs exist.

Recent finds elsewhere in the world indicate the scale of these resources. Hundreds of hydrogen seeps have been catalogued globally in various countries, including Australia (Eyre Peninsula and Kangaroo Island), the United States (Kansas, Nebraska), Spain, France, Albania, Colombia, South Korea, and Canada. There could be sufficient natural hydrogen to supply the growing world demand for thousands of years, based on a model run by the U.S. Geological Survey (USGS) that was unveiled in October 2022 at a Geological Society of America meeting.

Close on the heels of the USGS model, scientists, venturing into abandoned mines in France's Lorraine region chanced upon naturally occurring hydrogen in May 2023. Further excavation in March 2025 in the adjacent Moselle region yielded more reserves. Together, the deposits are estimated to be about 92 million tonnes —worth about \$92 billion and about half of the current global hydrogen production.

While it's difficult to project with certainty just how much hydrogen is available in geologic stores, the best estimate is on the order of tens of trillions of metric tonnes. If even just 2% of these reserves are commercially exploitable, they would provide about twice as much energy as all the earth's provable natural gas reserves —enough to meet projected hydrogen demand (500 million tonnes per year) for around two hundred years. However, experts note that it is still unclear how much of that potential can be tapped economically, especially if deposits are too scattered.

### How has industry reacted?

The promise of so much renewable fuel sitting undiscovered beneath the surface has sparked a veritable gold rush. By the end of 2023, 40 companies, including start-ups, were searching for deposits of natural hydrogen around the world, up from just 10 in 2020, according to research firm Rystad Energy.

They're hunting for natural hydrogen in countries such as Australia, the U.S., Spain, France, Albania, Colombia, South Korea and Canada. Producers claim they can extract the fuel for about \$1/kg, or even less — much lower than the production cost for green or even natural gas-based hydrogen.

The American Association of Petroleum Geologists have formed its first natural hydrogen committee, and USGS began its first effort to identify promising hydrogen production zones in the United States.

In the U.S., a start-up called Koloma raised \$245 million of venture funding last year to search for and extract geologic hydrogen, attracting investors including Amazon's climate fund and Bill





Gates' Breakthrough Energy Ventures, which is also investing in other natural hydrogen companies, such as Mantle 8 in Europe. Even conventional energy and mining companies are in on the rush — both BP and Rio Tinto recently invested in U.K.-based start-up Snowfox Discovery.

## HOW CAN INDIA TAP ITS NATURAL HYDROGEN POTENTIAL?

### The story so far:

For India, an economy in growth mode with aspirations for energy independence and a pledge to reach net-zero emissions by 2070, the exploitation and use of natural hydrogen offers a potentially game-changing opportunity. In an increasingly volatile world where national sovereignty, economic stability, and energy security become inseparable, tapping into this naturally occurring commodity could go a long way toward enhancing India's strategic autonomy.

### How much potential does India have?

India's hydrogen demand was projected to grow from six million tonnes per year (Mt/year) in 2020 to over 50 Mt/year by 2070 to support its net-zero target. A preliminary study, by some members of academia referencing model predictions of global geologic hydrogen resources, arrives at a value of 3,475 million tonnes of natural hydrogen potential in India. If these estimates were to be true, we may not even need to engage in the process of manufacturing hydrogen anymore but rather pursue the quest of finding and producing naturally occurring hydrogen that would help decarbonise our economy faster at a lower cost.

On the heels of the recent findings of natural hydrogen reserves in the Andamans, stakeholders need to come up with directional estimates to bring attention of policy makers and investors to the overall potential of natural hydrogen in India. A comprehensive geological study is essential, considering critical factors such as the quality, extent, thickness, accessibility, and hydrocarbon generation potential of the source rock; presence and effectiveness of seals and traps; size and viability of hydrocarbon accumulations; potential losses during migration; and the accessibility of the area for exploration and development.

### What are the challenges?

Natural hydrogen exploitation and exploration is no easy feat. It has technical, logistical, economical, and safety-related challenges. Accurately locating and quantifying underground hydrogen reserves is the primary challenge. Unlike oil and gas, for which well-established exploration techniques exist, natural hydrogen exploration is still evolving. Additionally, efficient and cost-effective extraction technology for natural hydrogen is key. While modifying current gas industry practices associated with well drilling and extraction facilities, one must consider hydrogen's specific properties, including its small molecular size and high diffusivity. Studies into extraction solutions for lowest cost hydrogen are in progress.

Hydrogen extraction also involves specific safety issues as opposed to hydrocarbons because of its high diffusivity and reactivity. Mitigation measures involve the study and application of hydrogen-resistant materials such as metal coatings and advanced alloys, cement additives to make it more resistant to hydrogen, and rubber fillers to avoid degradation.



### How can India kickstart the process?

A key component of the Indian Solar PV mission's growth was the German Agency for International Cooperation-National Institute of Wind Energy funded Solar Radiation Resource Assessment (SRRA) Project under the National Solar Mission that commissioned 121 SRRA stations along with four Advanced Monitoring Stations (AMS). Natural hydrogen agencies can formulate a similar public private partnership to assist in the identification of potential geographical deposits.

