



# CURRENT AFFAIRS for UPSC

2nd to 8th November 2025

**DreamIAS**



## INTERNATIONAL

### TRUMP TURNS TO AI FOR MESSAGING; DEEPFAKES GLORIFY HIM, ATTACK RIVALS

In the glittering haze of digital wizardry, where pixels dance like courtiers at a royal court, Donald Trump has ascended to a new pantheon of self-aggrandisement. Barely a week into November 2025, the 47th President of the United States has unleashed a barrage of AI-generated deepfakes that cast him not merely as a leader, but as an invincible archetype—Superman soaring through American skies, a medieval king dispensing justice, a fighter pilot outmanoeuvring foes. These synthetic spectacles, splashed across social media platforms, do more than entertain; they glorify the man at the expense of reality itself, transforming political discourse into a carnival of distortion. As one viral clip depicts Trump in a cape, vanquishing cartoonish villains modelled after Barack Obama and Kamala Harris, it begs the question: has the Oval Office become a Hollywood backlot, with truth as the first casualty?

This is no isolated prank. Reports from early November reveal a systematic deployment of deepfake technology by the Trump administration to amplify his narrative. On platforms like X and Truth Social, videos show the President morphing into historical icons or superheroes, while rivals are reduced to buffoons—Obama as a bumbling sidekick, Democratic leaders in absurd sombreros ranting about phantom policies. One particularly egregious



example, shared widely on X, features House Minority Leader Hakeem Jeffries in a sombrero, peddling fabricated claims about "free healthcare for illegal aliens," a lie that federal law debunks outright. Such content, clocking millions of views, isn't mere meme-making; it's a calculated assault on credibility, designed to rally the base through ridicule rather than reason.

At its core, this trend exposes a perilous narcissism in Trump's playbook. By leveraging AI tools—affordable and accessible via apps like Midjourney or custom generators—his team crafts an alternate reality where he is eternally triumphant. A Barron's report likens it to a "parallel universe," where opponents are not debated but demonised as criminals or clowns. This glorification serves a dual purpose: it burnishes Trump's image as an unassailable strongman, while sowing chaos among critics. Recall the 2024 campaign's AI "slop war" with California Governor Gavin Newsom, or the deepfake robocalls mimicking Joe Biden to suppress New Hampshire voters—precursors to today's deluge. In an era where 70 per cent of Americans struggle to discern real from fake media, according to Pew Research, such tactics erode the very foundations of informed consent.

Yet, the implications ripple far beyond the White House. In a democracy predicated on shared facts, deepfakes threaten to fracture the public square into echo chambers of illusion. Trump's embrace of AI isn't innovative; it's insidious, normalising a tool that authoritarian regimes—from Russia to Myanmar—have weaponised to manipulate elections. As Arab News notes, these videos "trash rivals" with ethnic caricatures, veering perilously close to hate speech under the guise of humour. For global observers, particularly in India where deepfake scandals have toppled



reputations and incited communal strife, this is a stark warning. Our own elections in 2024 saw AI-generated voices mimicking leaders to spread disinformation; Trump's antics could embolden similar excesses worldwide, turning ballots into battlegrounds of bytes.

What recourse remains? Regulation, for one. The EU's AI Act, with its mandates for watermarking synthetic media, offers a blueprint, yet America's patchwork laws—banning deepfakes in only a handful of states—lag woefully. Platforms like Meta have imposed labels on political AI content since 2024, but enforcement is spotty. Congress must act swiftly: a federal Deepfake Disclosure Act, requiring transparency in political ads, could stem the tide without stifling creativity. Meanwhile, voters bear a burden—to scrutinise, fact-check, and demand authenticity from leaders who peddle fantasies.

Trump's deepfake dalliance is but a symptom of a deeper malaise: the commodification of truth in the attention economy. As he revels in his digital diadem, we must reclaim the narrative. In the words of Hakeem Jeffries, responding to one such video: "Say it to my face." Until politicians confront each other—and us—with unfiltered candour, the AI mirage will persist, glorifying egos while dimming the light of democracy. It's time to unplug the illusion and restore the real.

#### TRUMP'S NUCLEAR TEST THREAT RISKS UPENDING GLOBAL TEST BAN REGIME

On October 29, just minutes before his meeting with Chinese President Xi Jinping in Busan, South Korea, U.S. President Donald Trump said the U.S. would "start testing our nuclear weapons on an equal basis with other nations". Back in the U.S., Mr. Trump repeated his claims in an interview. "Russia is testing; China is testing, but they don't talk about it... And certainly North Korea has been testing. Pakistan has been testing."

Mr. Trump is correct about North Korea, which has tested multiple nuclear weapons in the new century. But other nuclear powers, including the U.S., China and Russia, have maintained a moratorium on weapons testing since the 1990s. They, however, have tested weapons that can carry nuclear warheads. Mr. Trump's announcement came immediately after Russia announced that it successfully tested a nuclear-powered cruise missile (Burevestnik) and an undersea torpedo (Poseidon). Both are designed to overcome American missile defence systems and can carry nuclear warheads. But those were not nuclear detonation tests.

The last time Russia tested a nuclear weapon was in 1990, when the Soviet Union was still alive. The last American nuclear bomb test was held in 1992, and the last Chinese test was in 1996. In 1996, the Comprehensive Test Ban Treaty (CTBT) banned all nuclear tests, but it never came into force as the required number of countries did not ratify it. The U.S. and China have signed the treaty but never ratified it. Russia had signed and ratified it, but in 2023, amid mounting tensions with the U.S., it decided to de-ratify it.

#### Debate in the U.S.

Russia remains the world's largest nuclear power with an inventory of 4,309 warheads, according to the Federation of American Scientists. The U.S. comes second with 3,700 weapons, while China is believed to have more than 1,000 warheads. Historically, the U.S. has carried out the most number of nuclear tests — 1,030 detonations, followed by the Soviet Union (715) and the French (210). China has conducted more than 45 nuclear tests. In total, there have been 2,056 nuclear tests since 'Trinity', the first nuclear detonation by the U.S.



In the U.S., the debate on whether the country should resume nuclear tests has been raging for some time. Those who support tests argue that it is important to bolster the country's nuclear deterrent — tests can prove that nuclear arsenals actually work, and provide critical data allowing countries to build more powerful, compact and specialised warheads.

On November 2, U.S. Secretary of Energy Chris Wright said the U.S. would not resume nuclear weapons tests but would conduct “subcritical tests”. A subcritical test uses conventional explosives to compress fissile material (Plutonium 239), without triggering nuclear chain reaction or explosion. But Mr. Trump, in another interview, clearly said, “We are going to test nuclear weapons like other countries do.”

### **Devastating effects**

The 1963 Partial Test Ban Treaty, signed by the Soviet Union, the U.S. and the U.K., banned all nuclear test detonations in the atmosphere, outer space and underwater. Since then most tests were conducted underground.

Even subterranean tests, experts say, could cause devastating environmental damages, including total destruction of ecosystems at test sites and contamination of soil, air and water. Radioactive contamination could affect vast areas for hundreds of years.

If the U.S. starts testing weapons, it could cause a domino effect on other nuclear powers. There were reports that China had made preparations at Lop Nur, where Mao detonated China's first bomb in 1964, in case it decides to resume testing. Russia was unambiguous in its reaction. “If they begin testing, naturally we will do the same,” Russia's Security Council chief Sergey Shoygu said on October 31.

If the U.S. and Russia resume tests, China could do the same. And if China does it, India will come under internal pressure to start testing its weapons. Then Pakistan may not stand out. A new phase of nuclear arms race would begin, with long-term consequences for humanity.

## **SHUTDOWN SHOWDOWN**

The U.S. federal government shutdown has entered its 39th day, making it the longest such closure in American history, with a sharp impact on nearly 1.4 million federal employees who have been furloughed without pay, not to mention countless more affected by the suspension of a range of public services. The latest blow to the American public came on the heels of an announcement that major U.S. airlines would be reducing flights at more than 40 airports this week owing to a shortfall in air traffic controllers, leading to a heightened threat to air safety. The shutdown has also crippled normal functions in food and nutrition benefits including food stamps for the poor, early learning programmes for low-income families, services related to the Internal Revenue Service, national parks and social services. At the heart of the debate that led to the congressional stalemate was the expiration of subsidies for health insurance premiums purchased via the Affordable Care Act marketplace. At this point there would appear to be a glimmer of hope for resolution of the partisan logjam as the Senate is expected to vote on an amended budget bill following Republicans presenting a fresh proposal, which includes a short-term stopgap funding measure. Also bundled is a potential one year of fiscal support for food assistance, veterans affairs and military construction.

However, the deeper malaise of bitter polarisation in the political discourse persists, even if painful shutdowns come and go. Mr. Trump certainly bettered his first term election victory when

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he galloped into the White House in 2024. Despite the “red shift” that handed him a win in every swing State last year, liberals and progressives have certainly not thrown in the towel; rather, they have regrouped to make a strong showing in the recent mayoral, gubernatorial and other State-level elections. At stake are the most poignant of policy issues impacting ordinary Americans, including jobs, tariffs and inflation, but also pressing questions on immigration, health care and education. While it is only to be expected that American society, known for fiercely guarding the rights guaranteed in the Constitution’s First Amendment, will regularly and vociferously express divergent views on these critical subjects, the substantive core of good governance will be lost to many unless the spirit of bipartisanship flickers once again amidst the shambles of congressional dysfunction. In this context the debilitation wreaked by the ongoing shutdown only shows that there is a need for a new normal in U.S. politics, a humane, pragmatic middle path between unbridled Trumpism and the old world of progressive America.

## WINTER OF DISCONTENT

Democrats have swept the first major election in the U.S. during the second term of President Donald Trump, indicating a degree of frustration with the ongoing federal government shutdown but also signalling a broader barometric downturn in the approval ratings of his administration’s policies. In a historic first, Zohran Mamdani, a Uganda-born, Muslim Democratic Socialist New York State Representative, scored a decisive victory over former Governor Andrew Cuomo and Republican candidate Curtis Sliwa, garnering over one million votes — 50.4% of the total polled — to secure the post of Mayor of New York. Similarly, Democrats Abigail Spanberger and Mikie Sherrill won gubernatorial races in Virginia and New Jersey, respectively, making them the first female Governor and Democratic female Governor of their States. Additionally, Indian American Democrat Ghazala Hashmi is projected to become Virginia’s next Lieutenant Governor and is on track to become the first Muslim woman elected statewide. In California, voters approved Democratic Governor Gavin Newsom’s campaign to redraw the State’s congressional map in a manner that would help the party secure five additional seats in the U.S. House of Representatives in the 2026 midterm elections. Mr. Trump has blamed the Republican setback on the fact that he was not on the ballots and on the government shutdown, which he has repeatedly faulted Democrats for. However, what is now officially the longest federal government closure raises questions about his ability to bring lawmakers together to strike a deal in Congress for the betterment of the American people.

While each of these results offers a snapshot of voter preferences within limited geographies, it also serves as a broader referendum on the Trump administration’s policies, especially regarding questions of the economy, jobs and cost of living. Mr. Mamdani ran on a platform focused on issues close to the heart of the ordinary American — affordable housing, broader offerings for childcare, greater support for immigrant communities, and free public transport. Mr. Trump responded to his campaign by vowing to slash federal funding if Mr. Mamdani prevailed as Mayor. After his victory, Mr. Mamdani hit out at the involvement of Mr. Trump’s family in the federal government. Indeed, Mr. Trump’s approval rating has dropped to its second-term low, with voters suggesting that affordability was their main concern. The question is whether he will now double down on the MAGA agenda, for example by accelerating immigration raids and deportations despite resistance by States, or by pressing on with the global tariff war despite costs faced by U.S. importers. Whichever path he chooses, the Democrats have put the White House on notice, and 2026 will be a further indicator of voter mood in this context.



## US AND CHINA TAKE GREAT LEAP OF FAITH, DECIDE TO OPEN MILITARY CHANNELS

In a significant outreach to Beijing within days of the meeting between President Donald Trump and President Xi Jinping, US Secretary of War Pete Hegseth said Sunday that he met China's Minister of National Defense Admiral Dong Jun and both agreed to strengthen communication, maintain stability in bilateral ties and "set up military-to-military channels to deconflict and de-escalate any problems that arise".

— Hegseth said he met Dong in Malaysia and they spoke again Saturday. He said Trump's historic "G2 meeting" with Xi — the leaders met in the South Korean city of Busan on October 30 — had "set the tone for everlasting peace and success for the US and China".

— Washington's outreach to Beijing, after years of commitment to the Indo-Pacific where it joined hands with its allies and partners to push back against China's assertive behaviour, will be closely watched given the tensions over Taiwan, the maritime disputes in the South China Sea and the larger region where US troops and warships have considerable presence.

— Beijing's belligerence under Xi, from the South China Sea to the Ladakh frontier, made the world sit up and the US joined hands with Japan, India and Australia to reactivate the Quad grouping as a counter.

— In fact, the Quad was revived by Trump during his first presidential term in 2017, when his administration framed China as a strategic threat and rival – for the first time.

— Washington's engagement with Beijing at the military level, where it will now be in talks with the Chinese military, will be watched with some concern in capitals of the region, especially in Delhi, Tokyo and Canberra.

— Following Hegseth's announcement Sunday, sources in Delhi said India will not want to jump to conclusions about the defence engagement between the US and China, and will assess the purpose behind the engagement. This, the sources said, may work in productive ways as well.

— Delhi and Washington have just signed a 10-year Framework for the US-India Major Defence Partnership. Rajnath Singh called it "a signal of our growing strategic convergence" and said it "will herald a new decade of partnership".

— He said defence remains a major pillar in bilateral relations between the two sides. The partnership, he said, is critical for ensuring a free, open and rules-based Indo-Pacific region – a reference to efforts aimed at countering China's assertive behaviour in the region.

### **Do You Know:**

— Kuala Lumpur, the capital of Malaysia, was the venue of the 12th ASEAN Defence Ministers' Meeting — Plus (ADMM-Plus). It was on the sidelines of this meeting Friday that Hegseth and Defence Minister Rajnath Singh signed a 10-year Framework for the US-India Major Defence Partnership, signalling stable ties between the two countries in the defence sector while they negotiate a trade deal and the thorny issue of a tariff penalty by Washington over Delhi's purchase of Russian oil.

— ADMM is the highest defence consultative and cooperative mechanism in ASEAN (Association of Southeast Asian Nations). ADMM-Plus is a platform for ASEAN member states (Brunei, Cambodia, Indonesia, Lao PDR, Malaysia, Myanmar, Philippines, Singapore, Thailand, Timor Leste



& Vietnam) and its eight Dialogue Partners (India, US, China, Russia, Japan, South Korea, Australia & New Zealand) to strengthen security and defence cooperation.

— India became the dialogue partner of ASEAN in 1992 and the inaugural ADMM-Plus was convened in Hanoi, Vietnam on October 12, 2010. Since 2017, ADMM-Plus is held annually to bolster the defence cooperation among ASEAN and plus countries.

#### U.S. CAN HELP ALLIES COUNTER 'AGGRESSIVE' CHINA: HEGSETH

Pentagon chief Pete Hegseth on Saturday took aim at Beijing over an increase in “destabilising actions” in the South China Sea and committed to support Southeast Asian countries with technology to help them respond jointly to Chinese threats.

On a second day in Kuala Lumpur packed with meetings that included multilateral talks with allies Australia, Japan and the Philippines, Mr. Hegseth proposed to ASEAN Defence Ministers the building of shared maritime domain awareness and said China had shown a lack of respect and threatened their territorial sovereignty. “You live it on the threats we all face from China’s aggression and course of actions in the South China Sea and elsewhere,” he said. “We need to develop our joint capabilities to respond, and this includes being able to monitor maritime conduct and develop the tools that allow us to respond quickly”.

“No one can innovate and scale like the United States of America, and we’re eager to share those capabilities with allies and partners,” Mr. Hegseth added.

##### **Sovereignty claims**

Mr. Hegseth’s remarks came a day after the armed forces of Australia, New Zealand, the Philippines and the U.S. held a drill in the South China Sea, a patrol that a Chinese military spokesperson said “seriously undermined peace and stability”.

Beijing claims sovereignty over almost the entire South China Sea via a line on its maps that overlaps with parts of the exclusive economic zones of Brunei, Indonesia, Malaysia, the Philippines and Vietnam.

#### CHINA LAUNCHES NEW AIRCRAFT CARRIER FUJIAN AS IT SEEKS TO PROJECT POWER

China has commissioned its latest aircraft carrier after extensive sea trials, state media reported on Friday, adding a ship that experts say will help what is already the world’s largest navy expand its power farther beyond its own waters.

The official Xinhua news agency said the Fujian had been commissioned on Wednesday at a naval base on southern China’s Hainan island in a ceremony attended by President Xi Jinping.

The Fujian is China’s third carrier and the first that it both designed and built itself. It is perhaps the most visible example so far of Mr. Xi’s massive military overhaul and expansion that aims to have a modernised force by 2035 and one that is “world class” by mid century.

For China’s navy, one goal is to dominate the near waters of the South China Sea, East China Sea and Yellow Sea around the so-called First Island Chain, which runs south through Japan, Taiwan and the Philippines. But deeper into the Pacific, it also wants to be able to contest control of the



Second Island Chain, where the U.S. has important military facilities on Guam and elsewhere, said Greg Poling, director of the Asia Maritime Transparency Initiative at the Center for Strategic and International Studies.

China's first aircraft carrier, the Liaoning, was Soviet-made and its second, the Shandong, was built in China but based on the Soviet model. Both use older-style ski-jump type systems to help planes take flight.

The Fujian skips past the steam catapult technology used on most American carriers to employ an electromagnetic launch system found only on the latest U.S. Navy Ford-class carriers. The system causes less stress to the aircraft and the ship, allows for more precise control over speed and can launch a wider range of aircraft than the steam system.

Numerically it only has three carriers compared to the U.S. Navy's 11, and while China's carriers are all conventionally powered, the U.S.'s are all nuclear powered — they can operate almost indefinitely without being refuelled, increasing their range.

## SITUATION IS SPIRALLING OUT OF CONTROL: DRIVERS OF CONTINUED CONFLICT IN SUDAN

In 2019, an image of a Sudanese woman standing atop a vehicle and addressing a crowd went viral online as a powerful symbol of hope in a country beset with conflict. Soon, the 30-year regime of President Omar al-Bashir collapsed, but what followed was further division and a war that continues.

— On Tuesday, United Nations General Secretary Antonio Guterres said the situation in Sudan was "spiralling out of control" after a paramilitary force seized the city of el-Fasher in Darfur.

— Speaking in Qatar, Antonio Guterres called for an immediate ceasefire in the two-year conflict that's become one of the world's worst humanitarian crises.

— Primarily, competing power-grabbing attempts have contributed to the instability. An interim civilian-military government fell in 2021, following a coup led by military generals Abdel Fattah al-Burhan, the head of the Sudanese Armed Forces (SAF), and Mohamed Hamdan Dagalo, the head of the paramilitary Rapid Support Forces (RSF).

— While they promised elections by 2023, disagreements on the role of the RSF and the SAF led to a fallout. Since then, the country has witnessed a civil war that has left tens of thousands of people dead.

— The RSF has been accused of targeting the Massalit and other non-Arab people. Recently, the RSF's advances have been accompanied by reports of "widespread executions", Guterres said.

### **Do You Know:**

— Sudan's current conflict is not without historical precedent. Over the past seventy years, the country has experienced twenty attempted coups, ranking second only to Bolivia in the frequency of such events, reflecting a deeply entrenched pattern of political instability. In addition, Sudan has endured two protracted civil wars, the most recent of which culminated in 2011 with the secession of South Sudan, now recognised as Africa's newest sovereign state.



— The country's tumultuous past has laid the foundation for the current crisis, creating a vicious cycle of conflict and instability. Therefore, any efforts to establish lasting peace in Sudan must be based on a comprehensive understanding of the complex and interrelated historical, political, and societal factors that continue to shape the country's volatile environment.

— The underlying causes of the conflict are both multifaceted and deeply entrenched. Primary factors that have contributed to the outbreak of the current crisis include the pronounced politicisation of ethnic and regional identities, persistent challenges related to democratisation and governance, and the significant influence of external actors.

— While most violent conflicts have occurred during the post-colonial period, the colonial era played a decisive role in laying the foundations for many of these enduring issues.

#### TRUMP'S AFRICAN RECKONING: A PERILOUS DANCE OF PREJUDICE AND POWER

In the sweltering cauldron of global geopolitics, US President Donald Trump's latest foray into Africa has ignited a firestorm that threatens to scorch diplomatic bridges long in the mending. Barely weeks into November 2025, Trump's pronouncements—threatening military intervention in Nigeria over alleged Christian persecutions and boycotting South Africa's G20 summit citing a phantom "white genocide"—reveal not just a penchant for bombast, but a troubling revival of imperial hubris. As the world grapples with multipolar shifts, these controversies underscore a US foreign policy adrift, one that prioritises domestic applause over continental realities. From Abuja to Johannesburg, African voices are rising in unison, rejecting what many see as neocolonial meddling dressed in the garb of human rights.

Consider Nigeria first, where Trump's rhetoric has veered perilously close to the absurd. On 3 November, he ordered the US military to "plan for action" against Islamist militants, accusing the Nigerian government of abetting the slaughter of "thousands" of Christians in a supposed genocide. Echoing unsubstantiated claims from right-wing echo chambers, Trump labelled Nigeria a "Country of Particular Concern," vowing to slash aid and deploy troops "guns-a-blazing" if President Bola Tinubu fails to act. Yet, as the African Union (AU) Chairperson Mahmoud Ali Youssouf swiftly countered two days ago, there is "no genocide" in northern Nigeria—Boko Haram's victims are predominantly Muslims, not a targeted Christian purge. Human rights monitors like the Armed Conflict Location & Event Data Project (ACLED) corroborate this: violence in the northeast stems from jihadist insurgencies and resource clashes between herders and farmers, afflicting all faiths without disproportionate religious bias.

Nigeria's response has been a masterclass in measured defiance. Tinubu, a Muslim leader in a nation split evenly between Christians and Muslims, emphasised religious tolerance and invited joint US-Nigerian operations against insurgents, but on sovereign terms. An advisor, the Christian pastor Daniel Bwala, underscored that jihadists prey on all Nigerians indiscriminately. This is no mere diplomatic nicety; it's a bulwark against external overreach. Trump's threats, devoid of evidence, risk alienating a key partner in counter-terrorism, where the US has invested billions in aid. The Pentagon's own assessments, leaked in early November, admit limited viable options for intervention—deploying carriers to the Gulf of Guinea won't quell entrenched insurgencies. Instead, they expose the hollowness of "America First" when it flirts with unilateral adventurism.

Parallely, South Africa's saga unfolds as a mirror of racial anxieties Trump has long exploited. Announcing a US boycott of the 22-23 November G20 in Johannesburg, Trump decried the host as a "total disgrace," alleging Afrikaner farmers face slaughter and land confiscation. This revives his



debunked "white genocide" trope, peddled since his first term, now amplified by granting asylum to 59 white South Africans in May and slashing refugee quotas to favour Afrikaners via Executive Order 14204. The trigger? President Cyril Ramaphosa's Expropriation Act, aimed at redressing apartheid's legacy where whites hold 75% of private land. Ramaphosa, in a White House meeting, debunked the claims with wry humour, pointing to white tycoons like Johann Rupert as proof no pogrom rages. Historians like Saul Dubow dismiss it as fantasy, rooted in far-right paranoia rather than fact.

These twin controversies are no coincidence; they form a tapestry of Trump's worldview, where Africa's complexities are reduced to binary battles—Christians versus militants, whites versus the "majority." It's electoral theatre for his base, evoking memories of his 2018 tweet on South African "farm killings." But the cost is steep. US-Africa trade, vital for minerals and markets, faces disruption; the G20 snub undermines global south solidarity just as BRICS expands. The AU's firm rebuttal signals continental resolve, potentially accelerating Africa's pivot to China and Russia for security pacts untainted by conditionality.

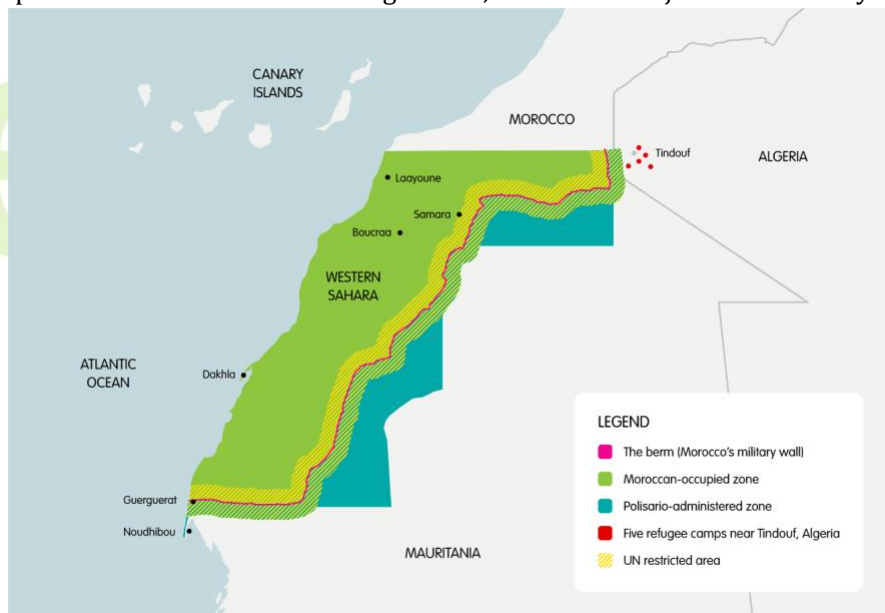
Yet, amid the bluster, glimmers of dialogue persist. Tinubu's overtures and Ramaphosa's poise suggest Africa won't be bullied into submission. For the US, this is a reckoning: true leadership demands partnership, not paternalism. As India, with its own stakes in African stability—from Agoa trade to peacekeeping—watches closely, Trump's gambit risks isolating America in a world weary of unilateralism. The lesson? Empires crumble not from external foes, but from the echo of their own unheeded warnings. It's time for Washington to listen, lest Africa's rising chorus drowns out its fading refrain.

**UNSC GIVES NOD TO MOROCCO PLAN FOR WESTERN SAHARA AUTONOMY**

Here's a clear overview of Morocco's autonomy plan for Western Sahara and the recent developments that have transformed this decades-old conflict:

**What is Morocco's Plan?**

Morocco's autonomy proposal would establish a local legislative, executive and judicial authority for Western Sahara elected by its residents, while Rabat would retain jurisdiction over defence, foreign affairs and religious matters CBS News. The Moroccan initiative suggests making Western Sahara a semi-autonomous region that remains under Morocco's sovereignty, allowing the region's





inhabitants to manage their social, economic, and political affairs while Morocco handles defence and diplomacy CBS News.

This plan was first presented to the United Nations in 2007.

#### **Historic UN Security Council Vote**

On 31 October 2025, the United Nations Security Council adopted a resolution stating that genuine autonomy for Western Sahara under Moroccan sovereignty could be the most feasible solution to Rabat's 50-year conflict with the Algeria-backed Polisario Front CBS News. The US-sponsored resolution passed with 11 votes in favour, while Russia, China and Pakistan abstained and Algeria, which supports the independence-seeking nationalist Polisario Front movement, did not vote ABC News.

This represents the strongest international endorsement yet of Rabat's control over the territory ABC News.

#### **The Background**

Western Sahara, a tract of desert the size of Britain, has been the scene of Africa's longest-running territorial dispute since colonial power Spain left in 1975 and Morocco annexed the territory CBS News. Morocco considers the territory its own while the Polisario Front seeks to establish an independent state called the Sahrawi Republic.

### **WHAT IS THE TLP CHALLENGE FOR THE PAKISTAN GOVERNMENT?**

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

On October 23, for the second time in five years, Pakistan has proscribed the Tehreek-i-Labbaik Pakistan (TLP), a political party, supported by the Barelvis in the Punjab province.

#### **Who are the TLP?**

The TLP is a far-right Islamist party founded in 2017 by Bareli cleric Khadim Hussain Rizvi, drawing support from Pakistan's Sunni Barelvi community. The party started by organising around the conviction of Mumtaz Qadri. Qadri had assassinated Punjab governor Salman Taseer over opposing blasphemy laws. Qadri's supporters, mostly Barelvis, hailed him as a martyr for defending Islam. The TLP gained prominence demanding his release and leading protests after his execution. The party rose with its hardline defence of blasphemy laws, demand for Sharia-based governance, and opposition to Western influence and minority rights.

In the 2018 elections, the TLP won 2.2 million votes, becoming the fifth-largest party. Later that year, it led nationwide protests against Asia Bibi's (who was arrested on blasphemy charges) acquittal, challenging the verdict and reinforcing its image as a staunch defender of religious causes. In 2020, the TLP led large-scale protests against France over blasphemous caricatures and secured a government deal to expel the French ambassador and boycott French products.

#### **How did the TLP rise to fame?**

The TLP's rhetoric on populist issues has centred on blasphemy. Following Mumtaz Qadri's execution, the party mobilised around widespread outrage caused by the execution. Leveraging mosque networks, social media outreach, and street mobilisation, it rapidly consolidated support



among Punjab's Barelvi populace, and urban, middle and lower-middle classes in Sindh. Financial backing from Barelvi businessmen and clerics strengthened its organisational capacity. Even though there were efforts earlier as well to politically mobilise Barelvi support, the TLP focussed its mobilisation on emotionally charged issues like blasphemy. This approach resonated strongly among lower-and middle-income Barelvi mosque-goers especially in Punjab, enabling the group to achieve wider grassroots appeal and durable mass mobilisation. Thus, TLP transformed into a dominant politico-religious force capable of pressuring governments.

One of the TLP's greatest strengths lies in grassroot organisation and the ability to sustain large, disruptive protests that paralyse urban centres, pressure state institutions, and amplify its religious agenda. The party's ability to sustain protests for prolonged periods stems from its dedicated cadre, financial support from followers, and exploitation of public sentiment on sensitive religious issues. TLP's street power thus remains a persistent challenge to curbing their impact, compelling state negotiations while amplifying religious extremism.

Moreover, the government's position on the TLP has never been consistent; it has swung between coercion, including arrests and bans, and compromise through policy concessions and lifting restrictions. Neither approach has sustainably weakened the TLP — coercion often escalates violence, while compromise signals state vulnerability.

#### **What next?**

For Pakistan, a ban may provide immediate containment but is unlikely to yield long-term results. Sustained enforcement and political commitment are critical to prevent cycles of unrest. Given the TLP's popular and electoral support, an outright ban risks alienating constituents and complicating monitoring. A calibrated, law-based approach rather than reactive suppression is thus necessary.

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# DreamIAS



## NATIONAL

### UAE TO HAVE INDIA HOUSE, SET TO DECLARE YOGA A COMPETITIVE SPORT

Almost 20 months after the opening of a Hindu temple in Abu Dhabi, another cultural landmark is in the offing — an India House in the capital of the UAE, which as per plan may come up in a couple of years. It will serve as the centre of strengthening ties in art and culture, student exchanges and to highlight shared history. The Gulf nation is also set to declare yoga as a competitive sport.

— This was discussed at a recent meeting in Abu Dhabi held between an Indian delegation comprising representatives from several ministries with their UAE counterparts, those aware of the proceedings said.

— The Gulf country with a four-million-strong Indian community is also planning to include yoga as a competitive sport, considering its popularity in the country. All this is coming out of the second Joint Steering Committee Meeting of the India-UAE Cultural Council, held in Abu Dhabi on October 8-9. The ICCR Director-General, Nandini Singla, led the Indian delegation comprising representatives from the ministries of Tourism, Culture, Youth Affairs, National Archives of India and the Nalanda University.

