

# CURRENT AFFAIRS for UPSC

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1ST TO 7TH MARCH 2026

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## INTERNATIONAL

### ISRAEL-HEZBOLLAH TENSIONS FLARE UP: HISTORY BEHIND THE CONFLICT

In response to strikes from the United States and Israel over the weekend, Iran has targeted US military bases in several West Asian nations, widening the spread of the war.

#### Key Takeaways:

— Israel, on the other hand, has turned to Lebanon, its northern neighbour. On Monday (March 3), the Israeli Defense Forces (IDF) stated that its troops were “operating in southern Lebanon” to target the militant organisation Hezbollah, which also holds representation in Lebanon’s government. A few strikes have also been reported in capital Beirut.

— For its part, Hezbollah has launched missiles “in response to the criminal Israeli aggression that targeted dozens of Lebanese cities,” according to a statement, as cited by CNN. The group stated that it was aiming for radar sites and control rooms at an Israeli airbase, even as the Lebanese government said it was banning Hezbollah’s military activities.

— The conflict between Hezbollah and Israel is not new, with Hezbollah once pushing the militarily stronger Israel out of Lebanese territory. The think tank Centre for Strategic and International Studies (CSIS) has called it as “The world’s most heavily armed non-state actor, with a large and diverse stockpile of unguided artillery rockets, as well as ballistic, antiair, antitank, and antiship missiles.”

— In the aftermath of Hamas’s October 7 attacks, Israel targeted Hezbollah’s top leadership. Here is what to know about their history and the renewed fighting.

— Nakba, Cold War as fertile ground: The establishment of the state of Israel in 1948 was accompanied by the violent displacement of more than 750,000 Palestinian Arabs in the event known as the Nakba, or catastrophe. Many displaced people fled to the north, towards Lebanon.

— Lebanon had a large Christian population (estimated to be more than 40% of the total at present), and conflicts between the Palestinians and Christian militias were fuelled by Soviet support for the Arabs and US backing for the Christian coalition.

— In the 1960s and 70s, militants affiliated with the Palestine Liberation Organisation (PLO) began to build a base in southern Lebanon as a launchpad for attacks on Israeli towns.

— In 1978, in response to a massacre of Israelis near Tel Aviv by Palestinian militants based in Lebanon, Israel invaded south Lebanon. In a short war, Israeli forces pushed the PLO back from south Lebanon, creating a buffer north of Israel. But the attacks from Lebanon continued, and four years later, Israel mounted another invasion, intending this time to drive the PLO out of Lebanon altogether. The IDF, along with its Lebanese Christian allies, laid siege to Beirut, forcing the evacuation of PLO leaders.

— By 1985, Israel had withdrawn from most of Lebanon but maintained a 15 to 20 km-wide security zone in south Lebanon to prevent cross-border attacks. This area was patrolled by the South Lebanon Army (SLA), a Christian militia allied with Israel. However, this occupation became a lengthy entanglement that fuelled resistance from various groups and created conditions that led to the rise of Hezbollah.



— Hezbollah, the “Party of God”, was formed in the early 1980s in response to the Israeli occupation of Lebanon. It received support from Ayatollah Khomeini’s regime (not to be confused with Ayatollah Ali Khamenei, who was killed in the recent US-Israeli attacks). Iran saw this as an opportunity to export the ideals of the Islamic revolution and challenge Israel’s dominance.

— The group’s initial goal was to resist Israeli occupation, but as it strengthened, its objectives expanded to establishing a theocratic state in Lebanon, similar to the one in Iran following the Islamic Revolution of 1979. It also aimed to oppose Western influence in the region, wrote Augustus Richard Norton in *Hezbollah: A Short History* (2007).

— In 1996, a 17-day campaign by the IDF, codenamed “Operation Grapes of Wrath”, became a key moment in the Israel-Hezbollah war. Israel advanced militarily, but the campaign resulted in major civilian casualties, fuelling support for Hezbollah.

— By the late 1990s, Israel’s presence in south Lebanon had become unsustainable. The Israeli public had grown weary of its costs. Hezbollah, meanwhile, carried on a war of attrition. Its forces thus unilaterally withdrew in 2000.

— In 2006, Hezbollah killed three Israeli soldiers and abducted two others, demanding that Israel return Lebanese prisoners in exchange. After Israel launched an attack, around 1,200 Lebanese and 159 Israelis were killed. The high human cost and the fact that Hezbollah could not be eliminated drew criticism within Israel.

— Over time, the Israel-Hezbollah conflict has shaped West Asia in multiple ways. Hezbollah, the crown jewel of Iran’s overseas military operations, has developed significant military capability and has become, in the words of Norton, “the spearhead of resistance against Israel”.

— Subsequently, many Western governments characterised it as a terrorist organisation, as did the Gulf Cooperation Council, which includes six West Asian countries: Bahrain, Kuwait, Oman, Qatar, Saudi Arabia, and the UAE.

— Fast forward to October 7. Seeing Iran-backed groups like Hezbollah and Hamas as threats to its security, Israel launched attacks on Lebanon soon after. Hezbollah also said it would target Israel to avenge the killings in Gaza.

— Since then, Israel has successfully targeted senior members of the Hezbollah leadership, including the chief, Hassan Nasrallah. In 2024, Israel set up pagers used by Hezbollah members to explode, leading to around 40 deaths and over 3,000 injuries. In September that year, Israel invaded south Lebanon again, but a ceasefire was signed in November. Israel has since occupied five positions in southern Lebanon.

— Despite its weakening, Hezbollah’s dominant position in Lebanon comes from a relatively weak Lebanese state, and a formidable arsenal built up over the years.

#### THE LEGALITY OF U.S.-ISRAEL STRIKES ON IRAN

As the U.S. and Israel launched coordinated strikes across Iran, reports have surfaced that a missile had hit a girls’ primary school in the southern city of Minab, killing around 150 people and injuring nearly 100. Many of the victims are believed to be schoolchildren. UNESCO has condemned this as a grave violation of International Humanitarian Law (IHL), or the ‘laws of war’, which is designed to limit the human suffering caused during ‘armed conflict’ by imposing



restrictions on the 'means' and 'methods' of warfare. Attacks on civilian objects such as schools and hospitals, and on civilians, especially children, are prohibited under IHL.

#### **Legal justification**

On February 28, Israel and the U.S. launched strikes on Iran, framing the operation as a 'pre-emptive' response to what they described as an imminent threat. Importantly, the UN Charter was created in 1945 following the devastation of World War II to save future generations from the "scourge of war" and maintain international peace and security. Article 2(4) of the UN Charter prohibits all member states from threatening or using force against the 'territorial integrity' or 'political independence' of another state. Under the Charter, only the UN Security Council may authorise the 'use of force' against a member state in response to breaches of international peace. The sole exception is Article 51, which permits the 'use of force' in self-defence, but only in response to an actual armed attack.

Under this legal framework, neither Israel nor the U.S. can plausibly claim to be exercising the right of self-defence against Iran under Article 51, whether individually or collectively. Notably, Iran has not recently attacked either state, and any earlier threat has long dissipated. In the absence of an ongoing armed attack, the 'use of force' cannot be justified as self-defence. At most, the argument rests on preventing a potential future Iranian attack — nuclear or otherwise — under the theory of "anticipatory" self-defence in response to an imminent threat.

Yet many scholars argue that international law does not recognise a right to use force in self-defence against an attack that has not yet occurred. Nevertheless, even under the broadest plausible theory of "anticipatory" self-defence, the use of force against Iran would be lawful only if three conditions were met: first, that Iran's leadership had decided to attack the U.S. or Israel; second, that it possessed the capability to do so; and third, that the 'use of force' was necessary now because this was the last window of opportunity to prevent that future attack.

However, the "anticipatory" self-defence argument appears even weaker today. The U.S. strikes in June 2025 had already substantially degraded Iran's capacity to develop a nuclear weapon. President Donald Trump had claimed that Iran's nuclear programme had been "obliterated". Since then, no evidence has been presented to show that Iran reconstituted its programme, formed the intent to build a weapon, mounted it on a ballistic missile, and prepared to use it against the U.S. or Israel.

Furthermore, neither regime change nor the protection of populations (Iranians) from mass atrocities by the Iranian government finds any basis in international law or the UN Charter as a lawful justification for the 'use of force'.

#### **IHL violations**

While morals and ethics in conflicts have deep historical roots dating back to ancient Greek, Roman, Indian, and Chinese civilisations, they were codified in their modern form, i.e., IHL, by the Geneva Conventions of 1949, complemented by other treaties and customary law. IHL protects the wounded, sick, prisoners of war, and civilians while restricting brutal weapons and methods of warfare.

Unlike the UN Charter, which addresses the legality of starting a war (*jus ad bellum*), IHL governs how wars are fought (*jus in bello*) and ensures humane conduct regardless of the war's initiation.



It regulates the conduct of hostilities based on four core principles: 'distinction', 'proportionality', 'military necessity', and 'precaution'.

When the missile hit the girls' school in Iran, the 'principle of distinction', which requires that 'combatants' and 'military targets' be clearly separated from 'civilians' and 'civilian objects' such as schools, hospitals, places of worship, and public transport, was blatantly transgressed. Importantly, if there is any doubt about whether a target is military or civilian in nature, it must be presumed to be civilian.

The Convention on the Rights of the Child further reinforces this protection by recognising children as rights-bearing individuals and requiring States Parties, under Article 38(4), to take all feasible measures to ensure the protection and care of children affected by armed conflict. Similarly, the Rome Statute of the International Criminal Court defines the intentional targeting of civilians and attacks on buildings dedicated to education as war crimes. However, it must also be noted that civilian objects, including schools, may lose their protected status if they are used for military purposes and thereby become military objectives. For instance, a school functioning as a military base, artillery site, or command post could fall within this category. So far, however, there is no evidence that the school in Minab, Iran, was being used for military purposes or that it was deliberately targeted.

#### **Proportionality and necessity**

The key question, therefore, is how the strike should be assessed under IHL if the school was not intentionally targeted but was instead damaged as collateral harm from an attack directed at a nearby Islamic Revolutionary Guard Corps facility, as some reports suggest.

In this regard, IHL recognises that civilian objects may be incidentally affected during attacks on military objectives. However, such incidental harm to civilians or civilian objects is lawful only if it satisfies the requirements of 'proportionality', 'precaution', and 'military necessity'.

In such circumstances — where a civilian object like a school is located near a military objective and is struck during an attack — the legality of the operation turns on whether the expected harm to the school and the children present was excessive in relation to the concrete and direct military advantage anticipated from striking the intended target.

Equally crucial is whether military commanders took all feasible precautions to minimise civilian harm, such as verifying the target, assessing the presence of nearby civilians or civilian infrastructure, selecting weapons capable of limiting collateral damage, and timing the strike in a manner that reduces risks to non-combatants.

#### **Role of international law**

In a world where states increasingly resort to force against one another, critics often point to frequent violations of international law as evidence of its irrelevance. Yet this conclusion misunderstands how international law functions. While breaches do occur, sometimes brazenly, they remain exceptions to an overwhelmingly compliant pattern of behaviour.

The everyday conduct of diplomacy, international commerce, civil aviation, maritime navigation, environmental agreements, arms control arrangements, and treaty obligations continues to operate largely within the framework of international law.



Its significance lies not in perfect compliance but in its ability to demand justification. Through its argumentative and normative practices, international law compels those who wield power to account for their actions before a global audience.

This system of accountability may be imperfect, but it ensures that departures from legal norms can be identified, scrutinised, and condemned. The challenge today is not the absence of law, but the need for states to comply with it rather than bend it to politics. For when bombs fall on classrooms and playgrounds, it is not only lives that are lost; it is the quiet extinguishing of futures that had barely begun to exist.

## CHRONICLES OF A WAR FORETOLD

In July 1977, Mohammad Reza Pahlavi, the Shah of Iran, sent Lt. Gen. Hassan Toufanian, his Deputy Minister of War and Armaments, to Israel to hold secret talks with the newly formed Likud government of Menachem Begin. Three months earlier, the Shah had signed six 'oil for arms' contracts with Shimon Peres, the acting Prime Minister in the previous interim government. One of the contracts, code-named 'Flower', sought Israel to modify its advanced surface-to-surface missiles and sell them to Iran. Gen. Toufanian's mission was to ensure that the change of government in Israel would not affect the deal. He met Maj. Gen. Ezer Weizman, Defence Minister in the Begin government, and both of them agreed to build a military co-production line — Israel was to provide the technical know-how and Iran the finances and test sites. As part of it, Israel promised to supply Iran with ballistic surface-to-surface missiles with a range of 700 km that could carry nuclear warheads, writes journalist Ronen Bergman in his book, *The Secret War with Iran*.

But within two years, the relationship had turned upside down. The Shah was toppled by nationwide protests. Ayatollah Ruhollah Khomeini, a leading Shia cleric, arrived in Tehran in February 1979 from exile in Paris. Shia Islamists, under Khomeini's leadership, took over the reins of the country and turned it into an Islamic Republic — a semidemocratic, theocratic state. The new Iran declared "liberation" of Jerusalem one of its key objectives. At the U.S. Embassy in Tehran, 66 Americans, including diplomats and civilian personnel, were taken hostage by revolutionaries. For revolutionary Iran, America, which had orchestrated the 1953 coup against nationalist Prime Minister Mohammed Mossaddegh and had been the principal backer of the Shah, was the "great Satan", while Israel, the occupier of Palestine, was the "little Satan".

The revolution did not just transform Iran; it was also a geopolitical earthquake. If the Shah's Iran had been one of the pillars of the U.S.-Israel alliance, Khomeini's Iran emerged as this alliance's top nemesis. Forty-seven years later, that enmity has escalated into a full-blown war, with Israel and the U.S. launching air strikes in Iran and Tehran retaliating against Israel and American bases in the region.

### **A new rival**

The Islamic Republic was born in a region that was already witnessing new currents in Arab-Israeli relations. In 1978, Egypt became the first Arab country to recognise Israel, in return for the Sinai Peninsula which Israel had seized in the 1967 War. Arab countries, though still supportive of the Palestinian cause, were moving away from the phase of confrontation with Israel. For Shia revolutionary Iran, its support for Palestine was not only a religious duty but also a practical foreign policy move aimed at winning over the Muslim world, bridging the Shia-Sunni divide. Israel, which established conventional deterrence against Arab countries in the region, saw a new



enemy emerging. The rivalry between Israel and Iran has shaped West Asia's geopolitics ever since.

With support from the U.S. and other Western partners, Israel, a nuclear-armed country, has emerged as the most powerful military in the region. On the other side, Iran, which faced American sanctions immediately after the revolution, turned to building and supporting a network of militias. In the early 1980s, Iran helped create Hezbollah, a Lebanese Shia movement. And in the 1990s, it doubled down on its support for Hamas and the Islamic Jihad. When the Oslo process, which promised a two-state solution to the Palestine question, collapsed in the latter half of the 1990s, Hamas emerged as a major pillar of the Palestinian resistance. This, in turn, turned Iran into a key player in the Israel-Palestine crisis.

In southern Lebanon, Israel found it increasingly difficult to continue its occupation amid Hezbollah's resistance. Iran provided money, training and weapons to Hezbollah through Syria, which was ruled by the Assad family. In 2000, after 18 years of occupation, Israel was forced to withdraw from southern Lebanon, and Hezbollah claimed that it was the first Arab force to defeat the Israeli army. In 2006, Israel attacked Lebanon again, but Hezbollah survived the month-long campaign.

### **Regional influence**

This strategy of forward defence appeared to be working in Iran's favour in the early 2000s. Consider, for example, at the 2003 U.S. invasion of Iraq. Before the invasion, U.S. President George W. Bush had grouped Iran with Iraq and North Korea as part of an 'Axis of Evil'. There was much speculation that the Bush administration would turn to Iran once the Iraq war was over. But the fall of Saddam Hussein, the Iraqi leader who attacked Iran in 1980, removed a critical buffer between the Persian Gulf kingdoms and Iran.

When Iraq, a Shia-majority country, held elections after the fall of Saddam's regime, Shia parties with historical ties to Tehran emerged as the new ruling elite. When Iraq descended into a sectarian civil war between Sunni jihadists and Shia militias, the U.S. became deeply entangled in the conflict. Iran's influence stretched along the so-called Shia crescent, from Tehran, through Baghdad and Damascus all the way to southern Lebanon, on Israel's northern border. At home, Iran also advanced its nuclear programme. But this ascent was short-lived. Arab Spring protests, which broke out in late 2010 and shook several regimes in the region, marked the beginning of the decline of Iran's influence.

In Syria, protests against the regime of President Bashar al-Assad threatened to cut short Iran's regional influence. Mr. Assad's Syria was Iran's only regional state ally. It was also a vital link between Hezbollah and Tehran. If the regime fell, it would cut off the link, weakening both Iran and Hezbollah.

Iran knew what was at stake, and it did not hesitate for a moment in helping the Syrian government. Thousands of Hezbollah fighters crossed the border into Syria to fight alongside the regime forces. Iran mobilised Shia fighters from across the region and sent them to Syria. In September 2015, Russian President Vladimir Putin decided to send Russian special forces and fighter jets to Syria in defence of the government. With help from Russia, Iran and Hezbollah, the Assad regime turned the tide of the civil war and recaptured most of the lost territory.

Sunni countries in West Asia as well as their Western partners who initially called for Mr. Assad's departure, saw their policy backfire after the rise of the Islamic State. The Islamic State practically



erased the border between Iraq and Syria and created a proto-state, stretching from Raqqa in Syria to Mosul in Iraq. For Iran, the Islamic State represented a two-way threat. Its rise threatened to unravel two of Iran's friendly states in West Asia — Iraq and Syria. Two, the extremist, sectarian Salafi-Jihadist ideology, which calls Shias "rejectionists" of faith, was an existential threat. At this point, Iran and the U.S. found common ground in defeating the Islamic State.

The most contentious issue between Iran and the U.S. was the former's nuclear programme. Iran had built a sprawling nuclear infrastructure, but maintained that its programme was peaceful. Successive U.S. governments had imposed biting sanctions on Tehran over the nuclear programme. In 2013, the U.S., under the Obama administration, started direct talks with Iran, after Hassan Rouhani, a moderate cleric, was elected President. In 2015, both sides, along with other world powers, agreed to the Joint Comprehensive Plan of Action (JCPOA), which sought to limit Iran's nuclear programme, denying it a path towards the bomb, in return for lifting international sanctions. Almost all major powers welcomed the agreement, which was seen as a new chapter in U.S. and Iran ties. Except one — Israel.

Mr. Obama went ahead with the deal and lifted sanctions on Iran despite Israel's opposition. The reset seemed to be working. But it did not last long. The man who succeeded Mr. Obama was Donald Trump, whom Mr. Netanyahu described as the "greatest friend of Israel". The writing on the wall was clear.

Mr. Trump termed the JCPOA the "worst deal" in U.S. history. In May 2018, despite UN confirmation that Iran was fully compliant with the terms of the agreement, Mr. Trump withdrew the U.S. from the agreement and reimposed sanctions on Iran. Iran then started enriching uranium to higher than the permissible limits. Israel, on its part, carried out a host of covert operations inside Iran, including the killings of the country's top nuclear scientists.

#### **June war**

Mr. Trump wanted concessions from Iran on its weapons programmes and regional activism (support for non-state actors). But Iran took a 'maximum resistance' policy to Mr. Trump's maximum pressure — it carried out attacks in Saudi Arabia and in the Gulf waters and stepped up support for its proxies. In January 2020, the U.S. assassinated Qassem Soleimani, a charismatic Iranian General who oversaw the IRGC's external operations. It was a massive blow to Iran. Tehran responded by attacking an American base in Iraq, but the crisis blew over as neither side wanted an all-out war. What would change that dynamic was the October 7, 2023 Hamas attack on Israel and the subsequent developments in the region.

Israel declared two primary objectives — the destruction of Hamas and the release of the 251 hostages taken on October 7. But the way it fought the war suggested that it had deeper ambitions. For Israel, Hamas was only the tip of the iceberg. Its real enemy was Iran. After October 7, Israel saw an opening to wage a two-front war — the first was to crush Palestinian resistance once and for all, and the second was to dismantle Iran's axis and weaken its regional influence. Prime Minister Netanyahu wanted to build a unipolar West Asia, with Israel, backed by the U.S., being the central security player; roll back Iran; keep Arab countries under check; and push the Palestinian question back to the margins of the region.

In Syria, the collapse of the Assad regime in December 2024, and the rise of Abu Mohammed al-Golani (Ahmed al-Sharaa), a former al-Qaeda jihadist, marked a tactical victory for Israel. A weakened Hezbollah was further isolated, and Iran's forward defence suddenly looked porous. Iran lay vulnerable to external threats. Then it was only a matter of time before a direct attack



against Iran. Sensing danger, Iran started indirect talks with the Trump administration. Iran's message was that it was ready to cut a deal over its nuclear programme. Its political and security leaders repeatedly said it was not seeking to build a nuclear bomb. But on June 13, two days ahead of the planned sixth round of talks between Washington and Tehran, Israel started bombing Iran. A few days later, the U.S. joined the war, attacking Iran's key nuclear facilities. After 12 days of fighting, both sides agreed to a ceasefire. Mr. Trump claimed that he had "obliterated" Iran's nuclear programme and Mr. Netanyahu declared a "historic victory". But the crisis was far from over.

Israel wants Iran to give up its nuclear programme, end its missile production and stop supporting non-state militias in the region. In other words, Israel wants Iran's total disarmament. Iran was open to a deal on its nuclear programme but would not discuss other issues. The Trump administration's officials, including Marco Rubio, the Secretary of State, also backed the Israeli demands, saying Iran should talk about issues beyond its nuclear programme. This led to fundamental diplomatic disagreements. The only way Israel could meet these objectives is by bringing about regime change in Tehran and installing a new friendly regime.

### Road to chaos

In January 2026, when protests broke out in Iran over a falling currency, Mr. Trump quickly offered his support for the protesters. He said the U.S. was "locked and loaded". Protests and riots spread across Iranian provinces in the first half of January. Iranian authorities blamed foreign agents for triggering "riots and terrorism". Mossad, Israel's intelligence unit, also claimed that its agents were "on the field" in Iran. On January 8-9, Iranian authorities crushed the rebellion. At least 3,000 people were killed. A tense calm prevailed in Iran after the crackdown, but external threats mounted.

Mr. Trump started building America's largest military presence in the region since the 2003 Iraq war, while diplomats from both sides met at least three times. Iran claimed progress after each meeting, but the U.S. said gaps remained. On February 27, Oman's Foreign Minister Hamad Al Busaidi told CBC that a deal was within reach. He said Iran agreed not to make a nuclear weapon and not to stockpile nuclear material. "If the ultimate objective is to ensure forever that Iran cannot have a nuclear bomb, I think we have cracked that problem through these negotiations by agreeing [on] a very important breakthrough that has never been achieved anytime before," Al Busaidi said.

A few hours later, Israel and the U.S. started bombing Iran, targeting the country's top leadership as well as government and military installations. Israel called it a "pre-emptive strike" and said it "would continue as long as necessary". Mr. Trump, indicating that regime change was his goal, told Iranians: "The hour of your freedom is at hand". Iran, which rapidly retaliated by firing ballistic missiles at Israel and at least five American bases in the region, said, "This is a national struggle imposed on us". This attack, Iran's Foreign Ministry said, "could mark the beginning of the end for international institutions and norms." America and Israel seek regime change and a permanent shift in the balance of power in West Asia. For the Islamic Republic, this is a war of survival.

## BOOTS VS BOTS: THE TASK OF FINDING FIGHTERS FOR THE NEW AMERICAN WAR

A ceremonial event to honour American veterans at the White House, and the war of nerves between the Pentagon and AI giant Anthropic over the control and deployment of autonomous



weapons systems amid the new West Asia war launched by the U.S. and Israel are connected by a shared question — where to find the fighters.

On March 2, three soldiers — Retired Command Sgt. Maj. Terry P. Richardson, honoured for saving 85 fellow soldiers under enemy fire in Vietnam; Master Sgt. Roderick W. Edmonds, posthumously recognised for shielding Jewish prisoners of war from Nazi guards in the Second World War; and Staff Sgt. Michael H. Ollis, posthumously honoured for absorbing a suicide bomber's blast to save a Polish officer in Afghanistan — were awarded the Medal of Honor by President Donald Trump.

However, the classic transfiguration of a soldier's death into an act of valour depends on a society willing to receive it. In the U.S., the cult of individualism is celebrated by the state and society alike. Social media has made the cost-benefit analysis of wars more democratic, and the loss of American lives is difficult to defend.

The question of who fights and who profits from wars has become an open public argument in the U.S. The manner in which war supporters were skewered by online influencers after many of them praised the sacrifice of the six American soldiers killed in 'Operation Epic Fury' is instructive. The vertical propaganda of sacrifice for the nation — spoken by strategic elites in the name of national interest — is severely challenged, and there is no restoring that narrative in the U.S. In contrast, consider the death of Ayatollah Ali Khamenei, the Supreme Leader of Iran, who possibly wanted it that way: in Shia theology, revenge, sacrifice and martyrdom are integral.

#### **Size of U.S. military**

After the U.S. discontinued mandatory draft in 1973, the staffing of its voluntary military has gone through many policy questions and challenges. Currently, the size of the U.S. military is the lowest in its history — from 12.2 million during the Second World War to 1.4 million at the end of the Cold War to 1.1 million now. In 2018, a study estimated that 77% of young adults in the U.S. are ineligible to serve, disqualified by obesity, educational deficits, criminal records, or drug use. After several years of falling short of recruitment targets, the U.S. military had a good year in 2025, meeting them only after substantial pay increases and the introduction of preparatory courses for recruits who could not meet baseline academic or fitness standards.

Among the measures the U.S. tried in order to work around its recruitment challenges was privatisation of war itself: more than half of the personnel the U.S. deployed in Iraq and Afghanistan were contractors — their casualties not even tracked by the Pentagon. The U.S. has long offered non-citizens an expedited path to naturalisation through military service; between 2011 and 2015, the Army would have failed its active-duty recruitment goals in nearly every year without non-citizen enlistments. As of early 2024, more than 40,000 foreign nationals were serving in active and reserve components of the armed forces, with an estimated 115,000 foreign-born veterans living in the U.S. From 2008 to 2016, under the Military Accessions Vital to the National Interest programme, the U.S. recruited non-citizens with critical language and medical skills from abroad in exchange for an expedited path to citizenship, enlisting over 10,000 before it was wound down on national security grounds.

Motivating people to give up their lives is no easy task, and capitalist societies find it harder than most. It is the lower end of the middle class who enlists, and it is poorer regions and communities that recruiters target. The richest are not sending their children to the battlefield. Religious warriors fight for the afterlife, currency that individualism lacks. Where the pursuit of individual happiness is both means and end, a soldier's work becomes, in material terms, just a job — like any other.



The mechanisms of war become a matter of public interest and domestic politics primarily through human casualties. This question — of American soldiers fighting wars they do not necessarily need to, or benefit from — has been central to the anti-war argument that now turns out to have been mere theatre in Mr. Trump’s America First nationalism.

America First nationalism complicated the soldier identity in U.S. society by undermining non-citizen drafting. The fusion of citizen and soldier has been a classic American ideal, but capitalism had dealt with reality through its own mechanisms of reward — war contracting, and the drafting of non-citizens with the promise of citizenship. The prospect of machine soldiers offers the possibility of completely delinking the fighter from the domestic political process, making war a wholly technological, capitalist enterprise. Nobody will mourn for the machines; the President will not be required to read speeches in their honour.

## MISSILE INTERCEPTORS IN U.S.-IRAN WAR

The outbreak of fresh hostilities between the U.S.-led coalition, including Israel and the United Arab Emirates, and Iran seems to have triggered a newly integrated regional air defence network different from the one these actors deployed during their brief yet intense conflict in June last year.

The 12-day war in 2025 was until then the most significant test of the Integrated Air and Missile Defence, with the alliance faced with having to blunt retaliation by Iran that included more than 500 ballistic missiles and over twice as many ‘suicide drones’. This time, with the theatre of conflict including the Persian Gulf, the UAE has brought to bear its South Korean defence system together with the debut of U.S. systems that were only prototypes last year.