The U.S. ARPA-E's newly funded projects take exploring the potential of geologic hydrogen beyond locating and extracting trapped geologic hydrogen towards the possibility that hydrogen can be produced intentionally, by drilling and flowing water into rock and then transporting the hydrogen to the surface for collection. Another approach involves injecting water with dissolved carbon dioxide into iron-containing rocks that could potentially lead to carbon sequestration as limestone while simultaneously producing hydrogen.

The Oil and Gas Exploration industry in India, with the help of the Directorate General of Hydrocarbons, could review the rock samples available with them and explore more wells across the country with adequate grant and debt capital. A few of the current natural gas pipelines could be suitable for transporting hydrogen with adequate modifications and safety studies. Creating low-cost and safe solutions for hydrogen storage, especially massive underground storage, is imperative.

Even as estimates indicate natural hydrogen production would be much lower in cost than produced hydrogen, the actual cost of exploration, extraction, and infrastructure investment must be weighed seriously. Commercial feasibility will rely on finding large and accessible reserves and minimising extraction and delivery costs. Targeted exploration in areas of high potential, cost-reducing extraction technology development, and institution of transparent regulatory systems are essential to spur investment and market growth.

### CSR SPEND: LISTED FIRMS RECORD 16% RISE TO `17,967 CR IN PREVIOUS FISCAL

Aided by a surge in profits, funds spent by listed companies on Corporate Social Responsibility (CSR) rose by 16 per cent to Rs 17,967 crore during the year ended March 2024 as compared to Rs 15,524 crore spent in 2022-23, says a report.

- HDFC Bank topped the list with a CSR spend of Rs 945.31 crore, followed by Reliance Industries Rs 900 crore, TCS at Rs 827 crore and ONGC Rs 634.57 crore.
- The rise was due to an 18 per cent rise in average net profit (in the preceding 3 years) of these companies, two per cent of which needs to be spent on CSR activities as per regulatory requirements, and followed three years of flattish spends, from Rs 14,751 crore in 2019-20 to just Rs 15,524 crore in 2022-23, says a PRIME Database report.
- The CSR law, which came into force in April 2014, mandates companies, subject to the provisions of the Act, to invest two per cent of their net profit in CSR projects.
- Companies with net worth of Rs 500 crore and above or revenue of Rs 1,000 crore and above or net profit of Rs 5 crore and above have to spend two per cent of average net profits of last three years.



- According to Primeinfobase.com, the average net profit of 1,394 companies over last three years was Rs 9.62 lakh crore, up from Rs 8.14 lakh crore in 2022-23. As per CSR requirements, the amount required to be spent by them was Rs 18,309 crore (2022-23: Rs 15,713 crore), against which they spent a slightly lower Rs 17,967 crore (2022-23: Rs 15,524 crore). The shortfall can be explained by the increase in amount which remained unspent which was transferred by companies to Unspent CSR Account Rs 2,329 crore) for use in future years, it said.

- In line with the previous years, education received the maximum spend Rs 1,104 crore) followed by healthcare Rs 720 crore). On the other hand, areas such as slum development, armed force veterans and disaster management saw lower and negligible spends.

- In comparison to previous year (only considering data of 440 companies for which project details were available for both years), spends on environmental sustainability increased the most (54 per cent) followed by spends on national heritage (5 per cent). On the other hand, contribution to slum development fell the most (72 per cent) followed by spends on rural development (59 per cent) and armed force veterans (52 per cent).

#### **Do You Know:**

- According to Investopedia, Corporate social responsibility (CSR) is a self-regulating business model that helps a company be socially accountable to itself, its stakeholders, and the public.

- Through corporate social responsibility programs, philanthropy, and volunteer efforts, businesses can benefit society while boosting their brands. A socially responsible company is accountable to itself and its shareholders.

- CSR is commonly a strategy employed by large corporations. The more visible and successful a corporation is, the more responsibility it has to set standards of ethical behavior for its peers, competition, and industry.

- According to Investopedia, there are four types of CSR— —Environmental responsibility: Corporate social responsibility is rooted in preserving the environment. A company can pursue environmental stewardship by reducing pollution and emissions in manufacturing, recycling materials, replenishing natural resources like trees, or creating product lines consistent with CSR.

- Ethical responsibility: Corporate social responsibility includes acting fairly and ethically. Instances of ethical responsibility include fair treatment of all customers regardless of age, race, culture, or sexual orientation, favourable pay and benefits for employees, vendor use across demographics, full disclosures, and transparency for investors.

- Philanthropic responsibility: CSR requires a company to contribute to society, whether a company donates profit to charities, enters into transactions only with suppliers or vendors that align with the company philanthropically, supports employee philanthropic endeavours, or sponsors fundraising events.

- Financial responsibility: A company might make plans to be more environmentally, ethically, and philanthropically focused, however, it must back these plans through financial investments in programs, donations, or product research including research and development for products that encourage sustainability, creating a diverse workforce, or implementing DEI, social awareness, or environmental initiatives.