— The UAE side was led by Noura Al Kaabi, MoS in the UAE Ministry of Foreign Affairs. The meeting also discussed several initiatives to strengthen cooperation in the domains of youth engagement, sports, education, tourism, and archival collaboration, thus reaffirming the role of culture in the strategic partnership, officials said.

— The meeting built upon the foundation established during the first Joint Steering Committee meeting in New Delhi in March this year, when Al Kaabi had visited India. The Cultural Council Forum was established in 2022 through an MoU between the two nations, followed by a meeting between Prime Minister Narendra Modi and UAE President Sheikh Mohammad.

— The UAE is also actively moving to formalise yoga as a competitive sport, as reported by The National recently. To achieve this, a national framework through the UAE Yoga Committee is being developed, which operates under the Ministry of Sports. The UAE would become the first Gulf country to grant yoga full sporting recognition.

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

— Trade to cultural collaboration:

While trade remains a pillar of India-UAE cooperation, the importance of cultural ties is not lost on either side. While establishing an economic pact in 2022, the countries expressed interest in forming a cultural partnership. The new initiatives originate from this.

### INDIA AND BAHRAIN TO COOPERATE ON FIGHTING TERRORISM

India and Bahrain have agreed to combat the threat of terrorism through enhanced bilateral and multilateral cooperation, including intelligence sharing, capacity building and cyber security, as they condemned the “armed terror attack in Pahalgam”.

— External Affairs Minister S Jaishankar met Bahrain’s Foreign Minister Abdullatif Bin Rashid Alzayani, who is in India, on Monday and they discussed cooperation in defence and security.

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



— A joint statement after the talks said: “The two sides expressed optimism for enhancing future collaboration in the areas of defence and security. The visit of three Indian naval ships to Bahrain in September 2025 has helped deepen engagement between the two sides and reaffirmed India’s commitment to regional maritime security.”

— It also said that the two sides “unequivocally condemned terrorism, in all its forms and manifestations and reaffirmed strong commitment to combat terrorism, including cross-border terrorism”.

— Jaishankar said, “We have also seen a steady growth of bilateral trade and investments between our countries. We welcome investors from Bahrain to come and explore investment opportunities in India. Conclusion of a Bilateral Investment Treaty, and the establishment of a Joint Working Group on Trade and Investment will boost our economic ties.”

**Do You Know:**

— India launched ‘Operation Sindoor’ after the terror attack in Pahalgam, hitting nine terror locations in Pakistan and Pakistan-occupied Kashmir (PoK). This marked the most expansive and widespread retaliation by India in recent years, since the Balakot airstrikes in 2019 and the surgical strikes following the Uri attack in 2016. The attacks were made at nine locations, which were terrorist infrastructure in Pakistan and Pakistan-occupied Kashmir.

## AN INDIAN WAY FOR G2

Sanjaya Baru writes- “With a tweet in all caps — “THE G2 WILL BE CONVENING SHORTLY” — United States President Donald Trump declared for the record a power shift that has been long in the making. It was in 2005 that American economist Fred Bergsten published a book titled The United States and the World Economy in which he proposed the idea that the US and China could “be a caucus of two” that could together work to ensure “sustained recovery of the global economy”.”

— “The idea was quickly picked up to suggest that the two leading and dominant economies of the West and the East could in fact constitute a geo-economic condominium that would help manage the world economy. It was not a geopolitical concept but a geo-economic one. For his part, Bergsten distanced himself from those who went on to suggest that a G2 could substitute for the G20 and insisted that he did not think the G2 should be viewed as “managing” the world economy, but rather as “cooperating” to ensure speedy global economic recovery.”

— “It was the Trans-Atlantic Financial Crisis (TAFC) of 2008-09, popularly referred to as the Global Financial Crisis (GFC), that gave further currency to the idea. American politicians and strategists like Henry Kissinger and Zbigniew Brzezinski pushed the idea forward. The reason for this was simple.”

— “Two consequences of TAFC were that it contributed to a shrinking of the trans-Atlantic economies, especially the US, Britain, Germany, Italy and France, and to an increase in China’s share of world income and trade. More importantly, China came to the rescue of the world economy, helping both the US and EU bounce back from the 2009 crisis. It had initially done so in its neighbourhood, rescuing Thailand and Indonesia after the 1998 Asian financial crisis. In 2009 it was, in fact, bailing out the world’s biggest economy.”



— “It was against this background that US strategists like Edward Luttwak and Robert Blackwill advocated the “geo-economic containment” of China. Trump adopted the Luttwak line during his first term in office with the enthusiastic support of his trade policy strategist Robert Lighthizer. President Joe Biden initially went a step further and advocated “delinking” the US and Chinese economies. This view was soon changed to suggest that the two economies cannot delink but that the US economy should “derisk” and reduce dependence on China.”

— “Returning to office, Trump went back to his initial strategy of pursuing a “trade war”, not just against China but against the rest of the world. That strategy seems to have run its course. While allies like the European Union and Japan fell in line, Brazil, China and India have stood their ground. It is China’s ability to not only stand firm but to in fact retaliate that seems to have finally put paid to Trump’s trade war.”

— “While many have termed the US-China understanding reached last week in South Korea a “ceasefire”, some US strategists like Rush Doshi have in fact suggested that China has “won” the trade war. Whatever the final tally of gains and losses, the fact remains that within two decades of the publication of Bergsten’s book, a US president has come around to conceding that the world’s two biggest economies must indeed work together. The revival of the G2 idea also stands in contrast to Trump’s disinterest in the G20.”

— “What does this mean for India? In his outlining of the foreign policy agenda of the Narendra Modi government, in the book *The India Way: Strategies for an Uncertain World* (2020), External Affairs Minister S Jaishankar said that India’s policy of multi-alignment would require it to “engage America, manage China, cultivate Europe, reassure Russia, bring Japan into play, draw neighbours in, extend the neighbourhood and expand traditional constituencies of support”. It would be fair to say today that thanks to Trump, India is now required to in fact “manage” America and “engage” China, while continuing to “reassure” Russia.”

— “It should be clear to any Indian strategist and security analyst that in the near term, India’s standing in the world will depend vitally on its standing within Asia. There was a time when it was believed in New Delhi that a good equation with Washington, DC would in turn facilitate improved equations around the world — in Europe, Eurasia and Asia. It was this perspective that informed Prime Minister Manmohan Singh’s outreach to President George Bush.”

— “That world has changed and those calculations no longer hold. We are in fact in a situation wherein better relationships across Asia will stand India in good stead in dealing with the West — both the US and Europe.”

#### MOVIE ON ITS WAY, REVISITING THE SUPREME COURT’S SHAH BANO VERDICT

The Bollywood film *Haq*, set to be released this Friday (November 7) and starring Yami Gautam and Emraan Hashmi, is inspired by the 1985 Shah Bano case. Revisiting one of the most politically charged cases in India’s history, the film now faces a legal challenge from the daughter of the woman who inspired it, allegedly for not seeking permission to use her identity.

— The case began with a 62-year-old Muslim woman’s plea for maintenance from her husband after their divorce, sparking a national debate on secularism, minority rights and the need for a Uniform Civil Code (UCC).



— In 1978, Shah Bano Begum, a mother of five from Indore, was divorced by her husband and advocate Mohammed Ahmad Khan, after 43 years of marriage. He divorced her by pronouncing an irrevocable 'talaq'. For a few months, he paid her a small maintenance sum, but then stopped.

— With no means to support herself, Shah Bano filed a petition in court under Section 125 of the Code of Criminal Procedure (CrPC), 1973. This is a secular provision that obligates a person with sufficient means to provide maintenance to those he is responsible for, including his wife, who is unable to maintain herself. The explanation in the section clarifies that "wife" includes a divorced woman who has not remarried.

— Khan contested the petition, arguing that under Muslim personal law, his liability was limited to the period of iddat — the waiting period of about three months after divorce, during which a woman cannot remarry, under Muslim personal law. He stated that he had paid her maintenance for this period and also paid her the deferred mahr or dower, which is the sum paid as a right of the wife during the marriage. Thus, he claimed, he had no further obligation.

— A local court directed Khan to pay a nominal Rs 25 per month. On appeal, the Madhya Pradesh High Court increased the amount to Rs 179.20 per month. Khan then appealed to the Supreme Court.

— On April 23, 1985, a five-judge Constitution Bench, headed by then Chief Justice YV Chandrachud, delivered a unanimous judgment. The court dismissed Khan's appeal and upheld the High Court order.

— The court held that Section 125 of the CrPC is a secular provision that applies to all citizens irrespective of their religion. It stated that the provision was enacted to prevent destitution, and there was no reason to exclude Muslim women from its ambit. It concluded that if a divorced Muslim woman is unable to maintain herself, she is entitled to claim maintenance from her former husband even after the iddat period.

— The bench ruled that there was no conflict between Section 125 and Muslim personal law on the question of a husband's obligation to his divorced wife. It referred to the Quran to hold that it imposes an obligation on a Muslim husband to provide for his divorced wife. The judgment also expressed regret that Article 44 of the Constitution, which suggests that the state institute a Uniform Civil Code, remained a "dead letter".

— Facing political pressure, the Rajiv Gandhi-led Congress government, which had a substantial majority in Parliament, passed The Muslim Women (Protection of Rights on Divorce) Act, 1986, to nullify the judgment.

— The new law stipulated that a divorced Muslim woman was entitled to a "reasonable and fair provision and maintenance" from her former husband only during the period of iddat. After this period, the responsibility of maintaining her would shift to her relatives, who would inherit her property and, if they were unable to do so, to the state Waqf Board.

— The constitutional validity of the 1986 Act was immediately challenged. The case came before a five-judge Constitution Bench of the Supreme Court in 2001.

— The court upheld the Act but did so through a creative interpretation that protected the rights of divorced Muslim women. The court focused on Section 3(1)(a) of the Act, which requires the former husband to make "a reasonable and fair provision and maintenance to be made and paid to her within the iddat period."



— The court interpreted this to mean that the husband's liability was not limited to just three months of iddat. Instead, he had to make a one-time payment during the iddat period that was large enough to provide for her maintenance for the rest of her life or until she remarried.

— This interpretation effectively upheld the spirit of the Shah Bano verdict while keeping the 1986 Act on the statute books.

## WHAT CONSTITUTES AS CONTEMPT OF COURT IN INDIA?

The recent controversy over the alleged contemptuous and derogatory remarks against the Chief Justice of India and the Supreme Court has not only raised eyebrows, but can also be considered an act of diminishing the 'authority' of India's top court. Moreover, such remarks being spread through media and social media may also be seen as an act of interfering and obstructing the administration of justice, thereby directly damaging the edifice of constitutional morality. This has been the basis for the demand to initiate contempt proceedings.

### Understanding contempt

The phrase 'contempt of court' is used in Article 19(2) as one of the grounds for imposing reasonable restriction on fundamental freedoms yet the Constitution does not give guidelines on how to initiate such proceedings. In India, the Supreme Court and High Court have been designated as courts of record under Article 129 and 215 respectively. A court of record is one whose decisions are kept in reserve for future references and inherently it also has the power to punish for its contempt. This implicit constitutional provision is explained in the Contempt of Court Act, 1971.

The Act classifies contempt into civil and criminal. Section 2(b) of the Act defines civil contempt as wilful disobedience to any judgment, decree, direction, order, writ or other process of a court or wilful breach of an undertaking given to a court. On the other hand, criminal contempt is defined in Section 2(c) of the Act, as the publication (whether by words spoken or written or by signs or by visible representations or otherwise) of any matter or the doing of any act which — (i) scandalises or lowers the authority of any court; or (ii) prejudices or interferes or tends to interfere with, the due course of any judicial proceeding; or (iii) interferes or tends to interfere with the administration of justice in any other manner. This makes it clear that contempt is different from mere disrespect. It is beyond just covering disobedience and disruption in the working of the justice system. The Act further states that the High Court or Supreme Court may initiate contempt proceedings suo moto. It may also be initiated by a third party provided the petition has consent from the Attorney General or Advocate General for the Supreme Court and High Court respectively.

### The mode of criticism

It is now a settled principle that fair criticism of a decided case is not contempt, but criticism that transgresses the limits of fair commentary may be considered contemptuous as held in *Ashwini Kumar Ghosh versus Arabinda Bose* (1952). Further, in *Anil Ratan Sarkar versus Hirak Ghosh* (2002), it was held that the power to punish for contempt must be exercised with caution and shall only be exercised when there is a clear violation of an order. One of the landmark cases is of *M. V. Jayarajan versus High Court of Kerala* (2015) in which the top court upheld a contempt finding against an individual for using abusive language in a public speech while criticising a High Court order, establishing that such actions could be considered criminal contempt for



undermining the judiciary's authority and disrupting the administration of justice. The top Court recently in *Shanmugam @ Lakshminarayanan vs. High Court of Madras (2025)* has held that the very purpose to punish for contempt is to ensure administration of justice.

Criticising the Courts' action democratically is not wrong; however, one needs to consider that the judiciary is playing a crucial role by contributing to setting the priorities for the state so that the sanctity of administration of justice is maintained. Both the state and the citizens need to understand that any kind of misrepresentation would not only amount to contempt, it would also be detrimental to democratic principles, affecting the delivery of substantive justice (elimination of injustices).

#### MERE DISTURBANCE OF LAW AND ORDER NOT SUFFICIENT FOR PREVENTIVE DETENTION: HC

The Gujarat High Court has quashed an order of the Vadodara Police Commissioner for detention of an accused in a communal riot case stating that a "mere disturbance of law and order" is not necessarily sufficient for preventive detention under the Gujarat Prevention of Anti-social Activities Act (PASA).

— The accused, identified as Irfan Ibrahim Shaikh, has at least one more offence registered against him besides the September 19 riot that took place outside City Police station over an "AI-generated post" that allegedly "hurt religious sentiments".

— The Division Bench of Justice Ilesh Vora and Justice P M Raval was hearing Shaikh's petition filed through a representative, challenging the legality and validity of the detention order issued on October 7.

— Arguing against the detention order, Shaikh's advocate submitted that the grounds of detention stated by the Vadodara city police has "no nexus to the public order" but is merely a matter of law and order as the registration of an offence against a person cannot be said to have adverse effect on public order, as per the PASA Act.

— Citing precedents of the Supreme Court, the oral order of the court states, "We are of the considered opinion that the material on record are not sufficient for holding that the alleged activities of the detainee have either affected adversely or likely to affect adversely the maintenance of public order... and therefore, the subjective satisfaction arrived by the detaining authority cannot be said to be legal, valid and in accordance with law..."

#### Do You Know:

— Article 22 of Constitution of India prescribes protection against arrest and detention but has a major exception. It says in Article 22 (3) (b) that none of those safeguards apply "to any person who is arrested or detained under any law providing for preventive detention." The remaining clauses — Article 22(4)-(7) — deal with how preventive detention operationalises.

— First, the state, which would be the district magistrate, would issue an order to detain a person when it is necessary to maintain "public order." The state can delegate this power to the police as well.

— If the detention ordered is for more than three months, under Article 22(4), such a detention requires the approval of an Advisory Board. These Boards are set up by states and normally



consist of retired judges and bureaucrats. A detainee is generally not allowed legal representation before the Board. If the Board confirms the detention, the detainee can move Court challenging the detention order.

— Article 22(5) of the Constitution mandates that the state is required “as soon as maybe,” to communicate to the detainee the grounds of detention and “shall afford him the earliest opportunity of making a representation against the order.”

— A basic set of facts that are the grounds for detention are required to be communicated in one instalment, and the state cannot then add fresh, new or additional grounds to strengthen its original detention order. The grounds have to be read in a language that the detainee understands.

— However, even this safeguard is diluted to a certain extent by Article 22(6), which says that nothing in clause 5 shall require the state to “disclose facts that the state considers to be “ against the public interest to disclose.”

#### NOT JUST PMLA, UAPA, GIVE REASON FOR ARREST IN ALL OFFENCES, SAYS SC

In an important judgment with a bearing on personal liberty, the Supreme Court ruled Thursday that the requirement of furnishing grounds of arrest to a person placed under arrest will apply even to offences under the Indian Penal Code and Bharatiya Nyaya Sanhita (BNS) and not just offences under special statutes like the Prevention of Money Laundering Act, 2002 (PMLA) and Unlawful Activities (Prevention) Act, 1967 (UAPA).

— The bench of Chief Justice of India B R Gavai and A G Masih said, “The constitutional mandate of informing the arrestee the grounds of arrest is mandatory in all offences under all statutes including offences under IPC 1860 (now BNS 2023).”

— “The requirement of informing the arrested person the grounds of arrest, in the light of and under Article 22 (1) (Protection against arrest and detention in certain cases) of the Constitution of India, is not a mere formality but a mandatory binding constitutional safeguard which has been included in Part III of the Constitution under the head of Fundamental Rights,” the bench said.

— The ruling came on appeals arising out of the arrest of the accused in the BMW hit-and-run case in Worli in July 2024. The accused contended that their arrest was illegal since the grounds of arrest were not supplied to them. The Bombay High Court upheld their arrest following which they approached the Supreme Court.

— Granting bail to the accused, the Supreme Court decided not to go into the merits of the case but only to examine the questions of law including the necessity of furnishing the grounds of arrest to the accused in IPC/BNS offences.

— Answering the questions, the bench said, “The genesis of informing the grounds of arrest to a person flows from the Constitutional safeguard provided in Article 21 of the Constitution of India, which reads ‘No person shall be deprived of his life or personal liberty except according to procedure established by law’.”

— Article 22 (1) “further strengthens” this “by providing that a person arrested must be informed of the grounds of his arrest at the earliest and should not be detained without informing him of such grounds”



#### Do You Know:

— Article 21 of the Constitution of India guarantees the fundamental right to protection of life and personal liberty. It ensures certain safeguards against arbitrary deprivation of life and liberty.

#### SC RULING MAKING WRITTEN GROUNDS OF ARREST MANDATORY DRAWS A MUCH-NEEDED RED LINE

In a crucial ruling, the Supreme Court has said that the police must communicate the grounds of arrest to a person in writing, in the language he understands, within a reasonable time, and in any case at least two hours before the arrested individual is produced for remand proceedings before the magistrate. A bench headed by Chief Justice B R Gavai said that this key procedural safeguard will extend to all offences and not just those under stringent special statutes like the Prevention of Money Laundering Act, 2002 (PMLA) and the Unlawful Activities (Prevention) Act, 1967 (UAPA). In giving primacy to the personal liberty of an individual, the ruling sets a welcome precedent.

While this provision has existed on paper since the enactment of penal laws, it has mostly been ignored as an inconvenience by the police. The SC has repeatedly raised the bar in terms of protecting individuals from arbitrary arrest. In invalidating NewsClick editor Prabir Purkayastha's arrest in 2024, it extended this procedural shield against arrest even to the stringent anti-terror legislation. The SC rightly acknowledged that the stigma attached to arrest undermines a person's social dignity and results in consequences that reverberate beyond the individual: "The arrest of an individual invariably impacts not only the person arrested himself, but also the persons associated with him, i.e. family, friends, relatives, etc, affecting their psychological balance and overall social well-being. This Court has on several occasions underscored that there is a stigma attached to arrest which impairs the reputation and the standing of an individual in society."

From prohibiting the police from taking custody of a woman after sunset or in the absence of female police officers, to requiring the police to mandatorily present an accused before a judge within 24 hours, procedural safeguards serve as a bulwark of individual rights and liberties, protecting citizens from state arbitrariness. With the SC standing guard, the police must comply with the law — in letter and spirit.

#### REGIME CHANGE BOGEY IS UNDEMOCRATIC

For over five years, Umar Khalid, along with Sharjeel Imam, Gulfisha Fatima and others, has been incarcerated without facing trial or being granted bail. The fact that they have been charged with terror offences under the UAPA, with stringent bail conditions, should have been reason to expedite their trial. In the last three years and more, instead, their bail pleas were heard by the Delhi High Court, the verdicts reserved, only for the judges in question to retire or be transferred. Last week, before the Supreme Court of India, the Delhi Police opposed bail once again, claiming in their affidavit that the accused orchestrated the anti-CAA protests and the Delhi riots of 2020 in a "criminal conspiracy hatched for.... achieving the final 'regime change' goal". The "regime change" accusation, evidently an exercise in spectre-mongering, is a worrying escalation in how the ruling establishment frames protest and dissent — in order to delegitimise and criminalise it.

India has seen several "regime changes" at the Centre and in the states, through election, the backbone of a democracy. Even after the Emergency, an authoritarian regime was ousted through



the ballot. Unlike some of its neighbours, citizens in this country have the right to dissent and express their grievances in elections that are regarded as free and fair. In recent years, however, those who protest against the government have been demonised — as “anti-national” now, as “urban Naxals” then. The Delhi Police seek to add “regime change” to this list of loose labels that seek to shrink the spaces for dialogue and debate, and imbue democratic disagreement with sinister intent.

Since Independence, students, farmers and other civil society groups have taken to the streets to protest a variety of issues. Protesters have also been arrested in the past. **But what makes the case against Khalid, Imam and others more disturbing was articulated by the Delhi HC bench that granted bail to Khalid’s co-accused, Natasha Narwal, Devangana Kalita and Asif Tanha in 2021:** “... it seems that in its anxiety to suppress dissent, in the mind of the state, the line between the constitutionally guaranteed right to protest and terrorist activity seems to be getting somewhat blurred. If this mindset gains traction, it would be a sad day for democracy.”

#### CAN ADVOCATES BE SUMMONED BY AGENCIES? WHAT SC HELD

The Supreme Court on Friday (October 31) issued directions barring the police or prosecuting agencies from summoning legal professionals to reveal communications provided while advising their clients.

— The three-judge bench comprising Chief Justice of India B R Gavai, with Justices K Vinod Chandran and N V Anjaria, delivering the judgment in a suo motu case, the court had taken up in June this year.

— The court was deciding on two specific questions: whether a lawyer who is involved in a case only in their professional capacity can be summoned by an investigating agency, and if their role extends beyond their professional duties, can such a summons be subjected to judicial oversight.

— The bench held that privilege under the BSA must be respected as such a protection exists “not to shield deviants,” but to ensure that “those involved in the task of administration of justice are not victimised or bullied” into revealing client information merely because they represented someone facing criminal allegations.

— Under the Bharatiya Sakshya Adhinyam (BSA), 2023, which replaced the Indian Evidence Act, 1872, communications between legal advisers and their clients are privileged, meaning they cannot be disclosed to a third party.

— Section 132 of the BSA states that an advocate is not allowed to disclose any communication, even after employment has ceased, except in three circumstances: if the client consents to it; the communication pertains to illegal purposes; and the advocate observes criminal activity being carried out during the employment.

— A lawyer is also exempted from testifying or revealing conversations with their client, whether made in oral, written, or electronic form.

— This privilege, the court clarified, is meant to protect the client’s right to effective representation and not to provide immunity to lawyers from lawful investigation.

— While attempting to strike a balance between evidentiary privilege and the needs of investigation, without introducing a new layer of judicial scrutiny for every summons, the court



said that the privilege under Section 132 of the BSA, which protects advocates from disclosing any communication, must be respected, and that a lawyer cannot be summoned merely to reveal what a client had shared, except in limited situations such as when the advice was used to commit an illegal act or conceal a crime.

— The court said that if an officer believes that an exception applies, the summons must spell out the specific facts that justify it and must have written approval from a superior officer who is not below the rank of Superintendent of Police.

— The Bar argued that summoning lawyers violates Articles 19(1)(g) and 21, as it interferes with their professional duties and clients right to effective legal representation. The court agreed that breaching confidentiality undermines these rights, noting that Section 132 of the BSA echoes the constitutional safeguard against self-incrimination under Article 20(3).

— While it declined to create new guidelines or procedures, it held that sufficient judicial oversight already exists under Section 528 of the BNSS. This provision allows any person, including an advocate, to challenge a summons before a court. The bench said, “We cannot deny the power altogether or place fetters on it by framing guidelines.” It added that the constitution provides adequate safeguards if investigative powers are misused.

— The court drew a clear line between confidential communication and the production of documents or devices. It held that Section 132 protects communications, not the physical or digital materials themselves. Under Section 94 BNSS, an investigating officer may direct production of documents or devices believed to be relevant, but this must be done through the court, not directly to investigators.

— The court mandated that both the lawyers and the client be notified before any such production, allowing them to raise objections. If the device is examined, it must be done under judicial supervision, in the presence of the lawyer and client, and only relevant material may be accessed. To protect confidentiality, the court must ensure that information relating to other clients remains sealed and untouched.

— On the matter of in-house counsels, the SC noted that the in-house legal advisers are not covered by the privilege under Section 132, as they are salaried employees of a company. They fall outside the ambit of the definition of an “advocate” under the Advocates Act, 1961, which requires professional independence.

## REMOVE STRAY DOGS FROM PUBLIC PREMISES, RELOCATE TO SHELTERS: SUPREME COURT

Noting that “incidents of dog-bite attacks continue to be reported with alarming frequency”, the Supreme Court directed Friday that stray dogs be removed “forthwith” from the premises of educational institutions, hospitals, sports complexes, bus stands and depots, and railway stations to “a designated shelter, after due sterilization and vaccination in accordance with the animal birth control rules”.

Stating that its directions be “implemented uniformly across India” with “status compliance certificates within a period of eight weeks”, a three-judge bench of Justices Vikram Nath, Sandeep Mehta and N V Anjaria said “the stray dogs so picked up shall not be released back to the same location from which they were picked up”.



Noting that “after Independence, despite significant advances in public health, India continues to report one of the world’s highest statistics of rabies-related mortality,” it said that despite the Animal Birth Control Rules, which “established the Capture-Sterilize-Vaccinate-Release (CSV) model as the principal method for controlling the stray dog population”,

the “implementation of these Rules has been ineffective, to say the least, across jurisdictions and the persistence of stray dog population has continued to imperil public safety in many parts of the country”.

Directing state governments and Union Territories to identify these vulnerable institutional areas within a period of two weeks...

It asked the “management of every educational institution, hospital, sports complex, bus stand, railway stations identified under direction” to “designate a nodal officer responsible for the upkeep and cleanliness of the premises and for ensuring that the stray dogs do not enter or inhabit the campus”.

The bench warned that “any lapse in this regard shall be viewed seriously” ... It will consider the compliance reports on January 13, 2026.

**Do You Know:**

According to data from the Ministry of Fisheries, Animal Husbandry & Dairying, 3,196 dog bite cases have been reported till January. The figure was 25,210 in 2024 and it was 17,874 in 2023.

Children — especially those under 10 years of age — are at a higher risk for severe or fatal outcomes following a dog bite, experts opine. The seriousness of a dog bite depends on factors such as wound depth, extent of damage to tissues, the location, and the dog’s vaccination status. — Even minor-looking bites should be carefully monitored, as per the experts. Immediate washing, cleaning, and medical treatment of the wound are crucial to prevent infection.

Dog bites are dangerous due to the bacteria harboured in the animal’s mouth, which can cause serious infection, including staphylococcus, pasteurilla, and capnocytophaga, once the skin is broken.

The bite itself may damage the skin, muscles, tendons, nerves, or even bones, especially in severe cases, which can result in scarring, disability, or even death, he underlines.

“Complications from infection, such as sepsis, can be life-threatening if left untreated. Another critical risk is rabies, a fatal viral disease that can be transmitted through dog saliva.”

Survival from a rabies infection is extremely rare, according to doctors. Once symptoms appear, rabies is considered one of the deadliest infections known, with a nearly 100% fatality rate.

Only a handful of human survivors have ever been documented worldwide, often due to either extremely aggressive critical care or infection by a weakened strain of the virus.

Generally, if post-exposure prophylaxis (PEP) — a series of rabies vaccines begun before the onset of symptoms — is not received, the outcome is fatal.

Seeking medical care within 24 hours for any animal bite that breaks the skin is vital to reduce the risk of bacterial infection, tetanus, or contracting fatal diseases like rabies, according to experts.



Even apparently minor bites can drive bacteria deep into tissue, leading to infection that may develop rapidly, with symptoms such as redness, swelling, discharge, or fever, caution experts.

Rabies is a viral disease that can infect any mammal, not just dogs. While dogs account for the majority of human rabies cases — especially in developing countries — many other animals are possible carriers. These include cats, cattle, horses, goats, ferrets, bats, raccoons, skunks, foxes, coyotes, and monkeys.

## SC FLAGS MISUSE OF POCSO ACT TO PUNISH ADOLESCENT RELATIONS

The Supreme Court on Tuesday expressed concern over the growing misuse of the Protection of Children from Sexual Offences (POCSO) Act to criminalise consensual adolescent relationships, and said it was considering issuing directions to spread legal awareness of the subject.

A Bench of Justices B.V. Nagarathna and R. Mahadevan observed that while adjudicating bail pleas, it had repeatedly come across instances where stringent provisions of the law were being invoked as a form of retribution in situations not envisaged by its framers. The judges stressed the need for greater legal awareness, particularly among male adolescents, who are often at the receiving end of such prosecution.

“The POCSO Act is being misused in cases concerning consensual relationships between adolescents,” Justice Nagarathna remarked, adding that parents frequently lodged complaints against boys involved in such relationships with girls of similar age. “We should spread awareness among boys and men about the legal provisions,” she said.

The court was hearing a writ petition filed by senior advocate and petitioner-in-person Aabad Ponda, who had attributed the rise in sexual offences and crimes against women to inadequate education on gender equality. Accordingly, he had urged the inclusion of early sensitisation on gender parity and legal literacy in school curricula.

Earlier, the court had directed the Centre to indicate steps taken to include the concept of sexual equality and moral education in school syllabi, observing that “ethical and behavioural training on how men should treat women with respect” must be a vital part of education.

On Tuesday, the Bench noted that several States and Union Territories, including Telangana, Tripura, Himachal Pradesh, and Jammu and Kashmir, were yet to file their responses. Granting them “one last opportunity”, the court said it would consider issuing directions to promote awareness regarding the POCSO framework once all responses were received.

## THE SECOND ISSUE

The Supreme Court’s recent observations about the legality of going in for surrogacy for the second child has raised the fundamental issue of what a law is meant to regulate. In a petition in the Court, a couple facing secondary infertility sought to use surrogacy, as under the Surrogacy Act, surrogacy cannot be resorted to for the second child. Their advocate argued that the state cannot interfere in the private lives and reproductive choices of citizens. Secondary infertility is when a couple is unable to conceive, or carry a pregnancy to term, though they have previously birthed children naturally. The causes are similar to primary infertility — Polycystic Ovary Syndrome, endometriosis, and lifestyle factors. The petitioners sought an exemption to have a second child through surrogacy, submitting that the definition of ‘infertility’ in the context of surrogacy, both in the ART and the Surrogacy Acts, was not restricted to only primary infertility.

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



Under Section 4(iii)(C)(II) of India's Surrogacy (Regulation) Act, 2021, a couple is eligible for surrogacy only if they do not have any surviving child (biological, adopted, or through surrogacy). Exceptions are made only if the existing child is mentally or physically challenged or has a life-threatening disorder. The government submitted arguments supporting the view that surrogacy cannot be deemed a fundamental right, and that it involves the use of another woman's body. While the judge orally remarked that the restriction imposed under the provision was "reasonable", the Court has decided to examine whether a law banning married couples facing secondary infertility from using surrogacy to have a second child amounts to a restriction on the reproductive choices of citizens.

It may be noted that the Court recently diluted the age specification for surrogacy, allowing age relaxation for couples who had frozen embryos prior to passing the Act. If the avowed intent of the law, as argued at the stage of debate, is to prevent commercial surrogacy, or exploitative situations taking advantage of vulnerable women, besides regulating the mushrooming fertility centres (in conjunction with the ART Act), then to impose restrictions differentiating between primary and secondary fertility seems like splitting hairs. Currently, there is no law restricting the number of children a person can have in India, though many States have incentivised a two-child norm in terms of government benefits, jobs or political offices. A more expansive interpretation of the law, facilitating, for all those in need, access to the benefits of technology, is likely to satisfy two requirements — assisting intending parents, and preventing commercial surrogacy.

