

# THE ASIAN AGE

14 JUNE 2025

## Exhaustive probe needed as many questions on AI crash

Flying is safer than crossing the street. India's worst aviation incident in recent history, which took lives not only of those seated in the plane but also of medical students in their college hostel and others on the street, does not change the perception of safety even if it does alter the statistical chances of a person dying in an air crash a bit.

What we need to know in this horrifying loss of lives is why did Air India's Boeing 787-8 lose altitude so shortly after take-off. Was it a bird hit, erroneous flying, aviation fuel contamination or fuel starvation behind the critical loss of thrust from both engines as suggested by the landing gear still being down and bad configuration of the air flaps while the plane was climbing while airborne for less than a minute after taking off from Ahmedabad?

Only an exhaustive probe will bring out the real reasons behind the crash of another plane made by a company that is increasingly gaining notoriety for dubious safety not only in aircraft but in flights of spacecraft too. Not for a minute should it be assumed that Boeing's old safety record governs fitting planes these days like this 11-year-old aircraft was in the Seattle facility even if it had previously taken off or landed 8,000 times during 41,000 flying hours and is the first ever Dreamliner to crash.

There will be no shortage of leading questions as investigators and probe panels try to fix the exact reasons why this blip in aviation safety occurred. And they will have so much to investigate from different angles though the commander had logged more than 8,000 flying hours and there was no sign of the plane having broken up in midair to suggest any extraneous threat like terror.

A plethora of incidents and issues have plagued the plane maker, including a door plug blowing out midair leaving a hole in the fuselage and fatal crashes like the one in South Korea in Dec. 2024 in which 179 passengers and crew died. Yet, it would only be fair to say that finger pointing can wait until all the facts are in along with the two black boxes and those facts are sifted professionally.

A full review of the Dreamliner, including the option of grounding the fleet for them to undergo safety checks, may have to be undertaken regardless of how expensive they prove.

While investigators probe and aviation experts ponder, let us not forget the gravity of the tragedy of those innocents on the ground, many of whom were young people studying for a career in saving lives in the medical field and some on the streets around the area in which the doctors' hostel was situated dying for no reason except that they were in the wrong place at the wrong time.

Considering how many people die on Indian highways every day and regularly falling off crowded suburban trains, flying is still the safest mode of transportation and statistics bear that out. But to reassure those rendered nervous by the visuals of this airliner dropping soon after take-off, all personnel on the multiple probes must find the reasons so that corrective action can be taken.

There is a huge amount of work to be done for India to shape up to being one of the fastest growing passenger aviation markets with sufficient trained pilots, air traffic controllers and maintenance engineers to put and ensure safety lessons learnt from tragedies like the Ahmedabad crash do not go in vain.

## Tagore vandalism: Dhaka must act

A mob attack on the ancestral home of Nobel Laureate Rabindranath Tagore, who is also the author of the national anthems of India and Bangladesh, in the Sirajganj district of Bangladesh, is despicable the clear evidence of the rising intolerance in India's eastern neighbour. The attack is part of the growing intolerance towards secular values and shared heritage that connect Bangladesh with India, since the Sheikh Hasina government was overthrown in August 2024.

According to a report by the Bangladesh police, 1,769 attacks have been reported on religious minorities in the country since August 4, 2024. Non-governmental organisations (NGOs) have claimed there have been over 2,000 attacks on religious minorities. Several temples have been desecrated or set ablaze. There have also been reports of atrocities against Hindu women as well. Anything linked to India has become an anathema for the Jamaat-e-Islami-backed chief adviser Muhammad Yunus' government.

While the attacks in Bangladesh have been confined to religious minorities since the Yunus government took over, that on Tagore's ancestral home on June 8 appears to be an act copied from the behaviour of the erstwhile masters in Pakistan. These incidents of extremism are not conducive to the economic growth of Bangladesh, as demonstrated in the case of Pakistan even.