**LIFE AND SCIENCE****POTENTIAL PRESENCE OF PRIMITIVE LUNAR MANTLE MATERIAL AT LANDING SITE: STUDY**

“There is an anomalous depletion in sodium and potassium at the site, whereas there is an enrichment in sulphur found in the soils at the highland landing site,” said the study published in the journal Nature Communications Earth and Environment.

- The Shiv Shakti point, where the world’s first lunar landing was facilitated by India’s Chandrayaan 3 in 2023, could hold a promising potential site for scientists to study the most primitive mantle samples on the lunar surface.
- The Shiv Shakti point is located at the southern high-latitude highlands of the nearside of the Moon. Scientists from Physical Research Laboratory (PRL) used data gathered by Alpha Particle X-ray Spectrometer onboard the Pragyan rover. They compared metal remnants and elemental concentrations of sulfur, potassium, sodium among others at the Shiv Shakti point where Chandrayaan 3 landed on August 23, 2023. Sulphur, potassium and sodium can give insights into the mantle composition and chemistry.
- “There is an anomalous depletion in sodium and potassium at the site, whereas there is an enrichment in sulfur found in the soils at the highland landing site,” said the study published in the journal Nature Communications Earth and Environment.
- “There is a potential presence of primitive lunar mantle materials at the landing site, which was excavated during formation of the South Pole-Aitken basin, around 4.3 Ga (billion years) ago and may have got redistributed by subsequent impacts on the SPA basin ejecta. While the primitive mantle contributed to the excess sulfur, it later got mixed up with the materials at the landing site,” the paper noted.
- The South Pole-Aitken basin is one of the largest known impact craters on the lunar surface.
- The low levels of sodium and potassium at the Shiv Shakti point, the researchers said, could suggest that these elements may not have originally existed at the place and time of the very formation of the SPA basin.
- According to the PRL team, Chandrayaan 3 data noted the concentration of sulfur to be 300-500 parts per million higher than in soils gathered by the above missions. The Indian team is studying this anomalous difference in the concentrations and trace the causes at the landing site.

**Do You Know:**

- The Moon is believed to have formed as a result of a collision between a massive asteroid and Earth approximately 4.2 to 4.3 billion years ago.
- The Moon is believed to have been composed of magma during its early life. As it cooled over millions of years, heavier silicon and magnesium-rich minerals such as Olivine and Pyroxene sunk and created the Moon’s interior layers. The outer layer was made up of lighter minerals containing calcium and sodium compounds.
- The Chandrayaan-3 mission was India’s third lunar mission and second attempt to make a soft landing on the surface of the Moon. It was launched by Launch Vehicle Mark-III (LVM3).





- The propulsion module carried the lander and rover configuration to a 100 km lunar orbit. The propulsion module had a Spectro-polarimetry of Habitable Planet Earth (SHAPE) payload to study the spectral and Polarimetric measurements of Earth from the lunar orbit.

### SOVIET-ERA SPACECRAFT SET TO PLUNGE TO EARTH HALF-CENTURY AFTER FAILED LAUNCH

A Soviet-era spacecraft meant to land on Venus in the 1970s is expected to soon plunge uncontrolled back to Earth, possibly within the first two weeks of May.

It's too early to know where the half-ton mass of metal might come down or how much of it will survive reentry, according to space debris-tracking experts.

Dutch scientist Marco Langbroek predicts the failed spacecraft will reenter around May 10. He estimates it will come crashing in at 150 mph (242 kph), if it remains intact. "While not without risk, we should not be too worried," Mr. Langbroek said in an email. The object is relatively small and, even if it doesn't break apart, "the risk is similar to that of a random meteorite fall, several of which happen each year. You run a bigger risk of getting hit by lightning in your lifetime," he said.

The chance of the spacecraft actually hitting someone or something is small, he added. "But it cannot be completely excluded."

The Soviet Union launched the spacecraft known as Kosmos 482 in 1972, one of a series of Venus missions. But it never made it out of Earth orbit because of a rocket malfunction. Most of it came tumbling down within a decade. But Mr. Langbroek and others believe the landing capsule itself — a spherical object about 3 feet (1 meter) in diameter — has been circling the world in a highly elliptical orbit for the past 53 years, gradually dropping in altitude.

It's quite possible that the 1,000-pound-plus (nearly 500-kilogram) spacecraft will survive reentry. It was built to withstand a descent through the carbon dioxide-thick atmosphere of Venus, said Mr. Langbroek of Delft University of Technology in the Netherlands.

Experts doubt the parachute system would work after so many years. The heat shield may also be compromised after so long in orbit. The spacecraft could reenter anywhere between 51.7 degrees north and south latitude, or as far north as London and Edmonton in Alberta, Canada, almost all the way down to South America's Cape Horn. But since most of the planet is water, "chances are good it will indeed end up in some ocean," Mr. Langbroek said.