## HOW DO SCAM HUBS IN SOUTHEAST ASIA OPERATE?

### The story so far:

About 500 Indian citizens who recently fled the KK Park cybercrime hub in Myawaddy township, near the Thailand border in south-eastern Myanmar, are set to be repatriated by the Indian government. This incident, along with numerous similar cases, highlights how the global scam centre crisis has reached alarming proportions in Southeast Asia.

### What is KK Park?

KK Park is one of the most notorious "scam cities" on the Myanmar-Thailand border — a massive, purpose-built compound in the Myawaddy township in Karen State, controlled by a junta-allied Border Guard Force (BGF) led by warlord Saw Chit Thu, who has close personal ties to Myanmar's junta chief, Min Aung Hlaing. The U.S. Treasury sanctioned Saw Chit Thu earlier this year for his deep involvement in criminal operations, citing forced labour and links to the scam compounds.

Following reports of widespread Starlink usage at these compounds, the Myanmar junta conducted a "raid" into the KK Park compound and confiscated 30 Starlink devices. However, The Irrawaddy reported that democracy activists described the "raid" as a staged public relations stunt. According to sources cited by the outlet, senior criminal staff were warned to move from the area, and the BGF began transporting Chinese nationals out of KK Park as early as the evening before the raid. This media-friendly operation coincided with a U.S. Congressional investigation into the use of Starlink at scam hubs, besides U.S. President Donald Trump's attendance at the ASEAN summit in Malaysia last week. The "raid" did cause panic, enabling thousands of low-level workers to flee. The Irrawaddy reported that thousands queued at border gates hoping to cross into Thailand, with locals saying BGF had coordinated with the regime on the operation.



### **What is the scam centre business model?**

The Global Initiative against Transnational Organized Crime (GI-TOC) calls these “compound crime” facilities industrial, jail-like complexes where thousands are trafficked and forced to commit cybercrimes. Traffickers post fake job advertisements for high-paying IT and marketing roles. Victims from India, China, Vietnam, the Philippines, Africa, and Latin America are flown to regional hubs like Bangkok, then trafficked overland and forced across borders into Myanmar or Cambodia. Once inside compounds secured by high walls and armed guards, victims’ passports are confiscated. They’re told they’ve been “sold” and must work to pay off their “debt,” enduring 12-hour workdays running online scams. Those who refuse face torture — beatings, electric shocks, starvation, and solitary confinement.

One of the most infamous scams run by such compounds is “pig butchering” (shā zhū pán), a combined investment and romance scam. Scammers build trust over many days, often faking romantic relationships, then convince victims to invest in fraudulent cryptocurrency platforms. After showing fake initial profits and luring larger investments, they “butcher” victims by disappearing with everything. Other scams include impersonation (posing as police or bank agents) and extortion through blackmail. While initially targeting Chinese citizens, victims now span over 110 countries across the U.S., Europe, and Asia, including India. The UN Office on Drugs and Crime (UNODC) estimates these scams generate billions of dollars annually.

### **What role has Myanmar played?**

The UNODC states that “industrial scale cyber-enabled fraud and scam centres... have converged [in] inaccessible and autonomous non-state armed group-controlled territories, Special Economic Zones (SEZs), and other vulnerable border areas.” Myanmar exemplifies this, with the GI-TOC identifying a profound lack of rule of law enabling “failed state” conditions.

In the mid-2000s, Myanmar’s military implemented the Border Guard Force scheme, allowing ethnic militias in Kokang (on the Chinese border) and Karen State (on the Thai border) to retain arms and autonomy in exchange for alliance with the junta. Junta chief Min Aung Hlaing, who led the 2021 coup, created this system and has been photographed conferring ranks on BGF leaders, including Saw Chit Thu, who are known scam kingpins. The 2021 coup and civil war gave BGF partners carte blanche to expand illicit empires that could be “taxed” to fund the junta’s war.

Moreover, Chinese citizens were the primary victims until 2024, making this a domestic political issue. The 2023 film No More Bets and the trafficking of Chinese actor Wang Xing amplified public attention. Frustrated by the junta’s inaction, China gave tacit support to Operation 1027 in late 2023 — a massive offensive by the “Three Brotherhood Alliance” of ethnic armed groups against the junta to close BGF-run centres. The operation caused major territorial losses for the junta in Shan State, and Myanmar handed over 41,000 criminal suspects to China by the end of the year. However, the crackdown merely displaced operations south toward the Thai border (and to Mandalay and Yangon), with scammers pivoting from Chinese victims to other nationalities.

### **Which other countries host these centres?**

Cambodia is a major hub, with large-scale centres in Sihanoukville, Bavet, and O’Smach, mostly in repurposed casinos or “special economic zones.” The UNODC, Bloomberg, and blockchain firm Elliptic identify Cambodia’s Huione Group as a “critical node” and the “world’s largest criminal marketplace” financially enabling these operations. Through its “Huione Guarantee” subsidiary on Telegram, it allowed scammers to sell stolen data, malicious software, and money laundering



services, and advertised “detention equipment” like electric batons for torturing workers. While Huione Pay is the “legitimate” public arm, U.S. sources told Bloomberg the company ran “Huione International Pay,” brokering deals between scammers and money “mules.” Elliptic identified over \$91 billion in cryptocurrency received by Huione-linked entities in five years. Despite U.S. Treasury blacklisting in May 2025 and Telegram channel shutdowns, Huione adapted by rebranding, launching its own “USDH” stablecoin, and acquiring stakes in other criminal marketplaces.

#### **How have Indians been affected?**

India faces dual impacts — as a source of trafficking victims and as a target demographic. The Indian Air Force airlifted 283 citizens in March 2025 from Thailand who had been lured with fake job offers. The Indian Embassy in Myanmar reported over 1,600 nationals repatriated from scam hubs since July 2022. The 500 who fled KK Park are part of this pattern.

External Affairs Minister S. Jaishankar stated, “We share the concern about cyber scam centres in the region which has also entrapped our nationals.” Indians have become a key demographic for pig butchering and impersonation frauds, making this both a consular crisis and a domestic security concern.

### **A NATIONWIDE SIR: THE NEED TO CHECK DOUBLE ENTRIES IN THE ELECTORAL LIST**

After the completion of the Special Intensive Revision (SIR) exercise in Bihar, which faced sharp criticisms from political parties and eventually the Supreme Court, the Election Commission of India (EC) has now announced a nationwide SIR, referred to herein as SIR 2.0. This exercise has been purported to be a paperless, people-friendly, and procedurally robust undertaking.

With nearly one billion voter entries, a digital approach is not only inevitable but essential. The electoral roll is no longer a static, State-wise record; it is a dynamic national database whose precision defines the integrity of India’s elections. Yet, despite judicial caution, one persistent issue remains unresolved — the double or multiple listing of a single voter.

This problem, affecting countless citizens who shift residences, is not about fraud but rather procedural lapses that erode confidence in the system. A recent case involving a voter (Prashant Kishor), whose name appears in both the Bihar and West Bengal rolls, illustrates the flaw. While the SIR in West Bengal is yet to begin, such duplication defeats the core purpose of the Bihar exercise — ensuring that no voter listed in Bihar remains enrolled elsewhere. It questions the credibility of the SIR process and undermines trust in the voter database.

#### **Governing duplicate entries**

Under the Representation of the People (RP) Act, 1950, duplicate entries technically constitute a violation, though such lapses are rarely intentional. Many law-abiding citizens, simply by shifting residence, unintentionally find themselves in breach of the Act through no fault of their own. This underscores the urgent need for a systematic, technology-driven correction mechanism within the EC’s digital framework to make SIR 2.0 robust, reliable, and error-free.

The RP Act, 1950, defines the framework for maintaining integrity of electoral rolls and preventing duplication. Under Section 22(b) of the Act, if a voter changes residence within the same constituency, the Electoral Registration Officer (ERO) should transpose the entry to the appropriate part of the roll. When a voter moves to another constituency, Section 23(2) governs



inclusion in the new roll. It mandates that the ERO, if satisfied that the applicant is entitled to be registered, shall direct inclusion of the applicant's name in the new roll. The section further requires that if the applicant is already registered in the roll of another constituency, the concerned ERO must inform the officer of that constituency, who shall then strike off the applicant's name from that roll.

To ensure the uniqueness of every voter's registration, Sections 17 and 18 explicitly prohibit multiple registrations — no person may be listed in more than one constituency, or more than once in the same constituency. Violations constitute an offence under electoral law. Duplication often occurs when a voter's name is added at a new place of residence but not simultaneously deleted from the previous one.

In essence, the Act places the primary responsibility on the EROs to ensure that transposition, inclusion, and deletion are carried out accurately, promptly, and simultaneously. This process is crucial in preventing duplicate registration and ensuring the credibility, transparency, and integrity of the national electoral database.

The EC has consolidated the above provisions related to change of residence and correction of voter details in Form 8, used for transposition or correction of entries. A change of address request may fall under four categories: (I) No change in constituency or polling station, (II) No change in constituency but a change in polling station, (III) Change in constituency within the same State, and (IV) Change in both constituency and State. The most frequent cause of double entries arises in Type IV cases, where a voter relocates to another State. The new entry may either retain the same EPIC (Electors Photo Identity Card) number or generate a new one. For instance, Bihar voter (Prashant Kishor)'s double entry involves different EPICs, whereas the author has encountered several cases where both entries shared the same EPIC.

In such situations, accountability for failing to delete the old entry lies squarely with the concerned EROs, whose prompt coordination was essential to prevent duplication in the national electoral roll. Another source of duplication arises when a voter uses Form 6 — meant for new inclusion without declaring the existence of a registration elsewhere. A false declaration constitutes a legal violation, with accountability shared by both the voter and the officials responsible for verification.

### **Decoding the procedure**

The backbone of India's electoral roll is ECINet — a fully digital, nationwide system managed by the Centre for Development of Advanced Computing (C-DAC), Pune. With records of nearly one billion voters, ECINet ranks among the world's largest dynamic databases. Each voter is identified by a unique EPIC number, ensuring a single verifiable entry per individual. ECINet can detect duplicates, flag inconsistencies, and facilitate corrections through authorised verification. It should also be extended to incorporate a voter's update history for complete traceability.

The EC and C-DAC deserve credit for developing robust search and verification APIs that enable efficient detection of duplicates. Ideally, any double entry should automatically trigger an alert for review and deletion upon verification. With such tools available, there is little justification for the persistence of duplicate records. Whether SIR is paper-based or paperless, the real challenge lies in database accuracy and administrative responsiveness. In a digital framework, detection and deletion should be instantaneous.



Ultimately, most cases of duplicate entries stem from the failure to delete older records, whether linked to the same or different EPIC number. This recurring problem reflects not a technological shortcoming but an administrative lapse — a failure of timely coordination and accountability within the electoral machinery.

### The way forward

SIR 2.0 must not degenerate into another bureaucratic ritual. India cannot afford another exercise mired in procedural inertia. The gaps are administrative, not technological. ECINet already holds the potential and should be further enhanced through seamless integration with Aadhaar, the only credible pan-India database for independent verification.

Before SIR 2.0 begins, electoral data must be cleaned, duplicates flagged, and deleted. With proper use of technology, this can become a trust revolution — one where transparency, verification, and integrity are built into the system. The focus must shift decisively to software-led validation, digital audit trails, and real-time corrections. The ECINet should function as a reliable public utility — intuitive, glitch-free, and responsive. A real-time dispute resolution mechanism is needed to replace long queues and unanswered complaints.

With a transparent, self-correcting feedback system in place, future SIRs will be unnecessary and electoral rolls will stay perpetually accurate, updated, and verifiable. Only then can India move from ‘verification by ritual’ to ‘verification by design’.

## SIR 2025: EC CLAIM OF TRANSPARENCY CHALLENGED IN SC

The run-up to the first phase of polling in Bihar on November 6 witnessed the Election Commission of India (EC) furiously defend the Special Intensive Revision (SIR) in the Supreme Court, even as petitioners questioned the EC’s claim that the current exercise is a continuation of the “transparent” 2003 intensive revision of the State’s electoral rolls.

The final voter list of Bihar, released on September 30 at the conclusion of the SIR exercise, had removed 3.66 lakh ineligible electors from the draft list published on August 1. Opposition parties have questioned the exercise, and demanded the EC come out with reasons for the exclusion of these names.

The EC had said the SIR 2025 was a mere repetition of an exercise which used to take place regularly until 2003. It had used the 2003 electoral roll as “probative evidence of eligibility, including presumption of citizenship”. In fact, the EC had said electors enrolled in the 2003 intensive revision need not attach any additional document along with their enumeration forms, except for the extract of the roll.

Interestingly, one of the petitioners, the Association for Democratic Reforms, represented by advocates Prashant Bhushan and Neha Rathi, had pointed out to the court that the EC had “never placed on record the original documents of Special Revision of Intensive Nature held in 2003 which it claims as a precedent and cut-off”.

The petitioner had dug out records of the 2003 revision of rolls to unearth a 62-page document titled ‘Electoral Rolls Special Revision of Intensive Nature with Qualifying Date 01.01.2003, Final Guidelines’ to discover that the 2003 exercise was “fundamentally different” from the present SIR exercise.



The petitioners have raised five “basic differences” between the intensive revision in 2003 and SIR 2025. For one, the onus of entering eligible names on the electoral rolls in 2003 was wholly on the Enumerator (now called the Booth Level Officer) and not on the elector.

Secondly, there was no enumeration form to be filled by the electors and, correspondingly, no deadline to be met by potential electors, as in the SIR 2025. The enumerator had carried out a house-to-house survey to confirm, add or modify the existing electoral roll in consultation with the head of the household or senior adult member of the family.

Thirdly, there was no general requirement in 2003 for all the potential electors to provide at least one document. Again, there was no general mandate to verify citizenship of each elector in 2003. The Guidelines of 2003 permitted an inquiry into citizenship only in the case of individuals declared as ‘foreigners’ by the competent tribunals.

Finally, the 2003 intensive revision provisions did not allow exclusion of any name on the pre-existing rolls without going through due process for deletion of names. The top court was scheduled to hear on the constitutionality of the Bihar SIR on Tuesday. But, both Justices Surya Kant and Joymalya Bagchi, who were hearing the case did not assemble on Tuesday.

#### UNCONTESTED POLLS: CENTRE SAYS RIGHT TO VOTE DIFFERENT FROM FREEDOM OF VOTING

The Centre has argued in the Supreme Court that the ‘right to vote’ in an election is different from the ‘freedom of voting’, and while one is a mere statutory right, the second is a part of the fundamental right to freedom of speech and expression.

The case was listed before a Bench headed by Justice Surya Kant for hearing on Thursday. However, the Bench did not assemble.

The Centre was responding to a petition seeking to declare Section 53(2) of the Representation of the People Act, 1951, and Rule 11 read with Forms 21 and 21B of the Conduct of Elections Rules, 1961, which apply to ‘uncontested elections’, ultra vires the Constitution for violating freedom of speech and expression under Article 19(1)(a).

Section 53(2) kicks in when the number of candidates equals the number of seats to be filled in an Assembly or Lok Sabha election. In such cases, the provision instructs a Returning Officer (RO) to declare all such candidates as duly elected by filling in Form 21 (in case of a general election) or Form 21B (in case of an election to fill a casual vacancy).

#### **Prevents use of NOTA**

The petitioners, Vidhi Centre for Legal Policy, represented by advocate Harsh Parashar, and the Association for Democratic Reforms, through advocates Prashant Bhushan and Neha Rathi, submitted that the RO’s declaration without conducting a poll prevented citizens from expressing their right to vote the ‘None of the Above’ or the NOTA option and voice their dissatisfaction about the contesting candidate.

The Centre’s affidavit in court began with a fundamental lesson on the difference between ‘right to vote’ and the ‘freedom of voting’. It said the ‘right to vote’ was only a statutory right conferred by Section 62 of the Representation of the People Act of 1951, and subject to the limitations given in the statute.



Freedom of voting, on the other hand, was a “species of the right to expression under Article 19(1)(a) of the Constitution”.

Illustrating the gulf, the Centre has quoted from a 2003 Supreme Court judgment in Civil Liberties (PUCL) versus Union that “the initial right (right to vote) cannot be placed on the pedestal of a fundamental right, but at the stage when the voter goes to the polling booth and casts his vote, his freedom to express arises. The casting of vote in favour of one or the other candidate is tantamount to expression of his opinion and preference and that final stage in the exercise of voting right marks the accomplishment of freedom of expression of the voter”.

But, the Centre pointed out, the freedom of voting (the freedom to choose a candidate through positive vote or a negative vote through NOTA) was dependent on whether or not there was a poll taken.

“Freedom of voting is an incidence of a poll,” the Union government submitted.

The election would be put to vote only if the number of candidates were more than the number of seats to be filled, as provided under Section 53(1) of the 1951 Act. Again, there would be no poll if the number of candidates were fewer than the seats in an election, as mandated under Section 53(3) of the Act.

#### **‘NOTA not a candidate’**

The Centre argued that NOTA did not fit within the definition of a ‘candidate’ under Section 79(b) of the RP Act, 1951. Besides, it said, elections cannot be left inconclusive by not declaring a winner. Indecisive elections render the electoral process an exercise in futility.

In a separate affidavit, the EC agreed with the Centre that to treat NOTA as a “contesting candidate” in an election would require legislative amendments in the 1951 Act and the 1961 Rules.

The top poll body said there were only nine instances of uncontested elections out of a total 20 General Elections from 1951 till 2024.

### WHY THE NOMINATION PROCESS NEEDS REFORM

A young woman from Dadra and Nagar Haveli called last week about the recent municipal council elections. This is a district in which I once served as Collector and Returning Officer. Her father’s nomination for municipal councillor had been rejected with no hearing or chance at verification. She asked, “Sir, is this how elections work?” The honest answer is yes. And that is the problem.

One often hears about how nominations of candidates contesting elections are rejected over technicalities without any chance for clarification. However, the fact of that matter is that such rejections are lawful. The most undemocratic part of India’s electoral process occurs before a single vote is cast — at the stage of nomination scrutiny.

#### **The politics of procedure**

India’s electoral nomination process vests extraordinary discretion in a single official — the Returning Officer (RO). The Representation of the People Act (RP), 1951, particularly Sections 33 to 36, and the Conduct of Elections Rules, 1961, govern the nomination process. Section 36 authorises the RO to scrutinise nominations and reject those deemed invalid. The RO’s power under Section 36(2) to conduct a “summary inquiry” and to reject nominations for “defects of a



substantial character” is extraordinarily wide, and largely un-reviewable before polling, since Article 329 (b) bars courts from interfering mid-election. The law says no nomination should be rejected for defects not of a substantial character. But there are no written guidelines on what is substantial. And the only remedy to protest it is an election petition after the polls, when the damage is irreversible. In a democracy, this absolutism dressed in legal language has the potential to become a tool of political exclusion.

In Bihar this year, a Rashtriya Janata Dal (RJD) candidate’s nomination was rejected for leaving some fields blank. Last year in Surat, Opposition candidates were eliminated after proposers denied signatures, delivering a Lok Sabha seat unopposed. In the 2019 elections in Varanasi, decorated BSF jawan Tej Bahadur Yadav was rejected because he could not obtain an Election Commission certificate overnight. In Birbhum, former IPS officer Debasish Dhar was kept off the ballot when his no-dues certificate from the government was delayed. Yet, there is no publicly available consolidated dataset on rejection grounds, patterns, or party-wise breakdowns. This opacity shields the weaponisation of procedure.

### **Procedural traps**

Section 36 of the RP Act mandates that only qualified candidates can contest. However, the process of verifying qualification has accumulated complexity over the years. Well-intended judicial interventions have paradoxically worsened the problem. Supreme Court directions mandating detailed affidavits on assets, liabilities, and criminal cases were meant to ensure transparency, yet each new disclosure requirement added another opportunity for technical rejection. For example, in *Resurgence India versus Election Commission (2013)*, the Supreme Court held that false declarations lead to prosecution but don’t invalidate nominations, only incomplete ones do. This means that a candidate who lies but fills all columns stays on the ballot, and one who makes a good-faith error can be rejected. The system now punishes incomplete declarations more harshly than dishonest ones.

A missing signature, a mismatched electoral number, a form filed at 3:05 PM instead of 3:00 PM, a blank column in an affidavit, a delayed oath, a missing no-dues certificate — any of these can end a candidacy. The burden of proof thus lies entirely on the citizen seeking to exercise a legal right, and not on the official denying it. This is constitutionally backwards. The right to be voted for is the necessary twin of the right to vote. Without candidates to choose from, the ballot is ritual without substance. The first principle must be that every qualified citizen has a presumptive right to contest. That right can be denied only when the RO establishes, with clear evidence, a substantive constitutional or statutory disqualification. Technical paperwork errors cannot be a reason for disqualification.

Some of the common procedural technicalities on which nominations are rejected include:

**The oath trap:** Every candidate must take an oath before a specified authority after filing nomination but before scrutiny. If its too early, it’s invalid, and if too late, the nomination is rejected. Moreover, if it is not before the specified authority, your form is again bound to be rejected.

**The notarisation trap:** Every Form 26 affidavit (an affidavit which needs to be filed by the candidate along with nomination papers) must be notarised by a specified authority. Not having done so can result in rejection of the nomination.



The certificate trap: Along with nomination papers, the candidate is liable to submit no-dues certificates from municipal bodies, electricity boards, or other government departments; clearance certificates from the Election Commission for government servants; and various other bureaucratic attestations, each of them a veto point when it comes to the time of scrutiny. Thus, each issuing office becomes a potential chokepoint where deliberate delay can eliminate a candidacy.

These procedures, once designed as safeguards, have turned into potential opportunities for delay and manipulation.

Here, bureaucratic compliance is being rewarded over democratic legitimacy.

### **Facilitation, not filtration**

Other democracies show a different approach. In the U.K., ROs help candidates fix errors before deadlines. Canada mandates a 48-hour correction period. Germany requires written notice of problems, time to remedy them, and multiple appeal layers. Australia encourages early submission to allow corrections. The common idea being that officials are facilitators, not sentinels.

India also has a checklist system. The RO Handbook instructs ROs to point out defects at the time of filing and record them in a checklist. But this checklist has no legal standing. The Handbook itself clarifies that the checklist “will not prevent the Returning Officer from pointing out other defects, if any, discovered later during scrutiny.” A nomination can be marked defect-free at filing, yet rejected at scrutiny for defects the RO discovers later. The candidate has no right to rely on the checklist, and the RO faces no legal obligation to honour it. The checklist thus remains as an illusion of transparency without offering any real protection to the candidate.

The RO’s role must shift from discretion to duty. When a deficiency exists, the RO must issue a detailed written notice specifying the exact error, the legal provision violated, and the correction needed. Candidates must get a guaranteed 48-hour window to fix it after receiving this notice.

The law must thus classify deficiencies into three categories: (1) technical or paperwork defects such as missing signatures, blank affidavit columns, clerical errors, no-dues certificates etc. These cannot justify rejection; (2) matters requiring verification of authenticity such as disputed signatures, challenged documents etc. These require investigations before rejection; and (3) constitutional and statutory bars. These should lead to immediate and absolute disqualification. Moreover, every rejection order must be reasoned. The RO must specify which exact requirement was not met, which provision of law was violated, what evidence supports the finding, and why the defect is substantial enough to justify rejection.

### **A digital solution**

The Election Commission of India (EC) can build a nomination system that is digital-by-default; one that doesn’t depend on excessive paperwork. This is not to argue for a digital-only framework, but a digital-by-default framework that can eliminate disqualifications based on blank columns and misspelt names or typos. The entire nomination process could move to an integrated online portal linked with the electoral roll. The system could automatically validate voter ID, age, and constituency details. Oath, affidavit submission, proposer verification, and deposit payment could all be digital. Moreover, every nomination’s progress such as when it was filed, verified, deficiency



notified, corrected, accepted or rejected, should be visible on a public dashboard with timestamps and reasons.

### **Upholding democracy**

When a nomination is rejected arbitrarily, two rights are violated: the candidate's right to contest and the voters' right to choose. The world's largest democracy deserves a nomination process that is modern, fair, and inclusive, where the burden of proof is on the state to justify exclusion, not on citizens to prove their right to participate.

The EC should work towards a citizen-friendly nomination process that would end the bureaucratic red tape around disqualifications for blank columns, wrong payment modes, misplaced signatures, misspelt names and typos, no dues certificates or a delayed oath. It should work towards a simplified process that removes the possibility of using procedure as politics.

## **MIGRATION DEBATE**

Migration has been a central theme in the Bihar Assembly election campaign, the first phase of which ended on Tuesday. Parties have sought to frame the migration debate in different ways, but it is important for the sake of the State and the country to get this correct. The Opposition, led by the Rashtriya Janata Dal (RJD), has blamed the ruling National Democratic Alliance (NDA) for the heavy out-migration from the State to other parts of the country for opportunities; the Bharatiya Janata Party-Janata Dal (United) [BJP-JD(U)] axis, which has been in power for 20 years, is partly in denial of the issue while disingenuously raising the bogey of illegal immigrants in the State. The scaremongering around illegal migrants in the State by the ruling combine would have been laughable but for the cynicism and xenophobia associated with it. For one, the Special Intensive Revision, which was touted by the Election Commission of India as an exercise to purify the electoral rolls, demonstrated that there was no large-scale presence of immigrants in the State.

The Opposition ran its campaign on the slogan: 'Generate employment, stop migration'. As per the 2011 Census, 74.54 lakh migrants from Bihar are spread across the rest of India. It is sad that the BJP, at the highest level, conjured up a phantom of anti-Bihari sentiment in other parts of the country, purely for short-term political gains in an election. Migration of people is integral to human development, and there is nothing inherently undesirable about it. The Opposition has argued that the BJP-JD(U) government has turned Bihar into a supplier of migrant labour and has promised to create local employment opportunities. Creating infrastructure and opportunities should be part of any robust election conversation, but that can be achieved while maintaining a more sanguine view about migration. Bihar has high fertility and a younger population relative to other parts of the country. Regional variations in economic opportunities and demographic trends make the movement of people inevitable. Bihar should focus on its education and health standards and build a highly productive and skilled workforce that adds momentum to its own growth by being part of India's economic growth.

## **HAS BIHAR'S GROWTH CAUGHT UP WITH THE REST OF INDIA?**

As Bihar, which, at the time of the last Census in 2011, was the third most populous state in India, goes for yet another Assembly election, the big macroeconomic question is: Has the state's growth trajectory bridged the gap between itself and the rest of India?



— There are two diametrically opposite views about Bihar. One, that it was and continues to be a basket case when it comes to economic development. Two, that Bihar's image does not do justice to the economic resurgence it has staged in the recent past.

— In trying to understand how Bihar has performed, it is important to note not just where Bihar stands today in absolute level of economic output (or any other variable) but also to figure out what is the pace at which the state is improving. Is it, for instance, catching up with Maharashtra/Punjab/Gujarat? Is it lagging behind states like UP and West Bengal?

— For the purposes of this analysis, we have compared Bihar with a selection of six states — Maharashtra, Punjab, Kerala, Gujarat, UP and West Bengal.

— Bihar's real GSDP or total real economic output (after taking away the effect of inflation) has grown from Rs 2.47 lakh crore in 2011-12 to Rs 4.64 lakh crore in 2023-24. By itself, that means Bihar's output nearly doubled over this period of 12 years.

— If other states grow their total output at a faster clip, Bihar, despite an increased economy, would find itself a laggard.

— The first column shows how many times was the GSDP of each of the six states relative to Bihar's GSDP in 2011-12.

— For instance, Maharashtra's GSDP was 5.18 times that of Bihar's. If this ratio, stated in the second column, comes down then it implies that Bihar has not only grown on its own but also bridged the gap with these states.

— The next key variable to consider is the average economic output in these states and how Bihar's level and growth performed relative to them.

— per capita output has increased in absolute terms — Rs 21,750 to Rs 32,174. In terms of per capita output, Bihar's growth was not fast enough and the gap between Bihar and the rest of these states actually widened, as evidenced by the increasing ratios.

— In 2011-12, Kerala's per capita economic output was 4.5 times that of Bihar's but 12 years later, it was more than 5 times that of Bihar. In other words, an average Bihar resident is worse-off (compared to residents in any of these states) in 2023-24 relative to where he or she stood in 2011-12.

— Boosting the contribution of the manufacturing sector in any region's economic output has been a key concern for all policymakers. That's because a fast growing manufacturing sector often provides the best chance to create lots of jobs for the local population.

— In 2011-12, Bihar's manufacturing sector value-added Rs 12,681 crore and by 2023-24, this contribution had grown to Rs 31,110 crore.

— While Bihar has improved in absolute terms, these numbers, by themselves, are just a fraction of the values in some of the more prosperous states.

— Bihar's overall base of economic activity is small, as such, its growth rates can often flatter to deceive. Seen in isolation Bihar can give an impression that the state is registering fast economic growth rates but, as shown in this analysis, it is still possible for Bihar to fail to bridge the gap with other states.



— Even when Bihar seems to do very well relative to other states — for instance, manufacturing value added — data could prove to be misleading. It may be pointing to a sharp deceleration in other states instead of Bihar catching up with them.

— N.K. Singh writes: Bihar has a unique opportunity to leapfrog traditional development typologies. Its vast migrant population is an asset. Nearly 73,000 workers moved abroad in 2023, and roughly 7.2 per cent of its population resides in other Indian states.

— Remittances fill gaps left by insufficient domestic job creation. More than half of all households rely on income earned elsewhere. This is a demographic paradox. Bihar supplies labour to the world, yet struggles to convert that human capital into domestic productivity.

— Many economies have transformed remittance flows into investment capital. Bihar can cultivate much stronger linkages with its global diaspora. An institutional mechanism, which incentivises remittances, will help direct that capital to supporting education, entrepreneurship, and capital-creating assets. The right policy matrix could attract capital flows to support this development engine.

#### TRANSGENDER CANDIDATE OF JSP AIMS HIGHIN BHOREY SEAT

Priti Kinar, the 41-year-old transgender candidate fielded by Prashant Kishor's Jan Suraaj Party (JSP) in the Bhorey constituency, has suddenly caught the limelight ahead of the Bihar Assembly election.

She faces a tough battle, as she is pitted against sitting Janata Dal (United) MLA Sunil Kumar, currently the State Education Minister and a former IPS officer. However, anti-incumbency sentiments and the voters' anger against the poor education situation in the constituency and in the State may help Ms. Kinar's case.

She is quite popular in her constituency in Gopalganj district, but reaching her village of Kalyanpur is a nightmarish journey along at least 20 km of dilapidated roads from Mirganj. Passengers travelling the route are livid, noting that Bihar Chief Minister Nitish Kumar takes credit for constructing good roads across the State.

"You must have realised the quality of the road that Nitish Kumar ji's government has constructed. This is the condition in the Assembly constituency of the State's Education Minister," Ms. Kinar told The Hindu once this reporter had reached her village.

#### **Poor education, health**

Bhorey, a reserved seat for Scheduled Castes (SCs), falls under Gopalganj Lok Sabha constituency and is located in northwestern Bihar, bordering Uttar Pradesh. Most Bhorey residents are dependent on agriculture for their livelihoods, with rice, wheat, maize, and sugarcane being the main crops of the area. There is hardly any industrial activity, barring a few rice mills and brick kilns.

Voters say that government schools in the constituency lack basic facilities and infrastructure. Government hospitals do not have the medicines needed to treat venomous snake bites, with several victims losing their lives while rushing to a private hospital in Gopalganj.



### Grassroots experience

Having spent nearly two decades as a social worker, Ms. Kinar takes pride in the 10 to 15 girls she takes responsibility for each year, offering them financial help to get married.