While many of these systems showcase new abilities, they also highlight the U.S.’ and Israel’s need to ‘ration’ them to keep costs down and ensure they’re still available should the conflict drag on.

### **What is missile defence?**

Missile defence refers to a military system that finds and destroys incoming missiles before they hit their targets. These systems use sensors — including satellites in earth orbit and radar stations on the ground — to watch the sky and, when they spot an enemy missile, track its speed and direction.

Then, military command centres use powerful computers and military personnel to receive the data from the sensors and based on that calculate which targets the missile endangers and which response is most suitable. One important kind of response is the interceptor — which is a missile that flies towards the incoming threat with the purpose of destroying it.

In addition to saving lives and property, missile defence can discourage enemies from starting conflicts that could require missiles, since the interceptors could render them ineffective, as well as give leaders more time to deliberate.

### **How an interceptor works**

Let’s use the example of the U.S. Patriot system, which consists of several components connected by cables or wireless data links.

Its radar unit remains stationary on the ground rather than spinning, like the radar you see in airports. It steers thousands of radio beams across the sky to scan for objects. When these beams



hit an aircraft or incoming missile, they bounce back to the radar and a computer analyses the returning signals to estimate the object's speed, location, altitude, and direction.

If the object is deemed to be a threat, a connected computer can concentrate the radar's energy at that point in the sky. Such focused tracking is called a lock, and in this condition the radar will update the target's position continuously.

Meanwhile, the computers at the Engagement Control Station (ECS), a mobile command centre operated by soldiers, calculate the trajectory of the object and determine when to fire a counter-measure. When the system commands a launch, a signal goes to a launcher truck, which ignites the rocket motor of an interceptor. As the interceptor lifts off, the ground radar will continue to track both the target and the missile simultaneously. The ECS will compare the positions of both objects and send commands to the interceptor to guide it through the air.

In the final seconds of flight, the interceptor will use its onboard seeker — a component that acts like its driver — to find the target. Since interceptors often move at multiple times the speed of sound, seekers have to be very precise. The interception itself can happen in one of two ways. Older missiles use a proximity fuse that senses when the target is nearby and blows up a powerful warhead, destroying the object with shrapnel. Newer interceptors are hit-to-kill: the missile steers itself directly into the body of the target, using the kinetic energy of the collision to shatter it.

The radar observes the impact to confirm the target has been destroyed before resetting to engage the next threat.

#### **How effective are interceptors?**

The efficacy of an interceptor varies depending on the target.

The short-range rockets that Israel uses as part of its 'Iron Dome' system is effective against simple, slow-moving rockets, with the country reporting 80-97% success rates in recent conflicts.

The U.S. Patriot system on the other hand deals with targets moving much faster and is less successful in absolute terms. For example, in May 2023, about a year after Russia's invasion of Ukraine had begun, Patriot had 100% success against six Russian Kinzhal hypersonic missiles on one night over Kyiv and more than 60% against the Iskander-M ballistic missiles.

After that, Russia modified Iskander-M to release decoys and make sharp turns through the air just before it strikes. Russia has also been launching larger groups of missiles and drones at once. So even if a Patriot battery has a high success rate, it only carries a limited number of interceptors. Altogether, its rate has reportedly dropped to around 10% since.

According to the Center for Arms Control and Non-Proliferation, "The only programme designed to protect the entire United States homeland from a long-range missile attack is the GMD [Ground-based Midcourse Defence] programme. GMD has a failing test record: a success rate of just 55% in highly scripted tests, including three misses in the last six tries."

#### **What makes Cheongung II different?**

In the ongoing conflict, the UAE has activated a missile defence involving the South Korean Cheongung II missiles while the alliance has been using the Terminal High Altitude Area Defence (THAAD) and the Patriot batteries supplied by the U.S. The UAE acquired Cheongung from South Korea to intercept low-flying Iranian cruise missiles and tactical ballistic missiles over the Gulf.



These missiles use a hit-to-kill technology similar to the U.S. Patriot system but are also optimised for threats in the Persian Gulf.

A missile launched from coastal Iran can reach the UAE within minutes. Older versions of Patriot used radars that scanned for objects in a 120° cone. If a threat came from outside this cone, the battery had to physically rotate, losing precious seconds. Cheongung II however uses a 'Vertical Launch System' fit with a rotating multi-function radar that can fire in 360° without moving the launcher.

Missiles called "skimmers" can fly just above the surface of the Gulf's waters to stay under the radar's view, so the Cheongung II missile is also equipped with a radar in its nose, which it turns on in the final seconds of flight to not have to depend on the ground radar as it approaches impact.

#### **How does cost shape interceptor use?**

While the U.S. relied heavily on its expensive Patriot defence system during the June 2025 conflict, it has deployed its new Indirect Fire Protection Capability to protect bases in the UAE and Kuwait. This system uses AIM-9X Sidewinder missiles as interceptors and helps with rationing Patriot.

Patriot's cost is relevant because Iran's strategy, called a saturation attack, has been to fire a flurry of cheap missiles to exhaust the alliance's interceptors. The system's PAC-3 Missile Segment Enhancement (MSE) interceptors however cost around \$4 million per shot.

The U.S. Navy has deployed SM-6 missiles in their 'dual' configuration, in which they can intercept ballistic missiles in their terminal phase as well as Iranian fast-attack craft.

Finally, after Israel introduced it during the 12-day war, the country's 'Iron Beam' high-energy laser has become the primary defence against drone swarms. As with the U.S. and Patriot, Iron Beam is reportedly allowing Israel to ration its Arrow 3 and Stunner.

#### **What changed after the 12-day war?**

During the 12-day war, the first line of defence comprised the Israeli Arrow 3 system and U.S. Navy destroyers with SM-3 missiles. Arrow 3 engaged medium-range ballistic missiles in space, before they reentered the atmosphere, although the intensity of the barrage rapidly depleted Israeli stockpiles by the second week of the conflict. Likewise U.S. destroyers in the Red and the Mediterranean Seas recorded the heaviest use of the SM-3 missiles in combat until then.

The endo-atmospheric defence system used U.S. THAAD batteries and Israel's legacy Arrow 2 system. Then came Israel's David Sling with its Stunner interceptors, with Patriot forming the last line.

Against the 'suicide drones', the alliance used the 'Iron Dome' and its Tamir interceptors and 'Iron Beam', with help from air to air missiles fired by the U.S. Air Force and Navy, the Royal Air Force, and France's Rafales.

As of January this year, an important focus area for the U.S. and its allies was to replenish the expended munitions. The U.S. Department of Defence has already quadrupled production orders for THAAD and PAC-3 MSE interceptors and has accelerated the deployment of directed-energy systems to naval vessels.



This said, “Production of all munitions — interceptors for THAAD, Patriot, Arrow, David’s Sling, and Iron Dome...— is far slower than current combat use or anticipated future high-intensity war requirements,” Charles Corcoran and Ari Cicurel wrote in RealClearDefence in January 2026. Maj. Gen. Corcoran is a former chief of staff of the U.S. Air Forces Central Command and Cicurel is the associate director of foreign policy at the Jewish Institute for National Security of America.

They added that “Replenishing THAAD shortages ... will take at least 1.5 years at current production capacity” and that U.S. manufacturing has “not scaled for high-tempo operations in decades”.

#### **How strong is Iran’s air and missile defence network?**

Iran’s most advanced interceptor is an upgraded version of the Bavar-373 system using the Sayyad-4B missile, reportedly designed to intercept targets at ranges exceeding 300 km. Iran also recently unveiled its Arman Ballistic Missile Defence system, which it has said is optimised to intercept short- to medium-range ballistic missiles with 360° radar coverage.

To counter cruise missiles as well as F-35 and F-15 fighter jets, the military is using the Sevom-e-Khordad missile system. It’s highly mobile, which means it can fire from one place and quickly relocate to another, making it harder for U.S. forces to destroy its radars. Iran is reportedly using Sayyad-3 missiles with this system to protect its Natanz and Isfahan nuclear facilities.

With reports of strikes in Tehran, Iran is also using the Russia-made Tor-M1 short-range missiles to intercept precision-guided bombs and the Majid and Azarakhsh systems to counter low-flying drones and cruise missiles.

This said, reports of explosions in Tehran and Isfahan indicate the U.S. and Israeli barrage could be overwhelming Iran’s interceptors with sheer volume. This is possible because once a battery fires one batch of around six missiles, it needs to reload, leaving the site defenceless until then. The Bavar-373 system’s purported ability to detect stealth aircraft has also been in question since the alliance has struck targets in Tehran.

### THE LEGAL FRAMEWORK THAT GOVERNS MARITIME CONFLICT

A US submarine on Wednesday (March 4) torpedoed the Iranian warship IRIS Dena off the coast of Sri Lanka, outside its nautical boundary.

#### **Key Takeaways:**

- The ship was returning after participating in the International Fleet Review and MILAN-2026, a multilateral naval exercise organised by the Indian Navy off Visakhapatnam last month.
- The sinking of the frigate, in which at least 80 sailors were killed, has widened the theatre of the war between US-Israel and Iran — beyond West Asia and the Gulf to India’s immediate neighbourhood.
- It also ignited a debate in India about maritime security in the Indian Ocean, a region where New Delhi maintains a significant naval presence.
- International maritime law falls under the purview of the United Nations Convention on the Law of the Sea (UNCLOS). The US is not a signatory to it.



- But it does not contain explicit provisions regulating the conduct of belligerent parties during armed conflict, as its primary focus is on peacetime governance.
- Instead, the law of naval warfare operates in parallel with UNCLOS during conflicts. So, it doesn't matter if the Dena was directly participating in the conflict. It was a warship of the Iranian navy and, therefore, a legitimate target.
- The UN Charter, too, addresses the use of force in international waters. Article 51 of the Charter, concerning the Right of individual or collective self-defence, provides an exception to the prohibition of the use of force as stipulated in Article 2 (4) of the Charter. Article 51 allows UN members to exercise their right to self-defence in the event of an “armed attack”.
- Alternatively, the Casebook of the International Committee of the Red Cross cites authorisation by the UN Security Council as grounds for a strike. While this measure dates back to the 1990 Gulf War, it may not be feasible.
- The Iranian warship was sanctioned by the US Treasury Department in February 2023, along with executives of an Iranian drone company called Paravar Pars... However, sanctions don't mean that the ship cannot participate in a peacetime multilateral maritime exercise, but largely remains restricted to business or transactional activities.
- Vice Admiral G Ashok Kumar (Retd), former vice-chief of the Indian Navy and the country's first national maritime security coordinator, pointed out that there is no restriction on a war zone in the maritime domain.
- The former Navy officer added that the incident took place in the exclusive economic zone of Sri Lanka, and hence, they could quickly get into the search and rescue operation.
- A senior Navy official said that the US submarine attack to down the Iranian warship in international waters while it was on a peaceful passage is a “big escalation” in the ongoing US-Israel-Iran war.
- C. Uday Bhaskar writes: Akin to the ashwamedha yagna of old, international fleet reviews conducted by major maritime powers are a demonstration of professional naval credibility and an acknowledgement by the regional and global peer group of the host nation's sovereignty and primacy in the proximate maritime domain.
- Given that the Dena was sunk 40 nautical miles from Sri Lanka, the politico-diplomatic optics are embarrassing for India, to say the least. Egg on the face comes to mind.
- Delhi will be in a catch-22 situation over this issue, which raises two questions: One, was India unaware of such submarine activity in its proximate waters? If yes, this raises further questions on the competence index of India's underwater domain awareness.
- Two, if India was aware of such activity, was Delhi informed/apprised of the proposed US action when the Dena departed Visakhapatnam for Iranian waters? An affirmative answer to both these questions could lead to potentially discordant consequences for India, both in the domestic and regional context
- The more critical and adverse fallout of the Dena sinking is that a regional war, which was geographically limited and confined to air power and missile strikes, has now been expanded to the global maritime domain.



— The Indian Ocean region has critical global shipping lanes, including ones for hydrocarbon/energy imports used by all the major Asian economies. India relies on almost 88 per cent of the imported crude oil that transits these sea lines and is vulnerable to escalation.

— Wider conflict spillover could disrupt sea lines of communication, raise insurance costs, and trigger rerouting, thereby impacting India's economy and energy security.

— India has always been wary of major power conflicts spreading into the South Asian neighbourhood. There is a sense of uneasy *deja vu* about Iran. In 1979, the Iranian Revolution and the Soviet invasion of Afghanistan roiled the region for decades.

**Do You Know:**

— The Indian Navy last month hosted three major maritime events, including the IFR, the MILAN-2026, and the Indian Ocean Naval Symposium (IONS) Conclave of Chiefs in Visakhapatnam between February 15 and 25.

— MILAN 2026 was aimed at bringing together navies from across the globe to strengthen interoperability, maritime domain awareness, and collective response capabilities.

— The Harbour and Sea Phases of the exercise focused on complex maritime operations including anti-submarine warfare, air defence, search and rescue, and cooperative security missions, reinforcing a shared commitment to free, open, inclusive, and rules-based seas.

**SRI LANKA EVACUATES THE CREW OF SECOND IRANIAN SHIP NEAR ITS TERRITORIAL WATERS**

Sri Lanka is evacuating 208 crew members from an Iranian naval ship — IRINS Bushehr — stranded near its territorial waters, President Anura Kumara Dissanayake said on Thursday, a day after a United States submarine torpedoed another Iranian warship off Sri Lanka's southern coast, killing at least 84 sailors and widening the war in West Asia into the Indian Ocean region.

The Sri Lankan Navy would take the crew to the Colombo Port, while the vessel will be diverted to the eastern Trincomalee harbour, Mr. Dissanayake said in a televised address on Thursday night. Sri Lanka's response, he said, was on humanitarian grounds and focused on saving lives, after the vessel reported an engine fault.

"No one deserves to die in this war. Every life is precious", he said.

Emphasising that Sri Lanka would continue to pursue a neutral foreign policy, he said the country was "hoping for the best and preparing for the worst," amid concerns over the possible impact of the war in West Asia on the global economy and people's livelihoods.

After the U.S. and Israel launched an attack on Iran last week, Colombo called on "all concerned parties to exercise maximum restraint" and to de-escalate tensions. The government has so far not responded to the U.S. claim on Wednesday that its submarine attacked the Iranian frigate IRIS Dena.

News of the second Iranian vessel near Sri Lankan waters drew attention during a parliamentary debate earlier on Thursday. Flagging regional security, Leader of the Opposition Sajith Premadasa pointed to a second Iranian ship positioned close to the Colombo Port.



In response, Cabinet spokesman and Minister Nalinda Jayatissa told Parliament that the vessel was in the country's Exclusive Economic Zone near the maritime boundary, and not in Sri Lanka's territorial waters. The government was "fully aware" of the situation, he said, adding that Mr. Dissanayake — also Minister of Defence — and the Security Council, were working on resolving the matter to minimise loss of life and safeguard regional peace.

## IRAN'S POWER PYRAMID, WITH SUPREME LEADER AT THE TOP

The assassination of Ayatollah Ali Khamenei, 86, the Supreme Leader of the Islamic Republic of Iran, marks the end of a significant figure of a style of leadership that the Islamic Revolution of 1978-79 and the country's post-revolution politics have produced.

### Key Takeaways:

- Khamenei was killed in an attack by the US and Israeli forces, and a process to find his successor was set in motion immediately, so that the Assembly of Experts, a deliberative body, can choose the next leader.
- Meanwhile, the three-member Interim Leadership Council that will assume the duties of the Supreme Leader has already been formed under Constitutional provisions. The events showcase the established procedures that the Iranian political system has in place for times of crisis.
- Ayatollah Khamenei represented and led a political system consisting of hierarchical but interrelated institutions and a political culture developed through a variety of processes over the last 47 years, since the revolution.
- The close linkages between religion and politics in the Shia-majority Iran have a history that predates 1979. The anti-monarchist ethos of Shia religious leaders and their participation in a range of political movements in modern Iranian political history warrants recognition here.
- Key examples include the Tobacco Movement of the 19th century, launched against concessions granted by the Iranian royals to the British, the Constitutional Revolution of 1906-11 for a constitutional monarchy, agitations against a reform package under Muhammad Reza Shah Pahlavi in 1963 (called the White Revolution), and the 1979 revolution. An anti-monarchist stance was visible in the participation of religious leaders.
- The strategic advantage for the Shia clergy can be attributed to multiple factors, a significant one being the role of mosques as a major site of political activism. The Friday prayer gatherings became a pivotal point of religio-political assembly. This was because the Shah's apparatuses, like his secret police known as SAVAK, surveilled public places, leaving mosques among the few bast (sanctuary) in a repressive society.
- The ideological leadership of religious scholars and intellectuals further lent a revolutionary interpretation of religious texts and practices. It enabled people to link the transformative potential of their belief system to the requirements of anti-monarchist and anti-imperialist political action.
- While Islamic interpretations given by intellectuals like Ali Shariati did not envisage a political leadership of the clergy, Ayatollah Khomeini's interpretations on the linkages between Islam and politics projected the idea of Islamic Government under the leadership of the religious jurisprudence.



— Khomeini's idea of velayat-e-faqih (rule of the jurisprudent) thus became a cornerstone of the political system, covering not only his political theology, but also the post-revolutionary government.

— The Islamic Republic's Constitution drew heavily from Ayatollah Khomeini's ideas mentioned above and from the republicanism of the French political system. The overarching power of the Supreme Leader in the 1979 Constitution is adopted from the rule of the jurisprudent idea.

— Ayatollah Khomeini was followed by Ayatollah Ali Khamenei as the Supreme Leader after Khomeini died in 1989. The Constitutional changes in 1989 led to some reassigning of roles and the abolition of the position of the Prime Minister, but the system broadly maintained its original character.

— The Supreme Leader, selected by the elected Assembly of Experts, a popularly elected President and the Majlis (the Parliament) represent different facets of the political system. The selection of Khomeini's successor was not without controversy.

— Even though Ayatollah Montazeri was designated to the position, it ultimately went to Ayatollah Khamenei, who was already President of Iran for two terms between 1981 and 1989.

— In that sense, Ayatollah Khamenei fit both religious and political roles well. Usually known for his hardline politics internationally, and seen as a pragmatic leader by some Iranian analysts, his leadership came under severe scrutiny in recent years.

— The political system of Iran has seen elections being regularly held for the presidency, the Majlis and local governments. The ideological divergence among the so-called reformists and hardliners has remained a major feature of Iranian politics for decades now.

— Another component of the state's power is the Islamic Revolutionary Guard Corps (IRGC), founded immediately after the Iranian Revolution of 1979. It expanded its activities not only in the general sense of defending the revolution but also in projecting Iran's power in the West Asian region through support for militant organisations like Hamas in Gaza and Hezbollah in Lebanon.

— However, continued sanctions, Iran's international isolation and the Iranian people's desire to have more say in the affairs of the country, along with a more meaningful participation, created a significant divergence between the system and its people.

— After 47 years of the Islamic Republic, there are many legitimate questions that arise out of the gap between people's demands and perceptions on the one hand, and the delivery and conduct of the state on the other. The ongoing war, the attack on its sovereignty and the assassination of its leadership place unprecedented challenges to the political order in Iran.

#### IRAN'S POLITICAL SYSTEM: CLERICAL RULE WITH THE BALLOT

Iran's unique political system — which has been designed in such a way that the Shia clergy has ultimate authority in all critical matters related to the state, even as elections are held in regular intervals — is a child of the 1979 revolution.

While it's popularly called the "Islamic revolution", the anti-Shah movement was not just Islamic. True, Ayatollah Ruholla Khomeini, who, while in exile in Iraq's Najaf, had called for the Shah's ouster, and became the embodiment of the mass agitations in the 1970s. But Iranians from different political sections, including nationalists, liberals, leftists and trade unionists, had actively



joined the movement, seeking freedom from the Shah's dictatorship. When the Shah fled the country in January 1979, Khomeini was in Paris. He landed in Tehran's Mehrabad airport, which was controlled by the revolutionaries, on February 1, 1979. They turned a disused girls' school in central Tehran into a make-shift headquarters of the Revolutionary Council. And one of the first things Khomeini did was to form a paramilitary force — the Islamic Revolutionary Guard Corps (IRGC). But the Islamists could not ignore other sections of the revolution completely.

### Hybrid system

So, Khomeini ushered in a new system that would have an elected President and Parliament, while the clerics would remain firmly in control. He promised an Islamic revolutionary government based on Sharia, a model which he called Vilayat-e Faqih (Guardianship of the Faqih, or the Islamic Jurist).

Iran's state has both elected and unelected branches and the unelected branch is more powerful than the former. The President, Parliament (Majles) and the Assembly of Experts are directly elected, while the Supreme Leader, the Guardian Council and the Expediency Council are appointed by the clergy. The President is the head of the government, which is in charge of running the day-to-day affairs of the country, but is not the head of the state. The Supreme Leader is the most powerful person in the country and is both the political leader and spiritual guide of the Islamic Republic.

The presidential term is four years and Presidents cannot have more than two consecutive terms. Candidates for elections are vetted by the Guardian Council. The 290-member Islamic Consultative Assembly (Majles) has the authority to legislate. But all the Bills the Majles passes should go to the unelected Guardian Council, which would vet whether the Bill is in compliance with the Islamic Constitution and values.

The Guardian Council has 12 members, a combination of six religious experts, who will directly be appointed by the Supreme Leader, and six Islamic legal jurists, nominated by the Chief Justice (who in turn is appointed by the Supreme Leader). So the Supreme Leader's office has direct or indirect control over the Guardian Council, which oversees the elections, vets the candidates and has a veto over Parliament.

Unlike the President, the Supreme Leader doesn't have any fixed term. Since the 1979 revolution, Iran has had only two Supreme Leaders — Khomeini (who died in 1989) and Ayatollah Ali Khamenei, who was assassinated by a joint American-Israeli strike on February 28, 2026. Iran, now at war with the U.S. and Israel, is currently in the process of choosing its third Supreme Leader.

The Constitution mandates the 88-member Assembly of Experts to elect the Supreme Leader. The Assembly, which also has the authority to oversee and dismiss the Supreme Leader, is directly elected, but the candidates are strictly vetted by the Guardian Council. If there are legal disputes between the elected Majles and the unelected Guardian Council, the 45-member Expediency Council, which advises the Supreme Leader, will have ultimate adjudicating powers. And all 45 members of the Council are appointed by the Supreme Leader, who is also the Commander-in-Chief of the armed forces. In essence, the Constitution ensures that the Leader and the clerical establishment stay firmly in charge of all branches of the state.



## Two blocs

Iran's political class is broadly divided into two categories — principalists (better known as hardliners) and reformists. The principalists make up the conservative bloc that enjoys the support of the clergy, whereas reformists advocate political and social reforms from within. The election of Mohammad Khatami as President in 1997 was a critical moment for reformist politics. But Mr. Khatami, an influential and popular reformist, failed to usher in any major changes in the system. Hassan Rouhani, the former President, was also a reformist, while his successor, Ebrahim Raisi, was a principalist. The current President, Masoud Pezeshkian, belongs to the reformist camp.

When Khomeini established his clerical rule after the revolution, many expected the new order to collapse quickly. Instead, Khomeini purged internal dissent and consolidated the clergy's grip even when the country fought an eight-year war with Iraq. Over four decades later, the system the Ayatollah built faces its gravest challenges yet.

Iran was bombed by Israel and the U.S. in June 2025, while the alliance network it had built in West Asia has been weakened by Israeli attacks. In January 2026, Iran witnessed massive protests and riots amid deteriorating economic situation. And now, with Israel and the U.S. bombarding Iran and calling for regime change, the Islamic Republic is fighting a do-or-die battle on multiple fronts.

## THE MORE THINGS CHANGE IN IRAN, THE MORE THEY REMAIN THE SAME

In September 1941, a 22-year-old Mohammad Reza Pahlavi ascended the throne of Iran while his father, Reza Shah, was sent into an honourable exile to Johannesburg by the British. Becoming a monarch at such a young age, the Shah tried his best to emulate his father. Towards the end of his reign, he even invoked his larger-than-life father's authority till the Iranian revolution of 1979 forced him to flee.

Cut to the present. Amid a deepening economic crisis, Iran has been bombed by Israel and the United States. Its Supreme Leader, Ayatollah Ali Khamenei, has been assassinated and more than 780 people have been killed in the country so far. Iran has struck back, and the war has plunged the entire West Asian region into turmoil. Shah's son Reza Pahlavi, who has lived in the U.S. since 1979, has declared that he is ready to return to Iran "as soon as possible".

While there has been a clamour in some quarters in Iran to have the crown prince back, he has a complex legacy — his father's era is seen as a time when Iran had closer ties to the West, but it was also a time when there was censorship, human rights abuses, and a Savak secret police, which suppressed dissent with impunity.

### A disconnected Shah

In this backdrop, reading Polish journalist and writer Ryszard Kapuściński's *Shah of Shahs*, which traces the last days of the Shah before the Iranian revolution, is an eye-opener. Kapuściński's book was first published in 1982 and was translated into English by William R. Brand and Katarzyna Mroczkowska-Brand. The book gives a sense that the more things change in Iran, the more they remain the same. At present, instead of Savak, for instance, there are units of the Revolutionary Guard, keeping a fierce eye on dissenters, sending them to prison and, in many cases, to their death.



The Shah, says Kapuściński, made a sweeping claim, betting on oil, that “Iran will leap forward and build a Great Civilization.” The only magic wand the Shah held in his hand and with which he thought of transforming Iran in just 10 years was oil. As Kapuściński writes: “Oil kindles extraordinary emotions and hopes, since oil is above all a great temptation. It is the temptation of ease, wealth, strength, fortune, and power. It is a filthy, foul-smelling liquid that squirts obligingly up into the air and falls back to earth as a rustling shower of money.” With oil, the Shah used to say, “I will create a second America in a generation!” He never did, but this vanity ended up being one of the reasons for his downfall.

What was strikingly absent in the Shah’s grand idea of Iran was the well-being of its people. His notorious intelligence agency, Savak, was the Shah’s eyes and ears. Savak eavesdropped on everyone who dared to speak out against the Shah. Books and films by Iran’s best writers and filmmakers were banned. As for the intellectuals, their thoughts were stifled and they were condemned to silence.

The Shah, writes Kapuściński, left people with a choice between Savak and the religious leaders. The Islamic revolution of 1979 was thus more of an anti-Shah revolution than a pro-Ruhollah Khomeini one. He writes: “A dictatorship [Shah’s reign] that destroys the intelligentsia and culture leaves behind itself an empty, sour field on which the tree of thought won’t grow quickly. It is not always the best people who emerge from hiding, from the corners and cracks of that farmed-out field, but often those who have proved themselves strongest; not always those who will create new values but rather those whose thick skin and internal resilience have ensured their survival. In such circumstances, history begins to turn in a tragic, vicious circle, from which it can sometimes take a whole epoch to break free.”

Despite a dose of magic realism in his reportage and beautiful prose, Kapuściński leaves out the many instances in which America acted behind the curtains to bring about these changes in Iran.

#### **Moral police**

But terror did not disappear from Iran. In his groundbreaking book, *What Iranians Want: Women, Life, Freedom*, Arash Azizi argues that after taking the reins of power from the Shah, “Khomeini wanted to fundamentally reshape life in Iran to conform to his idea of Islam. Muslim reformers had, for decades, attempted to reconcile their faith and its ideals with the necessities of their age. Khomeini wanted none of that. His government was to be Islamic, as he understood it, ‘not a word more, not a word less’.”

After Khomeini’s death, Khamenei became the rahbar of the Islamic Republic. One of the most consequential figures in Iran in recent times, he built a theocratic system. But over the last few years, on Khamenei’s watch, there was unrest in Iran due to both political and economic reasons. In 2022, a Kurdish Iranian woman, Mahsa Amini, was mysteriously killed in Tehran. All that she lacked was a proper headscarf. Her death in detention led to nationwide waves of protests spearheaded by the women of Iran under the slogan ‘Women, Life, Freedom’.

Azizi guides readers through a new history that was being written on the streets of Iran by its women. For them, the revolutionaries of 1979 had transformed into today’s regime. They believed that the Guidance Patrol, a dreaded wing of the Iranian police’s moral division that killed Mahsa Amini in detention, was just another name for the Shah’s dreaded Savak.