### CAN ETHICS KEEP PACE WITH THE RAPID EVOLUTION OF AI?

In theory, it is already possible for an individual to create facial recognition software using Artificial Intelligence — software that could scrape billions of images from the Internet without permission, recognise faces, and identify individuals. Some of the large AI tools today are capable of doing this, but they refrain for ethical reasons. In that sense, ethics is currently woven into AI, but that may not remain the case as smaller, decentralised AI platforms emerge to meet market demand.

AI can be used for surveillance, for generating deepfakes, and for spreading disinformation — all areas already rife with ethical concerns. It can also embed and automate bias, especially in hiring. The unspoken truth is that hiring is often biased. AI can enable this subtly, simply by tweaking a few parameters.



There is also an innate human need to always know whether one is interacting with a human or a machine. Yet it is often in a company's interest to conceal that the engagement is with AI. For instance, people may be fine living in homes designed by AI, but they need to know that. They may be far less comfortable reading novels entirely written by AI, even if they are works of pulp fiction. In the near future, publishers may release AI-generated books created in a single day, while actively hiding that fact.

This raises the need for an industry standard to govern such practices. But is that even possible? Can ethics keep pace with the rapid evolution of AI? Ethics, after all, is a broad, ambiguous set of rules based on what we know. The future will present wholly unfamiliar scenarios. Who, then, will set the ethical rules for what is yet to come?

We like to talk about ethics because it represents a part of morality that remains outside the purview of the State. We want to be seen as good people — while keeping the law and the government out of our businesses. But that is also why ethics lacks teeth. Morality, outside religion and the law, is just statement of intent.

Legality, by contrast, is a formalised version of ethics — those ideas a society has agreed upon and encoded into law. But legality implies regulation, and regulation implies government. So, how willing will businesses be to articulate ethical standards, knowing that doing so may invite legal oversight? These are some of the questions that will be discussed during The Hindu Huddle session titled “AI for all? The dream of a democratised and ethical technology”.

The participants are Astha Kapoor, co-founder, Aapti Institute; Kalika Bali, senior principal researcher, Microsoft Research, India; and Tanvi Lall, Strategy, People+AI, and the conversation will be moderated by Manu Joseph, author, columnist, and screenwriter.

#### GOOGLE'S EXPANDING AI AMBITIONS IN INDIA CLASH WITH U.S. ANTITRUST SCRUTINY

As Google rolls out a sweeping expansion of its Artificial Intelligence (AI) tools across search, advertising, and YouTube in India, its global ad and search business models are simultaneously under intense legal scrutiny in the U.S., raising questions about the balance between innovation and market power.

In India, Google is aggressively integrating generative AI into its advertising ecosystem to reshape how brands reach consumers. At a recent virtual media roundtable, the tech giant highlighted AI-driven advancements aimed at enhancing discovery and commerce.

Google says its tools are helping advertisers achieve tangible results, with platforms like YouTube, especially on connected TVs (CTV), and Shorts becoming key to capturing consumer attention in one of the world's fastest-growing digital markets.

For instance, YouTube now gets over 1 billion hours of global watch time daily, with India contributing significantly. The country's growing preference for CTV over linear TV is pushing advertisers to adopt newer formats. Some ad campaigns on CTV are also seeing nearly 3.6x conversion rate increase. Meanwhile, YouTube Shorts is gaining traction among younger users, with 72% of Indian respondents saying Shorts ads influence their purchase decisions, Google shared during the roundtable.

Beyond video, Google Search is also undergoing a transformation. AI Overviews powered by Gemini, Circle to Search, and Google Lens, which now handle nearly 20 billion monthly queries,



are enabling more predictive and visually-driven search experiences. Google claimed that businesses are seeing results as some brands are reporting higher return on investment from their campaigns. The search giant shared that quick commerce company Zepto reduced content creation time significantly with AI-powered video tools.

Yet while these innovations promise growth for India's digital economy, Google faces mounting pressure in the U.S. over how it has wielded its dominance in the online advertising sector.

### **Multiple blows**

On April 17, U.S. District Judge Leonie Brinkema ruled that Google illegally dominated two markets within advertisement technology and noted that the search giant was liable for "willfully acquiring and maintaining monopoly power" in the advertising technology business by being the middleman between buyers and sellers of ad content.

In the trial that began last August, the second one that Google lost in less than two years, the Department of Justice (DOJ) alleged that Google illegally monopolised the digital ads market through its suite of tools, including those developed by DoubleClick, a company it acquired in 2008 for \$3.1 billion.

At the time of acquisition, DoubleClick was a leader in display ad serving and had a vast network of advertisers and publishers. Integrating DoubleClick's technology allowed Google to enhance its ad targeting and analytics capabilities, solidifying its position in the digital advertising market.

Google rebranded DoubleClick's products under the Google Marketing Platform, including tools like Display & Video 360 and Campaign Manager 360. These platforms have become integral to Google's advertising ecosystem, serving a significant portion of global digital ad transactions.

In the antitrust case, the DOJ claims Google's ad stack, which is used for auctions and transactions, controls 87% of the U.S. market and has stifled competition, inflated costs for advertisers, and squeezed revenue for publishers.