“I have been engaged in social work since 2007. Wherever there is a need, I make sure that I reach on time and provide them as much help as possible. Even if it is midnight, I go and meet those affected by distress and disaster. Even my decision to join politics is due to the suggestions given by the people of Bhorey Assembly seat,” Ms. Kinar said.

She had initially planned to contest as an Independent but then joined the JSP as she resonated with Mr. Kishor’s ideology and promises. Most other political parties think only about their own family members, she said, expressing confidence that the JSP is different on that front.

## NAXALBARI TO VIDHAN SABHA

In the 2020 Bihar assembly elections, the Communist Party of India (Marxist-Leninist) Liberation won 12 seats from just 19 contests — a 63% strike rate, among the highest for any party in Bihar, and a sharp increase of nine from its 2015 tally.

The party's victories were concentrated in its traditional strongholds of south Bihar, particularly the Bhojpuri-speaking region. Here, the CPI(ML)-Liberation's origins trace to the fierce agrarian struggles of the 1970s. As documented by scholar Bela Bhatia in the EPW article, ‘The Naxalite Movement in Central Bihar’, the party's roots lie in Bhojpur district struggles led by figures like Jagdish Mahato, who had established contacts with Naxalite leaders in West Bengal. From this crucible, ML-Liberation emerged as a distinct group among fragmented Naxalite factions. By 1995-96, its influence was significant, with Ms. Bhatia noting a presence in 11 districts of south-west Bihar, besides several others in what would become Jharkhand.

The party's strengthening marked a deliberate departure from the original Naxalite legacy of Charu Mazumdar and his associates. The pivotal shift began in 1978 under former general secretary Vinod Mishra, when a “rectification campaign” was launched. This was followed in 1979 by the decision to take part in open “mass activities” through dedicated “mass organisations”.

Under Mishra's leadership, the party formed the Indian People's Front (IPF) and Bihar Pradesh Kisan Sabha to intervene in democratic and peasant struggles. By 1982, it had decided to contest elections on ‘tactical grounds’. By 1990, it began functioning openly as a communist party. In 1994, the IPF was disbanded, allowing the party to contest under its own banner. The CPI(ML)-Liberation was recognised by the Election Commission and began contesting elections by 1996. Since 1998, it has been led by general secretary Dipankar Bhattacharya.

### Durable base

The party's growth in Bihar coincided with the turn to mass politics in the mid-1990s and its increased relevance in student politics in North India. Chandrasekhar Prasad, a former student leader from the All India Students Association (AISA) — ML-Liberation's student outfit — and a two-time president of the Jawaharlal Nehru University Students' Union, was assassinated in 1997. He was killed by criminals associated with the then-RJD strongman Mohammad Shahabuddin. Chandrasekhar's death led to strong student protests across the country but also demonstrated the party's commitment to building a presence in Bihar's political landscape.



Ideological differences persisted for years between the CPI(ML)-Liberation and mainstream left parties like the CPI and CPI(M). The party was also involved in clashes with the more doctrinaire and violent Maoist Communist Centre (MCC), which later merged into the CPI (Maoist). However, as it embraced mass fronts and mainstream politics, its strategic focus shifted. During the BJP's political hegemony, it identified the threat from the BJP as the principal reason for forming united fronts against 'fascism'. This realignment led to the CPI(ML)-Liberation joining the INDIA bloc in 2023.

While ideological differences with the CPI and CPI(M) persist, they are less pronounced, suggesting alignment with the mainstream Indian Left.

In Bihar, the CPI(ML)-L has offered the strongest ideological critique of the NDA. It has organised mass agitations related to land redistribution and the indebtedness of the poor. This has helped it retain its support. Unlike the caste identity-based support of the RJD, the CPI(ML)-Liberation maintains a base that transcends narrow ethnic markers. It draws broad support from the poor, including EBCs and Dalits, in its strongholds. This makes it a vital component of the Mahagatbandhan (MGB) in Bihar where the RJD offers a high floor in terms of support but a limited ceiling because of its limitations as a party representing Yadavs and Muslims and other parties lack strong organisations in the State. A strong performance by the CPI(ML)-Liberation in the Bihar elections will not only help the MGB in a tight contest, but will serve as a reinforcement of the party's evolution into a durable mass-based political force.

## A KERALA STORY

Kerala, known for its exemplary record in social and human development, and for healthcare systems comparable to those of developed nations, achieved another milestone on its 69th formation day, on November 1 — the eradication of extreme poverty. This resulted from a four-year, meticulously planned programme involving a gamut of agencies, spearheaded by the local self-government department, alongside extensive community participation. It was during the first Cabinet meeting of the second LDF government led by Pinarayi Vijayan in May 2021 that the Extreme Poverty Eradication Programme (EPEP) was launched. Successive State governments deserve credit for Kerala's people-centric development and decentralised planning, which ensured that poverty reduced from 59.8% in 1973–74 to 11.3% in 2011–12. NITI Aayog's National Multidimensional Poverty Index (2023) stated that Kerala was the least impoverished State, based on the headcount ratio. Just 0.55% of Kerala's population was multidimensionally poor — far below the national average of 14.96%. Instead of relying on self-enrolment, the government deployed nearly 4 lakh trained enumerators, supported by a robust local body system and Kudumbashree workers, to identify the abjectly poor. After several levels of vetting, 64,006 extremely poor families — comprising 1,03,099 individuals, many lacking basic documents — were identified based on the four-point criteria of access to food, health, means of livelihood, and housing. A uniform solution was inadequate for such diverse needs, necessitating an experiment in welfare governance: the preparation of custom-made micro plans for each identified family and the provision of essential support such as identification documents, housing, livelihoods, regular medicine, cooked meals, palliative care and, in some cases, organ transplants.

Combating poverty is a never-ending task and criticism of the claim of erasing extreme poverty — particularly regarding the plight of the tribal population — is inescapable. The State government has launched EPEP 2.0 to prevent relapse and to ensure that no new household falls into extreme poverty. The LDF has pledged to tackle all forms of poverty in mission mode. Critics of the 'Kerala Model' have often cited stagnant growth and rising unemployment as evidence of its perceived



failure. The State has accelerated major infrastructure projects and high-tech green industries to bridge the deficit in these areas. It has also been skilling the educated to alleviate joblessness. The EPEP shows that progressive governance can be rooted in welfarism and growth simultaneously, without compromising social safety or sustainability. The largely community-driven model may not be flawless, but it is self-evolving and strengthens democracy at the grassroots. It presents an alternative development paradigm — a Kerala story worth propagating.

## JNU IS IN THE DOCK, ITS DISTINCTIVE TRADITION OF DEBATE IN PERIL

Since its inception, JNU's reputation as an institution of academic excellence has owed much to a vibrant culture of debate involving the university's students, faculty and administration. This argumentative ethos, nurtured by internal mechanisms that encouraged the resolution of disputes through dialogue, has not only been a catalyst for JNU's consistently credible performance in the national rankings for higher institutions, but is also one of the major reasons for a large number of JNU students going on to become prominent faces in political parties of all hues. Today, however, the university is at a crossroads. An investigation by this newspaper into the growing number of court cases the university is involved in sheds light on the fraying relationship between the administration, faculty and students. The institution has featured in over 600 Delhi High Court cases during the tenure of the current vice chancellor, Santishree Dhulipudi Pandit, and her two predecessors.

That a large number of these cases pertain to protests and free speech-related issues is disquieting. It suggests that a space where students and faculty were once encouraged and empowered to ask questions and raise doubts is under siege, let down by those whose responsibility it was to nurture it. In several cases, the HC has called out the JNU administration for procedural lapses. It decided in favour of students in at least 19 of the 38 cases that were adjudicated during the tenure of the current VC. Litigation had peaked under her predecessor, M Jagadesh Kumar (2016-2022), when the university was involved in 118 cases — 92 of them filed by students. The court offered them relief in 40 cases, citing violation of the principles of natural justice in at least 15.

Litigation may have been more muted under the current VC, but the administration has persisted with its sledgehammer approach. The Students' Discipline and Conduct Rules, which came into effect in 2023, list expulsion from hostels, rustication from the university and penalties up to Rs 20,000 — way more than the average fee of its postgraduate courses — as punishment for any protest within a 100 m radius of an academic or administrative building on campus or even around faculty residences. One of the lawsuits pertains to a Rs 6,000 fine imposed on a student for writing graffiti on the university's walls — a longstanding JNU tradition. In 2023, JNU adopted the motto "Tamaso Ma Jyotirgamaya" (from darkness unto light). This paper's investigation shows that the university administrators have much to do to enable JNU's students to live up to this credo of knowledge without fear.

## BETWEEN FUNDS AND IDEOLOGY

Kerala made headlines recently when it became a signatory to the Union government's flagship PM SHRI (Prime Minister's Schools for Rising India) scheme after three years of holding out, only to press the pause button after the Communist Party of India (CPI) that is a coalition partner in the Communist Party of India (Marxist)-led Left Democratic Front (LDF) government in the State refused to go along with the decision alleging a lack of consensus.



The scheme was announced by Prime Minister Narendra Modi on National Teachers' Day in 2022.

On September 7, 2022, the Union Cabinet approved the Centrally sponsored scheme, which seeks to develop over 14,500 existing schools, including Kendriya Vidyalayas (KVs) and Jawahar Navodaya Vidyalayas (JNVs), across the country as model institutions that showcase the National Education Policy (NEP) 2020.

The PM SHRI schools are envisioned to meet the “demands of the 21st century,” notes the scheme’s ‘Framework on school transformation’. With upgraded infrastructure and innovative pedagogy and technology, the schools are meant to create “well-rounded individuals equipped with key 21st century skills”. According to the Union Ministry of Education, the objective of PM SHRI is to ready schools in which “every student feels welcomed and cared for, where a safe and stimulating learning environment exists, where a wide range of learning experiences are offered, and where good physical infrastructure and resources conducive to learning are available to all students.”

The scheme is designed to benefit more than 18 lakh students directly. Mentoring of schools in the vicinity of PM SHRI schools is expected to benefit many more students. The total outlay of the project is ₹27,360 crore (Central share of ₹18,128 crore and State/UT share of ₹9,232 crore in 60:40 pattern), spread over a period of five years till March 2027. The Union government will provide 90% of the funding for northeastern and Himalayan States and the UT of Jammu and Kashmir, and 100% for UTs that do not have legislature. According to the PM SHRI dashboard, 13,070 schools have been selected for the scheme nationwide. Of them, 1,533 are KVs and JNVs.

Only existing elementary and secondary/senior secondary schools managed by the Union/State/UT/local self-governments and having Unified District Information System for Education Plus (UDISE+) code are selected for the scheme.

The selection is done in three stages. First, States or UTs sign a memorandum of understanding (MoU) with the Union government agreeing to implement the provisions of NEP 2020 in “entirety”. Then, schools that meet the minimum benchmark (on the basis of UDISE+ data) are shortlisted.

In the third stage, the shortlisted schools compete to fulfil certain criteria based on the challenge formula. Their claims are verified by States or UTs through physical inspection and a list of schools is recommended to the Union Ministry of Education. A maximum of two schools — one elementary and one secondary/senior secondary — are selected from every block or urban local body. An expert committee recommends the final list of schools selected for PM SHRI in each State or UT.

The MoU for the PM SHRI scheme clearly states that PM SHRI has to be prefixed to name of selected schools. “No change shall be undertaken thereafter, by the States/UTs/KVS/NVS for these schools, as these schools are to be developed as PM SHRI Schools for providing quality education,” it says.

#### **Key features**

Pedagogy in PM SHRI schools will be more experiential, holistic, integrated, learner-centred, and flexible, according to the guiding framework. The curriculum can follow the National Curriculum Framework/State Curriculum Framework developed in accordance with the new curricular and pedagogical structure of the NEP.



The schools will use mother tongue/local or regional language for teaching and learning, particularly in the early years.

Student registry to track enrolment and learning progress; STEAM (science, technology, engineering, arts and mathematics) education; sports and arts for every student; ICT facility, smart classrooms and digital libraries, science labs, and vocational labs; and early childhood care and education; competency-based learning and improvement in learning outcomes of each student are some of the significant aspects of PM SHRI schools.

A 'School Quality Assessment Framework' that measures the performance of these schools is another key component. The assessment framework will produce comprehensive reports to aid improvement in educational standards. 'Traditions and practices and Indian knowledge systems' are part of curriculum in these schools. The framework, it is mentioned, is not prescriptive but suggestive in nature.

#### **Row over PM SHRI**

Though PM SHRI was launched in 2022, States such as Delhi, West Bengal, Bihar, Odisha, Tamil Nadu, and Kerala refused to come on board for reasons ranging from political opposition to the NEP and objection to adding the PM SHRI prefix to schools' name to prioritising their own projects.

Punjab signed the MoU in 2022 but withdrew from it a year later. As in the case of Kerala, withholding of funds under another Centrally sponsored education scheme Samagra Shiksha by the Union government saw the Punjab government ultimately reconsider the decision in 2024. Other States too gradually gave in, with lack of critical funding threatening to derail education schemes.

Apart from Kerala, West Bengal and Tamil Nadu (all three States ruled by Opposition parties) remain the only States yet to sign up for the scheme. West Bengal's contention pertains to funding and branding. It asks why the scheme should be named PM SHRI if States have to bear 40% of the cost and have to take over the schools after five years. As far as Tamil Nadu is concerned, the point of conflict is the three-language formula of the NEP. This translates to 'imposition of Hindi' for the ruling government. Tamil Nadu has chosen to seek legal redress for release of nearly ₹2,200 crore from the Union government.

Kerala, too, opposed PM SHRI on the grounds it showcases the NEP which, it says, is being imposed by the Union government as part of a Rashtriya Swayamsevak Sangh (RSS) agenda that will lead to 'communalisation of education' and promote unscientific thinking. The State had once agreed to implement the PM SHRI scheme in 2024, but refrained from signing the MoU.

More than a year later, a decision to throw in the towel was made after the Union government insisted on signing the pact as a precondition for release of pending Samagra Shiksha funds (to the tune of ₹1,158.13 crore).

Kerala tried to defend the move saying there will be no compromise on its educational policy and values. The government's attempts to walk the tightrope of prioritising the State's needs while staying true to the ideological opposition to the NEP though ran into a wall of CPI objections, leading to the freeze on the implementation of the scheme. A cabinet subcommittee, which has been formed to scrutinise the MoU, will now take a call on the issue.



## RETHINKING SCIENTIFIC PUBLISHING IN THE AGE OF AI

In India, as in many parts of the world, public money is the main funder of scientific research. Governments invest heavily in laboratories, equipment, and salaries for researchers. Yet the results of this publicly funded research are usually published in journals owned by just a handful of commercial publishers. These publishers don't pay the authors or the peer reviewers who evaluate the work. Both contribute their time and expertise for free. However, the publishers then charge high subscription fees for access to these journals, effectively making the public pay twice: once to fund the research and a second time to read it.

### Democratising research

Against this backdrop, the Budapest Open Access Declaration in 2002 set out a list of bold principles. The declaration challenged the deeply entrenched practices of the scholarly publishing industry, which had long excluded vast sections of the global research community from accessing knowledge using expensive paywalls. The declaration came as the open access movement started questioning why, in a digital age in which printing and postage no longer dictated costs, access to knowledge remained behind expensive subscription paywalls. The declaration ignited a movement that promised to democratise access to scientific knowledge, ensuring research funded by the public would also be available to the public.

More than 20 years later, this vision of equity and inclusivity in knowledge sharing remains largely unfulfilled. Adapting to the winds of change, commercial publishers now promote open access, but again at a very high cost. Instead of subscription barriers, researchers now face towering Article Processing Charges (APCs), often ranging from \$2,000 to \$10,000 per paper. Many institutions in the Global South, and even in wealthier nations, continue to be priced out of both publishing and accessing research.

In India, the government has attempted to address this inequity through the 'One Nation One Subscription' (ONOS) initiative: starting from 2025, ONOS has provided access to journals from 30 major international publishers to all researchers in publicly funded institutions. While the cost of this nationwide deal is substantial, especially given that over half of the global research literature is already available through open-access routes, as seen from the scholarly database Web of Science, the intent behind ONOS remains commendable. It represents a step toward broadening access beyond elite institutions.

Yet it also compels us to ask deeper questions. Should we continue paying these large sums to foreign publishers to access knowledge that our own researchers produce, again with public money? Shouldn't that knowledge at the least be freely accessible to every citizen, empowering them with the scientific temper needed in an era rife with misinformation? Perhaps most importantly: where is the spirit of an Atmanirbhar Bharat in this enterprise?

Ultimately, while the ONOS initiative may carry significant promise, it still leaves many foundational questions unresolved.

As we mark International Open Access Week, which is an annual global campaign to promote open access, the year's theme, 'Open Access Week 2025: Who Owns Our Knowledge?', prompts deeper reflection. In India, where publicly funded research drives much of science and social innovation, the assumption that the scholarly output belongs solely to commercial entities that host them merits scrutiny.



### Knowledge and ownership

Copyright transfer in academic publishing is a practice where authors formally transfer the copyright ownership of a scholarly work to the publisher. This practice began to take shape after copyright laws such as the U.S. Copyright Act 1976, granted authors exclusive rights to their original works, thus motivating publishers to acquire and hold copyrights to control the distribution of work in journals and for any subsequent commercial use. Historically, this transfer was viewed as essential for publishers to manage permissions, reproduction, and dissemination. This was especially so in the subscription-based models, where publishers monetise articles by requiring readers to subscribe to the journals they publish. Over time, such copyright transfer agreements became standard, necessitating authors to relinquish their exclusive rights on their work if they wanted to publish it in scholarly journals.

The landscape today is more varied. While with traditional subscription-based journals, publishers follow the requirement of complete copyright transfer, the rise of open-access publishing has changed the dynamics. Fully open-access journals generally allow authors to retain copyright but apply licences, such as the Creative Commons Attribution (CC-BY) which permits free and broad reuse with attribution to the original creator.

But most authors sign copyright transfers due to the pressure to publish within the prevailing academic culture. This practice is evidently not conducive to serving the interests of research dissemination and reuse or the authors themselves. Recent initiatives like 'Plan S' advocate for authors retaining copyright to promote wider accessibility and scholarly communication without unnecessary restrictions.

Authors are also encouraged to carefully review copyright transfer agreements to understand retained rights and publishing conditions.

### Creative commons licences

Authors can publish their papers using various Creative Commons (CC) licences to clearly define how others may reuse their work. Three licences in particular are notable:

(i) CC-BY (Attribution) allows a person to share the work and reuse or even adapt it, even for commercial purposes, as long as the original author is credited; (ii) CC BY-NC ('Attribution-NonCommercial') allows reuse but not for commercial purposes; and (iii) CC BY-NC-ND ('Attribution-NonCommercial- NoDerivatives'), the most restrictive, allows reuse but forbids both commercial use and adaptation. Publishers often promote the use of the CC BY-NC-ND licence, but in practice, however, this licence limits knowledge reuse by prohibiting translation, remixing or text mining — all actions vital for educational and technological innovation.

### Retaining copyright

When authors transfer copyright to publishers as part of publication agreements, they often lose legal control over how their work is accessed, reused or shared. Large publishers like Elsevier, Wiley, and Springer typically require copyrights to be transferred for subscription-model journals, giving the publisher exclusive rights to distribute and profit from the content. As a result, authors face legal dilemmas over archiving their own articles on institutional repositories or sharing them publicly, ultimately limiting their visibility. On the other hand, authors who retain copyright (or the ability to share their work under an open licence) are empowered to share, adapt, and reuse their own scholarship without institutional or commercial restrictions.



Commercial publishers like Elsevier, Wiley, Springer, and Taylor & Francis and society publishers like the American Chemical Society use restrictive licences in their subscription models, granting publishers legal exclusivity to monetise access.

From 2024 or so, major publishers have also been selling scholarly content to Big Tech companies to train their artificial intelligence (AI) models, often without authors' explicit consent. Taylor & Francis's deal with Microsoft alone is \$10 million. The global AI datasets licensing market has been valued at nearly \$486 million in 2025.

Such commercial data sharing agreements mean researchers' intellectual property is being monetised twice: first through subscriptions, then through AI partnerships — while they continue to not be compensated and be denied control over their own work.

#### **What authors can do**

Authors have three courses of action in front of them.

First, they should self-archive preprint versions of their papers and accepted manuscripts in preprint and institutional repositories. Second, they should request additions to publishing contracts with journals before they submit their papers, in order to retain some rights (they can use the SPARC Author Addendum template, for instance). Third, they should advocate for institutions to develop rights-retention policies that allow them to automatically openly licence the institutions' scholarly output.

For future submissions, authors may also prefer using the CC-BY licence or institutional open access routes that ensure their papers are available for the public to access for free and to prevent unauthorised commercial exploitation.

In the spirit of Open Access Week, the question 'who owns our knowledge?' is not just a theme: it's a call to reclaim intellectual sovereignty.

The future of equitable scholarship depends on authors, not corporations, owning and sharing the knowledge that shapes society.

### **KARNATAKA PLANS TO INTRODUCE AI IN DISTRICT JUDICIARY**

As the use of artificial intelligence (AI) spreads across sectors, the Karnataka government is coming up with legislation to allow use of AI to streamline the justice delivery system in the district judiciary. This is expected to enhance speed, accuracy, transparency, accessibility, and objectivity in judicial process.

The implementation of AI will be a coordinated effort between the State government and the Karnataka High Court under the Karnataka District Judiciary Reforms Bill, 2025, which covers other aspects of judiciary reforms too.

The legislation will allow AI to be implemented in case filing and registration, case management, legal research assistance, document processing, and predictive analytics for administration.

#### **With fast-track courts**

The AI-driven measure is proposed along with the the establishment of fast-track courts. Cases involving farmers, unemployed, job-deprived people, agrarian disputes including land,



agricultural loans, crop insurance and tenancy issues, is proposed to be transferred to fast-track courts that are expected to dispose of cases within 12 months.

“The Bill had come before the Cabinet but had been deferred. The Finance Department is yet to give approval for setting up the proposed fast-track courts. It is likely to be tabled in the ensuing Winter Session of the Legislature,” a government source said.

According to sources, the district judiciary reforms had been pending for some time, and Law and Parliamentary Affairs Minister H.K. Patil had taken interest by holding consultations before the draft was formulated. “The legislation will be in line with latest technology developments,” the source said.

As part of safeguards against the misuse, the proposed legislation bars district judiciary from using AI system to predict, recommend or influence the outcome of judicial decision. AI inputs cannot be treated as evidence or legal opinion. To ensure data protection, the AI system to be used should comply with standards of data security, privacy and confidentiality, which will be prescribed by the High Court, the Bill says.

**RED FLAGS IN GOVT: CAN GENAI MODELS TRACK PROMPTS OF OFFICIALS, LEVERAGE CITIZENS' DATA?**

What happens when a government officer uploads an internal note to an AI chatbot for a quick summary? When a police department asks an AI assistant to optimise CCTVs across a city? Or when a policymaker uses a conversational model to draft an inter-ministerial brief? Can the AI system analyse such prompts at scale, identify the user, infer their role, draw patterns across queries and predict strategic intent?

— These questions are being debated in sections of the Union government, The Indian Express has learnt, amid growing concern about the rapid proliferation of generative AI (GenAI) platforms in India, especially those run by foreign firms, often bundled as free services with telecom subscriptions.

— Senior officials say the core issue is not only data privacy but inference risk: whether these systems can derive sensitive insights indirectly from users' behaviour, relationships, and search patterns.

— Two broad areas are under discussion. First, whether queries made by top functionaries — senior bureaucrats, policy advisers, scientists, corporate leaders and influential academics — could be mapped to identify priorities, timelines, or weaknesses.

— Second, whether anonymised mass usage data from millions of Indian users could help global firms.

— In February, the Finance Ministry directed its employees to “strictly” avoid use of such tools “like ChatGPT and DeepSeek” in office computers and devices over concerns pertaining to confidentiality of official documents and data.

— The concerns come at a time when India is funding the development of indigenous large language models (LLMs) under its Rs 10,370-crore India AI Mission. At least 12 LLMs and smaller domain-specific models are being developed with government support. One of these, led by



Bengaluru-based start-up Sarvam, is expected to roll out by year-end, targeting governance and public sector use cases.

— Last month, in a meeting with top Secretaries, the Prime Minister is understood to have flagged the need for domestic digital platforms in communication and knowledge ecosystems, not just in payments and identity.

**Do You Know:**

— Like other forms of artificial intelligence, generative AI learns how to take actions from past data. It creates brand new content – a text, an image, even computer code – based on that training, instead of simply categorizing or identifying data like other AI.

— Generative AI platforms can draw deeper inferences about users from their prompts because every input reveals intent, tone, preferences, and context in real time. Besides, some AI companies have signed distribution deals with telecom operators and their free subscription is usually linked to phone numbers.

— The IndiaAI Mission seeks to create a comprehensive ecosystem that encourages AI innovation by democratising computing access, improving data quality, developing indigenous AI capabilities, attracting top AI talent, facilitating industry collaboration, providing startup risk capital, ensuring socially impactful AI projects, and promoting ethical AI.

**ACCORDING TO A SURVEY OF 25 COUNTRIES, INDIANS ARE LEAST AWARE OF AI**

According to a Pew survey covering 25 countries, Indians have the lowest awareness about Artificial Intelligence (AI). The survey found that about 14% of Indians have heard of or read a lot about AI; and another 32% have read a little about it. Together, this share (46%) is the lowest among the countries surveyed.

The share of people who have heard of or read a lot or little about AI. At 46%, India's share is well below the 25-country median of 81%.

Although AI is a new technology that young adults are generally expected to know more about, only 19% of Indians aged 18-34 said they have heard of or read a lot about AI. This is the second lowest share in that age group among the 25 countries surveyed.

Consequently, Indians are also among the least concerned about the increasing use of AI in daily life. Close to 19% of them said the increasing use of AI in daily life makes them more concerned than excited. This share is one of the lowest among the countries surveyed.

Nearly 90% of Indians also said they trust that their country will regulate the use of AI effectively. This share is the highest among all the countries surveyed, and by a significant margin.

Wealthier countries tend to have a higher share of people who have heard a lot about AI. Around half the adults in Japan, Germany, France, and the U.S. said they have heard a lot about AI, compared to the 14% in India and 12% in Kenya.



## HAS CLOUD SEEDING BEEN EFFECTIVE?

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

For the first time in nearly 50 years, Delhi conducted two cloud seeding trials with the Indian Institute of Technology Kanpur (IITK) last week. The aim was to induce rain over Delhi to settle the build of smog and particulate matter that had deteriorated the air quality.

### **What is cloud seeding?**

Cloud seeding involves spraying a salt mixture into clouds. The science is that such seeding, which is done by aircraft fitted with flares that fire the salt mixture into clouds, can induce ice or water vapour within the clouds to form water droplets. When lots of such droplets coalesce, they can pour down as rain.

### **What has been its history?**

Cloud seeding has been around for at least three quarters of a century with mixed success. Beginning in the 1940s, General Electric scientists William Schaefer and Bernard Vonnegut chanced upon the principle of using dry ice to form ice crystals in their lab freezer. They then decided to experiment on real clouds. It was reported that they successfully made it snow over Pittsfield in Massachusetts, U.S. This got the U.S. government excited and a formal programme called Project Cirrus was born. While creating rain was certainly on the back of their minds, the big excitement was the prospect of taming hurricanes, which did not pan out well. In the 1950s and 60s, the use of cloud seeding as a weather modification tool became popular. The Soviets seeded clouds over Leningrad to protect May Day parades — years before China used cloud seeding for clear skies ahead of the inaugural ceremony of the Olympics in 2008. The U.S. launched Project Skywater, dumping silver iodide from planes over the Rockies.

### **What has India's experience been?**

Nearly coincident with Project Cirrus, S.K. Banerji, the first Indian Director General of the India Meteorological Department (IMD), oversaw the first cloud seeding experiments in Kolkata by releasing salt and silver iodide in hydrogen balloons in 1952. Most of these were administered as rockets that were fired from the ground. And while these experiments seemed to suggest that on the days when seeding was done, there was more rain compared to days when there was no seeding, it wasn't verifiable if the rain was due to natural sources or from the seeding. There was even an attempt to conduct such seeding in Delhi in 1962 but it failed.

It's only from the 1970s that researchers properly started to use planes and fly to the top of the clouds to spray salt solutions. They also studied cloud physics, condensation, what kind of clouds gave rain, which ones didn't, and so on. Several States, when grappling with drought, have experimented with cloud seeding. The results have been sporadic and there was never any systematic way to tell how much rain could reasonably be expected if a certain amount of salt mixture was scattered. There was also less clarity on where exactly one could expect rain. The cost-benefit also was not clear, given that hiring aircraft, pilots, technical personnel and making salt mixtures was expensive.



### What was the CAIPEEX?

Initiated by the Pune-based Indian Institute of Tropical Meteorology in 2009, Cloud Aerosol Interaction and Precipitation Enhancement Experiment (CAIPEEX) was a systematic scientific investigation to quantify if there were any benefits from cloud seeding. For that it actually studied the interior world of clouds, its physics, and water droplet formation for nearly a decade after which from 2017-2019 they physically identified, using radar and other instruments, clouds that were suitable for seeding.

This experiment was conducted over a drought prone region called Solapur, Maharashtra, and hence a natural test ground to measure enhancement (if there was any). Once the clouds were identified they flew aircraft and fired flares of calcium chloride (no silver iodide used) into some clouds and left others 'unseeded.' Their overall finding was that Solapur got an extra 867 million litres of water — which is considerable. In terms of rainfall measured on the ground: seeded clouds gave an average 46% more rain at the seeded locations relative to the unseeded ones.

Over a 100 square km area downwind, there was 18% more rain in the seed versus unseeded.

### What happened in Delhi?

There were two flights on October 28 when IIT Kanpur flew its own plane and flared clouds. The results were disappointing with no rainfall triggered, though researchers at IITK said that some parts of Delhi reported a 'light drizzle' and a 'small improvement' in air quality. The drawback was the quality of clouds. The CAIPEEX demonstrated that only monsoon clouds which had a certain quantity of moisture could hope to yield sufficient water. Such clouds are absent in the post-monsoon over Delhi.

For seven years, there have been various proposals for seeding over Delhi that have been discouraged by scientists due to the winter atmospheric characteristics. IIT Kanpur has however said that it will continue 'trials' during this season.

## A GIANT LAUNCH TODAY

In its first launch in three months, ISRO will use its biggest rocket LVM-3 to send a communication satellite CMS-03 to space Sunday evening. This is the first time that ISRO will put a satellite weighing over 4,000 kg in the distant geosynchronous transfer orbit (GTO) from the Indian soil.

- CMS-03, a multiband communication satellite, weighing 4,410 kg will be placed in a transfer orbit of around 29,970 km x 170km from the surface of the earth. So far, ISRO had to contract out the launch of its heavier satellites to private space agencies from other countries.
- The current launch is a milestone towards the growing capability of the LVM3 rocket, a modified version of which will also be used under the Gaganyaan mission to put humans in space.
- LVM-3, earlier referred to as Geosynchronous Launch Vehicle Mark 3 or GSLV Mk 3, uses solid, liquid, as well as cryogenic-fuel based engines to put up to 8,000 kg in low earth orbit (up to an altitude of 2,000 km from Earth's surface) and up to 4,000 kg in geosynchronous orbit (about 36,000 km).
- India's previous heavy satellites — it does have a few communication satellites weighing more than 4,000 kg — were put in orbit by other private launchers. The 5,854-kg GSAT 11 and 4,181-



kg GSAT-24 were launched by Ariane space. ISRO also used the service of Elon Musk's SpaceX last year to put in orbit the 4,700-kg GSAT-20 satellite.