The Bangladesh foreign ministry asserted that the country respects Rabindranath Tagore for his remarkable contributions to its cultural heritage, and both the government and the people of Bangladesh will continue to cherish his legacy. However, it would be naive on the part of the Yunus government to expect ordinary people to respect Hindu personalities and culture when it does not demonstrate the same in its own actions.

The reaction in India was along expected lines, as it united Indian ruling and Opposition blocs in their condemnation. However, the Indian government must be vigilant about extremist Bangladesh, as these are growing signs of its "Pakistanisation".

### THE ASIAN AGE

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Farrukh Dhondy  
Cabbages & Kings



"If it doesn't make sense on earth it might make sense in hell. We give these proverbs birth. And pretend they serve us well. Dispensing wisdom in the hour Words — the avatars of thought. Only expression yields the power. Leaving all silence distraught!"

— From Jiggy Dost to Jig-Jig Dost, by Bachchoo

## The Elon-Donald, Zia Yusuf-Farage comic soap operas: Who'll end on top?

The quarrel between Elon and Donny is the current week's best comic soap opera. Oh, how we hope that Musk will prove his so-far-unsubstantiated claim, that Donut was a paedophile child of Jeffrey Epstein.

Gosh, if I was a conspiracy theorist, I would claim that Donut knew he was named in the Epstein files suppressed and destroyed them and had Epstein murdered in jail.

But I am not into conspiracies, so on this one, I hope Musk will muster some evidence to back up what he has said and that self-Trump will prove his accusation that Musk-lago is a drug addict and have him locked up.

Long live the rivalry — I thought I'd compare it to the falling out of the cousins Yudhisthir and Duryodhan, but I immediately realised that that was, as the Mahabharata intends, wholly on the side of Yudhisthir with D as the villain, whereas in the farce in the United States, both are evil.

Subhani



## Uncertainty of monsoon continues to haunt India



Parsa Venkateshwar Rao Jr

Call it the whims of the monsoon. Meteorological scientists will show that there is some method behind the whims. This year the rains began on May 24 over Kerala, easily a week earlier than the usual date.

Naturally, it caused a flutter all around. There was a sigh of relief that the grumbling summer had ended. In many places, with a few exceptions of above normal temperatures, it has been a bearable summer, even a short one in many ways. The economic analysts in the Reserve Bank of India, in the think tanks, and within and outside the government were happy too because it assured that the above normal — not necessarily connected with the early onset — monsoon would mean good agricultural growth, including higher foodgrains output.

Government figures (National Accounts Statistics) show that the Gross Value Added (GVA) growth of the economy was 4.5 per cent between 2014-15 and 2019-20, and the share of agriculture, forestry and fishing was 4.7 per cent, compared to industry's 5.8 per cent and the services sector's 7.4 per cent. And in the 2014-15 to 2023-24 period (R. Ramkumar of the School of Developmental Studies, Tata Institute of Social Sciences, Mumbai took the two periods of comparison keeping in the Covid-19 pandemic interruption of 2020-21, 2022-23), the GVA growth of the economy was five per cent, and the contribution of agriculture was 4.5 per cent, of industry 4.7 per cent and of the services sector 4.7 per cent.

Agriculture is a key factor in the growth rate of the economy. The Economic Survey 2023-24 noted that agriculture contributes 16 per cent of GDP and supports 65.1 per cent of the population.

From the time when there was a 16-vector monsoon prediction model of the 1960s, Indian meteorology has come a long way. There is abundant record of daily, weekly and monthly rainfall. Statistics, neatly stacked in tables. The statistics do reveal regional variations and fluctuations, which make for absorbing reading. In 2014, 54 per cent of the districts received normal or excess rainfall, while 46 per cent of the districts had deficient rainfall. The pattern was repeated in 2015, when 51 per cent of the districts got normal or excess rainfall, while 49 per cent of the districts had deficient rainfall. In the other years, in 2013, 50 per cent of the districts had normal or excess rainfall, while 49 per cent of the districts had deficient rainfall. In 2014-15, the foodgrain production was 232.66 million tonnes, a 4.66 per cent fall from the 265.04 million tonnes in 2013-14. In the years when nearly half the districts in the country had deficient rainfall, the foodgrains output remained at comfortable levels. It did not entail food shortages as it did in the mid-1960s. It is for this reason that drought has disappeared from the public vocabulary.