The stakes are high. While this ad tech case represents a smaller portion of Google's revenue compared to its core search business, the ruling by Judge Brinkema could reshape the landscape of digital advertising by breaking up Google's ad business, including the forced divestiture of its DoubleClick assets.

This ruling leads to another hearing to discuss remedies, including selling off the ad exchange unit and on how Google can restore competition in the ad tech market. Google, for its part, has said it will appeal the ruling, noting that, "Publishers have many options and they choose Google because our ad tech tools are simple, affordable and effective."

### **Another case looms**

During the trial, Google also argued that the DOJ is unfairly targeting it in a highly competitive space. The company contends that it has built the most effective system through innovation, not coercion, and that the government is ignoring the broader ad ecosystem, which includes rising competition from platforms like Meta, Amazon, and TikTok.

Meanwhile, in markets like India, Google's AI bets are gaining traction with businesses testing AI tools for cost efficiency and growth. But even as the company positions itself as a partner in digital transformation abroad, its practices back home remain a legal battleground.



Judge Brinkema's ruling comes at a time when another historic antitrust trial is currently underway. The DOJ is prosecuting Google's online search monopoly through its Chrome browser. The government is also attempting to prevent the search giant from utilising its AI products in online search, such as AI Overviews. If the court rules in favour of the DOJ in this trial, Google will be compelled to fundamentally reconsider its AI plans.

#### THE OPTICS OF DARKER WHEN WET

**Q: Why do clothes look dark when immersed in water?**

A: The colour of an object is determined by the spectral composition of the light reflected by it. When a surface is dry, the reflected light rays corresponding to the colour of the surface are superposed with diffuse white light arising out of random scattering resulting from the roughness and irregularities of the surface. In clothes, this superposition tends to fade the corresponding colour.

If clothes are immersed in water, all the kinks and interspaces are filled with water. This minimises scattering on the surface. So the reflected light comes out unsuppressed with the basic hue of the cloth. Hence it looks darker than when dry.

The effect is conspicuous on cotton clothes as the fibres are loosely packed with a lot of microscopic air spaces. This increases the surface area and consequently the scattering of light. Hence cotton clothes look light when dry and dark when wet. The effect is much less pronounced in synthetic and silk clothes as their surfaces are smoother and very little water is absorbed by them.

#### GENDER AND SPACE

In the backdrop of a rising trend of decimation of rights for people who do not fit into the binary of male and female, led by the U.S. administration, a recent U.K. Supreme Court ruling has further polarised the gender debate. In an 88-page judgment, five judges unanimously ruled that only biological women and not transwomen meet the definition of a woman under Britain's Equality Act 2010. In its limited scope of deliberation, it provided a "statutory interpretation" that the terms 'woman' and 'sex' in the Act refer only to a biological woman and the biological sex. A transwoman who has undergone a gender reassignment and has a gender recognition certificate as a woman for all purposes would lose the right to be treated as a biological woman. While the appellants in the case, For Women Scotland, funded in part by gender-critical writer J.K. Rowling, celebrated the verdict saying they had been vindicated, trans supporters and campaigners felt it was a setback for trans inclusion. There has been a considerable change in the resolve of the original respondents, The Scottish Ministers, too with the resignation of Scottish National Party leader Nicola Sturgeon in 2023. She had led the fight to change gender laws so that those with gender recognition certificates could be entitled to the same protections as biological women. But there was a backlash against gender recognition reforms after a trans woman, who had raped two women while she was a man, was initially sent to an all-female prison.

The ruling made the point that the Gender Recognition Act 2004 gives legal recognition to the rights of transgender people on marriage, pensions, retirement and social security, and that the equality law protects them against discrimination. Kishwer Falkner, the chair of the U.K.'s Equality and Human Rights Commission (EHRC), said the court's "clarity" means only "biological women could use single-sex changing rooms and women's toilets, or participate in women-only sporting





events and teams, or be placed in women's wards in hospitals". But as the judges counselled against reading the judgment as a triumph for one or more groups in society at the expense of another, the EHRC should also ensure that unisex or neutral spaces are earmarked for trans people when it issues new guidelines. That holds true for all institutions, offices, hospitals and schools, planning restrictions. The ruling will have an impact on the sporting arena where athletics, cycling and aquatics have already banned transgender women from participating in women's events. As the experience with India's Transgender Persons (Protection of Rights) Act 2019 shows, any changes in the legal framework must factor in the trans people's basic rights or else they will face more strictures.

## WHAT WILL DETERMINE THE PAPAL CONCLAVE?

### The story so far:

Following the death of Pope Francis on April 21, the Catholic Church entered into the sede vacante (the time for which the papal seat is empty). This period culminates in the Papal Conclave, the ancient ritual to elect the next Pope. While deeply spiritual, the Conclave is also a political process — a complex interplay shaped by rules, personalities, historical precedents, and the significant, sometimes controversial, legacy of the previous pontificate.