- For this launch, to accommodate a heavier satellite — over its capacity of 4,000 kg to GTO — the orbit has been lowered slightly, with the highest point being somewhere around 29,970 km. ISRO, however, is working on ways to increase the capacity of this launch vehicle.
- ISRO has been working on increasing the carrying capacity of launch vehicle, especially considering it will be used for the country's human spaceflight mission.
- One of the ways is to increase the thrust produced by the third or the cryogenic upper stage of the rocket, which accounts for nearly 50% of the velocity needed to place the satellites in the geosynchronous transfer orbits.
- The C25 stage presently being used in the launch vehicle can carry only 28,000 kg of the propellant producing a thrust of 20 tonnes. The new C32 stage will be capable of carrying 32,000 kg of fuel and produce a 22 tonne thrust.
- The space agency is also looking at using a semi-cryogenic engine instead of the liquid-propellant based second stage of the rocket. A cryogenic engine essentially uses liquified gases at extremely low temperatures as the fuel — in this case liquid oxygen and hydrogen.
- A semi cryogenic engine uses a liquified gas and a liquid propellant. ISRO plans to use a refined kerosene and liquid oxygen based second stage. This will not only increase the capability of the launch vehicle, it might also be cheaper.
- With the new engine, the vehicle is likely to become capable of carrying around 10,000 kg to the low earth orbit instead of the current 8,000 kg. The heaviest payload it has carried to low earth orbit is 5,800 kg for the OneWeb mission.
- The space agency is working on developing a new vehicle called Lunar Module Launch Vehicle (LMLV) that will be capable of carrying up to 80,000 kg in the low earth orbit — mainly being designed to carry out missions sending humans to the moon.

**Do You Know:**

- ISRO's Small Satellite Launch Vehicle (SSLV) is a three-stage Launch Vehicle configured with three Solid Propulsion Stages. It also has a liquid propulsion-based Velocity Trimming Module (VTM) as a terminal stage, which can help adjust the velocity as it prepares to place the satellite.
- The Polar Satellite Launch Vehicle (PSLV) is the third generation of Indian satellite launch vehicles. first used in 1994. More than 50 successful PSLV launches have taken place to date. It has also been called "the workhorse of ISRO" for consistently delivering various satellites into low earth orbits (less than 2,000 km in altitude) with a high success rate.
- Geosynchronous Satellite Launch Vehicles (GSLVs) have been instrumental in launching communication satellites in the geosynchronous transfer orbit. According to the European Space Agency (ESA), telecommunications satellites are usually placed in geostationary Earth orbit (GEO). It is a circular orbit 35,786 kilometres above Earth's equator.



- GSLVs have a higher capacity because sending satellites deeper into space requires greater power. Therefore, cryogenic engines consisting of liquid hydrogen and liquid oxygen are used in GSLVs as they provide greater thrust than the engines used in the older launch vehicles.
- According to NASA website, To attain geosynchronous (and also geostationary) Earth orbits, a spacecraft is first launched into an elliptical orbit with an apoapsis altitude in the neighbourhood of 37,000 km. This is called a Geosynchronous Transfer Orbit (GTO). The spacecraft then circularizes the orbit by turning parallel to the equator at apoapsis and firing its rocket engine. That engine is usually called an apogee motor. It is common to compare various launch vehicles' capabilities according to the amount of mass they can lift to GTO.
- Indian Space Research Organisation (ISRO) Chairman V. Narayanan said on Thursday that the first Polar Satellite Launch Vehicle (PSLV) rocket developed by a private consortium, led by Hindustan Aeronautics Limited (HAL) and L&T, would be launched in February 2026. He added that about 80% to 85% of the systems are developed by private industries. He said that about 450 Indian industries are contributing towards the Indian space programme and today, 330 plus start-up ecosystems are working in the country.

#### KASIBUGGA STAMPEDE WAS THE RESULT OF CRIMINAL APATHY. VICTIMS DESERVE ACCOUNTABILITY

At least nine lives — mostly women and children — were lost at the Venkateswara Temple in Kasibugga, Andhra Pradesh, on Saturday, when a morning of devotion turned into one of tragic loss as railings gave way, exits jammed, and the crowd surged uncontrollably. In a country where multitudes are a constant feature of public life, people were once again failed by a system — event organisers, administrators, law enforcers — that takes a short-cut approach to managing crowds.

The Kasibugga tragedy is part of a grim national pattern. In January, a stampede at the Tirupati temple in Andhra Pradesh claimed six lives. In February, a similar incident at the New Delhi railway station during rush hour left 18 commuters, mostly Kumbh Mela pilgrims, dead; a month earlier, the lives of at least 30 devotees were snuffed out at the Mela site. During the Indian Premier League, in June, a stampede outside the M Chinnaswamy Stadium in Bengaluru killed 11 fans and injured over 50 others at what was to be a celebration of RCB's maiden IPL victory. Most recently, in September, nearly 40 people died in a stampede at a rally by TVK president, actor Vijay, in Tamil Nadu's Karur. Each incident was followed by familiar official lamentations, similar inquiries, and the same promises of reform — and yet very little seems to change on the ground. Whether in places of worship, transport hubs, or sporting and music arenas, the script is identical: Crowds surging beyond expectations, too little planning, and a deep-seated disregard for basic safety regulations. The apathy is institutional and administrative — crowd management is treated as an afterthought rather than a science. In Kasibugga, for instance, the crowd on Saturday swelled to around 25,000, well over its usual weekend capacity of 10,000-15,000. The area where the incident occurred was under construction, the entry and exit routes were the same and the makeshift arrangements were woefully inadequate. The state administration has claimed that it was not informed of the special celebrations for Ekadashi.

India's public spaces are a melange of aspiration, desperation, fervour, and devotion. Lax enforcement of safety codes by states and organisers' indifference to capacity limits create a culture of inevitability, where every stampede is described as "unfortunate" rather than unacceptable. The victims of Kasibugga, mostly people from disadvantaged communities — women who came in faith, children who held their mothers' hands until the crush separated them



— warrant more than condolences and platitudes. They deserve accountability. The best tribute to them would be to root out the all-too familiar lapses. India's temples, stations, and stadiums are the arteries of the country's public life. Crowd management at these venues cannot be left to instinct and rope lines; it demands trained personnel, real-time monitoring to stagger crowd movement, spacious and clearly-demarcated entry and exit points, and accountability in case of violations. Most of these safety measures have, in fact, long been underlined in the National Disaster Management Authority's guidelines. Until states, temple trusts, and event organisers acknowledge that managing crowds is an urgent imperative, the country will continue to mourn in the aftermath of preventable tragedies.

## DEATH ON THE MOVE

The highway accident on November 3 that claimed 19 lives at Chevella near Hyderabad was far too routine to change India's disgraceful record in fatal road accidents. The driver of a gravel-laden truck apparently swerved to avoid a pothole and rammed into a bus. There were no dividers, no streetlights and no signages on that stretch of National Highway 163. India's roads are a major public hazard. Pedestrians, bus riders and two-wheeler motorists constitute the majority of the over 400 people who die on India's roads on average, the equivalent to a full transcontinental flight going down. Flight disasters invite scrutiny, multi-agency probes and quick remedial actions but road accident deaths that mostly involve poorer folk trigger perfunctory probes and glacial change in rules, if any. Government documents identify human error as the most common cause but deeper reasons — vehicular and infrastructural — are unaddressed.

In India, the road test for getting a driving licence examines whether the person is able to handle a vehicle of certain specification, largely a skill test, rather than one of his knowledge and execution of safe driving practices. No safety training is mandated. Most accidents are collisions from the back — whereas exemplar driving tests in other countries filter out tailgating tendencies and arbitrary lane changing. The system of certifying and monitoring drivers and vehicles is broken and corrupt. For nearly all Indians, navigating RTOs is unpleasant. The SaveLIFE Foundation advocates License Seva Kendras — on the lines of Passport Seva Kendras — so that they are transparent, digitised, and ensure good driver skills and safety awareness. One in five accidents are head-on collisions, which have happened even on four-lane highways, indicating wrong-side driving and the state of road dividers. In general, national highways need to adhere to Indian Roads Congress guidelines but States have made no mandates as required by the Motor Vehicles Act. There are potholes, dangerous curves, drainage systems, bridge parapets and concrete objects, but no crash barriers or energy absorbers. Collision-risk warning devices are relatively inexpensive and can be mandated on commercial vehicles. Better pedestrian infrastructure alone can prevent many fatalities. In Hyderabad, a community health-care centre was available for immediate treatment and a government hospital was not far away. But that is often not the case elsewhere. In States such as Bihar, fatality rates are double because of inadequate trauma care infrastructure. An overhaul of the road transport system is an urgent requirement in India.

### **Black spot data**

— The Ministry of Road Transport and Highways (MoRTH) will soon release black spot data for 2023 and 2024. It aims to prevent road accidents and fatalities.



- It is based on its ambitious Electronic Detailed Accident Report (e-DAR)/Integrated Road Accident Database (iRAD) system, which was developed to collect real-time data entered by state police.
- Black spots on National Highways (NHs) are critical stretches where high rates of accidents are recorded.
- Under the existing system, a 500-m stretch is categorised as a black spot if there have been either five or more accidents involving fatalities or grievous injuries, or 10 deaths within a 3-year period.
- The iRAD/e-DAR system was rolled out during 2021 and 2022 for different states.
- e-DAR captures road accidents in real time and geo-tags them through an app on phones or tablets used by first responders, which is the police.
- The last black spot series was calculated for 2020-22 and a total of 1,330 critical stretches were identified.

## JUSTICE IN FOOD

By showing that food alone drives five of the six breached planetary boundaries and about 30% of greenhouse-gas emissions worldwide, the new 'EAT-Lancet Commission on healthy, sustainable, and just food systems' report shows how food systems are at the centre of the overlapping climate, biodiversity, water, and pollution crises. Foods from animals account for most agricultural emissions whereas the grains dominate nitrogen, phosphorus, and water use. Only combined action, including cuts to food loss, enhanced and durable productivity gains, and dietary changes, can reverse these trends. The prediction on biogeochemical flows is stark: current agriculture leaves a global nitrogen surplus more than twice in excess of the safe limit. Efficiency gains left uncorrected by good policy can also spur more output that then erases environmental savings. The Commission is pragmatic, too, acknowledging that a response combining everything from dietary changes to emissions mitigation would still only barely return the world's food systems to safety vis-à-vis the climate and freshwater crises by mid-century; the pressure on nutrient security will remain. It does make one questionable assumption, that GDP will grow 127% in 30 years, whereas policy should focus on lower growth and worse climate shocks.

According to the report, India maintains a cereal-heavy diet while meeting benchmarks by 2050 entails more vegetables, fruits, nuts and legumes, which could raise average consumer prices. Affordability is already fragile in areas that import many of these foods, leaving consumers exposed to price shocks. Justice thus implies a transition towards healthier, more diverse diets while keeping prices in check. But changing diets may not always be desirable: preferences are anchored in religion, caste, and convenience, and on necessity vis-à-vis midday meals and procurement commitments. Rather than a diet-first strategy, then, new standards can cut harmful inputs, fiscal measures can make minimally processed foods cheaper, and procurement can normalise regionally familiar, more affordable dishes. Even then, supply-side reform is essential to overcome water stress, degraded soils, and fossil fuel dependence in cold chains and processing. India also needs to move away from implicit, open-ended incentives to extract groundwater. Finally, the Commission identifies market concentration, weak incentives for preventing labour and ecological harm, and undue corporate influence as factors that could stall



change. Justice on the other hand demands stronger collective bargaining by workers and small producers and consumer representation in regulatory processes. These safeguards are partial at best today and need to become guaranteed in practice.

#### WHEN TRANSFUSIONS KILL: JHARKHAND MUST PROTECT PATIENTS

The shocking revelation of multiple children testing HIV-positive after blood transfusions in government hospitals in Jharkhand comes as a searing indictment of a negligent and indifferent system, which has turned life-saving care into a life-threatening sentence. Preliminary inquiries have found serious irregularities at the blood bank that had been running without a licence since 2023, including compromised testing protocols, improper donor screening, and negligent oversight. Of the 44 blood samples tested from 259 donors linked to thalassemia transfusions, four have tested positive. The fact that children, the most vulnerable among patients, were exposed to such a grave risk signals a collapse in the entire chain — from donor recruitment to blood screening to hospital transfusion policies.

Jharkhand's struggle with thalassaemia has long been a public-health challenge, affecting hundreds of children who depend on regular blood transfusions for survival. Yet, the state's healthcare infrastructure, particularly in smaller districts, has repeatedly shown cracks in its monitoring systems. Several district-level blood banks lack provisions to detect HIV at its earliest stage – infections can be transmitted through contaminated blood during the early phase after a donor contracts HIV, but before it shows up in standard tests and the Nucleic Acid Testing (NAT), which can catch this, is available only in Ranchi. The 2002 National Blood Policy clearly mandates moving away from paid blood donations towards voluntary camps, yet this is often not realised in practice. In case of the current crisis, despite clear national protocols mandating rigorous testing for HIV, hepatitis B and C, and other transfusion-transmissible infections, the enzyme-linked immunosorbent assay (ELISA) tests were glossed over routinely. Jharkhand is no stranger to such lapses: In 2018, a similar outbreak in Ranchi had exposed vulnerabilities in the system. The recurrence of such failures underlines a persistent culture of complacency, where underfunded public health systems and weak supervision leave room for such tragedies.

The government's immediate reaction — Jharkhand's health department has suspended several officials, ordered a probe and audits of all blood banks in the state – is necessary but these actions risk being cosmetic unless they lead to structural change through sustained investment in and attention to healthcare. Restoring trust in Jharkhand's healthcare system, especially among the disadvantaged and rural families who rely on it, will require more than compensation, apologies or suspensions. The state government must treat this episode as a wake-up call to overhaul blood safety systems, enforce real-time monitoring, and ensure that every patient's life is protected by more than paper protocols.

#### ICMR SEEKS PARTNERS TO DEVELOP ANTIBODY AGAINST NIPAH VIRUS

The Indian Council of Medical Research (ICMR) has invited Expression of Interest (EoI) from eligible organisations, companies, and manufacturers for the development and production of monoclonal antibodies (mAbs) against Nipah viral disease.

The Nipah virus (NiV) has emerged as a major zoonotic threat in India, with repeated outbreaks recorded since 2001. Case fatality rates range between 40% and 75%, depending on the level of clinical care available.



“The importance of having monoclonal antibody stocks ready for deployment in India cannot be overstated. Given the very high case fatality and absence of licensed vaccines, mAbs represent the only currently feasible biomedical countermeasure,” the ICMR said.

#### **Antibodies serve as PEP**

It added that monoclonal antibodies could also serve as post-exposure prophylaxis (PEP) for high-risk contacts such as healthcare workers exposed without adequate protection, family members in close contact, or laboratory personnel with accidental exposure. Administered early, they can prevent disease onset, as demonstrated in animal models.

The council further noted that in patients presenting early during infection, monoclonal antibodies may offer therapeutic benefit by reducing viral load and limiting disease progression.

The ICMR said this initiative aims to build India’s indigenous medical countermeasures against Nipah virus, particularly monoclonal antibodies. “The intent is to take this forward through active collaboration with Indian industry partners for developing an indigenous monoclonal antibody platform. Producing the stock will ensure timely access during outbreak and boost national preparedness for viral threats,” it said.

The ICMR-National Institute of Virology (ICMR-NIV), Pune, has already initiated research and development in this direction, with experimental work at an advanced stage.

As per the latest order, the ICMR and its institutes will provide expert guidance and technical support in R&D for developing monoclonal antibodies against Nipah viral disease at all phases. “This technical oversight by ICMR would accelerate the development of the product and its commercialisation,” it said.

#### **PANEL BACKS UNIFORM PENALTY FOR FOREST ACT VIOLATIONS**

The Union Environment Ministry’s Forest Advisory Committee (FAC), which scrutinises proposals for the diversion of forest land for non-forestry activity, has recommended rationalisation and uniformity in penal provisions levied over the violation of Van (Sanrakshan Evam Samvardhan) Adhiniyam, 1980. The expert panel has said that penal compensatory afforestation shall be charged on an equal extent of the forest land involved in the cases of violation.

— The Van Adhiniyam (formerly Forest Conservation Act, 1980) is considered to be violated when forest land is permitted for “de-reservation, non-forestry use, lease, or clear felling” without prior approval of the Centre under the law.

— The FAC recommended penal compensatory afforestation in addition to penal provisions provided in the Van Adhiniyam Rules, 2023, as per the minutes of its October 28 meeting.

— Penal compensatory afforestation refers to restoration efforts which are ordered in addition to the legally mandated compensatory afforestation for non-forestry use of forest land for infrastructure projects, industries.

— Under the rules, a penal net present value (NPV) of up to five times is levied in relation to the forest area that is used in contravention of the law. NPV is the quantification of the environmental services provided for the forest area diverted for non-forestry purposes.



— Even as the practice of stipulating penal compensatory afforestation was largely discontinued after detailed guidelines on monetary penalties were introduced, it was still ordered on a case-to-case basis, the FAC noted.

— In cases where the state government was convinced that provisions of the law were violated, the FAC recommended that a detailed report should be sent to the regional office or ministry headquarters along with details of persons who allowed the offence and action taken under the law.

— The simple principle that works in compensatory afforestation is that since forests are an important natural resource and render a variety of ecological services, they must not be destroyed. However, because of developmental or industrial requirements, forests are routinely cut, or, as it is said in official language, “diverted for non-forest purposes”.

— But since afforested land does not become a forest overnight, there is still a loss of the goods and services that the diverted forest would have provided in the interim period. These goods and services include timber, bamboo, fuelwood, carbon sequestration, soil conservation, water recharge, and seed dispersal.

— Afforested land is expected to take no less than 50 years to start delivering comparable goods and services. To compensate for the loss in the interim, the law requires that the Net Present Value (NPV) of the diverted forest is calculated for a period of 50 years, and recovered from the “user agency” that is “diverting” the forests.

### 3RD HOME FOR CHEETAHS COMING BUT THERE’S A CHALLENGE: 25 TIGERS THERE

When Madhya Pradesh wildlife officials introduced cheetahs to Kuno National Park and Gandhi Sagar, they began with a blank slate. Apex predators like lions and tigers were absent, leopards were moved out, and herbivores were brought in to give the cheetahs room to breathe, hunt, and establish themselves without having to look over their shoulders.

- As the state government prepares the state’s largest wildlife sanctuary in Nauradehi as the third home of cheetahs, the fastest big cats on the planet will, for the first time, have to compete with an apex predator. Twenty-five tigers have already made Nauradehi their home since 2018. Add to that an estimated 100 crocodiles, Indian wolves, wild dogs and panthers.
- As Kuno National Park’s pioneering cheetah reintroduction project captures global attention, wildlife officials are quietly preparing Nauradehi to become India’s third cheetah stronghold. Dr A A Ansari, Deputy Director at Nauradehi Wildlife Sanctuary, told The Indian Express, “Our prey base and grassland quality are excellent; that’s a clear indication of the sanctuary’s potential. Tiger was introduced here in 2018. From just two individuals, there are now 25, including cubs, which shows the habitat can support apex predators.”
- The decision marks a calculated gamble on a landscape that MP wildlife and National Tiger Conservation Authority (NTCA) officials describe as possessing “immense potential”, though one that will require transforming what has been “a neglected protected area”.
- Spread across the Sagar, Damoh, and Narsinghpur districts, the sanctuary sits atop the upper Vindhyan range that straddles the Ganges and Narmada basins. Officials said an additional buffer zone of 925 sq km has been added across Damoh, Narsinghpur, and Sagar districts, coupled with



a core zone of 1,414 sq km. To address staff shortage, a proposal has been sent to the state government to fill 30 vacant forest guard posts.

- A tender has been floated to construct the cheetah enclosures, where the first batch expected to arrive next year will be housed before their release into the wild. This build-up of critical infrastructure is made possible by the relocation of villages. Out of 93 in its core area, 44 have been relocated outside the sanctuary, and 10 are in the process.

**Do You Know:**

- Project Cheetah was launched in September 2022 and introduced African cheetahs into India from Namibia and South Africa. Initially, 20 cheetahs were imported from the two countries.

**STOP WILDLIFE IMPORTS TO INDIA UNTIL PROPER CHECKS IN PLACE: CITES REPORT**

Cautioning against “illegal harvest of wild animals that are later declared as captive bred”, a verification mission of the CITES has recommended that India stop importing critically-endangered species — such as gorillas, orangutans, chimpanzees and snow leopards — until the government reinforces “due diligence and controls” to safeguard against illegal animal trade and provides “evidence to the satisfaction of the Secretariat” based in Geneva.

— The CITES is a global treaty with 185 signatories. India became a party to CITES in 1976. Every member country designates their own CITES authorities. No international shipment of endangered species is allowed without export and import permits from the CITES authorities of the two countries involved.

— At its last meeting in Geneva this February, the CITES Standing Committee took note of the information provided by a number of countries regarding “the trade in live animals with purpose code Z (zoo) to the facility of the Greens Zoological Rescue & Rehabilitation Center (GZRRC)” in Gujarat, and asked the CITES Secretariat to undertake a verification mission to “understand how Indian authorities ensure that live wildlife are acquired and imported legally”.

— The inspection mission was in India between September 15 and 20 when it also visited Vantara’s GZRRC and Radha Krishna Temple Elephant Welfare Trust (RKTEWT) facilities in Jamnagar.

— In its 14-page report, the mission noted that while no import to India took place without CITES export and import permits, “several imports still raise questions regarding the origin of the specimens”, the exemptions sought, “the use of source and purpose-of-transaction codes, and the exercise of due diligence by India”.

— The report underlined that CITES allows purchase of wildlife if the trade is under certain conditions, but India’s Wildlife Protection Act states that “no zoo shall acquire, sell or transfer any wild or captive animal except from or to a recognised zoo”. This is why wildlife imports by India are almost exclusively under the source code C (captive bred) and purpose code Z (zoo).

— Since a number of animals came from “established commercial breeding facilities, which would normally sell the animals,” the report said it would be “important to clarify that exporting facilities are indeed registered as zoos in their countries, to ensure that the operations of the GZRRC and RKTEWT do not inadvertently become a driver of illegal harvest of wild animals that are later declared as captive bred.”



— Considering the quantity of specimens being imported by the GZRRRC and RKTEWT, the report recommended that India “reviews as a matter of urgency its import procedures and implements such stronger due diligence” so that animals sourced from the wild are not imported as captive-bred.

— The CITES Secretariat recommended that India verify all imports highlighted in its report, and other cases that raise similar concerns, with source or transit countries, including Congo, Germany, Guyana, Iraq, Mexico, Syria and the UAE, to check if the imported animals were indeed captive-bred and, if not, take appropriate measures.

— The CITES Secretariat recommended that the CITES Standing Committee, scheduled to meet in Uzbekistan’s Samarkand on November 23, ask India to take necessary actions and submit a report within 90 days.

**Do You Know:**

The species covered under CITES are listed in three Appendices, according to the degree of protection they need.

— Appendix I includes species threatened with extinction. Trade in specimens of these species is permitted rarely, only in “exceptional circumstances”, such as gorillas, and lions from India.

— Appendix II includes species not necessarily threatened with extinction, but in which trade must be controlled to ensure their survival. For example, certain kinds of foxes and Hippopotamuses.

— Appendix III contains species that are protected in at least one country, which has asked other CITES Parties for assistance in controlling the trade, like the Bengal fox or the Golden Jackal from India. Different procedures are given category-wise to engage in the trade of species in each of the lists.

**RESEARCHERS DISCOVER NEW SPECIES OF PILIA GENUS OF JUMPING SPIDER IN CHIKKAMAGALURU**

A team of researchers exploring biodiversity in the Western Ghats discovered a new species of spider belonging to Pilia, a genus of jumping spiders, at Madhugundi village in Mudigere taluk of Chikkamagaluru. Interestingly, the researchers named it “Pilia malenadu”, to give credit to the place it was found.

The discovery, which has been published in Zootaxa, an international journal, is significant because the last time a species of spiders belonging to Pilia genus, was discovered about 123 years ago (1902) in Kerala. There are multiple species in one genus. Further, the researchers, for the first time, have found both male and female spiders of the species.

Ajit Padiyar, working as a naturalist at a resort at Madhugundi, spotted the 24 individuals of the spider species, which were later named “Pilia malenadu”. They included 17 males, three females and four juveniles.

Padiyar had found saffron reedtail, a rare species of damselfly endemic to the Western Ghats at the same place last year.



### Healthy ecosystem

“The discovery of such rare species at Madhugundi village at the foothills of Western Ghats, indicates the healthy ecosystem at the place and stress the need to retain it,” Mr. Padiyar said.

The researchers noticed that these spiders were found only two plant species — *Memecylon umbellatum* and *Memecylon malabaricum*.

“Our study shows the spiders are habitat specific. If we fail to conserve the habitat, there are chances of losing the species,” said Mr. Padiyar.

### AT 100, RITWIK GHATAK IS SO CONTEMPORARY

On February 7, 1976, the day Ritwik Ghatak died, Calcutta saw a spontaneous outpouring of grief. Thousands of people thronged the streets and accompanied the funeral procession, paying homage to the director who had died at 51 of tuberculosis. “It was a unique funeral of a unique man,” wrote Safdar Hashmi in his 1981 essay, “The Genius That Was Ritwik Ghatak”. Yet, the profound public mourning stood in sharp contrast to the neglect Ghatak endured in his lifetime. Despite being one of the pioneers of India’s New Wave cinema, he had not received the kind of recognition his contemporaries Satyajit Ray and Mrinal Sen enjoyed. His first film, *Nagarik*, would release only after his death. Several others, including *Titas Ekti Nadir Naam*, would run into difficulties.

If Ghatak’s lifetime was marked by failure, the failure was heroic. He was perpetually at odds with the system — political, cinematic, commercial — that demanded compliance. His films often misunderstood, his politics unfashionable — he was expelled from the Communist Party in 1955 — his temperament uncompromising, he continued nonetheless to produce devastatingly beautiful films, such as his Partition trilogy, *Meghe Dhaka Tara* (1960), *Komal Gandhar* (1961), and *Subarnarekha* (1962), and nurtured a generation of filmmakers such as Mani Kaul, Kumar Shahani and Adoor Gopalakrishnan during his stint as a teacher at Pune’s FTII. Ghatak saw cinema as a social act that was both deeply local and radically universal, a form of collective memory-making, as ritual and protest, as the world seemed to crumble all around him.

A century later, in a fractured world, his voice feels startlingly contemporary. It’s a reminder that failure can be fertile, and that art, when it refuses to compromise, can be counted upon to bear witness.

### THE ACTUAL TAJ STORY: HOW A MONUMENT’S HISTORY HAS BEEN WARPED

A little over 60 years ago, Purushottam Nagesh Oak slept and dreamt. He woke up and claimed that the Taj Mahal in Agra was actually a Hindu palace going back all the way to 4th century. Friends of Mr. Oak, an English teacher-turned-lawyer-turned-journalist but never a historian, told him that the Taj Mahal couldn’t have been a fourth century structure as the technology employed in building the Taj in the 17th century didn’t exist back then. The fantasist turned a pragmatist, and Oak brought his argument forward by a few centuries. The Taj was now claimed to be a Hindu temple. This was in 1989. He wrote articles and a book too, but found no support from historians. Even the Supreme Court dismissed his claims as “a bee in his bonnet” in 2000.

But post-2014, history is like a revolving door, you enter and exit at your ease and pleasure. You pick and choose, you circumvent and invent. Dress it up as a movie and claim you are looking at history anew. That is how we get a movie like Tushar Amrith Goel’s *The Taj Story*, starring former

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



BJP MP Paresh Rawal; just like we had The Kashmir Files and The Bengal Files, starring Anupam Kher and Mithun Chakraborty, all ideological partners of the Bharatiya Janata Party (BJP).

With The Taj Story, Goel goes where no historian has gone. Proof, evidence and knowledge amount for nothing as the director makes a case for the Mughal monument being actually a Hindu temple, much like the BJP leader Sangeet Som who called it alternately a Shiva temple and a monument built by a man who incarcerated his father. Mr. Som obviously couldn't make out a Shah Jahan from an Aurangzeb and hence got mixed up. Much like Oak, oops, Goel, who sees no difference between history and mythology, facts and fantasy.

### **Recorded history**

Talking of facts, the Taj Mahal was built by the Mughal emperor Shah Jahan after his favourite wife Arjumand Bano Begum breathed her last after bearing the last of their 14 children. Its chief architect was Ustad Ahmed Lahori. The land for her last resting place was procured from Mirza Raja Jai Singh of Amber who had inherited it from Raja Man Singh, a celebrated general of Akbar, who was Shah Jahan's grandfather. Shah Jahan compensated Jai Singh with four havelis from the royal property for the massive haveli in which rests Mumtaz Mahal. His firman to Jai Singh, the latter's agreement and the Mughal emperor's subsequent letter of granting him four havelis in lieu of one, are all part of history; unlike the claim of The Taj Story which talks in terms of a massacre and genocide of the locals for fulfilling the wishes of an emperor and his consort!

The work on the tomb started in 1632 with the finest craftsmen from across the country and West Asia. The chief mason was Mohammed Hanif from Baghdad who earned ₹1000 a month for his efforts. The pinnacle was built by Qayam Khan of Lahore and its Quranic inscriptions were done by Amanat Khan Shirazi. The mosaic work was done by local Hindu workers. Above all, some 20,000 workmen toiled for 22 years to build the monument to love. Its white marble came from Jaipur, lapis lazuli from Sri Lanka, crystal from China and coral from Arabia. The monument uses the double dome technique, previously seen only in the Humayun's tomb in Delhi, and never seen in the country before the arrivals of the Turks.

### **Not the first time**

Over the years, many have tried to appropriate credit for its beauty and majesty. In the 17th century, it was claimed by many in the West that the architect of the Taj was Venetian Geronimo Veroneo, a jeweller by profession. Then came the claim by Mughal Beg in Tarikh-e-Taj Mahal that it was designed by Muhammad Effendi, an architect supposedly sent by the Sultan of Turkey. Effendi though was as much an architect as Oak was a historian. In the mid 19th century it was claimed that the monument was the result of the genius of Frenchman Austin de Bordeaux, a jeweller. However, Austin died in 1632, the year the work on the Taj began. With his death all claims of Austin being the Taj's architect were buried. And facts began to be raised.

As for fantasy, well there is Goel's film, never mind its claim of presenting the "untold history of the Taj Mahal". The film, replete with stereotypes of kohl-lined, skullcap-donning Muslims aims at building a nation's memory on unreasoned mythology, far removed from the well argued debates of history. Much like Oak's view that Christianity was nothing but Krishan-Niti. Not game for any ridiculous claims in an insipid film which opened with a mere 14% attendance in the first show? Watch M. Sadiq's 1963-saga Taj Mahal. Sure, you would remember its song, 'Jo wada kiya woh nibhana padega', penned by Sahir Ludhianvi and sung with much love by Mohammad Rafi and Lata Mangeshkar. Sadiq's film with Pradip Kumar and Bina Rai in the lead cast, made no effort at replacing history with mythology.



## WHEN INDIA FIRST SMELTED IRON

Nowadays, we take iron and steel for granted, but it is worth pausing to ask when iron first appeared around the world. Everyone has heard of the Bronze Age. The Harappan cities of northwest India were Bronze Age cities, built on a foundation of copper and bronze. But it is quite possible that the global Iron Age started in India.

Many historians have believed that the knowledge of iron smelting came from Anatolia (modern-day Türkiye), north of Mesopotamia, and spread eastward. But this assumption may not be correct. There is growing evidence that iron was smelted in India independently. In fact, sites in Tamil Nadu suggest that people may have been smelting iron as early as 3000 BC.