Drought is now localised. The impact of monsoon goes beyond agriculture. Hydro-power generation is dependent on reservoirs, which in turn depend on the monsoon. While the share of solar and wind power as renewable energy sources is increasing, hydro-power contributes 10.2 per cent of the 45.3 per cent of renewable sources of energy. The monsoon is a

Hydro-power generation is dependent on reservoirs, which in turn depend on the monsoon. It contributes 10.2 per cent of the 45.3 per cent of renewable sources of energy.

Survey says that there is a "strong link between significant rainfall shortfalls and substantial crop yield losses". The net sown area is 139.3 million hectares, while the net irrigated area is 71.6 million hectares. So, nearly 50 per cent of sown area is dependent on the monsoon. The monsoon remains a key factor in the Indian economy, something that cannot be wished away.

India has been trying to shrug off the label of an agricultural economy. After the 1960s, it has emerged as a services-driven economy. For the last 10 years and more, there is a consistent attempt to make India a manufacturing hub. There has been moderate success on the manufacturing front. Economists and policy-makers have been looking for a new economic element of the popular cinema in India though it has disappeared altogether today. And it was part of unthinking building activity was the other major factor.

Monsoon was once an interesting fact. Scientists, them in recent years and the residents of the cities and the local government were caught on the wrong foot. While they were unprepared on the one hand, the absence of drainage systems because of unthinking building activity was the other major factor.

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## LETTERS FIGHT FOR RIGHT

A heartbreaking incident from Morena in Madhya Pradesh is a stark reminder of deep-rooted patriarchy that denies a woman her right to choose her own path. A former Armyman shot his widowed daughter-in-law simply because she refused to accept his will regarding her remarriage. This act not only violates her fundamental human right, but also exposes how status, education or military background alone cannot ensure humanity or justice without moral awareness. Such tragedies shake our conscience and compel us to realise that building a truly just and respectful society requires more than laws, but also their enforcement.

Asad Damburkar  
Mumbai

## INCLUSIVE TECH

THE PRIME MINISTER'S vision of India as a technology powerhouse is bold — but can ambition replace action? Millions of Indian youth remain digitally excluded. Without quality education, how will they code the future? Innovation demands access, not just slogans. Start-ups bloom only where policies empower and infrastructure supports. Otherwise, "Digital India" becomes a buzzword with no bite. If technology is the engine, equity must be the fuel. Or else, who are we powering forward — and who are we leaving behind?

Ms Hasnain  
Muzaffarpur, Bihar

## 82 DIED IN KUMBH

WHAT A SHAME that the UP government understated the total number of deaths during the stampede at Maha Kumbh held at Prayagraj on January 29 this year as 37. A BBC report has put this actual figure at 82. The BBC report is based on extensive ground reporting across 50 districts and interviews with over 100 families. Its journalists verified 82 deaths, using photographic evidence, eyewitness testimonies and confirmation of ex-gratia payments made to families. The government has been castigating itself on the successful conduct of Kumbh, yet a factual response to such a grave tragedy remains shrouded in administrative silence.

R. Sivakumar  
Chennai

Tory and, marginally, the Labour vote. Then in the 2025 "local" (municipal) elections, they won over 600 seats, displacing very many Tories and a few members of Labour Party councillors.

A by-election for the parliamentary seat of Runcorn and Helsby was held in May and, yes, Reform again beat other contesting candidates and elected Sarah Pochin. In Parliament, Ms Pochin immediately demanded that Sir Keir Starmer and Labour immediately pass a law banning the wearing of burkas and the niqab.