### How does the Conclave work?

The *Universi Dominici Gregis* (UDG), an apostolic constitution, governs the process. It dictates strict procedures, and demands secrecy and complete isolation within the Vatican City. This enforced secrecy aims to minimise external influence. However, it simultaneously creates a unique internal political environment. Here, influence hinges on pre-existing relationships, sharp negotiation, and the persuasive efforts of respected figures — the 'great electors' — working behind the scenes to build alliances and steer votes. Sequestered, cardinal electors are incentivised to make their choice based on their own conscience, free from external lobbying. Also significant is the fact that a successful candidate requires a two-thirds majority. This necessitates consensus-building, favours compromise and candidates acceptable across different blocs, preventing any narrow faction from dominating.

Only cardinals under 80 years, at the time of the Pope's death or resignation, have voting rights. However, cardinals over the age-limit can still participate in pre-Conclave general congregations, leveraging their experience and clout, potentially swaying less experienced cardinals before voting even begins.

The current electorate was significantly shaped by Pope Francis; he appointed approximately 80% (around 108 of the 135 expected attendees) of the voting cardinals. He frequently exceeded the nominal 120-electoral limit set by Paul VI — a clear exercise of papal prerogative, allowing a Pope to rapidly influence the body choosing his successor.

### What are the major political divisions among electors?

Significant ideological differences mark the College of Cardinals, broadly reflecting the intense debate over Pope Francis's legacy and the Church's future path. Broadly there are two major camps — reformist and conservative. The reformist/progressive faction supports Pope Francis's vision. They emphasise pastoral theology (more practical application) over rigid doctrine, encourage synodality (a more consultative Church), prioritise social justice — poverty, migration,



climate change — and favour greater inclusion of women and other marginalised groups such as LGBTQ+ Catholics.

Conversely, the conservative/traditionalist faction has concerns about the perceived doctrinal ambiguity and the departure from tradition during Pope Francis's pontificate. This faction stresses the need for upholding liturgical tradition (including the restricted pre-Vatican II Latin Mass), clear doctrinal teaching, and seeks a reaffirmation of established moral norms. Some desire a distinct "course correction".

However, a broad compartmentalisation misses nuance. Such a generalisation is complicated by numerous cardinals, especially appointees from the Global South, who defy easy categorisation. While many of these cardinals hold socially conservative views (evident in the strong resistance by African bishops to *Fiducia Supplicans*, the document allowing blessings for same-sex couples), they also resonate deeply with Pope Francis's focus on social justice, poverty, environmentalism, and anti-colonialism. This complex mix makes their voting patterns less predictable. It positions them as a crucial potential 'swing' bloc, absolutely necessary for building a two-thirds majority.

#### **How has the geographical balance of power shifted?**

Pope Francis deliberately reshaped the College of Cardinals to make it less European and more reflective of the Church's actual global distribution. He frequently bypassed traditional European power centres and appointed cardinals from the "peripheries" — nations which were never before represented. The result has been profound. Europeans now constitute less than half (approx. 39.3%) of cardinal electors — a first in centuries, dropping significantly from around 51-52% in 2013. While still the largest single regional bloc, with Italy retaining the most electors, Europe's historical dominance has clearly diminished.

Conversely, other regions have grown: Asia-Pacific accounts for about 17%, Latin America 15.6%, and Africa 13.3%. This globalised composition introduces new political dynamics. Cardinals from the Global South bring perspectives deeply shaped by poverty, migration, interreligious dialogue (especially with Islam), environmental challenges, and the realities of Church growth. Their voices could shift discussions away from solely European concerns. This structural shift increases the plausibility of a non-European Pope and demands cross-regional coalition-building to reach the two-thirds threshold. Latin America, however, remains somewhat underrepresented relative to its large share of the global Catholic population.

#### **What issues will likely dominate the discussions?**

The cardinals' deliberations will inevitably grapple with several pressing issues revealing underlying political and theological tensions. Synodality, perhaps Pope Francis's defining project, which envisions a Church emphasising listening, dialogue, and shared responsibility, faces a highly contested future. Supporters see it as an essential renewal; critics fear it undermines authority or dilutes doctrine. A candidate's stance here will be a major indicator.

Navigating contentious social and moral questions also remains a critical challenge. Pope Francis fostered a more pastoral tone regarding LGBTQ+ Catholics, culminating in the controversial *Fiducia Supplicans*, which faced strong resistance. Balancing pastoral outreach with traditional doctrine is a tightrope the next Pope must walk.

The role of women is another key issue. Despite Pope Francis appointing more women to leadership and allowing them Synod votes, calls for greater inclusion persist, including the



unresolved question of women deacons. Sensitive topics like clerical celibacy and bioethics also loom. Further, the global clergy abuse crisis continues its devastating impact on the Church's credibility. Despite reforms like Vos Estis Lux Mundi (norms established by Pope Francis to tackle sexual abuse), criticisms regarding inconsistent enforcement and accountability linger. Cardinals will likely scrutinise candidates' commitment to transparency, bishop accountability, and survivor support — a fundamental test of leadership.