This claim is supported by some of the archaeological discoveries across Tamil Nadu, such as:

1. Mayiladumparai (Krishnagiri district) – Radiocarbon dates from 2172 BCE or earlier reveal iron artefacts and furnaces, suggesting one of the world's oldest known instances of iron use.
2. Paiyampalli (Vellore district) – Excavations show a transition from Neolithic to Iron Age culture, with smelting remains and iron objects dating to around 1500 BCE.
3. Adichanallur (Thoothukudi district) – Burial sites and slag evidence indicate advanced metallurgy and iron tool use roughly between 1500 and 1000 BCE.

Until recently, everyone assumed that the Iron Age began in India in the Vedic period. The Rig Veda does not mention iron. It only refers to “ayas”, which probably meant copper or bronze. But by the time of the Atharva Veda, we encounter the phrase “krishna ayas”, or black metal, suggesting that iron was known by about 1000 BC.

Why bronze came before iron

To appreciate its significance, we need to understand the difference between bronze and iron. After the Stone Age came the Metal Age. Copper is relatively rare but melts easily. Bronze is an alloy of copper and tin. Tin is also rare. Iron is abundant but very difficult to melt. That is why the Copper Age and the Bronze Age appear first in human history, and only later the Iron Age.

Copper and tin were both available in Central Asia, and when combined, they produced bronze. The Harappans had access to this bronze technology and perhaps even monopolised it. They carried bronze and copper goods to the Persian Gulf in small boats, and from there these goods reached Mesopotamian temples, where bronze was treated as a sacred and valuable commodity. From Mesopotamia, bronze made its way to Egypt.

We may take bronze for granted today, but back then it was rare and almost magical. It was first used for ritual and crafts, not everyday tools. Even in Harappa, stone tools continued to be used alongside bronze, showing that bronze was a luxury item. There is no clear evidence of iron in Harappan cities.

While Harappa declined, iron was smelted in India

The decline of Harappan cities is closely linked to the fate of bronze. Three reasons stand out:

1. First, reduced supply: traders who once brought tin from Central Asia found a shorter land route to Mesopotamia through Elam (coastal Iran), bypassing the Indus River.



2. Second, reduced demand: the Akkadian Empire, which replaced the Sumerians, did not value the exotic goods of Harappa as much as the Sumerians had.
3. And third, climate change altered river patterns, making it harder to sustain the Indus cities.

So the story of Harappa is not just about bricks and drains, but also about copper, tin, and bronze.

While Harappa was fading, iron was being smelted in India. Early iron sites have been found in the eastern Gangetic plains, but even more importantly, across southern India. Archaeologists have found iron in the same regions where ash mounds and megaliths are located. Ash mounds are vast deposits of burnt cattle dung, sometimes 100 metres wide and several metres high, created over generations.

We do not know why Deccan pastoralists created them, but clearly fire was central to their culture. This interest in fire may have helped them experiment with baking clay and smelting ores.

Emerging evidence about India's early iron age

It is even possible that the Aryans, who came to India around 1500 BC, were drawn by the prospect of trading for iron. Excavations at Keeladi in Tamil Nadu reveal an urban civilisation on the banks of the Vaigai River, with evidence of iron production dated to 600 BC.

Notably, India was also the home of Wootz Steel, which was developed around 500 BC in the Deccan region. This development was likely the result of earlier knowledge of smelting, alloying, etc.

And Keeladi's deeper layers may hold even more secrets. The finds at the site echo the Harappan world: red-and-black pottery, carnelian beads, organised streets, water and sewage management, even symbols reminiscent of Harappan signs.

These new findings are still being debated, and politics often clouds the evidence. But as more excavations and studies emerge, our understanding of India's early iron age is bound to change. It may well turn out that India was among the first centres of iron smelting in the world, reshaping how we think about ancient history.

## SHORT NEWS

### US AND CHINA OPENS MILITARY CHANNELS

— Recently, the US and China have agreed to strengthen communication, maintain stability in bilateral ties, and “set up military-to-military channels to deconflict and de-escalate any problems that arise”.

— Washington's engagement with Beijing at the military level, where it will now be in talks with the Chinese military, will be watched with some concern in capitals of the region, especially in Delhi, Tokyo, and Canberra

### CHINA'S THIRD AIRCRAFT CARRIER – FUJIAN

— The People's Liberation Army Navy (PLAN) has officially inducted Fujian, China's third aircraft carrier, and its most advanced one yet.



— The Fujian is China's third aircraft carrier, with a flat flight deck and electromagnetic catapults for take-offs that make it a potentially far more powerful naval weapon than China's first two Russian-designed carriers.

— Electromagnetic catapults, part of the Electromagnetic Aircraft Launch System (EMALS), use electric power to launch aircraft from a carrier's deck. Unlike traditional steam catapults, EMALS provides smoother acceleration, enabling the launch of heavier and more advanced aircraft.

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#### ABRAHAM ACCORDS

— US President Donald Trump said that Kazakhstan will join the Abraham Accords to normalize relations between Israel and Muslim-majority nations.

— Kazakhstan already has full diplomatic relations and economic ties with Israel, meaning the move would be largely symbolic.

— The Abraham Accords are a series of agreements to normalise the relationship between Israel and Arab countries. These were signed in September 2020. The UAE and Bahrain became the first Arab countries to formally recognise Israel since 1994.

— Later, Morocco also agreed to normalise relations with Israel, taking the number of Arab countries that recognised the Jewish state to five, with Egypt and Jordan being the only ones to do it earlier.

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#### AYNI AIRBASE IN TAJIKISTAN

— Last month, it came to light that India no longer operates its erstwhile overseas Ayni airbase in Tajikistan that gave it a strategic heft in central Asia.

— Ayni was India's only full-fledged overseas base, and its location offered India a military foothold in central Asia and leverage over Pakistan. Its presence projected influence in the region dominated by major powers like Russia and China.

— The airbase was also used by India to evacuate its nationals after the Taliban took control of Kabul in August 2021.

— It is located around 20 km from Afghanistan's Wakhan Corridor, which shares a boundary with the Pakistan-occupied Kashmir (PoK) and with China's Xinjiang province.

— It is understood that the Tajikistan government was reluctant to renew the lease for the airbase owing to pressure from Russia and China. The withdrawal of Indian presence was carried out subsequently, but quietly. The matter only came to light last month.

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#### PHOOL WAALON KI SAIR

— Amid uproar, Phool Waalon Ki Sair (procession of the florists), an annual festival symbolising communal harmony in the national capital, has received permission to be held at its original venue, Aam Bagh in Mehrauli.



— The week-long festival is unique as the Hindu and Muslim communities together offer the floral chaadar and pankha at the Dargah of Khwaja Bakhtiar Kaaki in Mehrauli. Another floral pankha and chhatra (canopy) is offered at the ancient temple of Devi Yogmaya in Mehrauli.

— The festival has its origins in the early 19th century, when the Mughal empire was beginning to decline. Prince Mirza Jahangir had fired at the British resident and was exiled to Allahabad.

— His mother, Mumtaz Mahal Begum, promised that once her son returned she would walk barefoot from the Red Fort to the dargah of Khwaja Qutbuddin Bakhtiyar Kaki in Mehrauli to offer her gratitude.

— When her prayers were answered, it is said, local flower-sellers scattered flowers along her route and made floral fans (pankhas) which were offered at both the Kaki dargah and Yogmaya Temple.

— From this act grew an annual fair instituted in 1811, bringing together people of different faiths in a syncretic celebration. It was halted during British rule in 1942 and revived in 1962 by then Prime Minister Jawaharlal Nehru.

#### RAMMAN FESTIVAL

— President Droupadi Murmu attended a special session of the Uttarakhand Assembly, where Speaker Ritu Khanduri Bhushan presented her with a Ramman mask and a book on the centuries-old festival celebrated in the state's Garhwal region.

— Ramman is a festival celebrated annually in late April during Baisakhi at the twin villages of Saloor-Dungra in Uttarakhand's Chamoli. It is dedicated to the tutelary god, Bhumiyal Devta, a local divinity whose temple houses most of the festivities.

— The festival involves theatrical performances of the Ramayana and local legends, in which people sing songs and wear masks while dancing. There are 18 different types of masks made of Bhojpatra, Himalayan birch, that performers wear during the event.

— In 2009, Ramman was inscribed in the list of UNESCO's Intangible Cultural Heritage of Humanity.

#### YEAR-LONG CELEBRATION MARKING 150TH ANNIVERSARY OF INDIA'S NATIONAL SONG 'VANDE MATARAM'

— Prime Minister Narendra Modi kicked off the year-long commemoration of the song Vande Mataram on 7th November, marking its 150 years. It is being organised by the Ministry of Culture.

— The programme marked the formal launch of the year-long nationwide commemoration – November 7, 2025 to November 7, 2026 – celebrating 150 years of the composition written by Bankim Chandra Chatterji in 1875.

— The national song "Vande Mataram" by Bankimchandra Chatterji was written on Akshaya Navami which was on November 7, 1875.

— Vande Mataram first appeared in the literary journal Bangadarshan as part of his novel Anandamath.



— The song, invoking the motherland as the embodiment of strength, prosperity and divinity, gave poetic expression to India’s awakening spirit of unity and self-respect. It soon became an enduring symbol of devotion to the nation.

— On January 24, 1950, the Constituent Assembly of India unanimously adopted ‘Vande Mataram’ as the national song.

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#### NATIONAL URBAN CONCLAVE 2025

— The two-day National Urban Conclave was organised at Yashobhoomi, New Delhi, on 8-9 November 2025.

— It brings over participants that including policymakers, urban planners, experts, and stakeholders, to deliberate on the theme “Sustainable Urban Development and Governance” through intensive brainstorming sessions across six thematic areas.

— During the inaugural session, the Union Minister of Housing and Urban Affairs, Shri Manohar Lal, launched the Dumpsite Remediation Accelerator Programme (DRAP), the Swachh Bharat Mission – Knowledge Management Unit (KMU), and Urban Invest Window (UiWIN).

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#### NATIONAL LEGAL SERVICES DAY

— Prime Minister Narendra Modi, while speaking at the National Conference on Strengthening Legal Aid Delivery Mechanisms, organised by the National Legal Services Authority (NALSA) to mark the Legal Services Day, said, “Ease of Doing Business and Ease of Living are truly possible only when Ease of Justice is also ensured.”

— National Legal Services Day is observed annually on November 9. This day serves as a platform to promote legal awareness and ensure access to justice for all citizens, especially those from marginalised communities.

— National Legal Services Day, started in 1995 by the Supreme Court of India, aims to provide free legal help and support to the weaker sections of society.

— The 9th of November is celebrated annually by all Legal Services Authorities as “Legal Services Day” in accordance with the call made by Chief Justice A.S. Anand in the First Annual Meet.

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#### DUMPSITE REMEDIATION ACCELERATOR PROGRAMME

— During the National Urban Conclave 2025, Union Minister for Housing and Urban Affairs, Shri Manohar Lal, launched the Dumpsite Remediation Accelerator Programme (DRAP).

— It is a year-long, mission-mode initiative aimed at fast-tracking the remediation of remaining dumpsites across urban India.

— The programme seeks to reclaim valuable urban land for community and infrastructure development, thereby advancing India’s vision of achieving “Lakshya Zero Dumpsites” by September 2026.

— Under the programme, cities would be offered additional financial support for remediation and waste processing projects; corporate and public sector undertakings would be roped in for



supporting the projects; Central and state road agencies would be asked to use the inert waste for road construction projects; and political and administrative leaders would be asked to “adopt” one of the dumpsites.

#### URBAN INVEST WINDOW (UIWIN)

- During the conclave, Manohar Lal also launched UiWIN – an initiative of HUDCO, under the guidance of MoHUA.
- It will serve as a one-stop investment facilitation platform for enabling local bodies to raise private funds. It will help cities identify projects, mobilise capital and implement the project, as per the Ministry.

#### 8TH PAY COMMISSION

- The government on October 28 approved the terms of reference (ToR) of the Eighth Central Pay Commission after having announced its formation in January this year.
- It will revise the salaries of nearly 50 lakh central government employees and allowances of 65 lakh pensioners, which will come into effect from January 1 next year.
- The Eighth Central Pay Commission will be headed by Justice Ranjana Prakash Desai, a former Supreme Court judge and the chairperson of the Press Council of India.
- A Pay Commission is constituted by the central government approximately every decade to revise the salary structure of its employees and determine pension payments. Since 1947, seven Pay Commissions have been established.
- As per the Terms of Reference, the Eighth Pay Commission will have to keep in view the economic conditions in the country and the need for fiscal prudence, the need to ensure that adequate resources are available for developmental expenditure and welfare measures.
- One additional term has been added this time, to keep in view the unfunded cost of non-contributory pension schemes. This is significant in the backdrop of continuing demands for restoration of the Old Pension Scheme.

#### UTTARAKHAND TURNS 25

- As Uttarakhand marked 25 years of its formation on November 9, Prime Minister Narendra Modi and Union Home Minister Amit Shah extended greetings to the people of the state. Along with multiple development projects, Modi launched a commemorative postal stamp on the occasion.
- Uttarakhand, carved out of Uttar Pradesh, became India’s 27th state on November 9, 2000. The day is celebrated every year as the state’s foundation day.

#### OPERATION PIMPLE

- Two infiltrators were killed in a gunfight while trying to cross over into the valley in the Keran sector of north Kashmir’s Kupwara on 8th November under Operation Pimple.



— Infiltration attempts by militants traditionally increase during October and November as they try to sneak into the valley before the snow closes the mountain passes and makes any movement across the Line of Control (LoC) difficult.

#### INS IKSHAK

— The Indian Navy has formally commissioned the INS Ikshak into its fleet at the Naval Base in Kochi. This is the third vessel of the Survey Vessel (Large) [SVL] class and the first to be based at the Southern Naval Command.

— According to Ministry of Defence, the name 'Ikshak', means 'Guide' in Sanskrit which defines "the ship's role as a sentinel of precision and purpose".

— Built by Garden Reach Shipbuilders and Engineers (GRSE) Ltd, Kolkata, INS Ikshak is equipped with state-of-the-art hydrographic and oceanographic equipment, including a high-resolution multi-beam echo sounder, Autonomous Underwater Vehicle (AUV), Remotely Operated Vehicle (ROV), and four Survey Motor Boats (SMBs).

— The vessel embodies over 80% indigenous content, underscoring the Aatmanirbhar Bharat initiative and collaborative synergy between GRSE and Indian Micro, Small, and Medium Enterprises (MSMEs).

#### RHESUS MACAQUE

— The standing committee of the National Board for Wildlife (SC-NBWL) has recommended reinstating the Rhesus Macaque species of monkeys under Schedule II of the Wildlife (Protection) Act, 1972.

— The recommendation has been made to prevent cruelty, exploitation, and illegal trade of Rhesus Macaque.

— The IUCN Red List status of Rhesus Macaque is Least Concern.

#### TYPHOON KALMAEGI

— Typhoon Kalmaegi brings rain and destruction in Vietnam and the Philippines. It is locally known as Tino.

— Kalmaegi is the 13th typhoon to form in the South China Sea this year. Vietnam and the Philippines are highly vulnerable to tropical storms and typhoons due to their locations along the Pacific typhoon belt, regularly experiencing damage and casualties during peak storm seasons.

— Tropical cyclones have different names depending on their location and strength. They are known as hurricanes in the Caribbean Sea, the Gulf of Mexico, the North Atlantic Ocean and the eastern and central North Pacific Ocean. In the western North Pacific, they are called typhoons.

#### TROPICAL FORESTS FOREVER FACILITY (TFFF)

— The UN Climate Change Conference COP30 is happening in Belém, Brazil, from 6-21 November.



- Brazil, on 6th November, formally launched the TFFF, which is designed as a “payment-for-performance” model that uses agreed satellite monitoring standards and systems to reward tropical forest countries with a continuing source of funding as long as they preserve their forests.
- TFFF aims to mobilise around USD 125 billion through public and private investment, using returns to pay nations that conserve forests. Brazil made the first \$1 billion investment in the facility
- The valuation of environmental preservation through the TFFF stems from the understanding that ecosystems such as the Atlantic Forest, the Amazon, and the Congo and Mekong basins are essential to sustaining life, as we know it today.
- The tropical forests are home to more than 80% of the world’s terrestrial biodiversity. Therefore, they provide ecosystem services to humanity on a global level. What the TFFF seeks is for the world to remunerate part of these services. It is to remunerate forests as the basis of life, as the basis of the economy, for our well-being.

#### HEAVY METALS FOUND IN CAUVERY FISH; STUDY ADVISES REDUCING CONSUMPTION

A recent study by Bharathidasan University has found significant heavy metal pollution in the Cauvery River and its fish, particularly cadmium and lead, posing potential health risks to both the ecosystem and humans. The research, published in Environmental Earth Sciences, analysed sediments and fish from multiple sites along the river from August 2023 to February 2024, revealing that some fish species exceeded safe thresholds for non-carcinogenic and carcinogenic risks. The pollution is mainly attributed to industrial effluents, agricultural runoff, and urban waste, with minor natural contributions. Regular consumption of fish from the river could lead to cumulative health issues, especially for sensitive groups, though moderate intake (twice weekly, 250g per serving) is considered safe. The findings underscore the urgent need for stricter pollution control, consistent environmental monitoring, regulatory enforcement, and public awareness to mitigate health risks associated with heavy metal contamination in the Cauvery basin.

#### ENCEPHALOMYOCARDITIS VIRUS (EMCV)

- In the first such case reported from any Indian zoo, Shankar, the lone African elephant at the National Zoological Park in Delhi, died in September due to the rare rodent-borne virus — encephalomyocarditis virus (EMCV).
- Studies suggest that African elephants are particularly susceptible to the virus, with outbreaks reported worldwide in captivity and in the wild.
- The virus can be transmitted by food or water contamination caused from feces or urine of a rodent species.

About Shankar: The 29-year-old bull elephant — brought from Zimbabwe in November 1998 — was a diplomatic gift to former President of India Shankar Dayal Sharma. After spending 13 years in solitary confinement, the elephant died on September 17 in its enclosure.



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#### PROF VAIDYESWARAN RAJARAMAN

- Prof Vaidyeswaran Rajaraman, who is credited with establishing the first professional course in computer science in India at IIT Kanpur in 1965, dies at the age of 92.
- A Bhatnagar Prize winner, Rajaraman was also honoured with a Padma Bhushan in 1998, besides several other awards.

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#### JAMES WATSON

- American molecular biologist James Dewey Watson, most noted for his discovery of the structure of DNA, has died at the age of 97.
- Watson and his co-author Francis Crick, in a 1953 academic paper in Nature, proposed the double helix structure of the DNA molecule.
- Nine years later, Watson, Crick, and Maurice Wilkins were awarded the Nobel Prize in Physiology or Medicine “for their discoveries concerning the molecular structure of nucleic acids and its significance for information transfer in living material”.

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#### SAMIA SULUHU HASSAN

- Tanzanian President Samia Suluhu Hassan won the country’s disputed election with more than 97% of the vote.
- Her two main opponents had both been prevented from running, leaving her virtually unopposed.

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#### ZOHRAN MAMDANI

- Zohran Mamdani won the New York City’s Mayor election to become the first Muslim and first South Asian mayor in the USA.
- Mamdani was born in Kampala, Uganda, to renowned academic Mahmood Mamdani, a Ugandan scholar of Indian heritage, and acclaimed filmmaker Mira Nair, best known for ‘Monsoon Wedding’ and ‘The Namesake’.

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#### SRI SRI RAVI SHANKAR

- Spiritual leader Gurudev Sri Sri Ravi Shankar has been honoured with the 2025 World Leader for Peace and Security Award by the Boston Global Forum (BGF) and the AI World Society (AIWS) for his contributions to peace-building, reconciliation and humanitarian service.
- The award marks the 10th anniversary of the World Leader for Peace and Security Award (2015-2025), which celebrates world leaders who embody moral courage, visionary governance and compassion in advancing global peace and ethical progress.



## 100 YEARS OF INDIAN HOCKEY

- To mark the centenary celebrations of Indian hockey on November 7, Hockey India organised a major event at the Major Dhyan Chand National Stadium in New Delhi, with parallel events taking place across more than 550 districts in India.
- On November 7, 1925, hockey got a formal structure in India with the creation of the national federation. In 2009, it was replaced by Hockey India. It is the official governing body entrusted with overseeing all hockey-related activities—both men’s and women’s—across the country.
- It is affiliated with the International Hockey Federation (FIH), the Indian Olympic Association (IOA), and the Asian Hockey Federation (AHF).
- The Indian Hockey team has won 13 Olympic medals, including 8 gold, 1 silver, and 4 bronze.

## ISSF WORLD CHAMPIONSHIP RIFLE/PISTOL 2025

- At the ISSF World Championships in Cairo, Egypt, the Indian shooters bagged four medals – one gold, one silver and two bronze – on the opening day of the competition.
- Army shooter Ravinder Singh won the gold in men’s 50m pistol – a non-Olympic shooting event – while also helping India win the team silver in the event.
- In the women’s 10m air rifle – an Olympic event – Olympian Elavenil Valarivan also picked up two medals by striking bronze in both the individual and team categories.
- Elavenil Valarivan also became only the third Indian shooter after Anjum Moudgil (silver in 2018) and Mehuli Ghosh (bronze in 2023) to win an individual medal in the women’s 10m air rifle event at the World Championships.

**DreamIAS**



## BUSINESS AND ECONOMY

### US SANCTIONS ON RUSSIAN OIL ARE NOT ABOUT UKRAINE, BUT ITS OWN SHALE INDUSTRY

Ajay Srivastava writes- “On October 22, Washington cut off one of the world’s biggest oil flows by sanctioning Rosneft and Lukoil, which produce 57 per cent of Russia’s crude. Global oil prices reacted instantly. Within a week of the announcement, crude rose 7.5 per cent — from \$61 to \$65.6 a barrel — and may climb further as supplies tighten. Officially framed as a step toward peace in Ukraine, the US action was really about rescuing its struggling shale industry.”

— “Unlike UN sanctions that target specific entities, US sanctions are far broader. They punish not only the sanctioned firms but also anyone dealing with them. Non-compliance can land countries or companies on the Specially Designated Nationals and Blocked Persons (SDN) List, enforced by the US Office of Foreign Assets Control (OFAC), and cut them off from SWIFT (Society for Worldwide Interbank Financial Telecommunication) — the global network that enables cross-border payments. Losing access can freeze a nation’s trade overnight.” “The US says the goal of sanctions is to starve Moscow of money and bring peace to Ukraine. But if peace were truly the aim, Washington could achieve it without blocking a single barrel of Russian oil.”

— “The uncomfortable truth is that war has become good business for US defence contracts; their logistics and energy exports are all booming. As economist Jeffrey Sachs has noted, the roots of the Russia-Ukraine conflict lie not in 2022 but in years of NATO’s eastward expansion — a policy driven mainly by Washington and long opposed by Moscow. The sanctions are less about moral principle and more about power and price.”

— “Strip away the rhetoric and Washington’s real goal comes into focus — keeping global oil prices high enough to save America’s fragile shale oil industry. Most US crude comes from light, sweet shale oil, produced through fracking — blasting rock with high-pressure water, sand, and chemicals — and horizontal drilling. Unlike traditional wells, shale oil fields decline fast, losing up to 70 per cent of output in the first year. They need prices above \$55 a barrel to survive.”

— “The maths is simple. Russian Urals crude sells for about \$55 a barrel, while West Texas Intermediate (WTI) hovers near \$60. Washington has removed a significant share of global output by targeting Rosneft and Lukoil, which pump roughly 60 per cent of Russia’s oil. Sanctioning Russian firms that supply a tenth of the world’s crude tightens global supply and lifts prices by \$15–\$20 a barrel — just enough to keep US shale profitable.”

— “So the strategy is straightforward: Make Russian oil untouchable, tighten supply, and let scarcity prop up prices. But there’s a significant weakness in this plan. America wants the world to buy its oil and petroleum products instead of Russia’s — yet it doesn’t have enough to sell.”

— “There’s another problem. The US mainly produces light, sweet shale oil, while many refineries — at home and abroad — are configured for heavier grades. America thus exports its lighter crude to Europe and Asia even as it imports heavier feedstock to keep domestic refineries running.” “And with no spare refining capacity, America can’t easily turn more of its oil into finished products. Even if every rig in Texas worked overtime, America couldn’t replace the 7 million barrels per day of Russian oil being pushed off world markets. The lack of refining and production capacity hasn’t stopped Washington from selling a dream. The US has secured commitments from allies to replace Russian oil with American supply and LNG under the threat of high tariffs.”



## SIGNS OF PULLBACK: SHARP DROP IN RUSSIA OIL EXPORTS TO INDIA AFTER US SANCTIONS

Russian oil dispatches to India have dropped sharply after the US announced sanctions on Moscow's oil giants Rosneft and Lukoil on October 22, according to provisional tanker data. These are still early days and industry experts believe it would be a month or so to get a clear picture. But refiners seem wary of Washington's latest sanctions, which are set to take effect from November 21.

— In the week to October 27, crude oil exports to India from Russia averaged 1.19 million barrels per day (bpd), significantly down from 1.95 million bpd in the previous two weeks, as per provisional vessel tracking data from global commodity data and analytics provider Kpler.

— As expected, the crash in exports is driven by lower dispatches from Rosneft and Lukoil, which account for over half of Russia's oil production and exports, and used to make up over two-thirds of India's Russian oil imports.

— Given that the journey time for tankers transporting Russian crude to Indian ports through the Suez Canal—the main supply route—could be up to a month, the fall in oil exports from Rosneft and Lukoil appear consistent with the November 21 deadline prescribed by Washington for all dealings with the two companies to be wound down. Till then, Russian oil deliveries at Indian ports are expected to remain robust. Deliveries remained robust in October as this oil would have been contracted weeks before the US hit Rosneft and Lukoil with sanctions.

— With the US imposing sanctions on Rosneft and Lukoil, India's Russian oil imports are set to drop drastically.

The threat of secondary sanctions from the US is the reason why countries like India, while politically opposed to unilateral economic sanctions, usually steer clear of countries and other entities sanctioned by Washington.

— While primary sanctions—on Rosneft and Lukoil in this case—mainly curtail or prohibit the engagement of American citizens and entities with the sanctioned entities, secondary sanctions seek to limit the engagement of other countries and their entities—over whom the US has no legal control—with the target country or entity. Oil industry insiders said companies and banks are likely to exercise abundant caution to ensure they do not attract secondary sanctions.

— OFAC—Office of Foreign Assets Control—of the US Department of the Treasury administers and enforces economic and trade sanctions imposed by Washington.

— Considering that other Russian oil exporters and intermediary traders dealing in Russian crude have not been sanctioned by Washington, some volumes of Russian oil could still find their way to India, although nowhere close to that seen over the past three years.

— The latest move from the Donald Trump administration—which had so far not imposed direct sanctions on Russian oil majors even as it pressured New Delhi to cut oil imports from Moscow—is a major escalation in its bid to force the Kremlin's hand into ending the war in Ukraine.

—Historically, India has avoided oil imports from countries like Iran and Venezuela, whose oil was sanctioned by the US, and industry watchers and experts expect a similar approach on oil from Rosneft and Lukoil. Given Indian refiners' and banks' exposure to the US—from dollar-



denominated trade to access to the American financial system and markets—potential secondary sanctions could have a significant impact on them.

— To offset reduced direct Russian inflows, Indian refiners are expected to increase procurement from West Asia, West Africa, Latin America, and North America. India is the world's third-largest consumer of crude oil and depends on imports to meet around 88 per cent of its requirement.

**Do You Know:**

— Russia is currently India's largest source of crude, accounting for over 35 per cent of India's overall oil imports so far in 2025. Majority of Russian crude oil flowing to India was being imported by private sector refiners RIL and Nayara Energy.

— Under international law, secondary sanctions are viewed as coercive measures that penalise third states or their entities for maintaining relations with a sanctioned actor. Unlike primary sanctions, which regulate a state's own nationals and territory, secondary sanctions target external actors to influence their dealings with the primary target.

— They operate by altering access to the sanctioning state's market or financial system, creating indirect pressure on third parties to conform to the sanctioning state's policy objectives.

## HOW BRICS IS CHALLENGING SWIFT

For over a decade, the BRICS have taken a series of steps showing their increasing determination to reduce dependence on the dollar-dominated international financial system. The Fortaleza Summit in 2014 marked the beginning of this process with the grouping taking the initiative of setting up financial institutions to meet not only their needs but also of other developing countries. The New Development Bank, the BRICS' development bank, and the Contingent Reserve Arrangement, their lender of last resort, was the first time developing countries had established financial institutions, until then, the exclusive preserve of advanced countries.

The following year, after the imposition of Western sanctions on Russia for deployment of its troops in Crimea, the BRICS grouping decided to explore the potential of expanding the use of their national currencies in inter se transactions. In 2017, the grouping agreed to communicate closely to enhance currency cooperation, including through currency swap, local currency settlement, and local currency direct investment. At the turn of the decade, the grouping agreed to set up the BRICS Payments Task Force to develop systems to facilitate transactions between member countries. This step seemed to come together at the Kazan Summit in 2024 wherein BRICS leaders underscored the importance of "strengthening of correspondent banking networks within BRICS and enabling settlements in local currencies in line with BRICS Cross-Border Payments Initiative".

### Challenging status quo

The BRICS Cross-Border Payments Initiative, or BRICS Pay is the most concrete step that the grouping has taken to explore the possibility of reducing their dependence on the "SWIFT network", the messaging system used by over 11,000 banks and financial institutions worldwide for international money transfers, and which is controlled by the G-10 central banks. BRICS' motivation to challenge Western financial dominance is driven by a desire for greater financial sovereignty and reduced exposure to U.S. sanctions. The decision to include Iran in the grouping in 2024, a country that has long faced similar sanctions, lent further relevance to this objective. However, the development that attracted most attention was the symbolic step taken by the BRICS



during the Kazan summit to unveil a BRICS banknote. This symbolic move ignited discussions about the intent of emerging economies to move away from the dominance of the dollar. This was especially so since it raised the hackles of the then President-elect Donald Trump who threatened to impose 100% tariffs on members of the grouping if they were to “create a new BRICS currency, [or] back any other currency to replace the mighty U.S. Dollar”.

### **Building BRICS Pay**

Amid these developments, the possibility that holds out maximum promise is BRICS Pay. This sentiment was reflected in the grouping’s Rio Summit Declaration earlier in the year wherein they “agreed to continue the discussion on the BRICS Cross-Border Payments Initiative, and [acknowledged] the progress made by the BRICS Payment Task Force (BPTF) in identifying possible pathways to support the continuation of discussions on the potential for greater interoperability of BRICS payment systems”.

Clearly, BRICS is in a good position to develop a new financial network. Besides the strong motivation to bypass the dollar-dominated system and avoid Western sanctions, these countries have the necessary infrastructure to put in place BRICS Pay. The Russian System for Transfer of Financial Messages (SPFS), the Chinese Cross-Border Interbank Payment System (CIPS), India’s Unified Payments Interface (UPI) and Brazil’s Pix system are well-equipped to support the proposed network. Of course, the interoperability of these systems is essential for creating a cohesive BRICS-led payment infrastructure that can rival SWIFT in scope and reliability, albeit within a more limited geographic and political bloc.

A prototype demonstration of BRICS Pay was unveiled in Moscow in October 2024, marking an important landmark in the project’s progress. Expectedly, Russia is most enthusiastic about this project, but the remaining original BRICS nations seem to be more circumspect because of interests in promoting their own platforms globally. India’s UPI is accepted in nine countries, but is yet to find acceptance within BRICS. China’s increasing clout in the international financial system and the prominence its currency (the RMB) has received after it was included in the basket of currencies making up the Special Drawing Right has increased the acceptance of CIPS, which currently has participants in more than 120 countries, including all BRICS members with the exception of India. Brazil’s Pix system, introduced in 2020 and operated by the country’s central bank, is used across several Latin American countries. While navigating through the maze of ambitions of individual countries to promote their own payment systems could dent the progress towards an early realisation of BRICS Pay, Mr. Trump’s aggressive intent, particularly against members of the grouping, could force them into a political understanding towards launching their payment system, sooner than expected.