### The women's movement

Journalists who reported on the women's movement faced imprisonment and even death, but they courageously brought to the fore the atrocities being inflicted on the people of Iran. Fatemah Jamalpour was one such fearless journalist who, despite being arrested multiple times and having faced many interrogation sessions, kept reporting on state repression. She was accompanied by another Iranian journalist, Nilo Tabrizy, who, however, emigrated from Iran after covering the women-led movement from the frontlines.

Corresponding through encrypted platforms to protect Fatemah (who was still in Iran), the two journalists wrote *For The Sun After Long Nights: The Story of Iran's Women-Led Uprising*. In it, they document the spirit and legacy of the movement and all the events that led them to this point.

Today, many women are once again out on the streets, this time protesting the Israel-U.S.-led war. In *Shah of Shahs*, Kapuściński recalls a scene: a policeman under the Shah orders a protester to run. The man refuses to move and stands there until he is no longer afraid. Kapuściński writes that it is "precisely the beginning of the revolution." The lesson resonates now.

The turmoil in Iran may be shaped by the geopolitical designs of powerful states, but no durable change can be engineered from outside. As in Kapuściński's account, it begins when ordinary people claim their own political future. Any path forward must therefore be led by the Iranians themselves.

## UNDERSTANDING GEOPOLITICAL FACTORS BEHIND INDIA'S SILENCE OVER KHAMENEI DEATH

The Union government has come under attack from Opposition parties for its silence on the killing of Iran's Supreme Leader Khamenei.

Though External Affairs Minister S. Jaishankar spoke with his Iranian counterpart, Abbas Araghchi, there was no mention in any of the readouts of a condolence message or the condemnation of the U.S.-Israeli strikes in the heart of Tehran.

"The trend towards killing or abducting leaders of sovereign countries needs to be countered if we are to live in a civilised world, and not in the jungle. If countries do not come together to oppose this trend, they themselves may be 'on the menu' next," said one former Ambassador well-versed in international law who asked not to be named.

What then explains the absence of any comment from India over the assassination of Iran's leader, or the deadly strikes on schools and hospitals? The External Affairs Ministry did not respond to requests for a reasoning on its statements.

When asked, experts said there were several factors behind India's decision not to comment directly on the killings in Iran. "First, the challenge of navigating today's complex geopolitics. Second, a circumscribed relationship overall with Iran in recent decades, despite the Chabahar port. And third, Khamenei's criticism of India on the issues of Kashmir and the treatment of minorities," former Ambassador to Iran Rakesh Sood told *The Hindu*.

### Ties with Israel

India has had a close security relationship with Israel for decades, but this has exponentially improved in the past few years. With Mr. Modi's visit to Jerusalem last week, and his address to

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



the Knesset, where he proclaimed India stands “with Israel, firmly, with full conviction, in this moment, and beyond”, New Delhi appears to be abandoning its traditional regional balance in favour of Israel. It is significant that after the initial strikes by Israel and Iran’s retaliatory strikes across the region, Mr. Modi spoke to Mr. Netanyahu and other Gulf Cooperation Council (GCC) leaders, but not to his Iranian counterpart.

India’s ties with Iran have weakened concurrently, not as much due to ties with Israel, but over the tightening of U.S. sanctions on Iran. As a result, after zeroing out oil imports from Iran in 2018, India-Iran trade has wound down from about \$17 billion in 2018 to about \$1.68 billion in 2025, and investments in Iranian oil and gas fields have been frozen.

India-Iran relations had weathered many political storms in earlier decades. However, more recently, New Delhi had taken umbrage to Khamenei’s comments about internal developments in India, including criticism of the Centre’s Kashmir policy in 2017 and after the Article 370 amendments in 2019, as well as his statement in March 2020 referring to the Delhi riots as proof of a “massacre of Muslims” in India.

#### Indians in Gulf region

India’s silence may also be explained by its desire to not upset ties in the Gulf region, especially the UAE and Saudi Arabia, where Iran has targeted U.S. bases, oil facilities, and infrastructure. In particular, India’s ties with the UAE have been strengthened by a defence partnership announced in January. Government officials told The Hindu that it was not possible to take any step that could jeopardise the safety of 10 million Indians who live and work in West Asia.

The Modi government has only just begun to restore ties with the Trump administration after the U.S.’s reduction of tariffs, and agreement on trade announced in February. In addition, the U.S. has included India in its Pax Silica critical technology supply chain. Given the Trump administration’s mercurial nature, and threats of sanctions on any engagement with Iran, New Delhi may prefer playing safe.

### RECKLESS WRECKERS

Nuclear facilities have faced unprecedented threats of late. Since its capture by Russian forces in 2022, Ukraine’s Zaporizhzhia nuclear power plant has faced repeated shelling and drone strikes. While Russia wished to be the sole nuclear-armed successor to the Soviet Union, Israel has viewed Iran’s nuclear programme as an existential threat and has attacked its weapons sites since 2024. In 2025, the U.S. launched targeted strikes against Fordow and Natanz, which enrich uranium, and Isfahan, a fuel cycle complex. U.S. President Donald Trump claimed they were “obliterated” but the IAEA found that the enriched uranium stockpile was largely intact at Isfahan. On March 2, the IAEA had said that the Bushehr and Tehran reactors had not been hit or damaged until then, although strikes on March 3 surfaced reports of damage to the Bushehr airport (according to Iran’s state media) and again in Natanz. The broader pattern of attacking nuclear facilities is worrisome. Aside from overt attempts, at least one hacking attempt has breached the National Nuclear Security Administration, which manages the U.S.’s nuclear stockpile, while ransomware groups have targeted global energy firms and Brazil’s state nuclear operator. The Geneva Conventions prohibit states from endangering nuclear facilities if they release “dangerous forces” but neither the U.S. nor Israel seems mindful of the risks. Iran has also accused the IAEA of spying for Israel.



Physically destroying a facility only removes one layer of risk; the humanitarian and environmental effects are often intractable. A damaged reactor core or spent fuel pool could release caesium-137, a long-lived isotope that causes acute radiation sickness and contaminates land for decades. Radioactive particles can be carried by winds, affecting global food security. Damaging nuclear facilities overseen by an unstable regime also risks loss of custody of enriched uranium. Such strikes do not achieve a strategic resolution and could in fact accelerate Iran's resolve, marked by its shift of assets to deeper, more clandestine facilities. Military force also destroyed the diplomatic and verification frameworks required for long-term safety, leaving negotiations as the safest way to restore stability in the region. Iran is already facing 60% inflation and the U.S. can trade sanctions relief for IAEA monitoring. Iran has also finalised long-term deals with Russia and China, in return securing air defences and navigation systems to negate western advantages, and bringing Tehran back to the table could also reduce its dependence on these burgeoning partnerships. Conversely, military action risks refugee exodus from a population of 93 million, asymmetric retaliation against the U.S.'s Gulf bases, and the inalienable threat of nuclear disaster.

## WHAT WILL NEPAL'S LANDMARK GENERAL ELECTION DECIDE?

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

Nepal will be voting in a landmark general election on Thursday, in what many see as a quest for political change. The polls follow last September's youth-led movement against corruption, misgovernance, and a patronage-driven economy long associated with an ageing political class.

### **Why is this election different?**

The election is being held two years ahead of schedule because of the two-day Gen Z protests during which 77 people lost their lives, including 19 who were killed in police firing on the first day of demonstrations on September 8.

The vote is viewed as a corrective measure — an opportunity to break Nepal's cycle of revolving-door politics that has plagued the country for decades and to create conditions for implementing the demands of the youth movement. Those demands — accountability, clean governance and economic reform — resonate well beyond the youth protesters and across the broader population.

### **What will this election decide?**

Voters will elect a new House of Representatives. Nepal's House of Representatives, or Pratinidhi Sabha, is the lower chamber of the federal parliament and has 275 members — 165 elected through the First-Past-The-Post (FPTP) system and 110 through Proportional Representation (PR).

Voters cast two ballots: one for an individual candidate under FPTP and another for a political party under PR.

Under FPTP, the candidate with the higher number of votes in each constituency wins. Under PR, seats are allocated to parties based on their nationwide vote share. Nepal's Election Commission uses the Sainte-Laguë method to distribute PR seats.



A party that secures at least 138 seats — a simple majority — can form a government on its own. If no party reaches that threshold, the single largest party is invited to form a government, typically through coalition-building.

#### **What are the key political forces?**

For much of the post-1990 democratic era, two parties have dominated Nepali politics — the Nepali Congress (NC) and the Communist Party of Nepal (Unified Marxist–Leninist) (CPN-UML). K.P. Sharma Oli of the UML was the Prime Minister, backed by the Nepali Congress, when the September protests took place.

In 2008, these establishment forces were disrupted by the rise of the Maoists, who entered electoral politics after ending a decade-long insurgency. Riding anti-incumbency sentiment and public demand for change, they emerged as a major force.

Following the recent protests, Pushpa Kamal Dahal of the Maoist Centre brought together around a dozen smaller communist factions to form the Nepali Communist Party. The new formation adheres to Marxism-Leninism and what it calls Scientific Socialism. However, many voters view it as part of the entrenched political establishment it once challenged.

A major new player is the Rastriya Swatantra Party (RSP). Formed just six months before the 2022 elections, it has generated a groundswell reminiscent of the Maoists' rise nearly two decades ago.

As in 2008, anti-incumbency sentiment and calls for systemic change are shaping the political mood. The difference now is that the Maoists themselves are widely seen as part of the old guard. The RSP positions itself as a centrist liberal alternative to traditional parties.

The Rastriya Prajatantra Party (RPP) advocates restoring the monarchy and reinstating Nepal as a Hindu state. Nepal abolished its monarchy in 2008 and formally became a federal democratic republic under the 2015 Constitution. The RPP's electoral performance has historically remained modest, but it cannot be entirely dismissed.

Another new entrant is the Ujyalo Nepal Party, founded in December by technocrat Kulman Ghising, who is widely credited with ending Nepal's prolonged electricity shortages. Ideologically, the party mirrors the Nepali Congress's democratic socialism but presents itself as technocratic and governance-focused.

#### **When will the results be known?**

Vote counting in Nepal is slow because of the complex ballot design and the large number of parties and candidates. As many as 67 parties and 3,405 candidates are contesting this election. Votes are counted manually. While FPTP results start to trickle in as counting in individual constituencies is completed, PR ballots must be tallied nationwide before final allocation. As a result, it may take up to a month for the final results to be declared.

### **AFGHANISTAN, PAKISTAN, AND A DANGEROUS CLASH OF UNEQUALS**

As the arena of war widens in West Asia, another conflict has exploded closer to home, one with the potential to destabilise South Asia. The open war between Afghanistan and Pakistan follows months of military exchanges, the deadliest of which occurred in October 2025, over Islamabad's accusation that the Afghan Taliban harbours militants responsible for attacks inside Pakistan, specifically the Tehreek-e-Taliban Pakistan (TTP). Tensions peaked when Rawalpindi conducted

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



air strikes on February 21 against targets it said were linked to TTP militants, ostensibly in retaliation for recent terrorist attacks inside Pakistan. The Taliban hit back by targeting Pakistani positions along the border, prompting Pakistan to escalate further through Operation Ghazab Lil Haq, carrying out strikes in Kabul, Kandahar, Paktia and Nangarhar.

It is true that attacks attributed to the TTP have been on the rise since the Taliban regained control in Afghanistan in 2021, particularly in Pakistan's northwestern regions. But when the Afghan Taliban retook power from US-led forces after the West's disastrous 20-year war, Pakistan's support for the former had played an important role. Operating within its doctrine of "strategic depth", Islamabad wanted a friendly government in place in Kabul after the American withdrawal, which would serve as a counterweight to India. Structural factors — foremost among them, ethnicity — ensured that matters would not unfold in its favour. The Pakistani Taliban have longstanding ethnic and ideological links with their Afghan counterparts — both are predominantly Pashtun. The Durand Line, for many Pashtun nationalists in Afghanistan, remains an illegitimate colonial inheritance that they do not recognise. Amid increasing border clashes, peace talks between the allies-turned-foes stalled in November last year. With Islamabad concluding that the Afghan Taliban were unwilling to rein in the TTP, dialogue has now given way to conflict.

There is a clear power asymmetry: Pakistan is the far stronger conventional military power. Yet it confronts a militant movement adept in guerrilla warfare, one that drove two superpowers out of Afghanistan — first the Soviet Union, while fighting for various Mujahideen factions, and then the US, as the Taliban. A less costly path for Islamabad would be to give diplomacy another chance and reassess its policies that restrict cross-border trade and economically hurt Pashtun communities on both sides, as well as its hardline stance towards Afghan nationals residing in Pakistan. It will also need to resist the reflex of blaming its security troubles along the Durand Line on New Delhi if it wants a meaningful settlement with Kabul.



# DreamIAS

**NATIONAL****A REBOOT**

India and Canada have had to take a painstaking path to reset ties ruptured over the Nijjar killing in 2023. But this week saw a big step forward, with Canadian Prime Minister Mark Carney's India visit and his talks with Prime Minister Narendra Modi. The process began last year, after the exit of former Canadian Prime Minister Justin Trudeau, who had publicly accused India of involvement in the killing, and by Mr. Carney's entry and invitation to Mr. Modi to attend the G-7 outreach in Kananaskis, Canada. The two countries have since demonstrated that they can resolve deep differences on security issues; NSA Ajit Doval's Ottawa visit last month, previously unthinkable, saw a closer understanding of each other's positions on the Khalistan issue and foreign interference. High Commissioners were appointed in both countries, and the two sides restarted discussions on the Comprehensive Economic Partnership Agreement (CEPA) and cooperation in other spheres. Mr. Carney's visit and rapport with Mr. Modi have also been forged due to geopolitical factors. U.S. President Donald Trump's unilateral moves on trade and tariffs, and foreign policy, have pushed most global players to diversify their engagements and essay partners they may not have in the past. In a more realpolitik phase, India and Canada have restored ties with China, although fraught with misgivings over China's trade and supply chain control. Finally, Mr. Carney's January speech at Davos, exhorting "middle powers" and multilateralism against great power moves, resonated in India. It is pertinent that Mr. Carney, who landed in India just as the U.S.-Israel attacked Iran, continued with his meetings in India before travelling to Australia and Japan.

In Delhi, India and Canada agreed to the terms of reference for the CEPA, with the aim to conclude the trade deal this year, and a 10-year agreement for Canadian uranium supplies for Indian nuclear reactors. They also decided to build partnerships in renewable energy, technology and innovation, while establishing a defence dialogue. But turning the chapter on a history of bad blood that has bedevilled ties since the 1970s, mainly over the Khalistan issue, however, will need more clarity and trust. Just before the meet in Delhi, media reports in Canada, clearly fuelled by Canadian intelligence inputs of Indian links to the Nijjar case and other instances of foreign interference, indicated an internal tussle within the Canadian government on these issues. While the joint statement skirted around the issues in India-Canada accusations over extremist groups and transnational repression, these will come to the fore again if left unaddressed, especially as Canadian authorities move towards the trial in the Nijjar case. A successful partnership will require more honest conversations and mutual respect in public dealings on differences between them.

**Do You Know:**

- With Canada's vast natural resources and India's expanding energy demand, energy cooperation remains a key pillar of the bilateral relationship. The partnership encompasses both conventional and renewable sources, with Canada pitching itself as a reliable supplier of oil, gas, LNG, LPG, crude oil, and critical minerals.
- The education sector has significantly strengthened people-to-people ties between the two countries. Indian students represent the largest group of international students in Canada. More than 3.92 lakh Indian students were studying in Canada as of December 31, 2024.



— With over 1.8 million Indo-Canadians and approximately a million non-resident Indians, Canada is home to one of the largest and most vibrant Indian diasporas in the world. Indo-Canadians have had a profound impact across a wide range of sectors, and their influence continues to grow.

— Canada is an important strategic partner for major western powers — it is part of the G7 grouping and shares the table with the US, UK, Germany, France, Italy, and Japan. It also shares intelligence with the Five Eyes grouping which also includes the US, the UK, Australia and New Zealand. All these countries are also close strategic partners for India.

## WHAT ARE THE AI IMPACT CASEBOOKS RELEASED IN THE AI SUMMIT 2026?

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

At the India AI Impact Summit 2026, a set of AI Impact Casebooks were released that described real time artificial intelligence (AI) deployment currently benefiting farmers, students and teachers, patients and the physically challenged in the Global South.

### **How does AI aid the physically challenged?**

The Accessibility Casebook details usecases for the physically challenged. For the visually impaired, the PathPal edge-AI system allows users to point their smartphone at handwritten notices, printed text, or even Indian currency notes and receive instant spoken feedback in their preferred language—crucial for independent financial transactions and mobility in areas with unstable internet connection.

Standard optical character recognition (OCR) fails on complex documents, but SMARTON uses advanced computer vision to understand document structure, reading tables row-by-row and converting visual layouts like diagrams and charts into structured audio explanations. Deployed across schools and NGOs, it serves over 15,000 users, showing inclusive education can be scaled up.

Shruti AI bridges the communication gap for the deaf by providing real-time voice-to-Indian Sign Language translation. Meanwhile, Vaani AI offers augmentative and alternative communication (AAC) support for individuals with autism or speech impairments, utilising intent prediction and contextual prompts to help users communicate daily needs and reduce caregiver dependence.

Pheeze, an AI-powered wearable, integrates joint mobility sensors and surface muscle activity sensors to quantify muscle recovery, particularly for patients suffering from strokes or amputations.

### **How is AI helping to boost earnings of small farmers?**

Agriculture in the Global South is a high-stakes gamble against forces that smallholder farmers cannot control, including erratic monsoons, invisible soil chemistry, and fragmented markets. Furthermore, traditional agricultural extension systems are severely strained. In some parts of Sub-Saharan Africa, the ratio of extension agents to farmers is 1:50,000, leaving millions without timely guidance.

The Agriculture Casebook showcases how AI is stepping in, to bridge this massive intelligence gap.



MapMyCrop, an AI platform monitoring sugarcane farms across India, fuses multi-sensor satellite imagery with super-resolution algorithms to act as a digital twin for farms, predicting the precise 15-day window when sucrose levels will peak.

This has helped farmers boost yields from the traditional 98-148 tonnes per hectare to up to 358 tonnes—a staggering 57% improvement.

The Chemistry-Aware Crop Yield Prediction system bypasses the limitations of traditional soil testing. By employing physics-guided machine learning and multi-temporal satellite data, it reads the invisible chemical makeup of soil to detect hidden toxicities and nutrient imbalances, allowing farmers to reduce nitrogen use by 28% while boosting yields.

Maharashtra's MahaVISTAAR and Africa's FarmAdvice employ natural language processing and voice-first interfaces to mitigate literacy barriers. Farmers simply speak in their local dialects to receive expert-vetted advice on pest outbreaks or weather anomalies, democratising predictive capabilities that were once the exclusive domain of massive agribusinesses.

#### **How can AI intervention promote women empowerment?**

The Gender Empowerment Casebook was developed from a pool of over 235 global submissions.

NyayaSakhi-SWATI is an AI-supported legal assistant deployed in Maharashtra to guide survivors of domestic violence. Trained on women-specific legal judgments, it helps women privately understand their rights, likely legal remedies, and case timelines before they ever set foot in a courtroom or pay a lawyer.

The AtenIA initiative in Peru is actively combatting the cultural stereotypes that exclude girls from STEM (science, technology, engineering, and mathematics) fields.

Using a “phygital” model—blending physical books with a cloud-hosted conversational AI—the system mentors young girls, intentionally redirecting biased prompts to highlight women's leadership in engineering and science.

Participants' intention to pursue STEM careers jumped from 9% to 76%.

Through localised, peer-led training, YASHODA AI teaches women in rural and semi-urban areas how to identify AI-driven harms like deepfakes and financial scams.

Operating in States like Odisha, MetsaQ uses small language models to deliver voice-based agricultural advisories. Because it was designed with intentional inclusion—partnering with women's Self-Help Groups (SHGs) and ensuring offline functionality - 42% of its users in Odisha are women.

By giving women farmers verifiable digital records of their farming activities, the platform has helped 34% of participating farmers access formal credit, compared to a baseline of just 11%.

#### **Can AI provide healthcare solutions?**

The Health Casebook talks about Nayanamritham 2.0, a government-led initiative in Kerala, that has integrated AI into the State's chronic eye disease screening program. This is a functioning public health instrument democratising access to diabetic retinopathy screening.



Cough Against TB (CATB) is an AI tool strengthening tuberculosis elimination efforts by triaging potential cases through sound analysis. In Rwanda and Kenya, AI-assisted visual inspection tools are augmenting human expertise to screen for cervical cancer, addressing the critical shortage of oncologists in rural areas.

AyurVAID D-RISK utilises machine learning for non-invasive diabetes detection, while the Predictive Virtual Cardiac Twin platform allows surgeons to visualise the patient's heart in 3D before making an incision.

#### **Can AI be an education partner?**

In the Education Casebook, BharatGen Yojaka stands out as a “human-in-the-loop” AI assessment platform. By automating the evaluation of spoken language, it enables scalable formative assessment in public schools while retaining teacher oversight.

Chimple offers a Generative AI studio that empowers educators to create curriculum-aligned learning games in local languages, directly tackling the shortage of vernacular educational resources. For students in India's Tier-2 and Tier-3 cities, the casebook highlights QwiXGenie, an AI tutoring platform for coding and technical skills. Other tools, like PadhAI, use speech recognition to assess oral reading fluency, providing immediate feedback to users.

### **WHY FRENCH PRESIDENT MACRON URGED INDIA TO 'JOIN THE CLUB' AND BAN SOCIAL MEDIA FOR KIDS**

During his keynote address at the India-AI Impact Summit Thursday, French President Emmanuel Macron called on India to consider banning social media for children, an appeal which is bound to cause tremors among companies such as YouTube, Instagram, Facebook and Snapchat.

#### **Key Takeaways:**

— Since Australia banned use of the platforms for those under the age of 16 last year, it was widely anticipated that many countries around the world could join the bandwagon, amid heightened concerns over the impact that social media can have on children's mental health.

— Addressing the AI Impact Summit, Macron said France, as the current G7 chair, will work towards ensuring the protection of children against AI and digital abuse. “This is why in France we are embarking on a process to ban social networks for children aged under 15 years,” he said, adding that Spain and several other European countries are going to take a similar step and urged Prime Minister Narendra Modi to “join the club”.

— Though India is yet to make up its regulatory mind on the issue, IT Minister Ashwini Vaishnaw recently said the Centre was discussing age-based restrictions with social media companies. As such, calls for such a move have been gaining traction in India.

— At least two Indian states — Andhra Pradesh and Goa — are eyeing a social media ban for children. India's data protection framework states that tech companies offering services to those under 18 years will have to seek consent from parents.

— India's framework also bars behavioural tracking and targeted advertising to children. It has been notified but is yet to come into effect.



— Last month, the Economic Survey 2025-26 also called on the government to implement age-based limits for social media usage for children and digital ads targeted at them. The Survey's recommendation stemmed from larger concerns surrounding "digital addiction" among young users.

— It also stated that simpler devices, such as basic phones or education-only tablets, should be promoted among children along with enforced usage limits and content filters. This could reduce their exposure to harmful material, including violent, sexual, or gambling-related content, the Survey said.

**Do you Know:**

— Last year, Australia became the first country in the world to enforce a minimum age for social media use, requiring platforms such as Instagram, YouTube and Snap to block over a million accounts of users below the age of 16. The Australian law, which has drawn criticism from tech companies but support from parents, is likely to set a template for a broader global push to tighten regulation of young users' online safety.

— Under Australia's Online Safety Amendment (Social Media Minimum Age) Act, age-restricted platforms will be expected to take "reasonable" steps to find existing accounts held by under-16s, and deactivate or remove those accounts, prevent them from opening new accounts, including prohibiting any workarounds that may allow them to bypass the restrictions. Platforms must also have processes to correct errors if someone is mistakenly missed by or included in the curbs, so that no one's account is removed unfairly.

— According to the Australian government, the restrictions aim to protect young people from "pressures and risks" that users can be exposed to while logged in to social media accounts. These come from design features that encourage them to spend more time on screen, while also serving up content that can harm their health and wellbeing. Earlier, the country's eSafety Commissioner had in a survey found that over 50% of young Australians have faced cyberbullying on social media platforms.

**BAN ON SOCIAL MEDIA FOR CHILDREN**

— Karnataka is now the first Indian state to ban social media for children under 16, joining a growing global push to regulate minors' online access and tackle digital addiction. Andhra Pradesh is also moving to introduce a measure that would prohibit those under 13 to use such services.

— Concerns surrounding children's growing social media addiction and exposure to unrestricted internet access have fired up a global debate, prompting Australia to become the first country to ban social media for children in December.

— Britain, Denmark, and Greece are also studying the issue and similar considerations are taking shape elsewhere in India, one of the world's largest social media markets.

— India is the world's second-biggest smartphone market with 750 million devices and a billion internet users. Less than one-quarter of Karnataka's population is under the age of 15, a report of a 2019-20 survey conducted by India's federal health ministry showed. The state has a population of 67.6 million, a 2025 presentation by Niti Aayog showed.



## AI 'HALLUCINATION' AGAIN IN A TRIAL COURT ORDER, SC TALKS OF 'INSTITUTIONAL CONCERN

The Supreme Court has termed the reliance of a trial court's order on non-existent, artificial intelligence (AI)-generated judgments as "misconduct" and signalled its intent to "examine ... in more detail" its "consequences and accountability".

### Key Takeaways:

— The observation was made by a Bench of Justices P S Narasimha and Alok Aradhe, while hearing a petition challenging an order of the Andhra Pradesh High Court. The apex court noted that the issue raises "considerable institutional concern", " ... about the process of adjudication and determination".

— While hearing a property dispute, an additional junior civil judge in Vijayawada had appointed an Advocate Commissioner to survey the land concerned and determine if it fell within the boundaries of a specific sale deed. The defendants raised objections to the commissioner's report, challenging its findings.

— In August 2025, the judge dismissed these objections, citing four Supreme Court judgments.

— However, none of these judgments were found to exist, as emerged when the order was challenged before the Andhra Pradesh High Court in January 2026.

— In a report to the High Court, the additional junior civil judge admitted she had used an AI tool to research case law, saying it was the first time she had done so. The judicial officer said that she believed the answers the tool threw up to be genuine, and admitted she had not verified the citations against authentic legal databases. However, she said, she had no intention to misquote.

— While disposing of the civil judge's order, Justice Ravi Nath Tilhari of the High Court accepted her explanation that the mistake occurred in "good faith". The High Court held that while the citations were fake, the "principles of law" applied in the order were correct, and hence refused to set aside the lower court's order only on the grounds of erroneous citations.

— Earlier too, cases have come up of both litigants and authorities relying on what the Supreme Court referred to last week as "AI generated non-existing, fake or synthetic alleged judgments"

— On February 13, 2026, the apex court dismissed a special leave petition after finding that the petitioner had cited non-existent judgments. When questioned by the Supreme Court Bench, the counsel admitted to drafting the petition based on articles found online, without verifying the original judgments.

— In January 2026, a Bench of the Bombay High Court imposed a cost of Rs 50,000 on a litigant for citing a fake case in written submissions. Justice M M Sathaye noted that the submission contained "give-away features" of AI generation, such as "green-box tick-marks, bulletpoint-marks, repetitive submissions etc".

— In November 2025, the Supreme Court released a 'White Paper on Artificial Intelligence and Judiciary', which identified "Fabrication of Cases and Hallucination" as a primary risk associated with the use of AI. It referred to multiple court orders that were found to be based on "fictitious judicial precedents".



— The document noted that AI tools can “hallucinate judgments, citations, quotes, or refer to any legislation that may not be in existence”.

— To mitigate this, the White Paper recommended the establishment of AI ethics committees within courts and mandated that “all information obtained through AI tools shall be independently verified”.

— Generative AI tools, such as ChatGPT, are not search engines that look through a verified database for facts. Instead, they are predictive engines designed to mimic human language – based on patterns learned from vast amounts of data. When asked for case law, these tools predict what a legal citation would look like – assembling party names, volume numbers and legal journals in a citation format that appears authentic.

— Because the AI prioritises linguistic fluency over factual accuracy, it simply determines that such a combination of words is statistically probable in a legal context.

**Do You Know:**

— Courts across jurisdictions have been confronting similar challenges. In the United States, the federal court in *Roberto Mata v Avianca, Inc*, imposed monetary sanctions after counsel relied on fake precedents generated by ChatGPT.