Finally, the papacy's role in geopolitics and internal reform is crucial. The next Pope must navigate conflicts (Ukraine, Gaza), global tensions (U.S.-China), and provide moral leadership on climate change and migration. Diplomatic skill is essential, as is handling sensitive agreements like the controversial Vatican-China deal (allowing the Chinese Communist Party to have a say in bishop appointments, and being criticised for compromising religious freedom). Internally, ensuring the continuation of financial reform in the Vatican, especially after the London property scandal trial, and demonstrating commitment to transparency remain key concerns.

#### **Why is the outcome considered unpredictable?**

Vatican observers have highlighted that this Conclave will be of an uncertain nature. As strict secrecy prevents any external observation of the shifting dynamics and intense alliance-building within the Sistine Chapel, one won't be able to call the result until the white smoke above the Vatican dispels all doubts. The two-thirds majority rule necessitates broad consensus, often pushing cardinals beyond initial preferences, towards candidates capable of uniting disparate factions. Also, the current college's diverse composition, with many electors unfamiliar with one another due to Pope Francis's appointments from the peripheries, adds another layer of unpredictability.

The famous saying, "He who enters the Conclave as Pope, leaves it as a cardinal" suggests that there are no front-runners for Saint Peter's throne. Ultimately, the choice rests on political manoeuvring, individual discernment, and, for believers, the subtle guidance of the Holy Spirit behind the Conclave's locked doors.

### **AUSTRIA TRIALS DNA TESTING TO UNCOVER HONEY FRAUD**

At a laboratory in Austria's mountainous Tyrol province, scientists are DNA testing about 100 honey samples a month to learn about their composition — and in some cases to determine whether they have been adulterated. With fake honey flooding markets, and only a few European laboratories running such analysis, the small Austrian company Sinsoma began offering the tests two years ago. "It is really something new for the honey market," said Corinna Wallinger, head of sales at Sinsoma. It is essential that technology "always moves forward — just as the counterfeiters" do, she added.

Honey cannot have ingredients such as water or inexpensive sugar syrups — which might boost its volume — added to it, according to EU legislation. But tests have shown that is common practice. Between 2021 and 2022, 46% of the honey tested under an EU investigation as it entered the bloc was flagged as potentially adulterated, up from 14% in the 2015-17 period. Of the suspicious consignments, 74% were of Chinese origin.

#### **Beekeepers' livelihoods threatened**

Seeking to better detect fraud, Austria's health and food safety agency (AGES) used DNA testing for the first time this year and is still evaluating the results.



European supermarket chain SPAR also ordered DNA tests for its honey. The chain put its honeys — taken off the shelves late last year in Austria for testing — back after they passed DNA tests and another analysis. Besides cheating consumers, fake honey threatens the livelihood of beekeepers, who struggle to compete with the far lower prices of imported honey — often blended from various countries — and are demanding more effective testing.

While the European Union is the world's top honey producer after China, it is also the second-biggest importer after the United States. Most of the bloc's honey imports come from Ukraine, China and Argentina, according to EU data.

An EU directive adopted last year stipulates that honey labels from mid-2026 must detail the countries of origin, as opposed to merely referencing a "blend of EU and non-EU honeys".

Beekeepers like Mr. Kopetzky hope the new rule will raise consumer awareness.

Brussels also set up a group of experts, with a mandate until 2028, to "harmonise methods to detect adulteration in honey and trace the product back to the harvesting producer or importer".

Austria's Sinsoma has specialised in DNA testing. "Honey is full of DNA traces, of information from the environment where bees collected the nectar. Every honey has a unique DNA profile," Ms. Wallinger said. When a honey sample lacks a wide range of DNA traces or for example contains a high proportion of DNA traces from rice or corn — which bees do not frequent — this indicates a honey is not genuine, she added.

Experts warn the DNA method can detect certain types of fraud but not all.

## OLDEST ANT

### Which is the oldest ant ever discovered?

A hell ant species that lived 113 million years ago in northeastern Brazil was recently discovered. The hell ant, which was preserved as a rock impression in limestone, is a member of Haidomyrmecinae, an extinct subfamily that only lived during the Cretaceous period. These ants had highly specialised, scythe-like jaws that they likely used to pin or impale prey. The existence of hell ant in Brazil shows that ants were already widely distributed and diversified early in their evolution. These ants had specialised features. Unlike modern ants with laterally moving mandibles, this species possessed mandibles that ran forward parallel to the head and facial projection anterior to the eyes. The intricate morphology suggests that even these earliest ants had already evolved sophisticated predatory strategies. While the ant species provides the most complete evidence for the early evolution of ants in the fossil record, the specialised feature also raises broader questions about the evolutionary pressures.

## HOW DID WHO NATIONS STRIKE A PANDEMIC DEAL?

### The story so far:

After more than three years of intense negotiations involving over 190 countries, the World Health Organization (WHO) has finalised a historic pandemic accord aimed at preventing and responding to future global health crises. The agreement was reached during a marathon session at the WHO headquarters in Geneva and concluded in the early hours of April 16, 2025.