### **FATF REPORT LAUDS ED FOR ROLE IN ASSET RECOVERY, FLAGS CHALLENGES**

A recently published report by the Financial Action Task Force (FATF) places India and its Enforcement Directorate (ED) under the global spotlight for their role in asset recovery while also highlighting challenges that persist in the country’s enforcement and legal framework.

- The “Asset Recovery Guidance and Best Practices” document, released earlier this month, underscores India’s “innovative” use of conviction-based and non-conviction based confiscation mechanisms, legal empowerment under acts such as the Prevention of Money Laundering Act (PMLA) and the Fugitive Economic Offenders Act, and the country’s inter-agency coordination.



- The report noted the ED's swift international collaboration, highlighted by the seizure of 268.22 bitcoins valued at Rs 1.3 billion (USD 29 million) linked to a drug-trafficking case pursued jointly with the United States.
- Despite lauding the achievements, the FATF report flags challenges India faces in enhancing asset recovery. These include:
  - o Legal and procedural complexity: Harmonising the enforcement across varied laws, jurisdictions, and conviction protocols remains challenging. Navigating judicial oversight requirements, balancing swift asset freezing with due process, and managing protracted litigations slow down effectiveness, the report said.
  - o Inter-agency coordination barriers: While India demonstrates strong collaboration, the report points to occasional operational silos, rivalry, and inconsistent information-sharing, which impede seamless case-handling and strategic intelligence flows.
  - o Data and transparency gaps: Like many countries, India lacks comprehensive, consolidated, and publicly available statistics on key asset recovery metrics, an essential tool for monitoring, policy design, and accountability.
  - o Technical and investigative limitations: Growing challenges such as complex corporate ownership, nominee structures, and virtual assets require enhanced technical, forensic, and regulatory capabilities.
  - o Funding and conflicts of interest: Financing investigation and prosecution through recovered assets holds benefits, but necessitates stringent safeguards against conflicts of interest or undue prioritisation of confiscation over justice.
  - o Judicial and enforcement bottlenecks: Delays in provisional freezing and asset seizure orders, complexities in enforcing cross-border confiscation, and judicial backlog have been cited as impediments requiring reform.
- The FATF's new standards, the first substantial asset recovery reform in over 30 years, hold India's framework up as a reference while underscoring the need for continual improvement. India's policies on early financial investigations, use of technology like blockchain analytics and multi-agency coordination have set a high bar, but "comprehensive statistics, enhanced technical capabilities, and streamlined judicial processes" have been identified as priority areas.

**Do You Know:**

- The ED was established on May 1, 1956, as the 'Enforcement Unit' under the Department of Economic Affairs within the Ministry of Finance for handling violations of exchange control laws under the now-repealed Foreign Exchange Regulation Act, 1973 (FERA). Later on, it was renamed the Enforcement Directorate and was transferred to the administrative control of the Department of Revenue, and subsequently entrusted with the enforcement of a broader range of financial laws.
- The enactment of the Foreign Exchange Management Act (FEMA), which replaced FERA in 1999, and the Prevention of Money Laundering Act (PMLA) in the early 2000s, increased the power of ED. These moves aligned its functions with international standards to combat financial crimes, notably those recommended by the Financial Action Task Force (FATF).



- In 2006, India received observer status in FATF – which was created in 1989 to coordinate anti-money laundering efforts across the world – and in 2010, it became its member state.

## CHALLENGES FACING THE UPCOMING INCOME SURVEY

The upcoming Household Income Survey, 2026, which is going to be the first of its kind, could offer the clearest picture yet of India's households, revealing how they are coping, changing, and moving towards the future. However, the challenge with such an exercise lies in the sensitive nature of questions about individual income, which many respondents may be reluctant to answer. While the survey design is valuable from a policymaker's perspective, for respondents, such questions can feel intrusive and, in many cases, difficult to answer accurately from memory.

### On past surveys

Indian policymakers lack actionable information about household income. While surveys like the Periodic Labour Force Survey attempts to capture earnings, it views wages and salaries through the lens of labour market dynamics, and falls short of offering detailed insights into household characteristics. The Household Consumption Expenditure Survey (HCES) relies on spending patterns to infer household income. While this survey is considered more reliable, using consumption data as a proxy for income involves a leap that may not always hold up in practice. Then there is the RBI's Consumer Confidence Survey which tracks how income levels rise or fall over time among urban and rural consumers. Put together, these survey tools have either captured broad trends in income changes, relied on proxies to gauge them, or examined income through specific analytical lenses.

The upcoming Household Income Survey, however, aims to collect income data to understand income itself and its interplay with other household characteristics. The new survey gathers detailed information on social group, religion, and occupation — covering whether households are engaged in agriculture or other economic activities. It also records land ownership and use, property details such as the size and type of dwelling, and loans taken.

This survey, for the very first time, collects detailed information on regular salaries, including allowances such as overtime pay, performance-based bonuses, stock options, leave encashments, and severance payments. For casual workers, the survey will record the number of days worked, average daily wages earned, and even tips received. In the case of self-employed respondents, it will gather details on the type of crops sold, the quantity, and the value of those sales. For those engaged in non-agricultural work, the survey will note down the sector of business and the gross value of receipts earned.

By combining such information, the survey will make it easier to understand class dynamics across different types of employment and whether certain jobs are concentrated within specific social groups. It may also shed light on what share of a household's total income goes toward loan repayments — an important metric in an economy driven by EMI-based spending, particularly among urban households. When it comes to agriculture, the detailed questions make this survey an excellent direct tool to test claims like “doubling farmers' income”, and assess related government schemes.

### Expenses recorded

While measuring income is important, considering spending patterns is equally essential. Therefore, this survey repeats some questions from the HCES. For instance, the survey asks

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



farmers to report input costs for each item, including seeds, labour, and transport. For those engaged in self-employment in other sectors, it seeks details on raw material costs, rental payments, and repair and maintenance expenses. By gathering both cost and income data from the same households, the survey enables accurate measurement of profit margins.

Additionally, it measures pension payments, family support transfers such as alimony or child support, and remittances. More importantly, for the first time, the survey collects data on funds received through State-specific schemes such as the Kalaingar Magalir Urimai Thittam in Tamil Nadu, along with several Union government schemes.

### Testing troubles

In August this year, the proposed survey was pilot-tested by randomly selecting households across India to answer its questions. This exercise generated some concerning feedback. Close to 95% of the respondents considered the information to be sensitive and felt uncomfortable disclosing income from different sources. A majority of them refused to answer questions about income taxes paid. Most respondents thus are likely to feel cautious when answering these questions. The survey team is aware of this challenge and is addressing it by increasing public awareness, dispelling misconceptions, and planning outreach across various media. They also aim to deploy field staff familiar with local languages to build trust. The testing team observed that respondents in rural areas sought fewer clarifications, whereas those in affluent households asked for more. Due to this hesitation, unusually, the government is considering introducing a self-compilation system exclusively for affluent and gated communities. Under this system, respondents would receive a written request explaining the survey's objectives and the importance of providing accurate income data.

Moreover, during field visits, many households overstated their expenses or misunderstood their income levels. Respondents also found it difficult to recall details about their financial assets and were often unaware of the interest earned from savings or fixed deposits.

## WHERE STATES STAND ON REVENUE COLLECTIONS, BEFORE AND AFTER GST

The official release on Monday (November 3) said GST revenue “soars” in October 2025, which also saw festive spending on account of Diwali. A total of Rs 1,95,936 crores flowed into the government coffers last month — an increase of 4.6% over October last year.

The official release stated: “It is commendable that several industrial and service-oriented states have reported a significant growth in GST collections compared to October 2024... Maharashtra, Karnataka, Gujarat, Tamil Nadu, and Haryana together contributed over 40% of the total GST revenue, underscoring their role as major consumption and production hubs.”

But a closer inspection of the data showed that as many as 20 states and union territories actually saw their GST revenues contract in October. In fact, since its introduction in 2017, many states have complained about GST revenues, especially when compared to the system before GST.

“Since its introduction, aggregate revenue from subsumed taxes of the Centre and states has declined from 6.5% of GDP in 2015-16 (in the pre-GST regime) to 5.5% of GDP in 2023-24,” it states. For perspective, it is noteworthy that in 2020-21, the 15th Finance Commission had estimated a GST-to-GDP ratio of 7% over the medium term.



The inadequacy of overall GST revenues to match the pre-GST level also means several states are now worse off.

But not all states were affected equally. While most states saw their revenues decline, some saw them rise — five to be exact. Five states got the biggest hit.

It is the north-eastern states of Mizoram, Nagaland, Sikkim, Meghalaya and Manipur that have seen an improvement in their subsumed tax to GSDP ratios as compared to the pre-GST regime. GSDP refers to the state's GDP or economic output.

In contrast, Punjab, Chhattisgarh, Karnataka, Madhya Pradesh, and Odisha have witnessed the biggest drop in their revenue from the subsumed taxes as a percentage of GSDP.

**Do You Know:**

GST is an indirect tax, while income tax is an example of direct tax. First introduced in 2017 through the 101st Constitution Amendment Act, 2016, GST replaced a number of central and state taxes that were imposed on manufactured goods.

Before GST, there were several indirect taxes and levies at the central and state level, such as central sales tax, excise duty, value-added tax, and entry tax, etc. The GST replaced all of them.

One of the primary objectives behind the implementation of GST 1.0 was to address the 'cascading effect' of the earlier indirect tax system, and its impact on lower-income groups. In doing so, the government introduced four tax slabs – 5%, 12%, 18% and 28%.

An important aspect of GST 1.0 was that products like petroleum and liquor for human consumption continued to be under the old excise tax system. Products like tobacco, cigarettes, pan masala, chewing tobacco were brought under GST and subjected to a 28% GST rate along with an additional compensation cess.

#### CAG FORMS PANEL OVER 'ISSUES' IN CENTRALLY SPONSORED SCHEMES

The Comptroller and Auditor General of India (CAG) has constituted a committee to look into "problems and issues" in the Centrally Sponsored Schemes (CSS), which will make recommendations to strengthen their budgeting, accounting and payment framework, a top official told The Indian Express.

- The official said that the panel was constituted to implement outcomes of the Second State Finance Secretaries Conference held in New Delhi on September 19, which was attended by officials from the Ministry of Finance, RBI, the CAG and state governments.
- The official said the committee's mandate is not to deliberate about the delivery of the CSS. "It is about budgeting. For example, Sustainable Development Goals (SDGs) are linked with some individual schemes. It is depicted very well in some states like Haryana and Rajasthan and in many states it is not," the official said.
- The CAG's decision is significant as allocation for CSS has been rising over the years with some schemes having an annual budget of over ₹50,000 crore. The government has also started the process of evaluating schemes before allowing their continuation in the next finance commission cycle, beginning April 2026.



- In the Union Budget 2025-26, the Centre has allocated Rs 5.41 lakh crore for the CSS, of its total spending of Rs 50.65 lakh crore. There were several schemes, including MGNREGS, Jal Jeevan Mission and PM-Kisan, each having an annual budget of over Rs 50,000 crore. Each rupee the government spends, 8 paise go to the CSS.

**Do You Know:**

- Centrally Sponsored Schemes are schemes that are funded fully or partly by the central government, but implemented by the states. This is because they address subjects that are included in the state list.
- CSS as defined by the National Development Council are: “those schemes that are funded directly by the central ministries/departments and implemented by states or their agencies, irrespective of their pattern of financing, unless they fall under the centre’s sphere of responsibility i.e. the union list.”

**IMPORT DUTY ON YELLOW PEAS WON'T ADDRESS ROOT OF PROCUREMENT PROBLEM**

The Narendra Modi government has imposed a 30 per cent import duty on yellow peas, effective from this month. The move, ending duty-free imports of the pulse grain since December 2023, is notable for its timing. Currently, harvesting of kharif pulses such as moong (green gram) and urad (black gram) is on, with the new arhar (pigeon-pea) crop too slated to arrive from December. The sowing season for rabi pulses — mainly chana (chickpea) and masoor (red lentil) — has taken off as well. With most pulses trading well below their minimum support prices (MSP), farmers have little incentive to plant these crops. The incentive is even less in the light of the good monsoon rains, which have recharged groundwater reservoirs and left sufficient soil moisture to enable them to sow more area under wheat than chana.

Annual consumer price inflation in pulses was at double-digits for 15 consecutive months from June 2023 to August 2024 on the back of an El Niño-induced crop failure. This led the Centre to scrap import duties on most pulses. India imported a record 7.3 million tonnes of pulses valued at \$5.5 billion in 2024-25 (April-March). The imports, along with domestic production recovery, helped cool down prices, so much so that retail pulses inflation has been in negative territory for eight successive months from February 2025. The shoe is clearly on the other foot now, and it's farmers, not consumers, that are at the receiving end. It also explains the government's cautious shifting of gears, starting with the levying of 10 per cent import tariffs on masoor and desi (small-sized) chana in March-April 2025, followed by the latest 30 per cent duty on yellow peas. The Union Agriculture Ministry has also approved a Rs 15,096-crore programme for the MSP procurement of urad, moong, arhar, and soya bean.

All this, however, does not address the root of the problem. India's MSP procurement and import policy is excessively skewed in favour of rice and wheat, which is reflected in their stocks in government godowns being two times or more than the required buffer levels. Import duties on them are also prohibitively high. The MSPs on pulses and oilseeds, on the other hand, are largely on paper, and their growers are also significantly exposed to import competition. Ideally, policy shouldn't discriminate between crops, and farmers should grow what the market wants. MSP fixation, too, should align more to supply-and-demand market realities than to a mechanical cost plus 50 per cent formula. Even better would be the assurance of a minimum income, rather than price support to farmers in the form of a flat per-acre direct benefit transfer. That will help all farmers, and not just those cultivating rice and wheat.



## LOOMING SCARCITY OF UREA

India's urea consumption is set to touch 40 million tonnes (mt) in the current fiscal, due to surplus monsoon-induced demand and also the maximum retail price (MRP) of the nitrogenous fertiliser remaining unchanged for over a decade.

— Sales of the country's most used fertiliser hit an all-time-high of 38.8 mt in 2024-25 (April-March). The first six months of this fiscal have registered a 2.1% year-on-year increase, which is likely to sustain or even go up with farmers planting more area under wheat, mustard, potato and other rabi (winter-spring) season crops.

— The urea consumption doubled, from about 14 mt to 28.1 mt, between 1990-91 and 2010-11 and rising to 30.6 mt in 2013-14. Thereafter, it flattened and actually fell to 29.9 mt by 2017-18.

— That was partly thanks to the Narendra Modi government, in May 2015, making it mandatory to coat all indigenously manufactured and imported urea with neem oil.

— Neem coating was expected to enable a more gradual release of the 46% nitrogen in urea, prolonging its action and translating into better nutrient use efficiency.

— But neither neem coating, nor replacement of 50-kg bags with 45-kg ones (from March 2018) and the launch of liquid ultra-small particle size 'Nano Urea' by the Indian Farmers Fertiliser Cooperative (in June 2021), have lowered consumption after 2017-18.

— Not surprisingly, shortages have been developing. The recent kharif (monsoon) crop season witnessed a scramble for urea, with reports from many states of farmers standing in long queues for hours to procure their bare minimum requirement.

— In fact, things would have been worse but for six new urea plants, each with 1.3 mt annual production capacity, commissioned between 2019 and 2022.

— Given its affordability, ease of application and proven effectiveness, the demand for urea is unlikely to go down.

— Urea consumption can, at best, be capped at around 45 mt through a mix of MRP rationalisation, rationing, and incorporation of urease and nitrification inhibitor chemicals.

— In such a scenario, urea imports would make sense primarily to feed the western and southern markets closer to the ports.

— For the markets in northern, central and eastern India, it would be more economical to import gas and "make" urea.

### **Do You Know:**

— Urea is India's most widely used fertiliser, with its consumption/sales rising from 26.7 million tonnes (mt) to 35.7 mt between 2009-10 and 2022-23.

— There are two concerns over rising urea consumption. The first is imports, which accounted for 7.6 mt out of the total 35.7 mt sold last fiscal.

— India's nearly 36-mt annual consumption of urea is today next only to China's 51 mt, with the latter's production largely coal-based.



— The second concern is NUE (Nitrogen Use Efficiency). Barely 35% of the N applied through urea in India is actually utilised by crops to produce harvested yields. The balance 65% N is unavailable to the plants, much of it “lost” through release into the atmosphere as ammonia gas or leaching below the ground after conversion into nitrate.

— Declining NUE, from an estimated 48% in the early 1960s, has resulted in farmers applying more and more fertiliser for the same yield.

— There is growing consensus, including in the government, that India cannot sustain the above increase in consumption of urea – or even di-ammonium phosphate (DAP), muriate of potash and other fertilisers containing just primary nutrients: N, P (phosphorus) and K (potassium).

#### AS AI ADOPTION BY COMPANIES ACCELERATES, TECH LAYOFFS CONTINUE

Last week, online retail giant Amazon announced that it would reduce its global corporate workforce by about 14,000 people. Amazon CEO Andy Jassy had already flagged the possibility of job cuts in June, saying the increased use of Artificial Intelligence (AI) tools and agents would lead to more corporate job cuts.

A week before Amazon’s announcement, the world’s biggest social media company, Meta, said it would be removing around 600 positions in its Superintelligence Labs to make its AI unit more flexible and responsive. In July, IT service provider, Tata Consultancy Services, announced that while the company was retraining and redeploying staff in new markets, and investing and deploying new technology and AI, it would be cutting more than 12,000 jobs as part of the process. During the same month, tech behemoth Microsoft announced that it would lay off nearly 4% of its workforce to curb costs amid investments in AI.

While layoffs have sparked concerns about AI displacing jobs, the technology itself is not directly putting people out of work. Rather, investments in AI are reshaping business strategies, prompting companies to adopt new technologies, restructure workforces, and prioritise hiring employees with AI-related skills. Thus, job displacement is an indirect consequence of how businesses are integrating AI and not the immediate effect of AI technology alone.

This year, 218 companies have collectively laid off over 1.12 lakh employees globally. This is lower than the 1.53 lakh, 2.64 lakh, and 1.65 lakh layoffs reported in 2024, 2023, and 2022, respectively. However, the average number of employees laid off per company has increased from about 221 in 2023 to nearly 517 in 2025.

This indicates that although fewer companies are laying off employees this year, those that are doing so are cutting larger numbers at one go. Many of these companies are likely tech firms, which typically employ large numbers of people and often hire and fire in bulk. These companies are also deeply involved in AI transformation, reshaping the industry.

An industry-wise analysis shows that hardware companies, such as Intel and Lenovo, accounted for 28% of all layoffs this year. They were followed by retail companies such as Amazon, eBay, and Wayfair, which accounted for 14% of all layoffs. The sales (Salesforce) and consumer tech (Meta, Google) industries accounted for 9% and 7% of the total layoffs, respectively.

Consequently, data show a significant rise in AI talent recruitment compared to the overall hiring rate across countries in 2024. Chart 3 shows the relative AI hiring rate year-over-year ratio by



region (see note in graphic). India leads in this measure with a relative AI hiring rate of over 33%, followed by Brazil and Saudi Arabia.

Data also show that the wages of workers with AI skills are 56% higher than the average salary. This is more pronounced in sectors such as wholesale and retail trade, energy and information, and communication.

Higher wages for workers with AI skills don't necessarily reflect the scarcity of such workers. Instead, they reflect the high value employers place on these skills.

Global corporate investment in AI has also been increasing in recent years. In 2024, the total investment grew to \$252.3 billion, almost 13 times higher than what it was a decade ago.

Driven by a sharp rise in AI-related hiring and increased investments in technology and salaries, companies are actively restructuring their workforce to adapt to these changes.

## CRUISING AHEAD

The India Maritime Week event, headlined by Prime Minister Narendra Modi, signalled government recognition that shipping is not just a business but a business with a strong strategic component. The Indian shipping sector had declined considerably over nearly two decades under the ideological framework of liberalisation, privatisation and globalisation, which weakened government support and diluted strategic intent for shipping. Barring port infrastructure, the Indian government seemed keen largely only on training and educating sea-farers so that they could continue to serve on foreign ships and bring in foreign exchange. The state-owned Shipping Corporation of India (SCI), once a global leader in ship ownership, was allowed to decline. Favourable government policies, such as giving the company first rights to transport India's oil, were withdrawn in the name of a level playing field and SCI barely escaped privatisation. But COVID-19 was a rude awakening. With India depending heavily on foreign-owned ships, it had little leverage to intervene in its own trade. Private Indian shipping was too small to step up fully. Post-pandemic, the government has realised that shipping, though a business, has much strategic importance, especially during times of disruption, war, and where protectionism and resurgent national interests of western countries rule trade. Recent government initiatives have sought to beef up the SCI's fleet strength.

A major part of the lakhs of crores of rupees in investments announced at the maritime week was port-related. The government has been running its ports under a landlord model, sharing revenue with private and foreign companies for terminal operations, which are now a target of investors. This has given the ports financial heft to embark on new projects — the Chennai and Kolkata ports, for instance, have taken up the transshipment hub project in the Andamans. Investments are also seen in port connectivity, Sagarmala projects, and Indian seafarer training. Another major push has been to have foreign shipping companies register their ships in India through their local subsidiaries, which would give the Indian government leverage over them for serving Indian needs as well as support allied businesses such as insurance. But movement is still barely visible in Indian merchant shipbuilding, where greater progress would have signalled industrial, technical, and project management expertise in heavy industry. The day that Indian shipyards quickly roll out state-of-the-art LNG ships or futuristic green fuel burning vessels, Indian shipping will be truly cruising full ahead.



## LIFE AND SCIENCES

### CLEAREST BLACK HOLE MERGER SIGNAL YET ALLOWS PROBE OF HAWKING'S LAW

On September 14, 2015, researchers using a pair of giant detectors in the U.S. detected gravitational waves for the first time — a century after Albert Einstein predicted their existence in his general theory of relativity. For their contributions to building these detectors, called the Laser Interferometer Gravitational-wave Observatories (LIGO), Rainer Weiss, Kip Thorne, and Barry Barish were awarded the Nobel Prize for physics in 2017.

According to the general theory of relativity, when any sufficiently massive object accelerates through spacetime, it will set off ripples of gravitational energy through its fabric. These gravitational waves can travel uninterrupted across billions of lightyears at the speed of light. The louder waves are produced by the most fierce cosmic events, including colliding neutron stars and black holes.

This year, as researchers worldwide celebrated the 10th anniversary of the first detection of gravitational waves, they also announced another groundbreaking discovery. A network of detectors — LIGO in the U.S., Virgo in Italy, and KAGRA in Japan — had detected a clearer gravitational wave signal from a pair of merging black holes. The event was named GW250114 as it was detected on January 14, 2025.

Notably, the researchers said this was the clearest gravitational wave signal detected to date, allowing them to use it to test some of the more elusive predictions of fundamental physics theories.

Their results were published in Physical Review Letters in September.

#### **Black-hole hunter**

The twin LIGO detectors first detected GW250114. Each LIGO consists of two 4-km-long arms arranged in an L-shape. The arms have a vacuum. At the elbow, a highly stable laser beam is split into two beams and sent down the perpendicular arms, bouncing back and forth between mirrors about 300 times.

When no gravitational wave is passing through the detector, the two beams travel exactly the same distance and cancel each other out when they recombine at a photodetector at the elbow. But when a gravitational wave is passing through, it distorts spacetime there in minute ways, slightly stretching one arm while compressing the other, changing the distance each beam travels by a small fraction. This causes the laser light waves to shift out of phase and produce a measurable flicker of light at the photodetector.

Virgo and KAGRA work on similar principles. When a gravitational wave is detected, the teams operating these three detectors share their data and run joint analyses.

“We look for signals in the data from our detectors with several methods. Some are model-agnostic and others are model-independent,” study coauthor, Virgo team member, and Gran Sasso Science Institute doctoral student Jacopo Tissino said.

Model-agnostic methods try to identify excess energy that appears simultaneously across all detectors, without making any assumptions about the nature of the signal. In contrast, model-



dependent methods search the data specifically for signals that align with theoretical expectations for black-hole mergers.

The GW250114 signal, which came from about 1.3 billion lightyears away, was detected using both methods.

### **Cosmic bell**

The team found that the new signal was similar to the one detected in 2015.

“They are both pairs of nearly identical black holes, with small or no spin, masses just over 30-times that of the sun each, and revolving around each other in an orbit that’s close to a circle,” Mr. Tissino said.

Thanks to advances that increased the detectors’ sensitivity, the new signal was also much clearer. According to Mr. Tissino, these advances include lower laser noise, cleaner mirror surfaces, and lower measurement uncertainty.

As the clearest gravitational signal ever detected, GW250114 allowed the researchers to draw important conclusions about fundamental physics. Notably, they analysed the frequencies of gravitational waves emitted by the merger to present the most compelling observational evidence to date of the black-hole area theorem, which Stephen Hawking proposed in 1971.

The theorem states that the total surface area of black holes should never decrease, referring to the sum of the areas of the event horizons.

To this end, researchers independently analysed the signals from the early stages of the merger, when the black holes were relatively far apart, and from a later post-collision stage, when the merged black holes were settling into a single entity.

“With these two analyses, we could extract the areas of the initial two black holes and of the remnant left after the collision, and directly compare them to confirm that there was an increase as predicted,” Mr. Tissino said.

### **Growing catalogue**

After the merger, the researchers also ‘listened’ to the new black hole’s vibrations and identified two distinct modes of ringing. These frequencies indicated that the resulting black hole behaved like a rotating black hole. Such black holes are expected to emit gravitational waves at specific frequencies and these waves are expected to fade at a certain rate.

As a result, the new study was also able to empirically verify a solution that New Zealander mathematician Roy Kerr had proposed for rotating black holes in 1963.

Mr. Tissino said that for signals like GW250114, the main sources of error are well-understood and can be controlled. Researchers carefully selected data from different points of time before and after the merger and tested different assumptions, like whether the black holes’ orbits were circular or eccentric. In the process, they checked potential issues in the detectors’ calibration and confirmed they didn’t affect their analyses.

The continuing detection of merging black holes is helping astrophysicists build a steadily growing catalogue that’s helping them fine-tune their understanding of black hole formation and test more and more intricate predictions.



As the authors wrote in their paper, “The gravitational-wave signal GW250114 is a milestone in the decade-long history of gravitational-wave science. ... The next decade of gravitational-wave science is bound to enhance our view of these highly dynamical, relativistic systems.”

#### CHINA SENDS ITS MOST YOUTHFUL ASTRONAUT, MICE TO SPACE STATION

A crew of three Chinese astronauts, including the country’s youngest-ever, docked early Saturday at the Tiangong space station, accompanied by four lab mice. The Shenzhou-21 spaceship docked at 3:22 a.m. (1922 GMT Friday), China’s state news agency Xinhua reported.

That was about three-and-a-half hours after the spaceship departed from the Jiuquan Satellite Launch Center in northwest China, powered aloft by a Long March-2F rocket.

The Tiangong space station – crewed by teams of three astronauts that are exchanged every six months – is the crown jewel of China’s space programme, into which billions of dollars have been poured in a bid to catch up with the United States and Russia.

China has bold plans to send a crewed mission to the Moon by the end of the decade and eventually to build a base on the lunar surface.

Mission commander and veteran space pilot Zhang Lu is accompanied by 32-year-old flight engineer Wu Fei, China’s youngest astronaut to undertake a space mission, and payload specialist Zhang Hongzhang, 39.

Four mice – two male and two female – join them as the subjects of China’s first in-orbit experiments on rodents.

#### INDIAN SATELLITES: LADEN WITH FEATURES

**Q: Why are India’s communications satellites so heavy**

**A:** On November 2, ISRO launched the GSAT-7R satellite for the Indian Navy. The satellite’s launch mass was 4,410 kg — rendering the launch the heaviest of a communications satellite from Indian soil.

India’s communications satellites are heavy because they combine wide coverage, high power, and long service life in one spacecraft.

To serve the entire country and nearby seas, the communications payload needs to support many channels across multiple frequencies, including the C, Ku, and Ka bands. These in turn require many large deployable antennas, high-power amplifiers, waveguides, filters, switches, and either many analog transponders or flexible digital processors.

The antennas and pointing mechanisms also need to hold tight alignment in space, so their structure and thermal control systems add more mass.

The satellites’ high throughput demands several kilowatt of electrical power available for 12-15 years, so satellites carry large solar arrays, large batteries, and power-conditioning units, plus structures to shield them in space.

The spacecrafts’ long life demands redundancy, ergo they’re fit with duplicate computers, radios, and power units.



Getting to the geostationary orbit (GTO) adds more mass in propellant. The GTO is a highly elliptical orbit; once a rocket places a satellite in this orbit, the satellite will use its own propulsion to move into a geostationary (like GSAT-7R) or geosynchronous orbit.

The satellite also needs to perform station-keeping manoeuvres and manage its momentum. The chemical propulsion systems still common on many Indian satellites thus need significant quantities of fuel for these tasks.

## SWEPT ALONG

### Why can't we feel the earth moving?

We don't feel the earth moving even though it's spinning on its axis and racing around the Sun because everything around us is moving with it at the same constant speed. The earth rotates once every 24 hours, which means that at the equator you're actually moving at about 1,600 km/hr. It also travels around the sun at about 1,07,000 km/hr. But since this motion is smooth and constant, there's no change in speed or direction that our bodies can sense.

Our inner ears and bodies detect motion only when there's acceleration, such as when a car starts, stops or turns. When a car moves steadily on a smooth highway, you can't feel the motion unless you look outside. The same idea applies to the earth's movement. We move with the planet, the air, the oceans, and everything else on it. We also can't see the motion directly because distant stars and the sun appear fixed from our perspective. It's only through scientific observation, like watching the stars rise and set or measuring time differences, that we know the earth is in motion.

## AUDITORY FUSION: SOUNDS STUCK TOGETHER

Auditory fusion is when two sounds arrive so close together in time that the ear and brain treat them as a single event.

The smallest time gap between two sounds that still lets you hear them separately is called the fusion threshold. With very short, sharp sounds (like clicks), many listeners need a gap of about 2-3 ms to separate them. More complex sounds like tones, syllables, and percussive warrant more time, often 5-10 ms but sometimes more. Louder sounds, background echoes, and differences in pitch or timbre can also shift this threshold.

Fusion matters in everyday hearing. In rooms with strong echoes, the first sound and its early reflections may arrive within a few milliseconds of each other.

If they fall inside the fusion window, you can hear one clearer sound rather than a cluster. This is related to the precedence effect: when two similar sounds arrive from different places with a short delay, you hear one sound coming from the first source, based on which your ear and brain determine the direction of the source.

Auditory fusion isn't the same as masking. Masking is when one sound hides another because it's stronger or very close in time or frequency. Fusion is a decision by the brain to fuse separate arrivals into one.

Engineers use these facts in audio compression, to process speech, and to build concert halls — by spacing out or merging sounds to improve clarity and intelligibility.



## ARE SOCIAL MEDIA PLATFORMS DYING A SLOW DEATH?

Not too many years ago, you could watch endless YouTube videos with ease, but now you must sit through unskippable ads to access the content you want — unless you pay. Twitter used to be a space to collect news, engage with verified figures, and discuss world events, but is now teeming with verified scammers. Instagram was once an app to post and admire photos, but it now prioritises scrolling through viral and commercial short videos chosen by an algorithm. Google helped you find articles of repute and academic papers for projects, but now serves up an AI-generated mishmash of content that you will have to further vet. What has caused this degradation across platforms and apps? One theory that has gained traction is enshittification.