— In England, courts have encountered multiple instances of fabricated citations in high-value commercial disputes, including an £89 million damages claim in which several cited authorities were found to be fictitious.

— These cases highlight a global reality: Generative AI systems, while powerful, are not designed as reliable legal databases and require human verification.

— The judicial response internationally has largely taken two forms. First, courts have imposed costs or sanctions on counsel who submit unverified AI-generated material.

— Second, professional bodies and courts have begun issuing guidance, including certification requirements that either no AI has been used or, where it has been used, the content has been independently verified.

— In India, however, there are at present no comprehensive guidelines on the use of generative AI in court pleadings.

## SELECTIVE OUTRAGE

The Supreme Court Bench that took up the NCERT Class 8 social science textbook case might have overreacted when it saw the critical references to the judiciary as a “deep-seated conspiracy” and declared that it will not allow “anyone on earth” to tarnish the judiciary’s integrity. While the government has expressed remorse, Education Minister Dharmendra Pradhan’s statement that action will be taken against officials responsible for inserting references to case pendency and “judicial corruption” is an exercise in executive arbitrariness prompted by judicial overreach. In fairness to the Court, it would likely not have taken offence to the passages had these had been in any other book. But textbooks are official, authoritative accounts and the judiciary found the passages ill-motivated. Instances of judicial corruption are real and censoring textbooks is not a corrective measure.



Since the BJP came to power, rewriting school and college textbooks has been a key part of its agenda. Right-wing commentators often find court judgments, such as those giving precedence to the environment as against development, or worse, as against religious practices of Hindus, and therefore not nationalistic or beneficial to the vast majority of the people of India. An adviser to the Prime Minister recently called the judiciary the single biggest obstacle to development. The Court, perhaps, saw the textbook as an attempt to intimidate the judiciary. Some of the sentences were indeed in the form of broadbrushing social media assertions not carefully constructed with rigour. The textbook, for instance, said, “People do experience corruption at various levels of the judiciary” and went on to describe complaints and redress mechanisms. But, such critical references had been used in chapters dealing with the government or the political executive as well. The chapter on elections had a picture of currency notes apparently found in the car of a candidate. The textbook writers probably aimed to spark critical awareness, not offer bland tutorials in civic studies. But as with other textbooks, there are problematic passages. The many history chapters uncritically valorise medieval Hindu kingdoms and portray their struggle to retain power as rightful resistances to Muslim rule. Wars for plunder and territorial expansion have always been part of history, and they did not begin with Muslim invaders. Chapters on Muslim kingdoms briefly refer to Akbar’s tolerance and Babur’s intellectual curiosity but remain largely negative. The chapter on penury under British rule and Mughal-era wealth is not balanced. The problem is not that the textbook selectively targets the judiciary; it is that the judiciary selectively targets certain portions.

#### ‘JUDICIARY CORRUPTION’ ROW: HOW NEW NCERT TEXTBOOKS ARE DRAFTED AND CLEARED

##### Key Takeaways:

- The NCERT has a set of groups and committees that prepare and oversee the new textbooks that are being developed in line with the National Education Policy (NEP) 2020 and the National Curriculum Framework for School Education (NCFSE) 2023.
- In its order on the textbook last week, the Supreme Court had directed D P Saklani, Director of the NCERT, to submit a comprehensive list and details pertaining to one of these committees — the National Syllabus and Teaching Learning Material Committee (NSTC) — and the names and credentials of the textbook development team responsible for drafting the chapter on the judiciary.
- The notification that constituted the NSTC in 2023 said that the chairperson and the co-chairperson of the committee, with the NCERT’s support, will constitute curricular area groups (CAGs) that will comprise experts who will develop the textbooks for each subject.
- Going by the notification, a subset of the CAG will develop the social science textbook. It is learnt that the CAG forms a textbook development team, which prepares the chapters. The draft that is prepared by the team then undergoes revisions and reviews.
- The social science book that was withdrawn last week listed 51 members as part of the textbook development team — including members of the NSTC for guidance, CAG chairperson, contributors, and reviewers. Reviewers for this book included professors at the NCERT, teachers and Director Principal of a private school in Gurgaon, and an associate professor at the University of Kashmir. It is then submitted to the NSTC for review.



— In 2023, the NCERT also constituted a 13-member National Curriculum Frameworks Oversight Committee (NOC) to ensure “full alignment” of textbooks with the NCFSE. It is to support the NSTC “in various ways such as providing detailed orientation to the members of the NSTC” and the CAGs.

— The old NCERT school textbooks were published from 2006 to 2008, developed in line with the NCF of 2005. Different books were published for history, geography, and political science, unlike the current system where two books cover all three themes.

— The then Ministry of Human Resource Development constituted a monitoring committee in 2005 to oversee the process by which the syllabus and textbooks are created. It was tasked with ensuring that “textbooks are free of errors and distortions”, and that “syllabi and textbooks finalised by the NCERT reflect the values enshrined in the Constitution in the organisation of knowledge in all subjects”.

— This committee was chaired by Prof Mrinal Miri with Prof GP Deshpande as its co-chairman. It included six representatives of State governments — the school education Secretary or Principal Secretary of four States, an SCERT Director, and a state school board chairperson. It also included NCERT governing council members, and members of what was then the Central Advisory Board of Education (CABE).

**Do You Know:**

— Prashant Bhushan writes: Though several challenges face the judiciary, including access to justice, the nature and quality of judicial appointments, and the independence of the judiciary, there is little doubt that corruption is among them.

— This is not to say that corruption in other institutions of the state is a less serious challenge. There is undoubtedly corruption in the executive branch. Given that, corruption in the judiciary also remains a grave and deep-rooted problem, and one that is widely recognised by the public.

— Transparency International, in its 2007 Global Corruption Report, found that 77 per cent of the people surveyed in India described the judicial system as corrupt. Since that time, there is little to suggest that corruption in the judiciary has reduced, as is clear from several recent cases.

— There exists no independent mechanism for the investigation of complaints against judges of the higher judiciary. The only constitutionally prescribed process is impeachment, which is in practice virtually illusory.

**PROCESS TO OUTCOME, HOW BENGAL SIR WAS DIFFERENT**

When the final electoral roll, after the four-month-long Special Intensive Revision (SIR) in West Bengal, was published on February 28, it clearly showed that the total electorate in the state had decreased by 8% or around 61 lakh names. What it also showed was that the final electoral roll was not final.

**Key Takeaways:**

— In fact, 60.06 lakh registered electors in the state found themselves on the roll but were stamped “under adjudication”, meaning they were on the rolls, but not quite. They will not be able to exercise their right to vote in the upcoming state Assembly elections till the 500-odd judicial officers appointed on orders of the Supreme Court review their cases and decide to keep them on the rolls in subsequent supplementary lists.



— Those who are found ineligible on the basis of documents submitted during the SIR will be deleted from the rolls, losing the right to vote. This did not happen in the nine states and three Union Territories where the Election Commission has completed the SIR so far.

— On June 24, 2025, the Election Commission announced its plan to conduct a Special Intensive Revision of electoral rolls of the country. For the past 20 years, the EC has been updating the electoral rolls in all states annually and before each Lok Sabha and Assembly election by adding newly eligible electors and deleting deceased and other ineligible electors.

— The SIR order of June 24, however, laid out an unprecedented new process. All those who were registered as electors would be required to submit enumeration forms in a one-month enumeration phase, either to their local Booth Level Officer (BLO), or online.

— All those who were added after the last intensive revision, which took place in the early 2000s across the states, would be required to submit documents from a list of 11 documents identified by the EC to establish their eligibility, which includes proving their citizenship.

— On October 27, 2025, the EC announced a tweaked process for SIR in nine states (Chhattisgarh, Rajasthan, Goa, Madhya Pradesh, Tamil Nadu, Kerala, Gujarat, West Bengal and Uttar Pradesh) and three UTs (Andaman and Nicobar Islands, Lakshadweep and Puducherry). The SIR in Uttar Pradesh has been extended, with the final electoral roll scheduled to come out on April 10. The SIR for the remaining 22 states/UTs is likely to start in April this year.

— For the second phase of SIR announced in October, the EC changed the enumeration form slightly. Now, all electors were required to “map” themselves with the electoral roll of the last intensive revision in any state or UT either through their own name on that roll or of a “relative” on that roll.

— All those whose forms were not returned or who the BLO found to have been deceased, shifted/absent or enrolled elsewhere were marked as such and deleted from the draft roll, which was published in December. In the case of West Bengal, this number was 58 lakh, reducing the number of electors from 7.66 crore to 7.08 crore.

— Speaking on condition of anonymity, officials involved in the process in West Bengal said the BLOs were strictly instructed not to collect documents along with the enumeration forms during the enumeration phase. They were also told that electors should only “map” themselves with their parents on grandparents on the enumeration form.

— This was not the case in other states. In UP, for instance, BLOs collected documents from electors in the first phase itself, in order to upload them as proof in case the elector was issued a notice for hearing at the later stage. In Bihar, where the SIR was held from June to August last year, officials told The Indian Express that electors were linked with any adult relative who was on the previous roll, including uncles and aunts.

— The EC also deployed its centralised software through the ERONET portal to flag “logical discrepancies”, including spelling mismatch, people mapped with six or more progeny and age gap between elector and parent being less than 15 years or more than 50 years. These “logical discrepancy” cases were also sent notices and asked to appear before the EROs for hearings.

— This is where the process in West Bengal deviated from the rest of the states. Three days after the draft roll was published and the notice period began, the Election Commission wrote to the



West Bengal Chief Electoral Officer on December 19, 2025 appointing “micro-observers” to keep a watch on the EROs and Assistant EROs during the hearing phase.

— A total of 8,100 micro-observers, who are Central government employees working in PSUs and banks, were deployed to check the documents being submitted by electors during hearings, among other things. Not only was the deployment of micro-observers for roll revision a first for the EC, the Commission only did so in West Bengal.

— This led to the ruling-Trinamool Congress in the state accusing the EC of bias against West Bengal and the micro-observers of interfering in the work of the statutory authority, the ERO. As per the Representation of the People Act, 1951, it is the ERO who can add and delete from the electoral roll of a constituency. The ERO is usually a state government employee of Sub-Divisional Magistrate rank who is appointed by the EC in consultation with the state government.

— EC officials in West Bengal alleged the need for deploying micro-observers was felt as the EROs were acting on orders of the ruling party. They alleged that the EROs were not deleting those electors who were ineligible and were uploading all manner of documents as proof, including fake ones.

— As the last date for hearings, February 14, came closer, the tussle between the EROs and micro-observers increased. The Supreme Court, which is hearing a batch of petitions challenging the legality of the EC’s SIR process, noted the “trust deficit” between the state government and the EC. On February 20, the SC ordered judicial officers to decide the pending cases, relying on its Article 142 power to pass a decree or order in interest of complete justice. This, too, was only done for West Bengal.

— EC officials in West Bengal admit that the deployment of micro-observers and judicial officers to decide on electors’ eligibility has diluted the powers of the EROs, which are provided for in the RP Act, 1950. However, they add that it was necessary as the state government was not cooperating fully with the EC. For instance, they say, the state bureaucracy was reluctant to take action against any errant BLOs and EROs.

**Do You Know:**

— The ECI conducts SIR with the objective of deleting duplicate and illegal registrations of voters. The exercise was first carried out in Bihar ahead of its Assembly elections in November this year, and now is being rolled out across the country, starting with nine states and three Union Territories.

— Article 324(1) of the Constitution vests the ECI with the power of superintendence, direction, and control of the preparation of the electoral roll. Specifically, Section 21(2) of the Representation of the People Act, 1950 provides that “the Election Commission may at any time, for reasons to be recorded, direct a special revision of the electoral roll for any constituency or part of a constituency in such manner as it may think fit.”

— Section 13B of the Representation of the People Act, 1950, empowers the Electoral Registration Officer (ERO) for each constituency to prepare and revise the electoral roll. In discharging this function, the ERO can employ persons deemed fit for the preparation and revision of the electoral roll. This statutory provision enables the appointment of BLOs.

— A BLO serves as a representative of the Election Commission of India (ECI) at the grassroots level and is responsible for collecting authentic field information about the electoral roll. BLOs,



who are familiar with local electors, act as guides for voters at their doorstep in matters of electoral enrolment, correction, and verification.

— Special summary revisions take place every year, and the electoral roll is updated before each Lok Sabha and state Assembly election. Intensive revisions have been carried out in 1952-56, 1957, 1961, 1965, 1966, 1983-84, 1987-89, 1992, 1993, 1995, 2002, 2003 and 2004.

#### HARIVANSH'S TERM ENDING, NO CLARITY ON A SUCCESSOR

With the term of the Rajya Sabha Deputy Chairman and Janata Dal(United) [JD(U)] senior leader Harivansh coming to an end on April 9, speculation has begun on who will replace him.

Three scenarios are being discussed. One, the Bharatiya Janata Party (BJP) may keep the seat for itself. Two, the seat may again go to the JD(U), or to the Telugu Desam Party (TDP) or All India Anna Dravida Munnetra Kazhagam (AIADMK). The AIADMK's floor leader M. Thambidurai was the previous Deputy Speaker in the Lok Sabha. Three, much as in the Lok Sabha, the government may choose not to hold an election for the Deputy Chairman's post, allowing a Panel of Chairpersons to assist Chairman C.P. Radhakrishnan. Since June 2019, the post of Deputy Speaker has remained vacant in the Lok Sabha.

The TDP has only two members in the Upper House. The party was not keen on the Deputy Speaker's post in the Lok Sabha when offered it in the 17th Lok Sabha, and there has been no significant change in its stance.

The JD(U) has four members in the Upper House and could easily make the cut, though it is not yet clear whether the government would want to continue with the arrangement. Though Mr. Thambidurai has a slim chance, considering that Rajya Sabha Chairman C.P. Radhakrishnan is also from Tamil Nadu, the top two positions of the Upper House cannot be filled by persons belonging to the same State.

#### Likely scenario

Many agree that the third scenario — of the government choosing not to hold an election for the Deputy Chairman's post — is far more likely.

While the National Democratic Alliance (NDA) is comfortably placed in the Upper House, with its total strength exceeding 120 members, an election could lead to what one member described as "sabre-rattling" with the Opposition.

The Opposition could gather enough votes to project a moral defeat for the government, especially at a time when the Biju Janata Dal (BJD) is, for the first time ever, working with the Congress. On Thursday, urologist Datteswar Hota filed his nomination papers in Bhubaneswar in the presence of the BJD president and former Odisha Chief Minister Naveen Patnaik and Odisha Congress president Bhakta Charan Das.

The BJD has seven members in the Upper House. The party has so far maintained equidistance from both the government and the Opposition, although it has more often than not leaned towards the government. The BJD members alone will not help the Opposition tilt the battle in its favour, but they could help narrow the margin.



**TN'S RAVI REPLACES BOSE IN BENGAL AHEAD OF POLLS, HASNAIN NAMED FOR BIHAR, SANDHU GETS DELHI**

With Assembly elections in West Bengal round the corner, Governor C V Ananda Bose resigned Thursday citing “personal reasons”. He was replaced by Tamil Nadu Governor R N Ravi who had been at loggerheads with the DMK-led government in the state.

**Key Takeaways:**

— As part of major gubernatorial appointments announced by President Droupadi Murmu Thursday night, Lt Gen Syed Ata Hasnain (ret'd) was named the new Bihar Governor, taking over from Arif Mohammed Khan.

— Taranjit Singh Sandhu, retired diplomat and a former Ambassador to the US, will be the new Lt Governor of Delhi, replacing Vinai Kumar Saxena who was posted to Ladakh as Lt Governor.

— Ladakh Lt Governor Kavinder Gupta, a former Deputy Chief Minister in the BJP-PDP government in the erstwhile state of J&K, will be the new Governor of Himachal Pradesh.

— Governor Shiv Pratap Shukla will move from Himachal Pradesh to Telangana. He will take over from Jishnu Dev Varma who was appointed Governor of Maharashtra, according to a communique from Rashtrapati Bhavan.

— Nand Kishore Yadav, former Speaker of Bihar Assembly, was appointed Governor of Nagaland which had so far been functioning under the additional charge of Manipur Governor Ajay Kumar Bhalla.

— With Ravi being sent to West Bengal, Kerala Governor Rajendra Vishwanath Arlekar will administer Tamil Nadu for the time being.

— Bose, who succeeded Jagdeep Dhankhar, who was in constant conflict with the TMC government, had earned the ire of local BJP leaders for his less confrontational approach towards the elected government. Senior party leaders, including Leader of Opposition Suvendu Adhikari, had publicly criticised Bose for being close to the Chief Minister.

— According to sources, Bose is likely to take part in official proceedings related to the visit of President Droupadi Murmu, who reaches the state for a two-day visit Friday, since Ravi would need to be sworn in and complete additional formalities.

— According to party insiders, the reshuffle in gubernatorial ranks was part of a national exercise that also includes a possible Union Cabinet reshuffle, putting in place a fresh team for newly appointed BJP national president Nitin Nabin and an evaluation of all BJP-run state governments in the country.

**Do You Know:**

— Article 153 of the Constitution says “There shall be a Governor for each State.” A few years after the commencement of the Constitution, an amendment in 1956 laid down that “nothing in this article shall prevent the appointment of the same person as Governor for two or more States”.



— Article 155 says that the “Governor of a State shall be appointed by the President by warrant under his hand and seal”. Under Article 156, “the Governor shall hold office during the pleasure of the President”, but his normal term of office will be five years.

— If the President withdraws her pleasure before the completion of five years, the Governor has to step down. Since the President acts on the aid and advice of the Prime Minister and the Union Council of Ministers, in effect, the Governor is appointed and removed by the central government.

— Articles 157 and 158 lay down the qualifications of the Governor and the conditions of his office. The Governor must be a citizen of India and should have completed the age of 35 years. The Governor should not be a member of Parliament or a state legislature, and must not hold any other office of profit.

## AUTUMN OF A SOCIALIST

Bihar Chief Minister and Janata Dal (United) chief Nitish Kumar is relinquishing his post and stepping aside from active politics. A nominee from the Bharatiya Janata Party (BJP) will likely succeed him as Chief Minister. Though the turn of events appears abrupt, it has been in the making for several years, and follows a pattern of the BJP's expansion into newer areas and social groups. Mr. Kumar has oscillated between the BJP and the Congress-led Opposition over the years, and still commands the loyalty of a considerable section of Other Backward Classes (OBC) in the State. At 75, old age had impaired him, and though his decline has been in full public view, he remained in the saddle — a testimony to his political indispensability. In the 2025 Bihar Assembly elections, the National Democratic Alliance (NDA) swept 202 of 243 seats, with the BJP emerging as the single largest party with 89 seats against the JD(U)'s 85. The BJP was initially unwilling to declare Mr. Kumar as the NDA's chief ministerial candidate, even while calculating that the alliance could not afford to contest without him. Less than four months after taking oath as Chief Minister for a record tenth time, he filed his Rajya Sabha nomination on March 5, with Union Home Minister Amit Shah by his side. The BJP is navigating a very fine line, trying to gently push Mr. Kumar aside without toppling the apple cart of the social combination that holds various Hindu caste groups together. Any sense of insult to the OBCs can be politically costly; but the party is equally determined to formalise its primacy in Bihar politics, a fact on the ground since at least the 2020 Assembly election, when it won 74 seats to the JD(U)'s 43.

The transition in Bihar also aligns with the four-decade pattern of the BJP's growth. The Hindutva party finds a foothold in new areas and among new social groups through alliances with regional outfits first, then emerges on top, and finally replaces the former ally. In 2020, the BJP already outran the JD(U) in seat tally but swallowed its ambition to keep the coalition intact and Mr. Kumar in place. In 2025, it retained that lead — 89 to 85 — and the arithmetic of the Rajya Sabha vacancy provided the occasion, and a measure of cover, for the inevitable transition. Bihar is the latest instance in this pattern, following the template most recently visible in Maharashtra, where Assembly elections were fought under Eknath Shinde's name but Devendra Fadnavis of the BJP took the Chief Minister's chair after the Mahayuti victory. With the eclipse of Mr. Kumar, the social justice politics that Bihar has practised for the last half-century — rooted in Lohiaite assertion, OBC mobilisation, and a resistance to upper caste dominance — is turning a page. It has a certain finality about it.



## NAGALAND PANEL TO STUDY CENTRE'S VANDE MATARAM DIRECTIVE

The Nagaland Assembly on Tuesday decided to refer the singing of the National Song Vande Mataram, as directed by the Union Home Ministry, to a select committee of the House to examine its applicability in the State.

The decision was announced by Speaker Sharingain Longkumer after members, irrespective of party affiliation, raised concerns over the imposition of playing or singing Vande Mataram preceding the National Anthem during the discussion on the Motion of Thanks to the Governor's address.

Following the January 28 directive issued by the Ministry, the National Song was played in the Assembly for the first time on the opening day of the Budget Session on Monday.

Participating in the debate on the Motion of Thanks to the Governor's Address in the Assembly on Tuesday, MLA Tseilhoutuo Rhütso raised what he described as "constitutional and conscientious concerns" arising from the January 28 notification mandating the singing or playing of the national song across States and Union Territories. Dr. Rhütso represents the National People's Party, a member of the NDA led by the BJP.

Acknowledging the significance of Vande Mataram in freedom struggle, he questioned the enforceability of the directive in Nagaland, a predominantly Christian State protected under special constitutional provisions.

Dr. Rhütso argued that making the National Song mandatory risks conflating patriotism with uniformity, potentially infringing Articles 25 and 29, which guarantee freedom of religion and protection of cultural rights. He cited Article 371A, which protects Nagaland's religious and customary practices. He said mandatory recitation, particularly if extended to all six stanzas of Vande Mataram, would be incompatible with the conscience of the Christian-majority population. He urged the State government to review the directive in consultation with the Assembly, ensuring that national unity remains "voluntary and respectful of conscience, not imposed by circular".

## SAFETY LAST

India's high-risk industries typically have a poor safety record. They operate in the margins, employ poorly paid unskilled workers, are characterised by unsafe working practices, and function under poor regulatory oversight. The explosive handling industry is a glaring example of such a high-risk industry. In October 2025, a devastating explosion at Sri Ganapathi Grand Fireworks in Andhra Pradesh's Konaseema district, which killed 10 people, led authorities to frame new safety norms and standard operating procedures. But it would seem that few of these were followed by Sri Surya Firecrackers at Vetlapalem village in Kakinada district, where an explosion on Saturday killed all 20 people present on the site. Another disturbing fact is that both units were owned by the same person. The Vetlapalem unit had been ordered to cease operations in January and had, in any case, far exceeded its permitted daily quota of explosives and workforce numbers after securing a large temple festival order. Nagpur was conceived as a hub of India's explosives making – with about four major public sector units supplying explosives, detonators and related materials for defence and industrial uses. The area's green cover provided camouflage with good connectivity with the rest of India. Today, nearly a dozen such private factories function in the Bazargaon area of Nagpur district. Most of the workers are women on low wages. Often



drawn from farmlands acquired for factories, the workforce is barely educated and insufficiently trained.

On Sunday, a blast at SBL Energy factory, Nagpur, killed 19 workers, most of them women. More than 20 lives have been lost in the past two years in half a dozen accidents in these units, including two at Solar Explosives, the largest unit, whose owner received the Padma Shri this year. Locals point out that the political connections of factory owners often invite the light hand of law enforcement. Ironically, the Petroleum and Explosives Safety Organisation, the regulator, is headquartered in Nagpur. In an example of lax supervision, several PESO officials faced a CBI inquiry for issuing licences for bribes. Only an overhaul of safety practices, norms and supervisory mechanisms as well as a commitment of business owners to safety can improve the safety record of these units. There is a lesson from Tamil Nadu. Once infamous for child labour in unsafe workplaces, and frequent deadly accidents, Sivakasi's fireworks units have now turned around their safety record. Enhanced safety training and awareness among workers and owners have achieved this though illegal units still report accidents.

## WHY IS THE NEP UNDERGRAD COURSE IN CHAOS?

### The story so far:

India's fledgling four-year undergraduate programme, recommended as part of the National Education Policy (NEP), 2020 has reached a critical point, with the first students who opted for four-year degrees now in their final semester. The roll-out has been chaotic, as students and faculty cope with changing guidelines, uncertainty regarding learning outcomes, and a severe shortage of infrastructure, funding, and faculty.

### What is the four year UG programme?

The NEP 2020 proposed a complete overhaul of higher education in India. Among the changes recommended was an expansion of the country's traditional three-year bachelors degree structure into four years, aligned with global standards, with an expanded curriculum intended to focus on flexibility, interdisciplinary learning, exposure to research, and skill development. Students would have multiple entry and exit options. After one year, they could get a certificate; after two years, a diploma; after three years, a Bachelor's degree; and after four years, a Bachelor's degree with honours, or options such as honours with a research or entrepreneurship focus.

The University Grants Commission (UGC) issued its guidelines for this model, as part of its Curriculum and Credit Framework, in December 2022. Earlier that year, however, several universities had already started rolling out four-year programmes from the 2022-23 academic year, as part of the implementation of NEP, including top central universities such as Delhi University, Aligarh Muslim University (AMU), and Ambedkar University. There are thousands of students in these institutions now in their final semester of study. The Karnataka government also announced its own implementation of NEP, and launched four-year programmes across the State, in public and private institutions. A year later, the Union government announced that 105 universities would enrol students into four-year programmes in 2023-24, including 19 central universities, 22 State universities, 18 State private universities, and over 40 deemed-to-be universities.



### **What have been the challenges?**

In Delhi University alone, 23,337 students are now in their fourth year, according to K. Ratnabali, Dean of Academic Affairs. About 13,000 of them have chosen to complete a dissertation or thesis, so that they can earn an honours with research degree. The rest of the students will complete extra coursework in their fourth year, including skill-based programmes, while a few hundred have opted for an entrepreneurship focus, or a translation or other academic projects. “The four-year Undergraduate Programme in its current form represents a mockery,” says Maya John, an assistant professor at Jesus and Mary College, who is a member of DU’s Academic Council. She says students are struggling with “unreasonable research outcomes” dictated by the university authorities, including the requirement for Scopus-indexed journal publications and presentations in international or national conferences. Dr. Ratnabali says this requirement has now been diluted, with the university willing to accept a paper presentation or submission, without actual publication. Students, however, complain that the constant changes in guidelines from the university, and individual college departments have often been contradictory and disconcerting.

Students do not have sufficient training or access to proper materials for their fourth year of research, says Madhuri Sharma, who is part of the history faculty at Bharathi College, noting that undergraduates are not allowed research access to the Teen Murti library, the National Archives, or the National Museum, and have only restricted access even to DU’s Central Reference Library. Moreover, “teachers are also overloaded, research supervision is not counted as part of their working hours,” says Dr. Sharma.

“At AMU, over 90% of students stayed on for the fourth year in many subjects, leading to immense pressure on faculty and infrastructure,” says Aftab Alam, a member of the Academic Council at AMU. “For science programmes, we simply do not have the requisite lab facilities to support undergraduate research. Faculty are continuously appealing for infrastructure and additional teachers, but there is no extra funding from UGC.”

“The fourth year programme is an additional burden to both the student and the exchequer, simply to ape a western model. There is a commercial impetus from private universities, who simply want to get one more year of fees,” says Navneet Sharma, an education professor at the Central University of Himachal Pradesh, who was also a member of the Karnataka State Education Policy task force that recommended a return to the traditional three-year degree programme in the State from 2024-2025 onwards. “Keeping a four-year degree programme would potentially reduce access to undergraduate education for the poor, the socially disadvantaged groups such as Scheduled Castes, Scheduled Tribes, women and students from rural areas,” the Karnataka Education department said in its order to abandon the four-year programme.

### **What changes may help the next batch?**

Dr. Alam suggested that UGC take feedback from faculty and students in the trenches of the four-year programme to adapt its guidelines to ground realities. Dr. Ratnabali agrees that more infrastructure, especially laboratories, are needed to make the four-year programme a success, and recommends that colleges apply for a HEFA (Higher Education Financing Agency) loan from the government before the start of the next academic year, and also seek funding from research agencies.