### **Why was it needed?**

Tedros Adhanom Ghebreyesus, WHO director-general, called it “a significant milestone in our shared journey towards a safer world,” emphasising the importance of global solidarity in facing health emergencies. The agreement comes five years after the outbreak of COVID-19, a pandemic that laid bare the vulnerabilities of international health systems. With the growing threat of infectious diseases such as H5N1 bird flu, mpox, measles, and Ebola, the sense of urgency among negotiators was palpable.

The centrepiece of the newly adopted agreement is the proposed Pathogen Access and Benefit-Sharing System (PABS), which is designed to facilitate the swift sharing of pathogen data among nations and with pharmaceutical companies. This data-sharing mechanism is expected to play a critical role in accelerating the development of vaccines, diagnostics, and treatments during future pandemics. The agreement outlines a system where cooperation becomes not just ideal, but operationally necessary, enabling scientific collaboration at an unprecedented pace. It also includes provisions to ensure fair and equitable access to pandemic-related health products, particularly for low- and middle-income countries that were left behind during the COVID-19 response.

The COVID crisis had seen wealthier nations securing vast supplies of vaccines, testing kits, and protective equipment, while many poorer countries struggled with shortages and delays. The new deal directly addresses these imbalances by introducing guidelines aimed at preventing such inequities from recurring.

Technology transfer was one of the most debated aspects of the agreement. Developing countries pushed for language that would mandate the sharing of critical health technologies during pandemics. However, countries with powerful pharmaceutical industries resisted such mandatory provisions, citing concerns about intellectual property rights and innovation incentives. A compromise was eventually reached, with the final text stating that any technology transfer must be “mutually agreed,” a clause designed to balance the needs of global equity with the business realities of pharmaceutical innovation. The 32-page document was marked entirely in green, indicating complete consensus among the participating countries.

### **What gaps did the pandemic expose?**

The COVID-19 pandemic exposed serious gaps in the world’s ability to mount a coordinated response to global health emergencies. These gaps included fragmented and delayed data sharing, unequal access to vaccines and other medical tools, lack of standardised protocols, and limited international accountability. Many nations acted in isolation, often hoarding resources or closing borders in panic, which hindered collective efforts and prolonged the pandemic’s impact. Although initiatives like COVAX attempted to create more equitable access to vaccines, they were hampered by underfunding, supply chain challenges, and a lack of global cooperation.

Public health experts have long warned that without a globally accepted and legally grounded framework, the world risks repeating the same mistakes in the face of future outbreaks. In an increasingly interconnected world, where viruses can cross borders in hours, pandemics are no longer national crises — they are shared threats.

### **What were the key challenges?**



Negotiations were deeply complex and often stalled due to diverging national interests. Article 11 of the agreement, which deals with the transfer of pandemic-related technologies, became a major sticking point. Low- and middle-income countries argued that equitable access to life-saving innovations like vaccines, antivirals, and diagnostics could not be guaranteed unless there was a mechanism for sharing intellectual property and manufacturing know-how. On the other hand, nations with large pharmaceutical industries, particularly in Europe, opposed any language that would make such transfers obligatory. They contended that mandatory provisions could undermine the financial incentives needed for rapid pharmaceutical innovation and would interfere with existing international trade laws. The compromise to allow “mutually agreed” transfers reflects a diplomatic middle ground, though some critics argue it lacks enforceability and may not protect vulnerable populations.

#### **Will it shape global cooperation?**

One of the crucial aspects of the agreement is its strong emphasis on equity. The WHO chief highlighted that the text reflects a broader commitment to fairness in access, especially for countries that often bear the brunt of health crises without the resources to respond adequately. The agreement acknowledges that pandemic preparedness is not just about stockpiling vaccines or hospital beds; it's about establishing a framework for transparency, trust, and timely action. For lower-income countries, the agreement promises capacity building and international support to strengthen health infrastructure and logistics. Although equity is central to the agreement's language, its realisation will depend heavily on political will and practical implementation. Helen Clark, former Prime Minister of New Zealand and co-chair of the Independent Panel for Pandemic Preparedness and Response, noted that this accord shows that global multilateralism is still possible — even in a fragmented geopolitical environment. David Reddy, director-general of the International Federation of Pharmaceutical Manufacturers and Associations (IFPMA), remarked that while the agreement is a useful starting point, certain conditions must be met to maintain industry participation in pandemic preparedness. He emphasised the need for legal certainty and protection of intellectual property if companies are to continue investing in the research and development of high-risk, high-cost medical solutions. The industry fears that poorly designed policy interventions could discourage innovation or delay crucial products.

#### **What lies ahead?**

While the agreement has been finalised, member states will be expected to integrate its principles into national laws, establish financing mechanisms, and develop monitoring systems that ensure compliance. The agreement will be presented for formal adoption at the WHO's annual assembly.

#### **Do you know**

Following more than three years of arduous negotiations, member states of the World Health Organization (WHO) last week agreed on a draft of a legally binding treaty designed to tackle future pandemics better. The deal is expected to be ratified at the World Health Assembly in May.

- The pandemic treaty, which was agreed upon without the United States, is the only the second legally binding accord in the WHO's 75-year history, the first being the 2003 tobacco control treaty.