### What is enshittification?

In 2022, the Canada-born author, tech journalist, and activist Cory Doctorow coined the term “enshittification.” The now-viral term helped put a name to a change that internet users are noticing: the feeling that many of your digital experiences, transactions, and services are not improving with time, but are actually becoming worse because of their makers’ updates.

Enshittification, according to Mr. Doctorow, is a way of naming the process through which internet platforms are being made deliberately worse for customers, by their decision-makers, until they decay completely. “Here is how platforms die: first, they are good to their users; then they abuse their users to make things better for their business customers; finally, they abuse those business customers to claw back all the value for themselves. Then, they die,” wrote Mr. Doctorow in 2023.

Enshittification is also used to refer to a range of symptoms that degrade your experience as an internet user or customer. Some examples include the insertion of advertisements, self-preferencing by tech companies, unfair bias in search results, once-free features becoming paid, genuine products being replaced with lower-value dupes, and more. Mr. Doctorow also points out how apps offer massive potential for enshittification, because app users often have less freedom to block ads when compared to users who are accessing the same platform via the web.

### Why does enshittification matter?

Last year, in his Marshall McLuhan lecture at the Transmediale festival in Berlin, Mr. Doctorow pointed to four factors that could either constrain or enable the enshittification of platforms, based on how strong they are. These factors were — competition, regulation, self-help measures by users, and the unionisation of tech workers. When these four factors are strengthened, according to Mr. Doctorow, internet platforms are forced to become better for users. When weakened, however, customers are more vulnerable to being exploited by tech giants. In other words, when your experience with a shopping app or a streaming platform grows worse, much of this enshittification can be traced back to the dominance of just a few Big Tech players, looser antitrust enforcement by authorities, customers’ diminished capacity to control their digital experiences, and/or the inability of tech workers to say no to exploitative bosses, according to the author.

### How have social media companies changed their user experience?

Meta-owned Facebook is an example that Mr. Doctorow frequently cites to demonstrate enshittification. Originally meant to serve users and help them stay connected, Facebook users are now “locked in” along with advertisers and publishers, according to him, meaning that content from these latter two groups now take precedence over less profitable posts, such as content from friends and those you are following.



Instagram is yet another example of this enshittification, with advertisements and recommended content now often crowding out updates from those you actually care about — without your consent. Now, with AI-powered accounts joining the fray, human users compete for attention with non-human accounts.

Switching platforms becomes difficult because a large number of people need to depart at once in order for the move to be effective, but it can happen. “All it takes is one Cambridge Analytica scandal, one whistleblower, one livestreamed mass-shooting, and users bolt for the exits, and then FB discovers that network effects are a double-edged sword,” noted Mr. Doctorow in his 2024 speech.

Enshittification can also be seen with X (formerly Twitter) after Elon Musk’s takeover. Once a platform where verified world leaders, journalists, celebrities, and other noteworthy figures could connect with audiences, Twitter under Mr. Musk soon made its free blue tick verification a paid feature that could be bought by anyone ranging from neo-Nazis to scam bots in order to boost their presence, degrading the platform experience for everyone. Dating apps such as Bumble and Hinge have also been accused of becoming “enshittified,” with certain profile selections, profile exposure, profile filters, and viewing features being put behind paywalls, in order to encourage subscriptions. For instance, the feature to undo a mistaken ‘swipe left’ gesture that rejects a profile is a paid privilege on Bumble.

Enshittification could further explain the recent changes made to browsers like Google, which has applied its Generative AI-powered overviews into the search experience, so that users are first shown a mashup of search results pulled from random sources across the web, with more errors likely to appear. This also preferences Google as opposed to other, more authoritative news sources and/or smaller publishers.

#### **How have streaming and entertainment platforms changed?**

Amazon Prime, Netflix, YouTube, and Spotify are all examples of how enshittification can affect even daily activities such as watching your favourite TV show or listening to music. Rising subscription prices have nudged users to either pay more in order to again access to the ad-free content they were enjoying at lower prices, or be forced to watch ads.

YouTube, for example, has degraded its free experience with multiple unskippable ads even as it tries to push users to opt for its ad-free YouTube Premium subscription service. YouTube has also worked to obstruct the user experience of those who rely on external ad-blocking extensions in order to continue watching videos without forced commercial breaks. The company further announced a ‘Hype’ feature in certain countries that allows users to help boost creators in the YouTube Partner Program (those with 500 to 5,00,000 subscribers) and increase their exposure; this leads to users being shown fan-promoted content.

Meanwhile, users have taken to social media to complain how the free version of Spotify is close to unusable, with non-paying users unable to even have control over the order in which they listen to their chosen songs. This dissatisfying experience pushes people to opt for a paid subscription or forces them to find an alternative. Mr. Doctorow further alleged that Spotify replaces the ambient artists in its most popular playlists with soundalikes who aren’t entitled to royalties.



### How have e-commerce platforms changed?

In a 2022 blog post, Doctorow used the case of e-commerce giant Amazon to give an example of enshittification, noting that “Amazon is an enshittified endless scroll of paid results, where winning depends on ad budgets, not quality.”

Mr. Doctorow went on to highlight how both sponsored product listings as well as Amazon’s own products often take precedence while a user is searching for items, meaning that they are not necessarily being shown the best products first. Google, Apple, and Spotify have also been accused of this kind of self-preferencing, where content that is more profitable to the companies is shown first, to the loss of other business rivals.

Meanwhile, the difficulty of cancelling an Amazon Prime account has become a legal challenge in itself. Per a U.S. Federal Trade Commission (FTC) lawsuit, Amazon allegedly enrolled millions of customers in Amazon Prime subscriptions without their consent, and also complicated the cancellation process.

The e-commerce giant will have to pay \$2.5 billion to settle the case — a slap on the wrist for a company with a market cap of over \$2 trillion.

### PLAYING CATCH-UP WITH CHINA IN THE AI RACE

The AI race is heating up, with countries across the world drawing up ambitious plans and channelling huge resources into this space. In 2024, global private AI investments touched \$252.3 billion, as per Stanford’s Artificial Intelligence Index report. The US widened its lead over other countries, with investments touching \$109.1 billion. But, despite pouring in billions of dollars, it may well turn out that China, not the US, wins the AI race. That’s what Nvidia chief Jensen Huang has said in a recent interview. While fears of Chinese dominance have been voiced since the release of Chinese AI model DeepSeek, when the chief of the most valuable company in the world — Nvidia’s market capitalisation recently touched \$5 trillion — whose chips form the backbone of the AI ecosystem, says so, it warrants a deeper examination.

According to Huang, who has earlier said that US AI models are not significantly ahead of the Chinese models, China is racing ahead due to lower energy costs and looser regulations. The massive data centres that are needed to handle AI processing require large amounts of power. Goldman Sachs, an investment firm, estimates that with the AI revolution gathering steam, data centre power demand will go up by 160 per cent. This surge in demand is already causing prices to soar in certain areas in the US. Reportedly, the Chinese are addressing this issue by offering energy subsidies that cut costs by half for large data centres, provided they use Chinese chips. This not only helps support their domestic chip industry, it also reduces reliance on Nvidia’s chips, whose supply is itself facing hurdles — the Trump administration has not allowed the firm to sell its most advanced chip, Blackwell, to China.

On the issue of regulation, Huang has argued that the new rules on AI by US states could result in “50 new regulations”. The fragmented regulatory landscape in the US means that firms will have to wrestle with varying requirements across jurisdictions. This could raise costs, impact innovation. As India moves towards building its own AI ecosystem — from chips to data centres and large language models — it must keep these issues in mind.



## HOW IS AUSTRALIA SETTING STANDARDS ON TRAINING AI?

### The story so far:

On October 27, Attorney General of Australia Michelle Rowland unequivocally rejected proposals by the country's own think-tank that sought to grant technology companies unchecked rights to mine copyrighted content for training AI. This decision marks a critical moment in the ongoing global debate between AI firms and copyright holders. Australia's stance will have an impact on how tech giants mine data to train AI systems in the country.

### What is at the heart of the issue?

At the heart of this controversy is the question of whether AI firms should be allowed to use copyrighted material, like books, music, artworks, and journalistic content, to train their AI systems without obtaining explicit permission from the creators.

The issue came to a head after the Productivity Commission, a government-backed independent agency, which takes inputs from industry bodies and big tech firms, suggested an exemption to existing copyright laws to mine text and data. In its report titled 'Harnessing Data and Digital Technology', the commission advocated for open access to vast troves of text data and voluntary industry standards in terms of guardrails. The commission argued that easing restrictions could unlock billions of dollars in foreign investment and bolster Australia's economy.

This prompted immediate and vocal opposition. Authors, artists, trade unions, and media organisations called the proposal a way to get access to original content without paying for it. The commission's interim report, published in August, further stoked anger by revealing it had not consulted with creatives nor modelled the real impact on Australia's artistic economy before recommending the change.

### How is the government responding?

In response to criticism from creatives, Attorney General Rowland said that "Australian creatives are not only world class, but they are also the lifeblood of Australian culture, and we must ensure the right legal protections are in place." She emphasised that technology's advancement must not come at the expense of those who generate the culture AI seeks to emulate or understand. Recognising the economic potential of AI, Ms. Rowland still asserted, "Australian creatives must benefit from these opportunities too." To chart a way forward, the government has convened a Copyright and AI Reference Group (CAIRG) to consider alternatives. These include the possibility of a new paid licensing framework under the Copyright Act, which replaces the current voluntary system, and fairly compensates creators when their works are used for AI training. The aim is to establish a regime that balances technology-driven innovation with real value exchange so creators can decide how their works are used, and receive payment for the intellectual property.

### How has the creative industry responded?

The decision represents more than a win for artists and media agencies as many see it as step in the right direction. Industry bodies see it as an important step in the right direction. For instance, Annabelle Herd, CEO of Australian Recording Industry Association, said in a LinkedIn post that the decision to "rule out a text and data mining exception for AI training of music and other copyright material is a critical step in the right direction. It is a win for creativity and Australian culture and First Nations culture, but it's also a win for common sense." She noted that the current



copyright licensing structures are the foundation of the creator and digital economies and that IP laws drive innovation.

“Artists deserve the right to decide how their work is used and to share in the value it creates. Protecting that agency is how we safeguard Australia’s creative sovereignty and keep our culture strong,” she asserted. Media executives have widely endorsed the move, underscoring the need to let creators have control over their content. Some see Australia’s position in the broader AI debate as a defender of creator rights in an era of technological upheaval, while other view this as a signal to other democracies grappling with the same issues. Australia’s decision comes at a time when, around the world, tech companies are seeking to negotiate or sidestep copyright laws in pursuit of data to power ever larger, smarter AI models.

Yet the backlash from cultural and media groups highlights a growing unease with the notion that transformative technology should override established rights and undermine creative economies.

#### **Why does this matter now?**

As AI becomes increasingly capable of generating content, reproducing styles, and even mimicking unique voices, the line between inspiration and appropriation blurs.

Creators, authors and media organisations fear loss of agency, financial harm, and the cultural dilution that comes with unchecked content mining.

In addition, smaller players and independent artists, those with the least number of resources, are the most exposed to this AI onslaught. For such groups, meaningful copyright protection is synonymous with survival, creative integrity, and fair market participation.

Australia’s ruling is significant not simply for its immediate legal consequences, but for its deeper message that technological advancement must coexist with respect for creators, for culture, and for the economic infrastructure that sustains both.

The government’s next steps on potentially replacing voluntary licensing with a mandatory, paid system could set the standard for ethical AI development, championing genuine value exchange and fostering trust between innovators and the creative sector.

As other democracies wrestle with the question of who benefits from the AI revolution, Australia’s stance should remind them that innovation need not come at the cost of fairness, culture, and human creativity. Australia’s position signals that technology works best when it amplifies human creativity rather than exploit it.

### THE CURIOUS CASE OF THE ANT QUEEN PRODUCING SONS OF TWO SPECIES

Cats give birth to kittens, and dogs give birth to puppies. Neither cats nor dogs can give birth to both kittens and puppies. Yet a paper recently published in Nature, by researchers at the University of Montpellier in France, reported such a thing. The group found that females of one ant species, *Messor ibericus*, routinely produce sons belonging to two species: *M. ibericus* and *M. structor*.

#### **Queens, workers, drones**

The biological sex of an ant is determined by whether an individual ant is haploid or diploid. In other words, it depends on whether they have one set or two sets of chromosomes in the nuclei



of their bodies' cells. Haploid individuals inherit their sole set from the mother's egg. Diploid individuals get one set from the mother's egg and another from the father's sperm.

Female ants — which include the queen and worker castes — develop from fertilised eggs. Males, known as drones, develop from unfertilised eggs. The queens mate and have progeny while the workers don't make eggs and are sterile.

A queen will transfer only one chromosome of each chromosome pair she has to an egg. After the queen mates with a drone, she will store the drone's sperm in a sac called the spermatheca. Later, when she's laying her eggs, she will decide which of them will also be fertilised by the sperm to become females and which will stay unfertilised and become drones.

*M. ibericus* queens mate with both *M. ibericus* and *M. structor* drones. The eggs fertilised by *M. ibericus* sperm become queens. Those fertilised by *M. structor* sperm become hybrids of *M. ibericus* and *M. structor* that develop into workers. The unfertilised eggs become *M. ibericus* drones.

The puzzle is: how do *M. ibericus* queens beget *M. structor* progeny drones?

#### **Cloning ants**

The researchers found that the *M. ibericus* queens eliminated their chromosomes from some of their eggs either before or after fertilisation. When these eggs were fertilised with *M. structor* sperm, they contained only one set of *M. structor* chromosomes — which automatically led them to become *M. structor* drones.

Had the *M. ibericus* queens not eliminated the chromosomes, the colony wouldn't have produced *M. structor* drones. These drones are essential to generate workers in the grand-children.

The researchers also found that the *M. structor* drones were all genetically identical to each other, meaning they're clones. It seems ants discovered how to clone long before humans did.

*M. ibericus* is the first instance of an ant colony including drones of another species. It's possible the *M. ibericus* genome evolved caste-biasing genes that caused the females bearing them to be destined to become queens. By generating *M. structor* drones, the colony could, in the next generation, produce inter-species hybrids that bypassed the caste-biasing and became workers. That the workers were inter-species hybrids ensured that they were sterile.

The researchers wrote in their paper that "by producing the required species' males in their own colonies, *M. ibericus* has gained a clear advantage, as it maintains obligate hybridisation" — meaning hybridisation required for the ants to have a particular trait.

The study also solved a long-standing puzzle: of how all the castes of *M. ibericus* are found in Spain, Portugal, and Greece, yet the *M. structor* individuals are all male. In all other ant, and bee, species, the queens, workers, and drones of a colony belong to the same species. The workers are also sterile, whereas the queen's fertility is achieved by other means. Among the honeybees, a special item called royal jelly is fed to larvae to help them develop into queens.

#### **Mitochondrial evidence**

The researchers established that the *M. structor* drones were derived from *M. ibericus* queens by studying the DNA in their mitochondria. *M. structor* drones from *M. ibericus* colonies had *M.*



structor DNA in their nuclei but *M. ibericus* DNA in mitochondria. On the other hand, drones from *M. structor* colonies contained *M. structor* DNA in both nuclei and mitochondria.

While most of an organism's DNA lies in the cell's nucleus, a small amount is located in mitochondria. This is mitochondrial DNA (mtDNA). Individuals inherit their mitochondria only via the mother's egg. Mitochondria are not passed on by sperm cells to the next generation.

DNA sequencing showed that the nuclear DNA of the *M. structor* drones from *M. ibericus* colonies was most closely related to the nuclear DNA of wild *M. structor*.

In contrast, their mitochondrial DNA was the same as that of their *M. ibericus* nestmates.

To find whether 'domesticated' males could mate with their wild female counterparts, the researchers analysed 45 *M. structor* genomes — and didn't find any hybrid between the domesticated and wild lineages.

The domesticated males differed from their wild counterparts and from their *ibericus* male nestmates in that they were comparatively hairless. This raised a question: by virtue of their genetic isolation, should the domesticated males be classified as a different species? This is a legitimate question in the same way dogs, by being genetically isolated from wolves (*Canis lupus*), became *Canis familiaris*.

The researchers made a different argument: "The domesticating species is directly cloning the domesticated one by means of its own egg cytoplasm. Such replication of an alien genome within one's own cytoplasm echoes the endosymbiotic domestication of organelles (for example, mitochondria) within eukaryotic cells. Clonal males may thus be regarded as organelles at the superorganism level."

While there's a parallel between the *M. structor* drones in an *M. ibericus* colony and the mitochondria of a cell, an *M. ibericus* colony can replenish itself with fresh *M. structor* genomes — but cells can't acquire new mitochondria.

This replenishment in *M. ibericus* can be achieved by *M. ibericus* queens mating with wild *M. structor* drones. This way, the colony can purge itself of *M. structor* genomes that accumulate undesirable mutations.

#### WHAT MAKES AFGHANISTAN SO PRONE TO EARTHQUAKES

A 6.3-magnitude earthquake struck near the northern Afghan city of Mazar-e Sharif early on Monday, killing at least seven people and injuring about 150, just months after a quake and strong aftershocks killed more than 2,200 people at the end of August.

Hemmed in by rugged mountains, Afghanistan is prone to a range of natural disasters, but its earthquakes cause the most fatalities, killing about 560 people on average each year and causing annual damages estimated at \$80 million.

Studies indicate at least 355 earthquakes with a magnitude higher than 5.0 have hit Afghanistan since 1990.

— Afghanistan is located on the edge of the Eurasian tectonic plate, which shares a transgression zone with the Indian plate – implying the two may converge or brush past each other – and is also



influenced by the Arabian plate to its south, creating one of the world's most tectonically active regions.

— The northward movement of the Indian plate and its thrust against the Eurasian plate is usually responsible for Afghanistan's numerous quakes.

— Eastern and northeastern Afghanistan, especially regions along its borders with Uzbekistan, Tajikistan, and Pakistan, are particularly prone to earthquakes.

— Earthquakes are also particularly dangerous in Afghanistan's mountains where they can trigger landslides, exacerbating loss of life and property.

— How can the country build resilience? Studies recommend new structures be built in an earthquake-resistant way and existing buildings be retrofitted to reduce chances of collapse.

— Better monitoring and early warning systems must also be created for more timely alerts, while fault lines should be mapped using geospatial and remote sensing technologies to enable relocation of people in vulnerable areas, they suggest.

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

— An earthquake is an intense shaking of the ground caused by movement under the Earth's surface. It happens when two blocks of the Earth suddenly slip past one another. This releases stored-up 'elastic strain' energy in the form of seismic waves, which spread through the Earth and cause the shaking of the ground.

— The Earth's outermost surface, crust, is fragmented into tectonic plates. The edges of the plates are called plate boundaries, which are made up of faults — zones of fractures between two blocks of rock. The tectonic plates constantly move at a slow pace, sliding past one another and bumping into each other. As the edges of the plates are quite rough, they get stuck with one another while the rest of the plate continues to move.

— An earthquake occurs when the plate has moved far enough and its edges unstick on one of the faults. The United States Geological Survey (USGS) says that "the location below the Earth's surface where the earthquake starts is called the hypocenter, and the location directly above it on the surface of the Earth is called the epicentre".

— Ranking as the seventh most earthquake-prone country in the world, India is vulnerable to seismic activity. India's vulnerability to earthquakes stems from its geographical position at the convergence of multiple tectonic plates, its intricate geological structure, and a rapidly growing population paired with widespread unregulated construction practices.

— According to ndma.gov.in, approximately 59 per cent of its land area is at risk of experiencing moderate to severe seismic events, capable of registering an intensity of VII on the MSK scale or higher.

#### **SCIENTISTS DETECT BRAIN RESPONSE TO RHYTHM IN PRETERM BABIES**

Scientists have long wondered when the sense of rhythm first takes shape in the developing brain. It's been a difficult question to answer because studying this in foetuses is almost impossible. But when instead scientists turned to premature newborns, whose brains are at roughly the same stage as foetuses in the final weeks of gestation, they found a surprise.



According to a new study in iScience, when these preterm infants hear rhythmic sounds, their brains light up not only in areas that process hearing but also in regions involved in movement, hinting that the connection between sound and motion begins earlier than anyone had confirmed before.

“Auditory rhythm processing begins very early in development,” the study’s corresponding author Sahar Moghimi, a researcher at the University of Picardy Jules Verne in France, said. “Even before the third trimester, the auditory system becomes functional and starts encoding external sounds.”

The researchers used a noninvasive imaging method called functional near-infrared spectroscopy (fNIRS) to record brain activity in premature infants while they slept. The babies were around 36 weeks of gestational age.

They were exposed to sequences of rhythmic and irregular sounds. The team found that rhythmic sounds activated the brain’s hearing area as well as those areas that plan movement.

“The brain is already responding to rhythm, much before birth — the same ability that later helps shape language and social communication,” Dr. Moghimi said.

Rhythmic sounds also activated more of the brain than expected. The areas that plan and control movement responded more strongly to regular beats, suggesting the brain had already begun linking sound and movement internally and was preparing for the synchrony that researchers know emerges months later.

Even without the beats, a foetus in a womb is already immersed in rhythm: from the steady pulse of the mother’s heartbeat to the cadence of her voice. The study’s authors reasoned that this exposure may be helping wire the foetus’s auditory system and build the brain’s sense of timing.

#### FROM NATURE-CONNECTEDNESS INDEX, A LESSON ON ‘DEVELOPMENT VS ENVIRONMENT’

Over the last three decades, there has been a consistent criticism of governments and private actors who make environmental policy: Those who seek to protect “nature” know very little about living in and with it. Arguably, their good intentions aside, they are accused of making a false disjunction between humans and the environment, including other animals. A research paper published in *Ambio* surveyed 56,968 people across 61 countries to measure how “nature-connected” they were. A psychological concept, nature-connectedness seeks to measure the relationship — or lack thereof — between people and flora and fauna. Several studies have demonstrated that such connections impact well-being and are correlated with how people act towards the environment.

Nepal, according to the study, is the most nature-connected, followed by Iran, South Africa and Bangladesh. India, in 22nd place, is at the upper end of the middle, while the UK, Spain, Japan, Germany and Canada bring up the rear. Clearly, political activism is not a factor in how close people are to nature. Germany, Canada and the UK, for example, have far stronger Green parties than Iran. But people there are, going by the study, less likely to form bonds outside of homo sapiens. “Spirituality” has a positive correlation with connectedness, while ranking high on the World Bank’s Ease of Doing Business index is the opposite.

Does the study, then, hint at a return to the old binary between the economy and the environment, between “development” and “growth”? Hopefully not. The better lesson to draw from it might be



to listen, learn and find a balance. The people surveyed in the countries at the top of the list want “development” too. The answer might well be to talk to those who live with nature, and listen to their views before planning to make cities and countries more “green” and “smart”.

## WHAT ARE THE CHALLENGES WITH THE HIGH SEAS TREATY?

### The story so far:

The High Seas Treaty was ratified by over 60 countries in September; it will now be enforced in January 2026. The treaty sets rules to preserve and use marine biodiversity sustainably and addresses threats from climate change, overfishing and pollution.

### What is the treaty about?

The Biodiversity Beyond National Jurisdiction (BBNJ) agreement, as the High Seas treaty is formally referred to, creates an all-inclusive framework to govern and manage common marine biodiversity. It identifies Marine Genetic Resources (MGRs) as the common heritage of humankind, insisting on a fair and equitable sharing of benefits. Besides, the Area-Based Management Tools (ABMTs) include Marine Protected Areas (MPAs) that can be recognised to protect biodiversity. This will help in improving climate resilience and provide food security, combining science and indigenous knowledge. The treaty also entails Environmental Impact Assessments (EIAs) for events potentially affecting these areas, especially when cumulative and transboundary impacts are taken into account. The first steps for the treaty began two decades ago. In 2004, the UN General Assembly formed an ad-hoc working group to fix the gap in the UN Convention on the Law of the Sea (UNCLOS), 1982, which did not have clear guidelines on protecting BBNJ. By 2011, states had agreed to negotiate on four key issues, mainly MGRs, ABMTs, EIAs, and capacity building and technology transfer. Following this, four Intergovernmental Conference sessions were held between 2018 and 2023. The parties to these discussions finally reached an agreement in March 2023, which led to the adoption of the treaty in June 2023.

### What are the major issues?

First is the uncertainty over the principles of “common heritage of humankind” and “freedom of the high seas.” The “common heritage principle” supports equitable access and benefit-sharing of marine resources for all, while the “freedom on the high seas” stresses on unrestricted rights of states to carry out navigation, resource usage and research activities. However, the common heritage principle is only applicable partially, especially when it comes to MGRs. This shows a compromise instead of a resolution. It also creates ambiguity in exploration, research and benefit sharing. Second, is the use of MGRs. The governance of MGRs was earlier not defined, raising concerns over “biopiracy” and unfair exploitation by developed countries. Developing nations were concerned that they would be excluded from the profits of scientific discoveries from the high seas. The treaty now includes a framework on sharing monetary and non-monetary benefits, but with no clear details on how such benefits will be calculated or shared. Third is the reluctance of big powers to get engaged. The treaty is under threat due to non-participation from the U.S., China, and Russia, who are yet to ratify the treaty. Fourth, is interaction with multilateral institutions. The treaty must coexist and not ignore existing international institutions, such as the International Seabed Authority (ISA) and Regional Fisheries Management Organisations (RFMOs). The BBNJ agreement must also blend with existing international treaties to prevent legal conflicts and lead to more fragmentation of ocean governance.



### What next?

The treaty provides more clarity to the UNCLOS provisions, focusing on science-based requirements for EIAs, ABMTs and benefit sharing. However, the ambiguous language in the MGRs and the common heritage of humankind principle challenge the execution of the treaty. There is a need for dynamic management of MPAs, and regular monitoring. To deliver the BBNJ, linking climate-biodiversity with the ocean will be crucial for resilient management.

### 2025 TO BE AMONG TOP THREE WARMEST YEARS ON RECORD: UN

An alarming streak of exceptional temperatures is continuing, with 2025 set to be among the hottest years ever recorded, the United Nations said Thursday, insisting though that the trend could still be reversed.

While this year will not surpass 2024 as the hottest ever recorded, it will rank second or third, the UN's weather and climate agency said, capping more than a decade of unprecedented heat.

Meanwhile, concentrations of greenhouse gases grew to new record highs, locking in more heat for the future, the World Meteorological Organization warned in a report released ahead of next week's COP30 UN climate summit in Brazil.

Together, the developments make "it clear that it will be virtually impossible to limit global warming to 1.5°C in the next few years without temporarily overshooting this target," WMO chief Celeste Saulo said in a statement.

Ms. Saulo insisted that while the situation was dire, "the science is equally clear that it's still entirely possible and essential to bring temperatures back down to 1.5°C by the end of the century".

But the world remains far off track.

Already, the years between 2015 and 2025 will individually have been the warmest since observations began 176 years ago, WMO said.

And 2023, 2024 and 2025 figure at the very top of that ranking.

### COP 30 MUST ADDRESS THE MOST VULNERABLE

The UNFCCC's 30th Conference of Parties (COP 30) that begins in Belem, Brazil, on November 10 will mark a decade since the Paris Climate Pact came into force. A lot has changed since the landmark treaty was adopted, and at the same time, the needle hasn't moved much on several longstanding climate issues. Renewables have edged out fossil fuels as the biggest source of energy. Yet, there has scarcely been a slowdown in the trajectory of global greenhouse gas emissions. Policies now in place are expected to shave off warming by 2100 by nearly one full degree — from 3.6 degrees Celsius pre-Paris to around 2.7 degrees Celsius. That's still way short of the 1.5 degrees Celsius threshold set in Paris. In the run-up to COP 30, more than 60 countries have submitted revised climate action plans. Many more, including India, are expected to do so at Belem. However, by all accounts, collective ambition will not be enough to keep global warming below the threshold set at Paris.



The large deficits in global-warming mitigation mean that countries have to invest more in shielding people from extreme weather events. The spiralling effects of climate change are already evident in the record-breaking heatwaves of 2024, the toll taken by floods, typhoons and cyclones over the past 10 years, and the forest fires that have raged in different parts of the world in the last three years. According to a World Meteorological Organisation Report, released in October, “millions of people lack the protection against dangerous weather, which is also inflicting a dangerous toll on vital economic assets”. The report underlined the importance of investing in early warning systems. Another analysis of global efforts to make people resilient to climate-change impacts, the UNEP’s Adaptation Gap Report 2025 released in the run-up to COP 30, shows that developing countries will need \$310 billion annually between now and 2035 to protect people from searing heat, rising seas, rivers in spate and deadly storms — this is nearly 12 times the finances currently allocated for adaptation.

One of the priorities at COP 30 will be to create a roadmap to track global adaptation progress. Unlike mitigation, adaptation has no single global metric. The roadmap will also need to be sensitive to the fact that social inequalities make some people more vulnerable than others. In other words, while the Belem meet will need to find ways to scale up climate finances, it will also need to create mechanisms to ensure that the funds reach those who need them the most. The negotiators will have their task cut out in the next fortnight.

#### PLANS ON FUNDINGS SOUGHT FROM DEVELOPED NATIONS

Ahead of the COP30 climate meeting starting in Belem, Brazil, next week, a new report on climate finance has asked developed countries to work together to formulate a clear delivery plan by next year for the \$300 billion per year that they have promised to mobilise every year from 2035 to help developing nations deal with climate change.

- The report has also asked the developed nations to significantly scale up current levels of grants and concessional finance being provided through bilateral or multilateral channels to help efforts to raise more resources for the developing countries, in addition to the \$300 billion that has been promised.
- The Report on Baku to Belem Roadmap to 1.3T was commissioned last year to address the disappointment among the developing countries over the finance deal finalised in Baku, Azerbaijan, during the COP29 meeting.
- Developing countries had been demanding that developed countries commit to providing at least \$1.3 trillion a year in climate finance. In Baku, the developed countries agreed only for a \$300 billion a year figure, and that too from 2035.
- Under the international climate architecture, governed by the UN Framework Convention on Climate Change and the 2015 Paris Agreement, developed countries are obliged to provide financial support to the developing countries to fight climate change. This is because it is the developed countries which have been primarily responsible for emitting greenhouse gases in the past 150 years that is the main reason for global warming and consequent climate change.
- Between 2020 and 2025, the developed countries had promised to raise at least \$100 billion every year for this purpose. But the Paris Agreement mandates that this figure should be revised upwards every five years.



- In Baku, the developed countries agreed to a new figure, but the delivery would happen only from 2035. Developing countries, including India, had reacted angrily to the 'paltry' and 'abysmally' insufficient amount.
- The presidencies of COP29 and COP30 (Azerbaijan and Brazil) had then jointly commissioned this report to explore additional avenues to reach the \$1.3 trillion goal by 2035.
- The new report, however, acknowledges that the climate and nature-related investment requirements of the developing countries in 2035 would be about \$3.2 trillion a year. It explores a variety of options to raise additional financial resources for climate action, and considers the possibility of carbon tax, wealth tax, corporate taxes, aviation taxes, levies on luxury goods and even direct budget contributions from developed countries. These were based on the inputs and suggestions it had received from different countries and other stakeholders.

**Do You Know:**

- Climate finance refers to large-scale investments required for actions aiming to mitigate or adapt to the consequences of climate change.
- Adaptation involves anticipating the adverse effects of climate change and taking appropriate action to prevent or minimise the damage they can cause. One example of adaptation measures includes building infrastructure to protect coastal communities against sea-level rise.
- Meanwhile, mitigation involves reducing the emission of greenhouse gases (GHG) into the atmosphere so that impacts of climate change are less severe. Mitigation is done by increasing the share of renewable energy sources, expanding forest cover, etc.

**DreamIAS**