## WHY INDIA NEEDS TO RADICALLY RETHINK ITS DOCTORAL EDUCATION PROGRAMMES

The recent announcement that China awarded its first “practical Ph.Ds”, doctoral degrees conferred for tangible products rather than traditional research papers, is a timely catalyst for a long-overdue conversation on the relevance, design, and culture of Ph.D. education in India. In China’s new model, doctoral candidates are evaluated on working prototypes and real-world applications instead of lengthy theses and publication counts.

This shift recognises applied innovation on par with scholarly writing and challenges the deeply rooted academic paradigm in which a Ph.D. is almost synonymous with a long thesis and a suite of published papers. Our universities should ask themselves whether we need to evaluate a thesis based on the number of papers a scholar has produced or if we need to focus on the societal relevance of the work.

### **Academic malaise**

One major difficulty students interested in research in India face is the prolongation of the Ph.D. In many universities, there are students who have spent more than three years; in some cases, students spend eight. Even though there are many issues with delays in Ph.D. work, most instances are due to delays in publishing. In several departments, progress is judged less by the depth of original insight and more by the number of papers indexed in certain databases and the reputational clout of journals in which they appear. This culture undervalues the quality and relevance of research.

While publication is undeniably a pillar of academic excellence, the current fixation on having multiple indexed papers for a degree to be considered completed can encourage superficial research that may not push disciplinary boundaries or address pressing real-world problems.

It also intensifies the pressure on students to chase journals — any journals — that will accept their work, inadvertently fuelling unethical practices like engaging with predatory journals.

### **Scholars’ plight**

In most labs, Ph.D. scholars are treated as labour that supervisors can take for granted. Supervisors exploit the scholars in the name of publication, by prolonging their stay in the lab, so that supervisors don’t lose a good student trained in the domain. To maintain their labs, many supervisors also exploit their scholars by offering them the dream of publishing well, which, in reality, is mainly needed for the supervisors’ appraisals.

This culture is further aggravated by paid publications and dubious journals that promise quick indexing and impact metrics for a fee. Such outlets capitalise on the intense pressure on students to publish, thus creating a shortcut that erodes academic integrity. Though many Indian institutions now require papers to be published in indexed journals, the quality and relevance of these outlets vary widely, and the indexing status itself is frequently commodified by publishers. Ultimately, most doctoral research focuses solely on the university’s administrative needs, lacking scientific rigour or societal significance.

### **Hurdles with theses**

In many universities, Ph.D. theses are measured by the number of pages, often running beyond 200. There is a misconception that the quality of work is directly proportional to this number.



History shows that even Nobel Prize-winning theses can span only a few pages. When one can concisely explain their research work, expanding it to occupy many pages just because that's the norm is absurd.

The compulsion to write lengthy theses has led scholars to waste time and energy on introductions and inflated literature reviews. Many leading universities across the globe are moving towards compact dissertations that prioritise contributions over volume.

A major structural impediment in India's Ph.D. environment is the conventional thesis-defence model and long-lasting bureaucratic procedures. When they complete their studies, students have to deal with extended timelines to submit their theses, have them evaluated, and finally complete their oral defence. Administrative delays can further extend the final phases of a Ph.D. by months, and in rare instances, even years, irrespective of the candidate's productivity or the study's significance.

For exceptional researchers who have produced significant ideas, potentially creating technologies or therapies with societal relevance, being constrained by prolonged review cycles diminishes the fundamental objective of doctoral studies.

#### **Relevance of doctoral work**

An important criticism of India's existing Ph.D. system is that a lot of doctoral research isn't very useful to society. Many theses are still preserved in academic archives and don't often help with public policy, new ideas in business or the health of communities. In many universities, copies of Ph.D. theses are just dumped in a room or a backyard.

A Ph.D. should not be a solitary intellectual pursuit but rather a conduit between profound investigation and significant influence. China's practical Ph.D. model seeks to bridge this gap by matching doctoral outputs with real-world applications and industrial scalability, including welding technology for firefighting systems, and is assessed by panels comprising both academics and industry professionals.

India faces many real-world problems that could benefit from high-quality Ph.D. research. These issues span public health, agriculture, sustainability, digital inclusion, and education. The question is whether our current systems support and encourage studies grounded in what the people need.

Indian universities should brainstorm ways to reform the structure of Ph.D. education to better suit the current world. The age-old practice of spending long years for a Ph.D. doesn't hold any merit in a digital world. Similarly, the structure and evaluation of the thesis should focus on the innovation it describes and its relevance rather than on the number of papers it produced. Just a mushrooming number of Ph.D. holders does no good for the nation; India also needs good quality work that can support nation-building and humankind.

### **A SETBACK FOR THE RIGHTS OF THE DISABLED**

The Rights of Persons with Disabilities (RPwD) Act, 2016 mentions "the rights of all persons with disabilities to have a cultural life and to participate in recreational activities equally with others".

#### **Key Takeaways:**

— Recently, India's more than 100 million visually impaired and hearing-impaired people suffered a disappointment with respect to their right to video entertainment.

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



— In October 2025, the disability rights community welcomed the Ministry of Information and Broadcasting's (MIB) proposed "Guidelines for accessibility of content on platforms of publishers of online curated content (OTT platforms) for persons with hearing and visual impairment".

— There were two key points that sparked tremendous optimism. First, within six months of the guidelines' publication, OTTs would ensure that all new content carried two accessibility features at the minimum: Either same-language captions or Indian Sign Language (ISL) for the hearing impaired, and audio description for the visually impaired.

— Second, for existing content, OTTs would provide accessibility features in 30 per cent within 12 months, 60 per cent within 18 months, and 100 per cent within 24 months.

— Then came the jolt, a day before a contempt hearing in the Delhi High Court on the notification of the guidelines. MIB published the guidelines with two significant changes. OTTs would have 36 months to make all new content accessible, up from the proposed six. For existing content, OTTs were "encouraged" to provide accessibility features "on best effort basis".

— A key reason for these relaxations seems to have been that the originally proposed requirements would disadvantage smaller OTT players, who may not have the automated tools or budget global giants possess.

— If indeed that is the argument, then the giants could have led the way. JioHotstar, Netflix and Amazon Prime Video together have a 67 per cent OTT market share in India.

— Regarding automated tools, India just hosted the AI Impact Summit, where Sarvam AI's foundational model tailored to India's linguistic diversity was featured. AI is rapidly providing solutions for cost-efficient language work, and integrating accessibility features into video content is no longer onerous.

— OTTs and their self-regulating bodies have an opportunity to be more inclusive of PwDs. Beyond the moral argument, OTTs are missing out on an opportunity to build industry-wide value around the power to serve the reading literacy and language skills of consumers. The frontier for OTT growth in India is rural. The ones that will win out will offer entertainment that can be leveraged for educational goals, too.

**Do You Know:**

— The Persons with Disabilities Act, 1995, was enacted in response to India signing the "Proclamation on the Full Participation and Equality of People with Disabilities in the Asian and Pacific Region". It was later replaced by the Rights of Persons with Disabilities Act, 2016, which followed India's ratification of the United Nations Convention on the Rights of Persons with Disabilities (UNCRPD) in 2007.

— The 2016 legislation was transformative in three major ways. First, it shifted from a narrow, medicalised framing of disability to a socio-medical model that recognises how social barriers — not just impairments — restrict participation.

— Second, it significantly broadened the scope of legal protection by expanding eligibility from seven disabilities under the 1995 law to a comprehensive set of 21 disabilities.

— Third, it introduced a rights-based vocabulary consistent with the UNCRPD, replacing welfare-oriented terminology with enforceable guarantees of equality, dignity, and full participation.



## MIND THE EXPERTISE GAP IN NGT

The National Green Tribunal (NGT) Act, 2010, envisioned the creation of a watchdog that would combine legal and ecological expertise to strengthen the country's environmental governance. More than a decade later, the tribunal's record is, at best, mixed. In its interventions in sand-mining and river pollution cases, the NGT underlined the importance of scientifically established standards and often acted swiftly to enforce them. Its directions on curbing air pollution have also been grounded in careful reading of technical information, though their impact has often been blunted by weak implementation. At the same time, critics have pointed out that several NGT rulings on infrastructure projects do not reflect a rigorous engagement with ecological realities. Now, an investigation by this newspaper has found that the tribunal ruled in favour of project developers in four out of five cases between 2020 and 2025. The government maintains that these decisions reflect the merit of individual cases. However, another finding underscores the need for a more critical lens: Nine of the 13 expert members appointed since 2016 previously held senior positions in the environment ministry. This raises concerns about conflict of interest — and institutional propriety — since the tribunal's appellate jurisdiction covers key government decisions.

Environmental concerns associated with development projects — including displacement of people, pollution, groundwater depletion, harm to biodiversity, and inadequate waste management — cannot be resolved solely through legal interpretation. They require specialised knowledge. That is why the NGT Act mandates the agency to have 10-20 judicial members and an equal number of expert members. Expert positions in the NGT, however, have rarely been filled, forcing its benches to function without the technical acumen envisioned by the law. The tribunal's pool of experts has been drawn largely from the Indian Forest Service. While former administrators bring valuable domain knowledge to the table, the complexity of today's environmental challenges require inputs from scientists, economists, engineers, urban planners and legal scholars. This expertise deficit has contributed to uneven decision-making and raised questions about the NGT's ability to independently evaluate scientific claims.

Climate change has made environmental governance more complex. An effective watchdog today must be adept at risk assessment and planning adaptation. Strengthening the NGT's technical capacity will, thus, require more than filling vacancies. It calls for equipping it with multidisciplinary expertise. This newspaper's investigation should serve as a wake-up call.

## THE QUIET DEMOGRAPHIC REVOLUTION UNFOLDING IN INDIA

For much of the late 20th century, discussions of India's future were framed by a single anxiety: population growth. The assumption was that rapid fertility would outpace the economy's ability to generate food, infrastructure, and public services. The infamous "Population Bomb" thesis of Paul and Anne Ehrlich was a key text that informed public policy for decades.

Over the last 25 years, India has experienced a fertility transition of extraordinary speed. Data from successive National Family Health Surveys (NFHS) show Total Fertility Rate (TFR) falling from levels near four children per woman in the 1990s to around replacement level, with most States now at or below 2.1 children per woman.

India, long viewed as the archetype of a 'high-fertility developing country', has quietly become a relatively low-fertility society. In the NFHS-1 and 2 periods, many States reported TFRs between three and five children per woman, and some — particularly in the Northeast — recorded even



higher levels. By NFHS-3 and NFHS-4, fertility had dropped substantially. But the most striking change appears in NFHS-5, where a majority of the States cluster below replacement fertility. The dispersion of fertility across States has also narrowed, indicating convergence towards a low-fertility norm across India's regions.

One can categorise the States by their TFRs into three tiers — low, medium and high. In NFHS-1 and 2, there is a clear bunching of southern States exhibiting lower fertility rates relative to central, northern and northeastern States. However, starting from NFHS-3, these tiers get more heterogeneous, where States from other regions also begin to move into lower fertility categories.

The northeastern States (except Tripura), Uttar Pradesh, Jammu & Kashmir, Haryana, Punjab, and Rajasthan show the highest declines in fertility across the five rounds. Of the States that had relatively low fertility rates to begin with, Karnataka, West Bengal, Gujarat, Maharashtra and Odisha have the highest decline.

### **Significant transformation**

Almost all scholars of the phenomenon have pointed to rising women's education and delayed marriage as proximate causes. As educational attainment rises, the expected returns to labour market participation increase, while the opportunity cost of early and repeated childbearing grows. Where the labour market offers meaningful opportunities, fertility tends to fall faster and where employment remains precarious, the transition proceeds more unevenly.

A second factor could be the diffusion of new family-size norms through migration, urbanisation, and media exposure. The many decades of family planning messages may have contributed to such changes. Once smaller families become the social standard, fertility decline accelerates even where income levels or institutional conditions lag behind.

Third, the decline reflects public health successes. Improvements in child survival reduced the need for 'precautionary fertility', the historical pattern in which families had more children to insure against high mortality. Vaccination programmes, maternal health services, and nutritional interventions have quietly reshaped reproductive behaviour by increasing the confidence that children will survive into adulthood.

However, not all the reasons for this decline may be positive. It is also possible that the rising cost of raising children is a factor. As schooling, healthcare, and housing, become increasingly monetised, children shift from being contributors to household production toward becoming intensive investment projects. Families that once relied on informal social arrangements now face a world in which upward mobility requires substantial expenditure on education and skill formation.

### **Myriad consequences**

The first is that there is a "demographic dividend," in which the share of working-age people with low dependency ratios creates the potential for faster growth. Without a structural shift towards labour-absorbing industrialisation and public investment, the dividend risks being squandered.

The second surrounds the political economy of fertility. Southern and western States, where fertility has been below replacement level for some time, are moving more rapidly towards aging populations. This divergence is likely to reshape patterns of internal migration, fiscal transfers, and political representation over the coming decades. The movement of younger workers from



relatively poorer, higher-fertility regions to aging, lower-fertility regions may become one of the defining structural features of India's internal economy.

For decades, population control programmes occupied a central place in development planning. Today, the more pressing need is the opposite: building the institutional foundations for a low-fertility society. This includes childcare, pension systems capable of supporting an aging population, healthcare systems oriented toward chronic rather than infectious disease burdens, and urban infrastructure able to accommodate continued migration and household transformation.

India's demographic story is therefore no longer one of unchecked population growth. The key policy concerns now will be those of employment, aging, migration, and the social organisation of care.

#### CENTRE SUSPENDS RICE FORTIFICATION SCHEME; ACTIVISTS BACK MOVE

On Friday, the government announced that it had reviewed the implementation of rice fortification under the Pradhan Mantri Garib Kalyan Anna Yojana (PMGKAY) and other welfare schemes. "Based on this review, it has been decided to temporarily discontinue the process of rice fortification under PMGKAY and allied schemes until a more effective mechanism for delivery of nutrients to beneficiaries is identified," the Food Ministry said, citing a study by the IIT, Kharagpur to assess the shelf life of fortified rice kernels and fortified rice under actual storage conditions in diverse agro climatic zones in the country.

"The report concludes that factors such as moisture content, storage conditions, temperature, relative humidity, and packaging material critically influence their stability and shelf life. They are susceptible to micronutrient reduction and shortening of shelf life during prolonged storage and routine handling. This reduction is rendering the effective shelf life shorter than expected and, in turn, limiting the intended nutritional outcomes," the release added. The government maintained that the decision does not entail any reduction in foodgrain entitlements and will not affect operations under the public distribution system.

Social activist Kavitha Kuruganti said rice fortification is an expensive and ineffective intervention, which is unsafe and toxic. "While the government is citing a study to stop this large-scale fortification, we had shown much evidence that not all anaemia is linked to iron deficiency, nor is fortification an effective solution," she said.

#### AS NICOTINE POUCHES SPREAD, CALLS FOR REGULATIONS, BAN GET LOUDER

Oral nicotine pouches are emerging as the latest cause of concern for doctors and anti-tobacco activists. Warning that these product are highly addictive and could cause harmful effects, calls for regulations and bans are now being made. Tamil Nadu's Directorate of Drugs Control (DDC) recently issued a public alert and served show-cause notices to dealers for illegally selling these products online.

An online search showed that nicotine pouches are available for sale on at least three platforms, including an e-commerce site. Sold under various brands, these pouches come in multiple flavours and quantities.



### Not approved

In the public alert, the DDC had warned against the purchase, sale and consumption of oral nicotine pouches as they are not approved in the country, and their safety, efficacy and quality were not established. It advised the public to refrain from using such nicotine pouches as an aid for smoking cessation, gutka and tobacco chewing cessation or for treating withdrawal symptoms of nicotine. The safety, efficacy and quality of such nicotine pouches are not yet established. These products directly deliver pharmacologically active substances to the bloodstream through buccal absorption and uncontrolled consumption of nicotine may result in worsened health hazards due to increased total nicotine intake.

Manufacturers, retailers, including online marketplace operators, distributors, hospitals, and pharmacies in the State are also directed to refrain from manufacturing, stocking, exhibiting for sale and offering for sale (including through online portals), such unapproved oral nicotine pouches, it said.

### What's in them

According to the United States' Centers for Disease Control (CDC) and Prevention, nicotine pouches are small microfiber pouches that contain a powder made of nicotine, flavourings, and other ingredients. People typically put pouches between their lips and gum. The powder dissolves in the mouth without requiring spitting, and nicotine is absorbed through the gums and lining of the mouth. Stating that nicotine is a highly addictive chemical that is especially dangerous for the youth, young adults and pregnant women, the CDC said that there are no safe tobacco products, including nicotine pouches. The U.S. Food and Drug Administration has not approved nicotine pouches as a smoking cessation aid, it said.

### Stringent regulations called for

"There is every chance that industries could manipulate products, and so, such substances, in any form, should be banned. Two mg nicotine tablets and patches are allowed for nicotine replacement therapy. However, these pouches are available up to 50 mg. This is dangerous, as in the future, e-cigarettes, which India has already banned, will replace cigarette smoking, and nicotine pouches will replace chewable tobacco. Cyber crime cells should take immediate measures to curb online platforms selling nicotine pouches, while the Centre and States should bring in a complete ban," he said.

## POLICY MUST CATCH UP WITH BREAST CANCER BURDEN

An analysis in The Lancet Oncology, drawing on data from the Global Burden of Disease study, has revealed that the incidence of breast cancer in India has more than doubled over the past three decades. It is now the most commonly diagnosed cancer affecting Indian women. The age-standardised incidence of breast cancer has increased from 13 cases per 1 lakh women in 1990 to 29.4 per 1 lakh in 2023. The mortality rate has also climbed significantly, from 8.9 to 15.5 per 1 lakh women, marking a 74 per cent increase. The data points to a mounting public health challenge.

The bleakness of the statistics, however, obscures an important fact: Advancement in surgery and therapies has transformed survival prospects if detected early. In high-income countries, widespread screening and public awareness have helped stabilise mortality rates. India's challenge is to replicate those gains in a health system that serves a vast and diverse population



with limited resources. As economic growth reshapes lifestyles and reproductive patterns, cases have climbed, especially in cities, and increasingly among women in the age group between 20 and 54. Delayed childbirth, lifestyle changes and rising metabolic risk factors such as high blood sugar and obesity have contributed to this shift. Early detection remains patchy; mammography rates are strikingly low — data from the National Family Health Survey (NFHS-5) and Longitudinal Ageing Study in India (LASI Wave 1) show that only 1.3 per cent of women aged 45 years and above have undergone a mammography. Many women seek medical attention only when the disease has progressed considerably.

Screening must reach millions of women across villages and cities, awareness campaigns must challenge stigma and delay, and diagnostic and treatment services must expand. Experts also argue that India has an opportunity to rethink its screening strategy and opt for a more targeted approach — identifying women at higher risk through family history, reproductive factors, among others. Even though the national cancer registry covers only about 10 to 15 per cent of the total population, with its expanding digital health infrastructure, India has the capacity to build an expansive risk-adapted model. Success with polio eradication and the Covid vaccination shows India can implement large, decentralised public health programmes effectively. The real test is whether policy can move as quickly as the disease.

#### BREAST CANCER CASES TO RISE BY ONE-THIRD GLOBALLY, SAYS LANCET STUDY

Despite recent advancements in breast cancer treatments, new breast cancer cases are predicted to rise by a third globally from 2.3 million in 2023 to more than 3.5 million by 2050. Similarly, annual deaths are projected to increase by 44% from around 764,000 to 1.4 million, according to the latest analysis from the Global Burden of Disease Study Breast Cancer Collaborators.

##### **Key Takeaways:**

— Deaths from breast cancer have been increasing since 1990. Laos had the world's largest increase in deaths (214%). Other notable increases were in Bangladesh (91%), Vietnam (80%), Indonesia (78%), India (74%), Japan (52%), and the Philippines (41%). China's death rate decreased by almost 37%.

— Published in the 'Lancet Oncology,' the analysis uses data from population-based cancer registries, vital registration systems and interviews with family members or caregivers of women who have died from breast cancer to provide an updated global and regional analysis. The report estimates the burden and risk factors of breast cancer from 1990 to 2023 in 204 countries with forecasts up to 2050.

— In India, the age standardised incidence rate (ASIR)/one lakh climbed from 13.0/per lakh in 1990 to 29.4 per lakh in 2023. The age-standardised mortality rate (ASMR) also climbed from 8.9/per lakh in 1990 to 15.5 per lakh in 2023. While there were no country-level forecasts, study authors have projected the ASIR to rise to around 38.5 per lakh for South Asia by 2050 and ASMR to 18.9.

— New cases have risen much faster in women aged between 20 and 54 (up 29%) since 1990, with rates in older women not changing substantially.

— More than a quarter (28%) of the global breast cancer burden is linked to six modifiable risk factors such as smoking, high blood sugar and obesity. The analysis suggests that maintaining a healthy lifestyle, including not smoking, getting sufficient physical activity, lowering red meat



consumption and having a healthy weight could prevent over a quarter of healthy years lost (around 24 million years) to illness and premature death due to breast cancer worldwide. — Although women in low- and lower-middle-countries account for 27% (around 628,000) of new cases globally, they contribute to more than 45% of all the ill-health and early deaths from breast cancer globally (nearly 11 million years of healthy life lost).

— A younger age at diagnosis has major downstream consequences. These are often peak earning and caregiving years with limited savings buffers. Treatment often stretches across months with surgery, chemotherapy, radiotherapy and follow-ups. That creates a double shock: direct medical costs plus indirect losses from time away from work (for the patient and often a caregiver), travel and stay near treatment centres, and reduced household productivity, pushing many families into long-term financial stress.

#### U.K. MUSEUM RETURNS 16TH CENTURY BRONZE STATUE TO INDIAN GOVERNMENT

The Ashmolean Museum in Oxford, England, has returned a 16th century bronze statue of Saint Thirumangai Alvar to the Government of India, following a detailed provenance research and liaison with Indian authorities.

The handover was marked at a ceremony at the High Commission of India in London on Tuesday. Ashmolean director Xa Sturgis and professor Mallica Kumbera Landrus, head of the museum's Department of Eastern Art, were present.

A High Commission spokesperson thanked the museum for its decision to return the bronze icon to its original place of worship – the Sundararaja Perumal temple in Thanjavur district in Tamil Nadu. The spokesperson described the move as “not merely the restoration of an object of art, but the reunification of an icon of faith with its intended shrine, restoring memory, and enabling cultural continuity”.

##### **Acquired in 1967**

The Ashmolean acquired the statue in 1967. According to the Sotheby's catalogue, the bronze was sold by private collector J.R. Belmont (1886–1981), though no information is available on how it entered his collection. In November 2019, an independent French scholar alerted the museum to research linking the bronze to a 1957 photograph taken at the Shri Sundararaja Perumal Temple. The image was in the archives of the Institut Français de Pondichéry and the École française d'Extrême-Orient. The scholar identified the bronze as one of several objects in collections in Europe and the United States recorded in the archives.

On February 11, 2020, a temple executive officer filed a police report noting that a modern replica had replaced the original bronze. The Indian High Commissioner then made a formal claim for the return of the bronze statue on March 3, 2020.

#### 2,000-YEAR-OLD MEGALITHIC ROCK-CUT CHAMBER COMES TO LIGHT IN KASARAGOD

A laterite rock-cut chamber, believed to be nearly 2,000 years old and linked to the Megalithic period, was unearthed on Sunday during excavation work for the construction of a compound wall at Panayal in Kasaragod district of Kerala.



The structure was discovered on a private property. Nandakumar Koroth, archaeologist and faculty member of the History department at Nehru Arts and Science College, Kanhangad, inspected the site and confirmed that the find is a Megalithic laterite rock-cut chamber.

Mr. Koroth said the circular inner chamber had been carved out of laterite rock, with its entrance sealed by a stone slab. A circular aperture of around five cm in diameter is seen at top, designed to allow a person to descend into the chamber. A shaft, around three feet deep, leads to circular burial chamber. As the interior is filled with soil, no urns or artefacts are presently visible.

Megalithic communities dug such chambers by interring pottery as part of ritual belief systems. Locally, these chambers are known as 'Muniyara', 'Pandava cave', 'Peeranki cave', 'Nidhikuzhi',

Several umbrella stones, another Megalithic monument, have been discovered in the nearby areas.

## NEW FORMULA

Formula One (F1) is currently going through a golden period. It is a fact reflected through record race attendances, viewing figures, teams' healthy balance sheets, and soaring valuations. Even on track, the previous seasons have seen exciting battles. In 2025, the battle for the drivers' title went down to the last race with three drivers in contention. Eventually, McLaren's Lando Norris triumphed ahead of his teammate Oscar Piastri and Red Bull's Max Verstappen, the four-time champion. Now, on the eve of the season-opening Australian Grand Prix in Melbourne, F1 is embarking on a bold trajectory that could define its future. At a time when there is heightened focus on climate goals and a push towards sustainable living, F1, with its fuel-guzzling machines and a global circus criss-crossing five continents 24 times a year, can be seen as an anachronistic endeavour. In 2019, F1 laid out a plan to become net carbon zero by 2030, and starting this year, it will take its biggest leap towards achieving that goal. The governing body, the Fédération Internationale de l'Automobile (FIA), has introduced a new hybrid engine formula for 2026, split equally between conventional internal combustion engines and electric motors. More importantly, all cars will be powered by advanced sustainable fuels.

These fuels are derived from carbon capture, municipal waste, and non-food biomass rather than from crude oil. The battery for the electric motor will be charged by harvesting energy lost during braking. Historically, major automotive manufacturers have used motorsport as a platform for research and development and have transferred technology from track vehicles to traditional cars. The new rules have attracted big firms back to the series. Audi has entered its own team; Honda and Ford have returned to the sport as engine partners to Aston Martin and Red Bull Racing, respectively. While these are lofty ambitions, in the end, F1 is still a sport, and the main aim is to produce an exciting championship. The charm of racing is seeing drivers push cars to their absolute limits and enthral viewers. During pre-season testing, the new cars received a lukewarm response from the drivers, who felt the new formula did not allow them to push the cars to their limits at all times, as they were energy-starved. Though these are early days yet, it will be interesting to see how quickly the teams overcome these challenges or how the rule-makers step in to ensure that the spirit of the sport is not lost. If F1 can deliver close racing and a competitive championship by this season's end, the gamble may prove worthwhile.



## RULE CHANGE FOR FORMULA 1 IN 2026

— The Formula 1 race season-opening Australian Grand Prix was won by George Russell of Mercedes. Season 2026 has introduced the biggest regulation changes in its history, from new chassis and engine rules to the mandatory use of fully sustainable fuels.

— In the 2026 season, the cars are lighter, narrower, and, consequently, nimbler. The maximum wheelbase length — which is the distance between the front and the rear axle — has been lowered by 200 mm to 3400mm. The car's track width has been reduced by 100 mm. The minimum weight limit was reduced to 768 kg from 800 kg last year. These changes are expected to ensure more wheel-to-wheel racing, apart from adding to power and fuel efficiency.

— Around 50% of the power that the cars use will be electrical, while the remaining will come from internal combustion of sustainable fuels.

— F1 racecars now have active aerodynamics. This means they can dynamically adjust the angle of their front and rear wings depending on whether they are zipping past through the straight sections of the track or manoeuvring the corners.

— With full active aerodynamics now in place, the similar drag reduction system (DRS) — in place for 15 years — has been replaced with the so-called 'Overtake Mode', which offers drivers an electric energy boost when they are within a second of the car in front to deploy power to assist with an overtake.

— Sustainable fuel: The fuel that the internal combustion engine will use is the 'advanced sustainable fuel' that will be sourced from sustainable feedstocks that are not in competition with food crops.

— These feedstocks include municipal waste and non-food biomass; the fuel can also be produced using technologies like carbon capture—harnessing carbon from the air and industrial emissions. The advanced sustainable fuel must be a drop-in fuel, meaning it should be designed to replace fossil fuels without requiring any engine adjustments.

— The fuel that each team used will have to be certified as fully sustainable by a third party on behalf of the Fédération Internationale de l'Automobile (FIA), the world motorsport governing body. In 2020, the FIA had set the target of using fully sustainable fuels by 2026 as part of its objective of achieving net-zero status for its motorsport activities.

## SHORT NEWS

### IRAN-ISRAEL-US CONFLICTS

— Gravity Bombs: US Defense Secretary Pete Hegseth said that Iranian air defences had been severely degraded over the course of the last four days and that the US military would begin to deploy 500-pound, 1,000-pound, and 2,000-pound precision gravity bombs.

— A gravity bomb, historically known as a "free-fall" bomb, is an unpowered munition. Unlike a cruise missile like the Tomahawk, it lacks an internal engine. Once released, its trajectory is dictated entirely by gravity, aerodynamics, and the speed and altitude of the dropping aircraft.



## IRIS DENA

- The IRIS Dena, a Moudge-class frigate belonging to the Iranian Navy's Southern Fleet, was sunk by the US submarine attack leading to the death of at least 80 people.
- The IRIS Dena was one of the 19 foreign warships that participated in the International Fleet Review conducted in Vishakapatnam on February 17 and 18. It is believed to have been returning from the military exercise when it was struck.
- The International Fleet Review 2026 (IFR 2026) is an international maritime exercise held by India in Vishakapatnam to improve the Indian Navy's relations with other navies in the region.
- The International Fleet Review has been hosted by different nations, with India hosting the 2001 and 2016 editions. The latest edition was coupled with the Indian Navy's mega biennial exercise MILAN, as well as the Indian Ocean Naval Symposium (IONS) Conclave of Chiefs at Visakhapatnam, during which the Indian Navy would assume Chairmanship for the second time (2025-27).

## BEFORE IRAN, THERE WAS IRAQ: LASTING SCARS OF 2003 US INVASION

As US President Donald Trump considers putting "boots on the ground" to topple the Iranian regime amid the US-Israel bombing campaign, it is worth recalling a different invasion from 20 years ago that profoundly reshaped the Middle East.

The stated aim of the 2003 invasion of Iraq — led by the US and including troops from the UK, Australia, Denmark, the Netherlands and Poland — was to destroy its "weapons of mass destruction (WMDs)" and "liberate" its people from the rule of Saddam Hussein.

Two decades on, Iraq continues to bear deep scars from that invasion — internecine conflict, insurgency, state fragmentation and the rise of extremist groups.

## NATANZ ENRICHMENT PLANT

— The International Atomic Energy Agency (IAEA) has confirmed entrances to Iran's underground Natanz Fuel Enrichment Plant (FEP) were bombed. Long regarded as Iran's main enrichment site, Natanz, located 220 km southeast of Tehran, is home to two enrichment plants- Fuel Enrichment Plant (FEP) and Pilot Fuel Enrichment Plant (PFEP)- that were operational at the start of Israeli attacks in June 2025. FEP was a vast underground facility designed to house 50,000 centrifuges, the uranium-enriching machines. It had 17,000 installed centrifuges, of which 13,500 were operational and enriching uranium up to 5% in June. However, the plant's electricity infrastructure was destroyed in Israeli airstrikes, with the IAEA telling the BBC last June that all operational centrifuges were likely "severely damaged if not destroyed altogether". The ISIS report confirmed that the site remained destroyed with no repairs or reconstruction for the damage from the bunker-busting GBU-57 bomb.

## GOLESTAN PALACE

— Golestan Palace, a world heritage site in the Iranian capital, was reportedly damaged due to an airstrike in its vicinity.



- It is a lavish monument of the Qajar era (1789 to 1925). According to the UNESCO website, it embodies “the successful integration of earlier Persian crafts and architecture with Western influences.”
- Built around a garden featuring pools as well as planted areas, the Palace’s most characteristic features and rich ornaments date from the 19th century.
- It became a centre of Qajari arts and architecture of which it is an outstanding example and has remained a source of inspiration for Iranian artists and architects to this day.
- It represents a new style incorporating traditional Persian arts and crafts and elements of 18th-century architecture and technology.

#### BALENDRA SHAH

- Balendra Shah’s Rastriya Swatantra Party (RSP) is set to become the new Prime Minister of Nepal after the Gen Z protests in September 2025 that unseated the coalition government led by Prime Minister K P Sharma Oli. He will be the first Madhesi prime minister of Nepal.
- Balendra Shah, popularly known as Balen, is a rapper-turned-politician who won a resounding victory to become the mayor of Kathmandu in May 2022. During the Gen Z protests, he supported the youths’ calls for the prime minister’s resignation, urging protesters not to destroy property.
- Rabi Lamichhane, the 51-year-old chairperson of the Rastriya Swatantra Party (RSP), and the 35-year-old Shah formed an alliance ahead of the election. Both leaders pledged to address the demands of the younger generation following September’s protests.

#### INDIA-FINLAND: KEY TAKEAWAYS

- Finnish President Alexander Stubb was on a state visit to India from 4 to 7 March. This was his first visit to India in his present capacity.
- India and Finland elevated their ties to “Strategic Partnership in Digitalization and Sustainability”. This partnership will provide momentum and new energy to cooperation across several high-technology sectors, from Artificial Intelligence to 6G telecommunications, and from clean energy to quantum computing.
- The two sides signed three pacts on mobility, environment, and statistics, and set the aim to double bilateral trade by 2030; establish a joint working group on digitalisation, a joint task force on 6G and greater connectivity of startup ecosystems; co-host the World Circular Economy Forum in India; and put in place a consular dialogue.
- The visit focused on three Ts: trade, technology, and talent. Trade anchors the economic partnership, technology advances collaboration in digitalization and sustainability, and talent connects the societies through mobility. These priorities also align with PM Modi’s vision of Viksit Bharat 2047, with Finland’s strengths in innovation, sustainability, and education making it a natural partner for India.
- With the cooperation of Finnish architects, India has built the world’s highest railway bridge over the Chenab River and established the world’s largest bamboo-to-bioethanol refinery in Numaligarh (Assam).



## INDIA-CANADA: KEY TAKEAWAYS

- Prime Minister of Canada, Mark Carney, was on an official visit from 27 February to 2 March 2026. This was his first official visit to India.
- New Delhi and Ottawa hope to increase bilateral trade to \$50 billion by 2030, Indian Prime Minister Narendra Modi said during a joint media appearance with Carney, from nearly \$9 billion in 2024-25.
- India and Canada launched negotiations for the Comprehensive Economic Partnership Agreement (CEPA) and decided to finalise it soon.
- The Indian government and Canada's Cameco have signed a uranium supply agreement to support India's nuclear ambitions and to work towards a clean, reliable base load power. Cameco, the Canadian company, will provide 22 million pounds (about 10,000 tonnes) of uranium, the main fuel in nuclear reactors, between 2027 and 2035. The contract is worth 2.6 billion Canadian dollars (\$1.9 billion).
- Two MOUs were signed to intensify cooperation on critical minerals and energy sources, supporting technical and commercial engagement, and diversifying supply chains.
- To create more cultural and educational opportunities, Canada and India launched the new Canada-India Talent and Innovation Strategy to deepen education collaboration.

## MARRIAGE AS PARTNERSHIP: HC REFRAMES ROLE OF 'HOMEMAKER'

"A homemaker does not 'sit idle'; she performs labour that enables the earning spouse to function effectively," the Delhi High Court has observed, rejecting a common assumption that non-earning spouses seeking maintenance are economically inactive.

In a judgment delivered last month, Justice Swarna Kanta Sharma reframed how courts assess homemakers, stating that the contribution of a spouse managing the household cannot be dismissed merely because it does not generate income or appear in financial records. The judgment treats homemaking not as dependency but as labour that shapes legal entitlements arising from marriage, including maintenance and financial support after separation. The observations came in a case concerning maintenance claimed by a wife who had left employment and was caring for the couple's child while the husband worked abroad, raising the question whether educational qualifications or theoretical earning capacity could justify the denial of maintenance. The judgment reframes homemaking as a legally relevant role rather than a purely social description.

## COMMITTEE OF PRIVILEGES

- Nearly two years after the constitution of the 18th Lok Sabha, Speaker Om Birla has nominated 15 members to the Committee of Privileges. It will be chaired by senior BJP leader Ravi Shankar Prasad.
- The Committee of Privileges examines all questions involving breach of certain rights, privileges, and immunities enjoyed by MPs. It is a Standing Committee. It examines the cases of



breach of the privileges of the House and its members and recommends appropriate action. The Lok Sabha committee has 15 members, while the Rajya Sabha committee has 10 members.

— Parliamentary privilege refers to rights and immunities enjoyed by Parliament as an institution and MPs in their individual capacity, without which they cannot discharge their functions as entrusted upon them by the Constitution.

— According to the Constitution of India, Articles 105 and 122 outline the privileges of Parliament, while Articles 194 and 212 pertain to the privileges of state governments.

— Article 105, there shall be freedom of speech in Parliament. No member of Parliament shall be liable to any proceedings in any court in respect of anything said or any vote given by him in Parliament or any committee thereof.

— Article 122: The validity of any proceedings in Parliament shall not be called in question in court on the ground of any alleged irregularity of procedure. Article 194 and Article 212 are corresponding articles for state legislature.

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#### BAN ON SOCIAL MEDIA FOR CHILDREN

— Karnataka is now the first Indian state to ban social media for children under 16, joining a growing global push to regulate minors' online access and tackle digital addiction. Andhra Pradesh is also moving to introduce a measure that would prohibit those under 13 to use such services.

— Concerns surrounding children's growing social media addiction and exposure to unrestricted internet access have fired up a global debate, prompting Australia to become the first country to ban social media for children in December. Britain, Denmark, and Greece are also studying the issue and similar considerations are taking shape elsewhere in India, one of the world's largest social media markets.

— India is the world's second-biggest smartphone market with 750 million devices and a billion internet users. Less than one-quarter of Karnataka's population is under the age of 15, a report of a 2019-20 survey conducted by India's federal health ministry showed. The state has a population of 67.6 million, a 2025 presentation by Niti Aayog showed.

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#### PANEL LED BY MOEF SECY 'SUPPRESSED' FSI VIEW ON ARAVALLI, AMICUS INFORMS SC

THE SUPREME Court's Amicus Curiae in the Aravalli definition case has submitted that the report by the court's Aravalli committee led by the Environment secretary "completely suppressed" the views of the Forest Survey of India (FSI) while recommending a 100-metre height definition for the hills. The Amicus Curiae's submission also pointed out that the "unsigned and undated" report of the Aravalli panel did not have the approval of the SC's Central Empowered Committee (CEC) and its "exclusionary" definition did not "sufficiently include landforms that constitute the Aravalli hills in order to protect and conserve the same."

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#### TELEVISION RATING POINTS (TRPS) WITHHELD FOR FOUR WEEKS

— The Centre has asked television rating agency Broadcast Audience Research Council (BARC) to immediately withhold reporting Television Rating Points (TRPs) for TV news channels for four weeks, or until further orders.



— The directive came as a consequence of certain TV news channels airing “unwarranted sensationalism and speculative content” about the ongoing Israel-Iran conflict, which, the Centre said, may potentially create panic among the general public.

— TRPs represent how many people, from which socio-economic categories, watched which channels for how much time during a particular period. This could be for an hour, a day, or even a week; India follows the international standard of one minute. The data is usually made public every week. TRPs are the main currency for advertisers to decide which channel to advertise on by calculating the cost-per-rating-point (CPRP).

— BARC is an industry body jointly owned by advertisers, ad agencies, and broadcasting companies, represented by The Indian Society of Advertisers, the Indian Broadcasting Foundation and the Advertising Agencies Association of India. Though it was created in 2010, the I&B Ministry notified the Policy Guidelines for Television Rating Agencies in India on January 10, 2014 and registered BARC in July 2015 under these guidelines, to carry out television ratings in India.

— India currently has approximately 230 million television households. However, only about 58,000 people meters (BAR-O-meters) are presently used to capture viewership data, representing just 0.025% of the total TV homes.

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#### COUNTRY'S FIRST SEMICONDUCTOR FACILITY

— Prime Minister Narendra Modi inaugurated the country's first semiconductor facility at Sanand in Gujarat.

— The inauguration of the semiconductor plant – an Assembly, Testing, Marking and Packaging facility – by US-based Micron Technology reflected a deep partnership between India and the United States.

— The Micron facility will manufacture SSD (Solid State Drive) storage devices as well as RAM type DRAM and NAND products, and that the company had invested Rs 22,516 crore for its Sanand plant.

— India announced its Semiconductor Mission in December 2021 with an outlay of around \$10 billion, focused primarily on subsidising the setting up of semiconductor fabrication, assembly, and testing plants.

— The Union Budget 2026, announced the India Semiconductor Mission (ISM) 2.0 to produce equipment and materials, design full-stack Indian IP and fortify supply chains. The second iteration of the scheme will also have a focus on industry-led research and training centres to develop technology and skilled workforce in the country.

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#### WHY DO SOME ANTIBIOTICS DAMAGE THE LIVER MORE THAN OTHERS?

Antibiotics are life-saving as they fight deadly infections. Yet they can have unintended consequences. Doctors have long noticed that certain antibiotics raise liver enzymes or cause inflammation, and in rare cases, they may even trigger severe damage, leading to liver failure. The reason is not just how strong they are but where they sit on the liver cells and how they interact with their outer layer, what we call cell membrane. Drug-induced liver injury is one of the primary reasons medicines are withdrawn from the market or restricted after approval. The challenge is that liver injury is notoriously hard to predict. Many patients show no symptoms initially, while



others take multiple medications, making it difficult to identify the real culprit. Even closely related drugs can behave very differently.

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#### WORLD OBESITY ATLAS 2026

— On World Obesity Day (4th March), the World Obesity Federation released the second edition of the World Obesity Atlas 2026. The theme of World Obesity Day 2026 was 8 Billion Reasons to Act on Obesity.

— According to the Atlas, India now ranks second globally for children who are overweight and living with obesity after China, beating the US and other Western nations.

— The Atlas presents a series of childhood obesity prevalence projections for the period 2025 to 2040. Estimates suggest that in this period, 20 million children in India will be living with obesity and 56 million will be either overweight or living with obesity.

— In India, altogether 14.9 million children in the five to nine age groups and more than 26 million children in the 10-19 age bracket were overweight or obese in 2025.

— Childhood obesity exposes the young population to similar risks of chronic illnesses as adults, including hypertension and cardiovascular disease.

— It is estimated that by 2040, over 57 million children will show early signs of cardiovascular disease (high triglycerides), while over 43 million will show signs of hypertension.

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#### INTERNATIONAL SANTHAL CONFERENCE

— President Droupadi Murmu attended the 9th International Santal Conference being organised by the International Santal Council at Darjeeling in West Bengal. The President has expressed her disappointment over the West Bengal Chief Minister and other ministers not giving her a formal welcome.

— It is not a must for chief ministers to receive the President visiting their state, but, going by convention and courtesy, the CM should nominate a minister to receive the President if he or she is unavailable.

— Visits and all related arrangements of the President, Vice-President, and Prime Minister are managed according to the Blue Book, which is prepared and updated time-to-time by the Union Home Ministry and numbered (every copy has a number) copies are circulated to those concerned. At the ground level, in every district, the book is kept in the custody of the District Magistrate and the head of the district police.

— According to the protocol, all three dignitaries visiting a state should be welcomed by the Governor and the Chief Minister. However, on a number of occasions, the Chief Minister designates one of the ministers to receive them.

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#### KALARIPAYATTU

— Leader of the Opposition in the Lok Sabha, Rahul Gandhi, joined a student of Marian College to perform a few steps of Kalaripayattu.



— Kalaripayattu is the traditional martial art form of Kerala. It is one of the oldest and most scientific martial art forms in the world, aimed at mind and body coordination. It originated and is widely practiced in Kerala. According to mythology, the warrior sage Parasurama is credited with establishing Kalarippayattu. The term “Kalari” in Malayalam refers to a traditional gymnasium where this martial art, known as Payattu, is taught.

— The four stages of Kalaripayattu are:

- i. Maipayattu: It is the body conditioning phase where the person is schooled to prepare their body for a fight. Only after qualifying this stage can the practitioner proceed to the next phase of training.
- ii. Kolthari: In this stage, a person is taught attack and self-defense with the help of wooden weapons such as short sticks, and long sticks.
- iii. Angathari: Once the person overcomes the fear of fighting with wooden weapons, sharp metal objects are introduced — in the third stage.
- iv. Verumkai: This stage includes research-based bare-hand fighting. Students are taught body anatomy so that they know what points they can hit and what they cannot.

— The main ethnic styles of Kalarippayattu found in the three regions of northern Kerala (Malabar) are: 1) Vattenthirippu Style 2) Arappukkai Style 3) Pillathangi Style.

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#### KARNATAKA’S LAKKUNDI VILLAGE

— Recently, a 14-year-old high school student Prajwal Ritti, while helping his family in expanding their house, discovered a pot filled with hollow gold coins, bracelets, a bangle and other items at Lakkundi village of Gadag district, Karnataka.

— The region had human habitation during the Neolithic period — lasting from 12,000 years to 4,000 years ago — was discovered during the excavation carried out in 2003, near Boodi Basaveshwara Temple.

— Historical evidence shows that Lakkundi was an important trade and cultural centre between the 10th and 13th centuries AD, during the rule of Kalyana Chalukyas, and was patronised by dynasties such as Rashtrakutas, Hoysalas and the Vijayanagara kingdom.

— Lakkundi village is situated just 80 km from Hampi, a popular UNESCO World Heritage Site featuring the expansive ruins of the Vijayanagara Empire.

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#### TOTAL LUNAR ECLIPSE

— A total lunar eclipse took place on the afternoon of March 3. The celestial event was visible in various parts of the world, including India.

— This astronomical event occurs when Earth moves directly between the Sun and the Moon, casting its shadow upon our nearest neighbour in space. Because Earth blocks the direct sunlight, only light filtered through Earth’s atmosphere reaches the Moon — and that light takes on a deep coppery or reddish hue. Astronomers call this phenomenon a “blood moon.”



— As Earth’s shadow sweeps across the Moon, the bright face we normally see gradually darkens. But the Moon never goes completely black. Instead, Earth’s atmosphere bends (or refracts) sunlight, filtering out shorter blue wavelengths and allowing longer red wavelengths to fall on the Moon’s surface. This red glow is the same reason sunsets look reddish on Earth.

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#### GERMANY’S PITCH FOR 2036 OLYMPICS OVERSHADOWED BY THE ‘NAZI GAMES’ OF 1936

As India aggressively positions itself as a candidate to host the 2036 Olympics, centring its pitch on peace, religious diversity and economic rise, its rival bidder, Germany, confronts a question overshadowed by its past: exactly a century after the ‘Nazi Olympics’, should Berlin stage the Games again? Germany’s two previous Olympic hostings are remembered for troubling reasons: The 1936 Games became a propaganda showcase for Adolf Hitler, and the 1972 Summer Olympics saw a terrorist attack in the Athletes’ Village that killed 11 Israeli team members. Germany has signalled its willingness to host the Games for a third time — in 2036, 2040 or 2044. The first option, however, has prompted uncomfortable questions. The debate resurfaced last week after German President Frank-Walter Steinmeier warned that deliberately choosing 2036 risked turning history into a marketing device. “The President views the year 2036 as historically problematic for a German bid,” a spokesperson for Steinmeier was quoted as saying by Reuters.

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#### T20 WORLD CUP 2026

— India defeated New Zealand by 96 runs in the ICC Men’s T20 World Cup 2026 final at the Narendra Modi Stadium in Ahmedabad on 8th March, thus becoming the first team to successfully defend their World T20 crown.

— India also became the first team in history to win a T20 World Cup at home. This is India’s record-extending third T20 World Cup title.

Jasprit Bumrah became the Player of the Match and Sanju Samson won the Player of the tournament.

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#### ALL ENGLAND OPEN

— India’s Lakshya Sen finished runner-up at the All England Open Badminton Championships 2026 as he lost to Chinese Taipei’s Lin Chun-Yi. With the win, Lin Chun Yi became the first shuttler from TPE to win the men’s singles title at All England, and has extended his record to 5-0 against Lakshya.

— Prakash Padukone and Pullela Gopichand remain the only Indian badminton players to have won the prestigious All England badminton title so far.

— Two-time Olympian PV Sindhu had earlier withdrawn from the tournament after she was unable to make it to Birmingham in time due to the US-Israel-Iran war.



## BUSINESS AND ECONOMY

### BULLYING ANTHROPIC

Over the last few days, the U.S. Department of Defence unceremoniously cast out the AI firm Anthropic, which develops the coding assistant Claude, and designated the firm a “supply chain risk”, the kind of cattle branding reserved for firms that are compromised by hostile foreign states. The reason was simple: Anthropic refused to relent on allowing its tools to be used for widespread domestic surveillance and fully autonomous weaponry. The high-octane conflict with the U.S. government — which accused Anthropic of following a “woke” and “radical” agenda — is a shocking escalation, despite prior concessions that would allow the U.S.’s defence establishment’s use of Claude, which helps create and update code bases quickly. The conflict also sends a chilling message — a great power can do anything, with or without safeguards, to attain a strategic upper hand. This is a dangerous message to send in a multipolar world where shared standards around safety are increasingly difficult to achieve.

This is no longer the world of the Bletchley Park AI safety summit. It was a gathering that acknowledged the rapidly growing power of AI systems, and the shared global imperative to ensure that high-stakes risks be mitigated. What resonance does that worthy message have when the country on the frontier of AI development so publicly disavows any form of safety control for war, at a time when a reckless attack on Iran — with, reportedly, some assistance from Claude — is grinding on? Firms need to show some backbone when dealing with outrageous demands that could have chilling consequences in their home country and around the world. After all, if the U.S. demands the policy space for domestic surveillance in such a full-throated fashion, where does that leave countries where infiltrating the political opposition with spyware on their phones is already the norm? Anthropic showed this backbone, and it deserved the solidarity of its peers. Sadly, that is not what happened, as ChatGPT maker OpenAI appeared to give the U.S. defence department the flexibility it sought just hours after Anthropic became persona non grata. Despite OpenAI’s assurances that its agreement provides key safeguards, AI safety has been harmed, with the other superpower and a host of middle powers around the world watching closely. Firms may not be the ideal characters to take a stand — taking into consideration, after all, their profit motivations — but as strong institutions are worn down around the world, there are few places to look to for leadership on safety. When a firm with billions of dollars at stake says ‘no’, it is not a promising sign of things to come when another steps in to say ‘maybe, yes’.

### WHAT SPARKED THE DOD-ANTHROPIC CLASH?

#### The story so far:

The U.S. Department of Defence (styled as the Department of War under the second Donald Trump administration) has entered into a public spat with the AI firm Anthropic, which makes the Claude AI product. The DoD has threatened to designate Anthropic a “supply chain risk,” dissuading a wide variety of firms that work with the U.S. government from patronising Anthropic’s products. ChatGPT maker OpenAI subsequently entered into the picture, obtaining an agreement it said was not radically different from what Anthropic wanted.



### **What is Claude?**

Claude is an AI chatbot that helps organisations and individual users create and modify code. Its Claude Code product has been received extraordinarily well due to its capabilities. Claude Code is among the few AI products that is run with extremely powerful large language models (LLMs) while also supporting on-device creation and editing of tools, once it has access to a range of software libraries to work with.

The product is very compelling to the defence establishment because it can iterate on high-tech weapons and defence systems. Recruitment of programmers for these systems tends to be slow, as any critical weapons system is protected by several layers of secrecy, necessitating security clearances that can be time-consuming.

Claude Code has been a compelling proposition for the DoD, as it likely allows for iteration on programmes that drive its technology quickly. While it does not execute programming tasks perfectly all the time, it performs well enough that development timelines have been shrunk in organisations that have deployed it widely, especially among experienced software developers.

### **Why did Anthropic clash with the DoD?**

Anthropic was onboarded to the DoD as a part of a \$200 million contract last June, which allowed the U.S. government to use Claude's services from dedicated infrastructure hosted by Amazon Web Services.

The issues between the firm and the DoD started on January 9, when defence secretary Pete Hegseth published a memorandum entitled "Accelerating America's Military AI Dominance," in which he called for the elimination of "blockers to data sharing, Authorizations to Operate (ATOs), test and evaluation and certification, contracting, hiring and talent management, and other policies that inhibit rapid experimentation and fielding". Anthropic has a much-publicised "constitution" for Claude that discourages the model from supporting widespread surveillance and enabling fully autonomous weaponry. Dario Amodei, the firm's co-founder, insisted on strong language in the agreement between the DoD and Anthropic to bake in protections against domestic surveillance of U.S. residents and enable fully autonomous weaponry.

The firm was given until last Friday to relent and let the DoD have completely unrestricted access to its models. It refused, saying in a blog post that it would help the DoD transition to a new provider.

The DoD then classified Anthropic as a supply chain risk, a designation usually applied to firms that have such dodgy practices that their products can provide foreign adversaries a backdoor into critical systems. While this designation only disallows DoD suppliers and partners from using Claude on systems dedicated to DoD, there are concerns that executives may lean toward caution and completely remove ties with Claude.

### **What is OpenAI's agreement?**

OpenAI negotiated an agreement with the DoD that the former claims has the same protections against surveillance and fully autonomous weaponry that Anthropic sought. It is not fully clear why OpenAI was able to land this deal while Anthropic was cast out. "The Department of War may use the AI System for all lawful purposes, consistent with applicable law, operational requirements, and well-established safety and oversight protocols," a portion of the agreement made public by OpenAI said.



“The AI System will not be used to independently direct autonomous weapons in any case where law, regulation, or Department policy requires human control, nor will it be used to assume other high-stakes decisions that require approval by a human decision maker under the same authorities.” Anthropic is reported to have sought greater clarity in the agreement’s legal language that would prohibit the use cases described above, even if they were legalised.

“We think our red lines are more enforceable here because deployment is limited to cloud-only (not at the edge), keeps our safety stack working in the way we think is best, and keeps cleared OpenAI personnel in the loop,” OpenAI said in a statement. “We don’t know why Anthropic could not reach this deal, and we hope that they and more labs will consider it.”

## HOW WILL RARE EARTH MOU WITH BRAZIL HELP INDIA?

### The story so far:

India and Brazil signed a memorandum of understanding (MoU) on rare earths and critical minerals during President Lula da Silva’s state visit to India on February 21. The joint statement said the two countries want to work together across the full mineral “value chain” and that the understanding includes exploration, mining, processing, recycling, and refining. The statement also said the aim is to strengthen supply chains and competitiveness.

### What is India doing about critical minerals?

India is currently trying to build capacity at home across the critical minerals value chain and to reduce dependence on any one country by building more overseas partnerships for minerals and processing. On the domestic front, the Union Cabinet approved the National Critical Mineral Mission in January 2025 to cover all stages of the value chain, including exploration, mining, beneficiation, processing, and recovery from end-of-life products. It is meant to run from 2024-25 to 2030-31 with substantial public expenditure. India also published a list of 30 critical minerals in July 2023 and has used the Mines and Minerals (Development and Regulation) Amendment Act 2023 to give the Centre more power to auction blocks for critical and strategic minerals. By September 2025, the Ministry of Mines said it had run multiple rounds of such auctions covering several blocks. Further, the state-backed vehicle Khanij Bidesh India Ltd. is currently exploring overseas acquisitions and signing exploration arrangements, including in Argentina and Chile. India has also used changes in customs duty to reduce the cost of importing inputs that it doesn’t have enough of at home.

Finally, the Indian government is also pushing late-stage manufacturing. According to Union Minister for Mines G. Kishan Reddy, India aims to begin domestic production of rare earth permanent magnets by the end of 2026 under a government-backed programme, with the stated goal of cutting import dependence in sectors like electric vehicles and defence.

### What does the MoU mean for India?

In India’s official briefing, Secretary (East) P. Kumaran said President Lula spoke of Brazil’s “substantial” reserves of which only about 30% had been explored and that Brazil would value India as a partner to explore and process them. Associated Press reported that the MoU is non-binding. Among other things, the agreement will increase India’s bargaining power. If India had only one or two realistic sources of these materials, sellers would know India can’t walk away from their terms even if they were exorbitant. Now, however, India can say “we can source from Brazil”, which will affect sellers’ incentives. The MoU also signals to companies that their inputs



won't be disrupted by export controls or geopolitical shocks, encouraging them to invest more. Likewise if India and Brazil get on the same page vis-à-vis environmental and other standards, India can more easily sell finished products into markets that increasingly demand proof about where materials were sourced from.

#### **Does the MoU intersect with Pax Silica?**

Pax Silica is a U.S.-led initiative that brings together partner countries; India joined it on February 20. It's meant to make the "silicon stack" — the system that starts with raw materials and runs through factories and equipment, all the way to modern computing, including data centres and AI hardware — more secure. Plainly speaking, Pax Silica sets out a general goal in the form of securing supply chains for the U.S. and its partner countries. The bilateral MoU, signed the next day, could help with one part of that goal, which is to access, and possibly process, certain minerals. However, the MoU doesn't make Brazil a Pax Silica member.

#### **What will the MoU do for Brazil?**

According to the U.S. Geological Survey, Brazil has 21 million tonnes of rare earth-oxide equivalent, 2.7 billion tonnes of bauxite, 270 million tonnes of manganese, and 0.4 million tonnes of lithium. From Brazil's point of view, the MoU could be a way to turn this mineral wealth into more value for its industry. Specifically, it could help Brazil attract Indian capital into Brazilian projects, which can make new mines and processing plants easier to finance. It also gives Brazil a large market that can sign long-term purchase contracts so that projects are not built on speculation. The MoU covers exploration, mining, processing, recycling, and refining, all of which also suits Brazil's goal to move up the value chain rather than just explore raw ores, and will strengthen Brazil's negotiating position too.

### **WHERE DOES THE INDIA-U.S. TRADE DEAL STAND?**

Mr. Trump lashed out at the Supreme Court in several social media posts and speeches. Also expectedly, he resorted to other laws under which he could impose tariffs on other countries. As of now, this stands at a flat 10% tariff on all imports for a period of 150 days starting January 24. However, Mr. Trump has said he will raise this to the maximum permissible limit of 15%. That has not happened yet. Several other tariffs that the U.S. has imposed over the last year or so remain in place. These include a 50% tariff on aluminium and steel imports, and country-specific tariffs on items valued at less than \$800. Both continue to impact India since steel and aluminium form a substantial portion of India's exports to the U.S., and India's MSMEs used to leverage e-commerce platforms and avail of the tariff exemption on items below \$800.

The U.S. on February 24 imposed a 126% tariff on the import of solar modules from India after a 'preliminary' finding that subsidised exports from India were hurting U.S. solar firms.

#### **What about the impact on other trade deals?**

The European Union, which has already signed a trade deal with the U.S., was very vocal about what it expected following the Supreme Court judgment. "The European Commission requests full clarity on the steps the U.S. intends to take following the recent Supreme Court ruling on the International Emergency Economic Powers Act (IEEPA)," the Commission said in a statement. "The current situation is not conducive to delivering 'fair, balanced, and mutually beneficial' transatlantic trade and investment, as agreed to by both sides and spelled out in the EU-U.S. Joint Statement of August 2025." Japanese officials, too, were vocal about the deal, saying that since



Japan's deal with the U.S. focussed on automobile tariffs that were not affected by the Supreme Court judgment, they were not keen to revisit the deal.

The Australian trade minister said that the U.S. must honour the free trade agreement signed between the two countries and allow duty-free imports of Australian goods into the U.S., since Australia was holding up its end by allowing duty-free imports of U.S. goods.

#### **How has India reacted?**

In various interviews and press conferences, Mr. Goyal had said the interim agreement was set to be formally signed by the middle of March, and could be implemented by early April. These statements, however, were made before the Supreme Court's ruling. In response to the ruling, the Ministry of Commerce and Industry issued a relatively anodyne statement compared to statements made by other countries and groupings. "We have noted the U.S. Supreme Court judgment on tariffs yesterday," the statement said, adding, "President Trump has also addressed a press conference in that regard. Some steps have been announced by the U.S. Administration. We are studying all these developments for their implications."

The Indian team was meant to be in Washington on February 23-25 to finalise the contours of the interim agreement so that it could be signed in mid-March. While not mentioning the deal in the official statement, sources in India's Ministry of Commerce and Industry said that "the two sides are of the view that the proposed visit of the Indian chief negotiator and the team be scheduled after each side has had the time to evaluate the latest developments and its implications". In other words, the visit to the U.S. was postponed indefinitely. However, on the other hand, Mr. Goyal hosted both Mr. Lutnick and U.S. Ambassador to India Sergio Gor in New Delhi on February 26 for what turned out to be a "fruitful" meeting, in Mr. Goyal's words. A new date for an official meeting of negotiators is yet to be announced.

At the moment, a deal is more important to the U.S. than India because India can reduce its tariffs on U.S. goods only once a deal is signed. At the same time, the U.S. tariff threat that had been looming over issues like Russian oil and buying more U.S. goods has been removed for the time being.

#### **Has the U.S. changed its stance?**

Regarding trade deals, the Trump Administration has been clear: nothing changes. Mr. Trump warned countries that he had signed deals with to honour them and not "play games", or risk facing higher tariffs. "Any Country that wants to 'play games' with the ridiculous supreme court decision, especially those that have 'Ripped Off' the U.S.A. for years, and even decades, will be met with a much higher Tariff, and worse, than that which they just recently agreed to [sic]," he said in a post on Truth Social. He followed this up with: "As President, I do not have to go back to Congress to get approval of Tariffs. It has already been gotten, in many forms, a long time ago! They were also just reaffirmed by the ridiculous and poorly crafted supreme court decision!"

Mr. Lutnick, too, spoke about how nothing has changed from the U.S. point of view and that it expects other countries to honour their commitments. "I've been telling them [the U.S.' trade partners] for a year whether we won or lost, we were going to have tariffs," Mr. Lutnick said in a TV interview. "The President's policy was going to continue. That's why they signed these deals, even while the litigation was pending... We want them to understand that these deals are going to be good deals. We expect to stand by them. We expect our partners to stand by them."



## HOW WEST ASIA CONFLICT MAY IMPACT OTHER CORE INDUSTRIES, BEYOND OIL & GAS

The war in West Asia is not just roiling global oil and gas markets. The tensions are threatening to disrupt the flow of key industrial inputs from the region for several core Indian industries.

### Key Takeaways:

— Sectors such as steel, fertilizers, cement and power transmission depend heavily on imports of essential raw materials from West Asia. These essential industrial inputs include limestone, sulphur, gypsum, direct reduced iron (DRI) and copper wires. Notably, more than half of India's imports of these commodities had originated in the region.

— The West Asia region broadly includes the six Gulf Cooperation Council (GCC) countries — Bahrain, Kuwait, Oman, Qatar, Saudi Arabia and the UAE — along with other regional economies such as Iran, Iraq, Israel, Jordan, Lebanon, Syria and Yemen.

— With the conflict continuing in the region, and missile and drone strikes hitting several energy and logistics facilities across the Gulf, fears of supply disruptions have intensified. The possibility of a closure of the Strait of Hormuz — one of the world's most critical energy and trade routes — has heightened concerns of a global energy supply shock.

— For India, the region remains a crucial supplier of both energy and industrial inputs. According to a report by New Delhi-based trade think tank GTRI, India imported goods worth \$98.7 billion from the region in 2025. So, any turbulence in the region or disruption to shipping routes such as the Strait of Hormuz could quickly impact multiple Indian industries beyond oil and gas.

— As a major supplier of oil and gas to the world, any turbulence in West Asia tends to make global energy markets immediately vulnerable. India is no exception.

— The impact of the war is already being felt. With crude oil stockpiles estimated to last only about a month, Indian refiners have begun increasing purchases of discounted Russian oil. Gas companies, too, are weighing the possibility of curbing industrial supplies if disruptions to LNG shipments from Qatar persist.

— The fallout, however, may not remain confined to the energy sector if disruptions to shipping through the Strait of Hormuz continue for more than a week.

— According to the GTRI report, the effect could be felt in fertilizer supplies, manufacturing inputs, construction materials and export industries such as diamonds.

— The construction sector, which depends on mineral imports from the region, could be among the sectors that feel the impact if the conflict persists.

— The GTRI report estimated that India imported \$483 million worth of limestone from West Asia, accounting for 68.5% of its total imports, and \$129 million worth of gypsum, representing 62.1% of imports.

— Both minerals are crucial for the construction ecosystem. Limestone is a key input for cement production, while gypsum is widely used in cement and other construction materials. Any disruption in supplies could push up cement prices and delay infrastructure projects...



— Industry experts say that while alternative sources for some raw materials exist, the bigger concern lies in rising energy costs.

— A steel industry insider said that alternative sources are available for inputs such as limestone and DRI, but the real challenge is volatility in oil and gas prices.

#### **Govt orders refiners to boost LPG output to meet cooking gas needs**

— In order to ensure continued availability of cooking gas to crores of Indian households amid the West Asia crisis, the government has invoked emergency powers derived from the Essential Commodities Act to direct Indian refiners to maximise liquefied petroleum gas (LPG) production and ensure that all the gas is supplied solely to domestic LPG consumers and not used to produce petrochemicals.

— The bulk of India's LPG demand is met through imports, and over 80% of these volumes come via the critical chokepoint of the Strait of Hormuz, where vessel movements have effectively come to a halt due to the West Asia conflict.

— This order, applicable to public sector as well as private sector refiners, has been issued under specific clauses of the Petroleum Products (Maintenance of Production, Storage and Supply) Order, 1999, read with Section 3 of the Essential Commodities Act, 1955.

— Although India has spare refining capacity, its own LPG production is limited with heavy reliance on imports. The country's LPG consumption in 2024-25 was around 31 million tonnes of LPG, of which just about 13 million tonnes was the domestic production, which translates to import dependency of around 58%.

— According to sources in the know, the government and Indian oil and gas companies are in touch with all international suppliers, including national oil companies and even large traders like Vitol, Trafigura, and ADNOC Trading, to source additional volumes of crude oil and LPG from their international portfolios in view of the West Asia conflict, even as the country is in a "comfortable" position to prevent any near-term shortage of major fuels like petrol, diesel, and LPG.

— Some LPG volumes under the recently inked import contract with the US have also started coming in. The sources also assured that there was no need at present to ration fuels, while also ruling out any increase in retail fuel prices for the time being.

— While over 80% of India's LPG imports come through the Strait of Hormuz—the narrow waterway between Iran and Oman that connects the Persian Gulf with the Gulf of Oman and the Arabian Sea—40% of India's oil imports and over half of its liquefied natural gas (LNG) imports come through the chokepoint.

— India's cushion is thinner when it comes to LNG as additional LNG stockpiling is significantly more challenging than crude oil and petroleum fuels. India, the world's fourth-largest LNG importer, is actively scouting for additional LNG cargoes from other source markets.

— Some concern is already visible in the natural gas sector due to the West Asia conflict. India's largest LNG importer Petronet LNG has issued force majeure notices to its key supplier QatarEnergy, and its off-takers in India. Moreover, QatarEnergy has also issued a notice indicating a potential force majeure due to the conflict, which has forced the LNG producer to halt production.



## HOW RUPEE FALL COULD AFFECT ECONOMY, IT SECTOR, EXPORTS

The escalating conflict in West Asia is beginning to cast a long and ominous shadow over India's economy. The rupee slid past the psychologically crucial 92-mark to 92.17 against the US dollar on Wednesday morning, as surging crude oil prices and disrupted trade flows threaten to make imports costlier, stoke inflationary pressures, and impact the monetary policy of the country.

### Key Takeaways:

— At the heart of the turmoil lies a sharp spike in energy prices. Brent crude futures have surged more than 10 per cent in just a week, climbing to multi-year highs amid fears of supply disruption. Shipping traffic has slowed to a virtual standstill through the Strait of Hormuz, that carries nearly a fifth of the world's oil supply. Any prolonged shutdown of this strategic passage threatens to push crude prices even higher and pull down the rupee further.

— For India, which imports nearly 80 per cent of its crude oil requirements, the implications are stark. A weaker rupee, rising import costs, mounting inflationary pressures and a potential recalibration of monetary policy now loom large. What began as a distant geopolitical confrontation is fast developing into a direct economic challenge for the country.

— When the Indian currency depreciates, the first and most immediate casualty is the import bill. Crude oil, electronic components, fertilisers and industrial machinery — all priced in dollars — suddenly become more expensive. The burden then steadily shifts to businesses and households, pushing up inflation and eroding purchasing power. The threat of imported inflation is now increasingly becoming a reality.

— A \$1 rise in crude oil increases India's annual import bill by roughly \$1.5–2 billion, depending on total import volumes. This directly widens the current account deficit (CAD).

— The inflationary impulse is particularly worrying. Costlier crude oil filters through transport, manufacturing and logistics, eventually feeding into retail prices.

— There is also the sensitive issue of foreign capital flows. As foreign institutional investors, who account for a significant share of trading activity in Indian markets, measure returns in dollar terms, a falling rupee diminishes those returns when funds are repatriated. The result can be bouts of FII selling, adding pressure on stock prices and amplifying market volatility.

— In an interconnected global economy, currency depreciation is not an isolated event. It impacts trade balances, corporate earnings, inflation expectations and investor sentiment, leaving policymakers to navigate a narrow and increasingly uncertain path.

— If a weakening rupee unsettles importers and policymakers, it offers a measure of relief to exporters. For companies that earn in dollars but incur a substantial portion of their costs in rupees, currency depreciation can act as a natural hedge. Every dollar of revenue translates into a higher rupee realisation. But all that works if there is some stability in the currency movements.

— Experts say India's IT services majors, pharmaceutical exporters and specialty chemical manufacturers are among the principal beneficiaries. Their billing is largely denominated in dollars and euros, while employee costs and operating expenses remain predominantly domestic.



— A softer rupee therefore enhances profitability without any immediate change in volumes. In an environment where global demand remains uneven, currency support can provide a timely earnings buffer.

— For the technology sector in particular, the exchange rate tailwind comes at a critical juncture. IT companies have been grappling with slower client spending and the disruptive churn triggered by rapid advances in artificial intelligence (AI). A weaker rupee, by lifting rupee-denominated earnings, could help stabilise quarterly results and lend support to battered stock prices.

— Pharmaceutical exporters also stand to gain from improved realisations, especially in regulated markets such as the US. Specialty chemical firms with long-term global contracts may see margin expansion if input costs remain stable. In the equity markets, such currency-driven earnings upgrades often trigger sectoral rotation, drawing investors to export-oriented counters.

— Rising inflation places the Reserve Bank of India in an increasingly delicate position. As price pressures build, particularly from imported crude, the central bank's room for manoeuvre narrows. It may be forced to keep interest rates higher for longer, or even consider additional tightening, to prevent inflation expectations from becoming unanchored. Such a stance, while necessary for macroeconomic stability, inevitably raises borrowing costs across the system.

— Moreover, if rate hardens, costlier credit tends to cool consumer spending and slow fresh investment, tempering the pace of economic expansion. Equity markets, which thrive on liquidity and growth visibility, could also feel the strain as tighter monetary conditions weigh on corporate earnings and valuations.

— The central bank may even have to reassess its inflation projections if elevated oil prices persist. In February, the RBI revised retail inflation at 2.1 per cent as against 2 per cent in FY 2026. For now, neither the government nor oil marketing companies have signalled an immediate increase in retail fuel prices. But if global crude continues its upward march, the cushion of price restraint may prove temporary, adding another layer of complexity to monetary policy calculations.

**Do You Know:**

— The Strait of Hormuz—the narrow waterway between Iran and Oman that connects the Persian Gulf with the Gulf of Oman and the Arabian Sea—is seen as the most important oil transit chokepoint globally, handling approximately one-fifth of global liquid petroleum consumption and global liquefied natural gas (LNG) trade.

**NEW REALITY**

The release of the new series of national accounts data is a heartening improvement to India's key economic statistics, but the data highlights some aspects that merit policy attention. The new series updates the base year of India's Gross Domestic Product and Gross Value Added data to 2022-23 from the earlier 2011-12. This was a long-overdue update, since the earlier data was becoming more outdated and unrepresentative with each passing year. Apart from the updated base year, the new series has several methodological improvements and new data sources for greater robustness. For example, the adoption of the double-deflator approach, which accounts for the effect of inflation separately for intermediate goods and the final product, is a marked improvement in terms of ascertaining the real value added of India's production. Similarly, the new series allocates multi-sector company output proportionately, improving sectoral data



accuracy. The data on households will now be obtained from the Annual Survey of Unincorporated Sector Enterprises (ASUSE) and Periodic Labour Force Survey (PLFS) on an annual basis instead of relying on extrapolations as was done in the 2011-12 series. Notably, the Goods and Services Tax data, a goldmine of consumer data, will be used in the new series. The new series will also include new sources and methods of estimation for sectors that have historically been difficult to quantify such as the agricultural sector and the vast informal sector. All of these should yield a more accurate picture of India's economic size and growth.

The new series predicts India's GDP to grow 7.6% in the current financial year 2025-26, which is faster than the 7.4% predicted for the year in the old series. While the rate might bring cheer, the new absolute size of the economy is somewhat sobering. The new series pegs India's economy at ₹345.47 lakh crore in 2025-26, which is about 3.3% smaller than what was predicted based on the old series. The size of the economy in both 2023-24 and 2024-25 was also revised downward by 3.8% each. Along with the depreciation of the rupee, this has meant that India is currently a \$3.8 trillion economy, with the \$5 trillion target moving further away. A smaller economic size also means the Centre's various commitments to lower the fiscal deficit and debt — ratios that are pegged to nominal GDP — also become that much tougher to achieve. That said, it is better to realign targets based on more accurate data than to blithely forge ahead with decade-old metrics.

#### CENTRE'S DEBT TARGET, \$4-TN ECONOMY AIM NOW MORE DIFFICULT TO ACHIEVE

The Ministry of Statistics and Programme Implementation's (MoSPI) revamp of the GDP data has thrown up several interesting changes from what we previously thought of the Indian economy, chief among them being that growth in 2023-24 is now not as high as estimated earlier (9.2% in the old series, 7.2% in the new).

##### **Key Takeaways:**

— However, growth is only the year-on-year change in the GDP in rupee terms – so, that is where one must look to understand the consequences of the new GDP series. And the Indian economy is somewhat smaller than what the statistics ministry had previously calculated.

— The new series with 2022-23 as the base year for prices has led to a reduction in the GDP in nominal terms by 3-4% in 2025-26, as well as in the previous three years. This is because of changes in the sources of data used to compile the GDP, as well as the methods.

— A change in the size of the economy has knock-on effects. The Union Budget presented on February 1 said the fiscal deficit target of 4.4% of GDP for 2025-26 was set to be achieved. However, that ratio was calculated on the basis of the first advance estimate of GDP, released in January, which was as per the old series. If one were to use the second advance estimate under the new series released on Friday – which lowered this year's nominal GDP by 3.3% to Rs 345 lakh crore – the fiscal deficit for 2025-26 edges up to 4.5%. And given that the nominal GDP in absolute terms has reduced for previous years too, fiscal deficits have risen: from 6.5% to 6.7% for 2022-23, 5.5% to 5.7% for 2023-24, and 4.8% to 4.9% for 2024-25.

— Chief Economic Advisor V Anantha Nageswaran took note of the same on Friday, although he said the GDP revisions do not alter the fiscal trajectory the government is on.

— For 2026-27, the picture is not so simple. The fiscal deficit target has been fixed at 4.3% of GDP, or Rs 16.96 lakh crore in absolute terms. Assuming the fiscal deficit in rupee terms is met, achieving the target in terms of the GDP will require nominal growth next year to be 13-14% –



much higher than the Budget's assumption of 10% – according to calculations by The Indian Express.

— The same applies for the new fiscal anchor, the debt-to-GDP ratio. Soumya Kanti Ghosh, State Bank of India's Group Chief Economic Advisor, estimated that the Centre's debt-to-GDP ratio will rise from 56.2% to 58.1% in 2025-26. Calculations show nominal growth of 10% in 2026-27 will leave the ratio at 57.5% – well above the target of 55.6% set out by the finance ministry in the Budget.

— While the government's final objective is for India to be developed by 2047, one milestone on that journey is becoming a \$4 trillion economy. A reduction in the nominal GDP under the new series does not help.

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

— Last week, the National Statistics Office released the new GDP series, taking another step towards plugging gaps in the country's data architecture. The series incorporates richer data sources spanning both the formal and informal sectors, revises estimation methodologies, and responds to criticisms of the earlier series. It is better equipped to reflect the evolving structure of the Indian economy and capture its many shifting facets. The new series follows several recent initiatives aimed at improving the accuracy and availability of economic data, including the new inflation series, surveys on household consumption and unincorporated enterprises, and more frequent labour market surveys.

— Among the new sources incorporated are GST figures, which help in estimating the quarterly data. The informal sector is being captured more accurately through annual surveys of unincorporated enterprises. The contentious issue of double deflation has also been addressed in the agriculture and manufacturing sectors, while several key ratios have been updated using more recent studies.

### THE WANING SHEEN

The February GST mop-up shows an impressive year-on-year rise of 8.1%, with gross collections touching about ₹1.83 lakh crore. Much of this has rightly been attributed to rising consumption expenditure after the GST framework was rationalised into a two-tiered rate structure of 5% and 18% in September 2025. The rate cuts made consumer non-durables cheaper, and helped sustained sales in automobiles, appliances, mobiles and tourism-linked services. Yet, a critical vulnerability has been largely overlooked — the not-so-trivial import IGST numbers, which saw a spike of over 17% this February compared with last year. This must be viewed from a holistic perspective to understand how it affects consumption, prices and the growing disparity in GST collections between States. Import IGST collections in February rose to roughly ₹47,800 crore, up from about ₹40,800 crore a year ago. A five-year comparison of February collections (FY22–FY26) shows a nearly 41% rise from ₹33,800 crore in February 2022. At the same time, the rupee has steadily weakened. The rupee fell about 4% against the dollar between February 2025 and February 2026, and roughly 6.2% from April 2025 to February 2026. This matters as key imports are largely dollar-denominated.

India imports over 90% of its semiconductor requirements and relies heavily on crude oil, copper and aluminium imports — which together made up about 35% of February 2026 merchandise imports. Crude oil accounts for over a quarter of total imports, while semiconductors contribute



about 5%, and copper and aluminium together another 3%-4%. Import values for copper and aluminium have risen materially over the past year, reflecting price firming and volume increases. Semiconductor imports have also grown sharply, even as global shortages persist. Meanwhile, crude import reconfiguration — from discounted Russian barrels to the U.S. and West Asia — likely increased India's average import bill. Higher global prices combined with a weaker rupee mechanically inflate the assessable value on which IGST is levied. These rising input costs feed into vital sectors such as automobiles and appliances. There are also signs of unevenness across States. Major States such as Tamil Nadu (-6%), Maharashtra (6%) and West Bengal (1%) lagged the national growth rate of 8% in February. This divergence suggests that national GST buoyancy has been disproportionately supported by import-led revenues rather than uniformly strong domestic demand. Import IGST is now roughly 27% of gross GST collections in the April 2025-February 2026 period, up from about 24% in the previous year — underscoring a growing dependence on import-tax revenues. Higher input costs could nullify GST rationalisation price relief, leading to higher costs for consumers.

#### U.P. RECEIVES OVER 84% OF ALL OUT-OF-STATE MPLADS FUNDS

Twenty-one MPs recommended works outside the State or constituency they were elected from or are associated with, using their Members of Parliament Local Area Development Scheme (MPLADS) funds, an analysis by The Hindu has found. And of the more than ₹18 crore spent on works which were completed based on these recommendations, the vast majority — 84% — went to districts in Uttar Pradesh.

Of the 530 MPs for whom “completed works” data is available, these 21 MPs account for all of the out-of-usual-area spending. All other MPs used their allocated funds in the districts or States they represent or are associated with.

The analysis by The Hindu covered around 21,000 works completed between 2023 and 2026. The data were sourced from the Empowered Indian MPLADS dashboard and cross-verified with the [mplads.gov.in](http://mplads.gov.in) website. It was collected on February 23, 2026.

An elected Lok Sabha MP can generally recommend works in the district(s) their constituency encompasses. An elected Rajya Sabha MP can recommend works only within the State they are elected from, while nominated MPs can recommend works anywhere in the country. There are also limited exceptions: MPs can recommend up to ₹50 lakh in a financial year outside their usual region (raised from ₹25 lakh after April 2023) and can also contribute up to ₹1 crore per annum for rehabilitation and reconstruction in areas affected by natural “calamities of severe nature”, as declared by the Government of India, subject to additional scrutiny.

#### Exhaustive list

Of the 21 MPs, only two are from the Lok Sabha. Mala Rajya Laxmi Shah of the Bharatiya Janata Party (BJP), the Lok Sabha MP from Uttarakhand's Tehri Garhwal, spent ₹49,96,274 on footpaths and pedestrian ways built in two villages of Agra district. This amount is about 57% of her total spending of ₹87.4 lakh on all completed works. In other words, more than half of her spending on completed works went to Uttar Pradesh, with the rest spent in the Dehradun district, where parts of the Tehri Garhwal Lok Sabha constituency lie. When The Hindu reached out to her, she declined to comment.



Another Lok Sabha MP, Kirti Vardhan Singh from Uttar Pradesh, spent ₹10 lakh on a protective structure in Nagaland. Sadanand Mhalu Shet Tanavade, the sitting Rajya Sabha MP of the BJP from Goa, spent ₹48.6 lakh on street light poles installed in 20 locations across the Shahjahanpur district of Uttar Pradesh. The amount is about 27% of his total spending on all completed works.

Chunnilal Garasiya, the sitting Rajya Sabha MP of the BJP from Rajasthan, spent ₹98 lakh on LED lights installed in two districts of Uttar Pradesh, about 80% of his total spending on all completed works. He said he did not remember the specific areas for which he had recommended the works from the MPLADS funds. “I don’t exactly remember the sectors or areas for which I have made recommendations. These things are handled by my private secretary. I have not even completed two years in office,” Mr. Garasiya told The Hindu over phone. Mr. Garasiya was elected to the Rajya Sabha from Rajasthan in April 2024.

Sitting Rajya Sabha MP of the Jharkhand Mukti Morcha from Jharkhand, Sarfraz Ahmad, spent ₹92.03 lakh on installing LED lights and building roads in the Agra and Pilibhit districts. This is one of the very few instances of such “out-of-State” funding wherein the involved MP is from a regional party and has contributed such a substantial amount to a State where said party has no footing. “I have followed the rules of the Rajya Sabha and as a member I am entitled to recommend a certain percentage of the MPLADS funds to other States as well. I have recommended the funds to Jharkhand also,” Mr. Ahmad told The Hindu over phone. Asked about any other specific reason to recommend funds out of his usual area, Mr. Ahmed said, “The way I have my people in Jharkhand, in the similar way I have my people in Uttar Pradesh as well.”

Other sitting Rajya Sabha MPs who sent money to works in Uttar Pradesh include BJP’s Rajendra Gehlot and Congress’s Pramod Tiwari, both from Rajasthan; BJP’s Satish Chandra Dubey from Bihar; and Congress’ K.T.S. Tulsi and Phulo Devi Netam from Chhattisgarh. Together, they sent around ₹75 lakh to various projects in Uttar Pradesh. Of the ₹18 crore out-of-usual-area funds, about 6% went to Bihar, and sitting BJP Rajya Sabha MP Dhananjay Bhimrao Mahadik from Maharashtra accounts for most of it. He spent close to ₹1 crore on works in Bihar, spread across two financial years.

#### **The established norm**

While nominated Rajya Sabha MPs are allowed to use their MPLADS funds anywhere in the country, few actually do so beyond the State they’re associated with. Most concentrate spending in the States where they built their careers — the very achievements that led to their nomination.

For instance, ace track and field athlete P.T. Usha, who was nominated to the Rajya Sabha, has spent all of her MPLADS funds thus far on roads and playgrounds and to purchase school buses across Kerala. Similarly, Dharmasthala’s Veerendra Heggade spent all his funds till now in Karnataka.

#### **The lion’s share**

Gulam Ali Khatana is a notable exception. He was born and educated in Jammu & Kashmir and has his permanent residence in the Union Territory. He is identified as a BJP member in his Rajya Sabha profile and has served as a spokesperson of the party’s J&K unit. At the time of appointment, he was the lone member representing the State in the Upper House. Of the 20 questions he has raised in the Rajya Sabha, 16 relate specifically to matters in J&K, including questions on welfare funds for tribal communities and their forest rights. Mr. Khatana is a member of the Scheduled Tribe (Gurjar/Gujjar) community, according to his Rajya Sabha profile. Yet he spent nearly ₹12



crore of his MPLADS funds to install LED lights in various districts of Uttar Pradesh, accounting for over 95% of his total MPLADS expense. Of the 21 MPs analysed for mismatched funds, Mr. Khatana accounts for the largest share. Uttar Pradesh already receives a large share of MPLADS funds because it sends the most MPs to Parliament. Of the 20,858 works completed between 2023 and 2026, 26% were in Uttar Pradesh. Around a fifth of the utilised funds also went to the State. Uttar Pradesh utilises more than twice as much MPLADS funds as the second-ranked Tamil Nadu, with the latter accounting for around 9%.

Against this background, the mismatch is more pronounced: over 84% of the out-of-usual-area funds were directed to Uttar Pradesh. In several instances, the funds came from MPs elected from or associated with States with lower per capita incomes and a smaller share of MPLADS funds. J&K, with which Mr. Khatana is so strongly associated, received only 0.6% of the MPLADS utilised funds and accounted for only about 1% of completed works.

## SIXTEENTH FINANCE COMMISSION — MISSES AND CONCERNS

The Sixteenth Finance Commission had significant flexibility in determining its approach and methodology, as its terms of reference followed directly from constitutional provisions, unlike earlier commissions that operated under detailed central directives. This Commission, as before, addressed the two key dimensions of fiscal transfers — namely the vertical and the horizontal.

### The vertical dimension

The Commission took note of the increase in the share of States in the divisible pool of central taxes from 32% to 42% by the Fourteenth Finance Commission. The Fourteenth Finance Commission had justified it on account of a discontinuation of State plan grants, amounting to only 3% of the divisible pool of central taxes at the time of transition. The subsequent reduction to 41% was due to the change in the status of Jammu and Kashmir. The Sixteenth Finance Commission noted the Centre's concern about the reduction in its fiscal space. The Centre had responded to this substantial increase in the share of states by the Fourteenth Finance Commission by, first, increasing the non-shareable cesses and surcharges, second, reducing its share in the financing of centrally sponsored schemes and third, not accepting sector-specific/State-specific grants recommended by the Fifteenth Finance Commission. In the end, however, the Sixteenth Finance Commission retained the States' share at 41%, imparting to it a kind of semi-permanence.

The Sixteenth Finance Commission makes no recommendations regarding the non-shareable cesses and surcharges which, by their very nature, should be limited and levied for finite periods. These should be earmarked for specific purposes and not merged with the Centre's general funds. Instead, Sixteenth Finance Commission recommended a 'grand bargain' (paragraph 7.67) between the Centre and States saying that 'States would agree to a smaller share in the resulting larger divisible pool, with no loss of revenues to either side' provided the Centre agreed to merge a large part of the cesses and surcharges in the regular taxes.

The Commission did not take into account its constitutional duty as enumerated in Articles 270 and 280 for objectively determining the share of States in the shareable pool of central taxes while making its observations on the cesses and surcharges. It would have been better had the Commission at least pointed out to the Centre that the steep increase in cesses and surcharges was not warranted and not in the spirit of the Constitution. Further, the Commission chose to discontinue the revenue deficit grants and did not recommend any State and sector specific grants.



This became a route to lower the share of States in the Centre's revenue receipts as compared to the Fifteenth Finance Commission.

The average effective transfers covering tax devolution and Finance Commission grants to the States as a percentage of the Centre's pre-transfer gross revenue receipts were 27.0%, 27.2% and 28.3%, respectively during the Finance Commission periods (11, 12, 13). This share increased sharply to 35.6% during the Fourteenth Finance Commission period. In the Fifteenth Finance Commission period, covering the years 2020-21 to 2024-25, this share came down marginally to 34.4%, still considerably higher than those of the Eleventh and Thirteenth Finance Commission periods. This steep increase in resources transferred as a proportion of gross revenue receipts of the Centre should not be overlooked.

Looking at the first year of the Sixteenth Finance Commission's award period, 2026-27, this ratio is 32.7% as per the Centre's budget estimates. The Sixteenth Finance Commission's projections for later years may prove to be overestimates since the 2026-27 nominal GDP growth, assumed at 11%, is higher than the Budget estimate of 10%. The Commission also did not factor in the revenue reducing effect of the major Goods and Services Tax (GST) reforms undertaken in September 2025, while the Commission was still in session.

#### **Horizontal dimension**

The Sixteenth Finance Commission introduced a new criterion of contribution to reflect an efficiency consideration. But it measured it through the share of a State's Gross State Domestic Product (GSDP) in an all-State GSDP.

There is a need, however, to differentiate the efficiency of the production system from that of the fiscal system. In the production system, the inter-State distribution of GSDP depends on many factors which includes the inter-State movement of financial and human resources. It largely depends on market forces which tend to lead to a concentration of productive capital stock in a limited number of States. Human resources also move from less developed to the more developed States.

This change involved using GSDP in two opposite ways. In the income distance formula, the lower the per-capita GSDP of a State, the higher the per-capita share of that State. In the contribution criterion, the higher the per-capita GSDP of a State, the higher is its share. However, the Commission did not finally use the GSDP. Instead, it used its square root. This was meant to reduce the excessive effects of using GSDP to reflect contribution on some States.

In the devolution formula, the weights of some of the other criteria have also been changed. These are purely judgemental. Dropping the tax effort/fiscal discipline criterion, which was a fiscal efficiency criterion is not consistent with the Commission's own narrative.

#### **Losses and gains**

Consequently, the main States that have lost on account of the Sixteenth Finance Commission devolution scheme as compared to the Fifteenth Finance Commission are Madhya Pradesh, Uttar Pradesh, West Bengal, Bihar, Odisha, Chhattisgarh and Rajasthan. The other group of losing States are Arunachal Pradesh, Meghalaya, Manipur, Nagaland, Tripura, Sikkim, and Goa (the north-east or extremely small States). The gain by other richer States has not been uniform.

Ideally, the losses of some States could have been mitigated through normatively determined revenue gap grants. Devolution is not enough to capture the finer details of cost and need



differentials of India's highly differentiated States. Further, if a Finance Commission changes the tax devolution formulae, then the consequential loss of some of the States could be neutralised by the revenue gap grants.

In fact, Article 275 provides an important mode of fiscal transfers for the consideration of State-specific 'needs'. It should not be confused with revenue deficits. Needs can be estimated in order to equalise standards of critical services such as health and education.

This would have facilitated accommodating the performance argument of the richer States while still promoting the equalisation objective. Even if there are difficulties in estimating revenue gap grants since it involves normative assessment of States' needs and resources, the Sixteenth Finance Commission need not have taken the shortcut of dropping these altogether. While ad hoc State-specific grants are not appropriate, equalisation grants still have a place.

#### CLIMATE CHANGE TO WAR, FERTILISER PRICES CALL FOR STRATEGY, NOT FIREFIGHTING

Among the major sectors likely to be disproportionately impacted by the ongoing US-Israel vs Iran war, and which has implications for India's food security, is fertilisers. India imports a fourth of its urea consumption and nearly 40 per cent of that from West Asia. The domestically produced urea, too, is mostly based on imported natural gas, again up to 85 per cent sourced from the likes of Qatar, UAE, Saudi Arabia and Kuwait. India's import dependence is still more in phosphatic and potassic fertilisers, including their raw materials and intermediates such as rock phosphate, sulphur, ammonia and phosphoric acid. Ukrainian drone attacks on Russian oil refineries had already led to a key global sulphur supplier banning exports and driving up world prices. And with the war in Iran (which is itself a leading exporter of urea and ammonia) disrupting gas shipments, things cannot get worse.

The last time India had seen international prices of fertilisers go through the roof, in line with that of oil and gas, was in the run-up to and post Russia's invasion of Ukraine four years ago. India has also had problems from China, which, until 2023-24, was its largest supplier of urea and diammonium phosphate (DAP). Indian agriculture, in that sense, has become as vulnerable to geopolitical risks, whether from wars or import dependence on China, as to climate change. Policymakers need to find ways to manage and mitigate both, which calls for a strategic, as opposed to firefighting, approach.

The government has frozen the retail price of urea (at Rs 5,922 per tonne since November 2012) and DAP (at Rs 27,000/tonne since the Covid-19 pandemic). The underpricing has resulted in unrestrained consumption, with sales of urea alone rising from under 30 million tonnes (mt) in 2017-18 to a projected 40 mt this fiscal. Farmers at one time had to be incentivised to use chemical fertilisers for boosting crop yields. Today, they must be discouraged from over-application and be made aware that India imports half of its natural gas requirement — which will only go up — and hardly has any mineable rock phosphate, potash or elemental sulphur reserves. Capping consumption of urea and DAP, promoting high nutrient-use fertilisers amenable to targeted delivery through drip irrigation system or foliar application, and providing subsidy on a per-acre rather than product-specific basis is the way forward. The Narendra Modi government's Agri Stack initiative, to create unique digital IDs for all farmers and link these to their land records and cropping data, can be the right platform for it.



## WHY INDIA'S RICE PRODUCTION AND EXPORT STRATEGY REQUIRES A RETHINK

India has been the world's largest rice exporter since 2011-12. In 2024-25, its exports of 21.69 million tonnes (mt), according to the US Department of Agriculture, was way above Thailand's 7.86 mt and Vietnam's 8.06 mt.

### Key Takeaways:

— In 2024-25, India also became the world's biggest rice producer, with its estimated 150 mt output surpassing China's 145.28 mt. The challenge lies in sustaining this leadership position, from an environmental and financial standpoint.

— Paddy (rice with husk) is a water-guzzling crop. A single irrigation, for covering one acre of land to a depth of 2.5 cm, requires 101,171.5 litres of water.

— For paddy, the water level in the field has to be maintained at about 5 cm for extended periods, primarily for controlling weeds: Water acts as a natural herbicide against the weeds that, unlike paddy plants, cannot survive in submerged conditions.

— The number of irrigations for paddy ranges, depending upon the crop's duration and planting time, from 20 to over 30... Ergo, for every kg of rice that India ships out, it also indirectly exports 3,000 litres of water.

— In 2023-24 and 2024-25, basmati exports, at 5-6 mt, were less than half the 11-14 mt of non-basmati rice... Basmati rice, thus, fetches more dollars from every kg of grain going out of the country.

— That's not all. Basmati paddy consumes less water. Non-basmati varieties are mostly transplanted in June at the peak of summer, necessitating irrigating the fields almost daily during this time.

— Basmati varieties are suitable for transplanting in July with the monsoon rains, enabling the crop's flowering and grain development to happen during October, when day temperatures fall to 30-31°C. The cool climate is ideal for accumulation of 2-acetyl-1-pyrroline, the highly volatile compound contributing to the characteristic fragrance of basmati grains.

— Simply put, basmati exports bring more bang for not only every kg of rice produced, but also for every litre of water consumed.

— India's basmati rice shipments have risen from 0.6-0.7 mt (worth \$400-450 million) annually in the early 2000s to 5-6 mt (\$5.8-5.9 billion) during the last two years, thanks largely to the blockbuster varieties bred by IARI scientists. These combine traditional basmati's unique grain attributes (aroma, non-stickiness and elongation upon cooking) with the higher yields of modern dwarf varieties.

— The total area planted to rice in India's registered GI region for basmati is around 6.2 million hectares (mh): 3.1 mh in Punjab, 1.3 mh in Haryana, 1.5 mh in western UP, 0.12 mh in Uttarakhand, 0.1 mh in Jammu and 0.05 mh in Himachal Pradesh. Within that, the actual basmati-sown area is just over 2.1 mh, including 0.8 mh each in Punjab and Haryana and 0.5 mh in western UP.

— For basmati, the government can declare a floor price — below which no purchase of paddy from farmers would be allowed in mandi auctions. Basmati's premium quality, plus the well-



developed agricultural produce market infrastructure in Punjab and Haryana, should make this practically enforceable.

— IARI scientists have, more recently, incorporated genes from the wild relatives and landrace cultivars of paddy into their widely-grown Pusa Basmati-1509, 1121 and 1401 varieties.

— These genes, identified through a technique called marker-assisted selection, code for proteins that confer resistance to bacterial leaf blight and rice blast fungal disease. The resultant disease-resistant versions of the same varieties were released in late-2021 as Pusa Basmati-1847, 1885 and 1886 respectively.

— A similar “genetic”, as opposed to “chemical”, approach is now being adopted to address the threats from other diseases (bakanae, false smut and brown spot) and insect pests (stem borer, leaf folder, brown plant hopper and white-backed plant hopper). This entails screening large plant populations from indigenous landraces to identify genes for disease and pest resistance or drought, heat and salinity tolerance traits.

**Do You Know:**

— Rice crop requires hot and humid conditions, abundant water availability, and alluvial soil (soil formed by the deposition of silt brought by rivers). River flood plains are among the most rice productive regions. In India, rice cultivation is dispersed across different regions.

— In the north-eastern region, the Brahmaputra basin records the highest rice cultivation. In the eastern region, the basins of the Ganga and Mahanadi rivers have the highest intensity of rice cultivation, particularly in states like Bihar, Chhattisgarh, Jharkhand, Madhya Pradesh, Odisha, Uttar Pradesh and West Bengal.

— In the southern part, the delta regions of Godavari, Krishna and Cauvery rivers constitute the main areas of rice production, covering Telangana (the Highest among states), Andhra Pradesh, Tamil Nadu, and Kerala. Northern rice-producing regions include Haryana, Punjab, while in Himachal Pradesh and Jammu & Kashmir, low winter temperatures restrict rice cultivation to a period from May-July to September-December.

**DreamIAS**



## LIFE AND SCIENCES

### TINIEST QR CODE FOR LONG-TERM DATA STORAGE

By shrinking a QR code to the size of a microbe, researchers from the Vienna University of Technology (TU Wien) and the German-Austrian start-up Cerabyte have shown that the future of the digital world could depend on ceramics, one of the oldest and most durable materials known to humans.

On December 3, the team secured a Guinness World Record for the world's smallest QR code. Spanning just around 2 sq. micrometres, the code is about one-third the size of the previous record holder and smaller than a single bacterium.

While the image is itself an achievement, the team's methods also offer a new way for humans to store their digital legacy.

The project was led by Paul Mayrhofer, head of the Institute of Materials Science and Technology at TU Wien, along with researchers Erwin Peck and Balint Hajas. And they were motivated by data rot: the inevitable decay of magnetic and electronic storage media.

Current storage solutions like hard drives and magnetic tapes last around 10 to 30 years. They require a power supply to operate and need to have the data they store to be copied to new hardware to prevent loss. The TU Wien team explored ceramic-based storage as a permanent and zero-energy alternative.

To create the code, the researchers skipped traditional printing technologies in favour of atom-scale engineering, in particular a technique called focused ion beam milling.

They started with a glass substrate coated in a 15-nm-thick layer of chromium nitride, a ceramic typically used to coat industrial cutting tools because it's very hard and excels at resisting heat and corrosion. Using a stream of electrically charged atoms as a knife, the researchers carved the QR code directly into the ceramic film. Each individual pixel in the 29 x 29 grid measured only 49 nm. Because these pixels were roughly ten-times smaller than the wavelength of visible light, the code is physically impossible to see with a standard optical microscope. To verify the work, the team used a calibrated scanning electron microscope, which uses electrons instead of light to resolve small structures.

The effort also proved that ceramic storage could reach an information density of 130 bits per square micrometre, meaning a single A4-sized ceramic sheet could hold more than 2 TB of data. This is currently between the roughly 20 bits/m<sup>2</sup> of LTO-9 magnetic tape and 1,500-3,000 bits/m<sup>2</sup> of modern hard drives.

Unlike plastic-based tapes or magnetic disks, chromium nitride is chemically inert, physically stable and can survive millennia without degrading. As the data has been etched rather than stored in a configuration of electromagnetic states, it does not need power to persist, potentially sidestepping the need for data centres with large carbon footprints. It does, however, require a powerful and expensive microscope to retrieve, although the team has said it's developing high-speed laser writing and optical reading systems for industrial use.



This feat is akin to Microsoft's Project Silica, where researchers are encoding data in layers of glass using high-speed lasers, again with the aim of developing high-density data storage that can last for a long time.

#### TO REMEMBER IS TO WRITE

Between 3300-3100 BCE, in the city of Uruk in southern Mesopotamia, Sumerian scribes inscribed on clay tablets what would come to be known as cuneiform — lists of barley, sheep and beer rations — for accounting and auditing purposes. Hieroglyphs followed soon after, while early alphabets emerged millennia later. For years, this has served as the neat starting point of recorded human thought. A new body of research suggests that the impulse to register experiences may actually be much older.

The evidence comes from artefacts found mostly in a cave system in southern Germany. Researchers examining objects such as mammoth-tusk fragments and bones noticed recurring sequences of notches, crosses and dots carved into their surfaces, some of which are roughly 45,000 years old. Their repetition and structure suggest patterned meaning, what linguists call a "proto-system" of notation — not quite language with formalised grammar, but something closer to a hunter-gatherer's mnemonic aid. It was utilitarian but it also doubled up as a private archive.

The distance between a Sumerian tablet and these patterned sequences is vast. Yet the instinct behind them may not be too dissimilar: To record the passage of time, to preserve the granular textures of experience against the erasures of memory, to be alive to the anxieties of ephemerality. It suggests that the personal has always been the counterpoint to grand history, a small act of defiance against forgetting. Seen in this light, the contemporary emphasis on journaling is a return to an older premise of self-discovery, to what the 20th century British writer Aldous Huxley put as: "Every man's memory is his private literature".

#### HAVING BIRDS ON THE BRAIN MAY MAKE YOU SHARPER. AND THAT IS ONLY ONE OF THE MANY GIFTS OF BIRDWATCHING

To people for whom avian life registers as little more than a fluttering at the edge of their vision, one little green bird is just like another little green bird is just like a leaf dancing in the breeze. In the hurly-burly of 21st century life, birdwatching (birding) is the kind of hobby that is easy to dismiss as better suited to a more leisurely age. When there are Excel sheets to fill and presentations to make, who has time to tell the stubby-tailed Indian white-eye from the common tailorbird with its red cap and upright tail?

Yet, having birds on the brain may well make it sharper. A recent study published in the neuroscience journal *JNeurosci* shows that the fussy — some might say obsessive — attention to detail that birders lavish on these little creatures can be an armour against the ravages of age. Thanks to neuroplasticity (the brain's lifelong ability to form new neural connections and strengthen existing ones), there are proven cognitive benefits to learning any new skill. Birding is particularly helpful given the range of discrete skills involved, from pattern recognition and spatial awareness to visual search and sustained concentration.

Ask birders, however, and they might scoff at this pragmatic reading of a pastime that offers something rarer and harder to measure. Because when birdsong stops being mere background noise, it forces attention to the present. Allow the mind to be distracted by regrets of the past and concerns about the future and a quick-moving or well-camouflaged bird may well be lost to sight.



The sense of liberation that comes from allowing oneself to simply be with these hollow-boned wonders as they go about their brief and beautiful lives is the true gift of birdwatching.

## PROTECTED UNDER UN TREATY, HALF OF WORLD'S MIGRATORY WILDLIFE ON DECLINE: REPORT

A new global report on the health of migratory wildlife has warned that 49 per cent of the migratory species population protected by the UN's Convention on the Conservation of Migratory Species of Wild Animals (CMS) are declining, and 24 per cent of species are now facing extinction.

### Key Takeaways:

— The threat of population decline has risen 5 per cent in just two years, while the percentage of species facing extinction has risen by 2 per cent over the same period, as per the interim report updating the landmark State of World's Migratory Species, which was first released in 2024.

— This means that out of 1,189 total species listed under the global treaty, 582 migratory species face population decline challenges. The migratory species facing population declines and extinction risks range from many bird species, with bird flu recognised as a threat, including mass mortality; ungulates or hooved animals such as Wildebeest and Llama; freshwater fish; and marine species such as sharks, rays, and turtles.

— The interim report tracked changes in conservation status of migratory species and highlighted emerging trends based on data from the International Union for Conservation of Nature's (IUCN) Red List of threatened species, and population trends and changes in extinction risk documented in scientific literature.

— The interim report highlighted that 26 species listed under the treaty have moved to a higher extinction risk category under IUCN's list, and among these, 18 are migratory shorebirds.

— There was also improvement in the status of seven CMS-listed species, such as Saiga Antelope, Scimitar-Horned Oryx, and Mediterranean Monk Seal.

— The IUCN Red List assigns species to broad categories of extinction risk, based on a standardised set of rigorous scientific criteria. The IUCN is a global body that comprises 160 member countries and hundreds of civil society groups that work together towards environment and biodiversity protection. It examines the health of species and their extinction risks.

— The report noted that H5N1, the highly pathogenic avian influenza (HPAI), has been detected in an unusually broad host range of birds and mammals, and caused substantial mortality in many populations across multiple continents.

— It has caused mass mortality events in a range of bird species accorded protection status under the global treaty. Critically endangered African Penguins, the vulnerable Humboldt Penguins, near-threatened Peruvian Pelicans, and Red-Crowned Cranes were affected.

— The 2024 State of World's Migratory Species was the first comprehensive global assessment of migratory animals covering 1,189 CMS-listed species, and its analysis linked to over 3,000 additional migratory species.



**Do You Know:**

- The interim report comes ahead of the 15th meeting of the Conference of the Parties to the Convention on Conservation of Migratory Species of Wild Animals (CMS COP 15), to be held from March 23 in Campo Grande, Brazil.
- The CMS is a legally binding global treaty, signed in 1979 under the United Nations Environment Programme, which aims to conserve migratory animals and their habitats across national habitats and across borders.
- The CMS has two appendices, which list migratory species under categories of endangered migratory species and migratory species conserved through agreements. There are 188 species in Appendix I, including 28 terrestrial mammals, 23 aquatic mammals, 103 birds, eight reptiles and 26 fish.
- Parties that are range states to the Appendix-I listed species are required to provide strict protection, including prohibition of hunting or capturing, habitat restoration and addressing migration challenges.
- Species in India, such as the Great Indian Bustard, the Asian Elephant, the Bengal Florican, the Siberian Crane, the Hawksbill Sea Turtle, the Olive Ridley turtle and the Leatherback Sea Turtle are included in Appendix I of CMS.

#### A SMALL PIECE OF RNA COPIES ITSELF, HINTING AT HOW LIFE BEGAN

In a 1953 experiment, two scientists named Stanley Miller and Harold Urey attempted to recreate the conditions of the early earth long before life existed. They showed that organic molecules such as amino acids, the building blocks of proteins, could form spontaneously in the conditions that prevailed on a primitive earth, 3.5-4 billion years ago.

While the experiment was revolutionary, it did not settle the question of life's origins. Critics pointed out that while amino acids could form, there was still no sign of genetic material, i.e. neither DNA nor RNA. Living organisms don't merely contain proteins: they rely on genetic information encoded in DNA or RNA to build them. Demonstrating that proteins could arise was therefore only part of the story.

Importantly, life must be able to produce more life. For that, a primitive system would need genetic information and also a way to copy that information. This created a problem. Usually, DNA or RNA stores instructions to make proteins called polymerases. These polymerases then copy the DNA or RNA so that, when a cell divides, each new cell receives a complete set of genetic information. It was and remains a classic chicken-or-egg problem.

Then, in the early 1980s, scientists discovered that RNA itself could perform simple chemical reactions, including being able to cut and paste pieces of itself. This discovery strongly shifted scientists' thinking towards the possibility that RNA could have been the earliest genetic material on the primitive earth. If a single molecule could both store information and carry out chemical reactions, it could bypass the chicken-and-egg problem of needing proteins to copy genetic material.

However, while scientists have already developed RNA molecules that could build other RNA molecules, they still lack an RNA that could copy the information contained within itself. The



difficulty was structural: the RNA enzymes capable of copying other RNA were large and complex — between 150-300 nucleotides — and in trying to fold into their functional shapes they could not easily serve as templates for their own replication. In other words, RNA could help other proteins replicate but couldn't self-replicate.

Now, however, in a paper in *Science*, scientists from the MRC Laboratory of Molecular Biology in the U.K. have reported that they have generated a self-replicating RNA molecule. Specifically, the researchers produced a small RNA molecule, just 45 nucleotides long, that could copy its own genetic information.

## PREVENTION OF DIABETES BEFORE BIRTH OFFERS HOPE FOR HEALTHY FUTURE

India stands at a defining public health crossroads. With 101 million people living with diabetes and another 136 million classified as prediabetic, the country carries one of the heaviest burdens of metabolic disease in the world.

The critical intervention point may not lie in adulthood, adolescence, or even childhood. It may lie in the earliest weeks of pregnancy.

Gestational Diabetes Mellitus (GDM), defined as glucose intolerance first detected during pregnancy, affects nearly one in five pregnancies globally. Though often perceived as transient, its implications are enduring. Women with GDM face a significantly increased risk of developing type 2 diabetes later in life. More concerning is the risk passed on to their children.

The concept of “foetal programming” — often linked to the foetal origins hypothesis — explains how adverse metabolic conditions in utero can permanently alter a child's physiology. When a foetus is exposed to the mother's high blood sugar, it responds by increasing insulin production. This early metabolic adaptation predisposes the child to obesity, insulin resistance, and diabetes in adulthood.

In effect, diabetes risk is not merely inherited genetically; it is metabolically programmed.

### Why timing matters

Emerging evidence, including analyses supported by the United States' National Institutes of Health, suggests that foetal pancreatic beta cells begin insulin secretion around the 11th week of gestation. If maternal blood glucose levels are elevated before this period, foetal hyperinsulinaemia may become established — setting in motion long-term metabolic consequences.

This biological insight has profound clinical implications. Conventional screening for gestational diabetes typically occurs in the second trimester. By then, foetal programming may already have occurred. A shift in strategy is therefore warranted: screening and intervention must occur in the first trimester — ideally by the 8th week of pregnancy.

A simple two-hour postprandial blood glucose (PPBG) test at eight weeks of pregnancy could serve as an early warning marker. If levels exceed 110 mg/dL, the condition may be classified as Early Gestational Glucose Intolerance (EGGI) — a pre-GDM stage.

Crucially, this creates a narrow but actionable window of approximately two weeks to normalise maternal glucose levels before the 10th week of gestation. Medical nutrition therapy, lifestyle modification, and, where appropriate, low-dose metformin under supervision can help achieve a



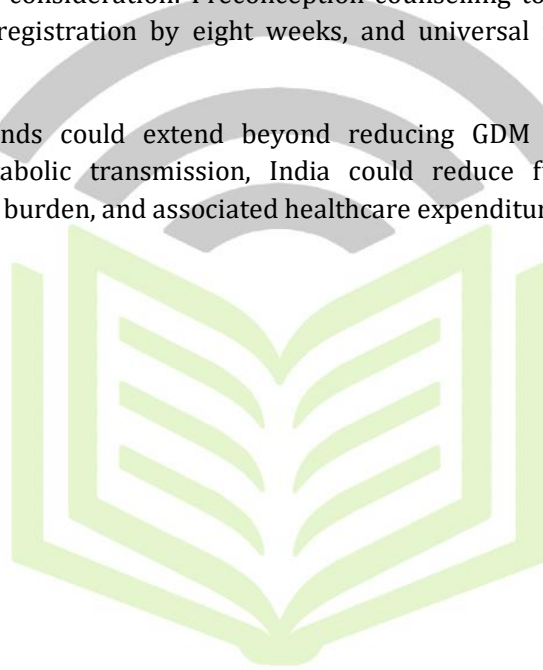
target PPBG below 110 mg/dL. Such an approach is not technology-intensive. It does not rely on expensive biomarkers. It is feasible even within district hospitals and primary health systems, provided early antenatal registration becomes universal.

Recent multicentre work conducted between 2022 and 2024 at Madras Medical College and Lady Hardinge Medical College, New Delhi, has provided supportive evidence for early prediction and intervention. The findings suggest that first-trimester identification of elevated postprandial glucose can help reduce progression to overt GDM.

A national policy mandating universal early pregnancy glucose screening could represent a similarly transformative intervention.

Three measures merit consideration: Preconception counselling to optimise metabolic health, mandatory antenatal registration by eight weeks, and universal first-trimester postprandial glucose testing.

The long-term dividends could extend beyond reducing GDM incidence. By interrupting intergenerational metabolic transmission, India could reduce future diabetes prevalence, cardiovascular disease burden, and associated healthcare expenditure.



**DreamIAS**