Zia Yusuf reacted on the social media saying that Ms Pochin shouldn't demand that Labour adopt a policy which Reform had not sanctioned, approved or adopted. He then resigned as chairman of the party.

Mr Yusuf is the son of Sri Lankan immigrants to Britain, his father a doctor and his mother a nurse, both working for the National Health Service. He was a member of the Tory Party before he jumped ship and joined Reform. So why the resignation provoked by Ms Pochin's demand? Was he apprehensive of the reaction of the Muslim community if he went along with it? Did he anticipate a fiasco of some sort?

Apparently not.

Two days after his resignation he rejoined the party and even declared he would support a

burqa/niqab ban. The bigwigs of Reform told the press that Zia was very instrumental in Reform's plans and that he had only resigned through exhaustion with the heavy duties that the chairmanship imposed on him.

So, there's Zia, reconciled with Nigel Farage and back in the fold. (No such hope for a reconciliation of Musk and Trump — too much sewage under that bridge?)

Yusuf doesn't return as chairman though. He has now been assigned the role of cutting expenditure of the councils in which Reform has a majority. He's been given the task, in imitation of Elon Musk's role in Trumpistan, of cutting council budgets. Musk called his business the Department of Government Efficiency — DOGE.

Now Zia, a multi-millionaire through being a banker and then serving businesses with their petty footwork as a "concierge" firm, is in charge of cutting Reform council expenditure. This will, as with Musk-lago's task, start with cutting any programmes on "Diversity" and "Inclusiveness", the pet hates of the dog-whistle supporters who believe that these favour blacks, Asians, Johnny foreigner and other "minorities".

Every council in Britain is overstretched financially and in debt. Just as Musk-rat came unstruck and generated untold hatred against his dismissal of civil servants and necessary welfare projects, so a similar fate awaits Yusuf!

Hope and prediction go hand-in-hand.



# Dreamline crash an aviation safety wake-up call

To say it is a monumental tragedy is a gross understatement. A London-bound Air India flight, a Boeing 787 Dreamliner aircraft, carrying 242 people, including crew, burst into a ball of fire after crashing into a medical college less than half-a-minute after taking off from Sardar Vallabhbhai Patel international airport in Ahmedabad on Thursday afternoon. This plane crash, the worst in India in this century, left 241 passengers and crew members dead. Only one passenger had a miraculous escape. The collateral damage is equally numbing. As the ill-fated plane rammed through hostel buildings of BJ Medical College adjoining the airport, 24 people, including medics, lost their lives on the

ground, taking the toll to 265. This Thursday tragedy shocked the nation and heightened anxiety about air travel. However, the sheer scale and complexity of the tragedy can be gauged from the fact that there was no official communication on the number of deaths even after midnight though crash took place around 1.40 pm in the afternoon. For some reasons, there was some reluctance on the part of the authorities to disclose the death count!

The crash obviously raises doubts about the safety protocols that Air India practices. Its poor safety record continued even after Tata Group took over the state-owned airline in 2022. Furthermore, the safety aspect of Boeing 787 Dreamliner aircraft is also under cloud

now. The aircraft, considered an engineering marvel and fuel-efficient one, faced significant quality issues after it entered commercial service in 2011. To address the quality issues, the US airplane maker had to stop Dreamliner's deliveries between January 2021 and August 2022. The latest crash shows that a lot more needs to be done. Nevertheless, the Ahmedabad plane crash is obviously a big blow to India's fast-growing civil aviation sector. The country is the third largest market globally when it comes to passenger traffic. On the air cargo front too, India is the sixth largest one. With focus on expanding the aviation infrastructure and new airports in the country, the sector is poised for rapid growth in coming years.

But these types of plane crashes dent people's trust in air travel. It is, therefore, the responsibility of the central government to quell the doubts among air travellers about the safety in the civil aviation space in India.

Civil Aviation Minister K. Jaganmohan Reddy said the right thing when he announced that an expert panel would be constituted to study the civil aviation safety in the country and suggest measures for its improvement. He made this announcement soon after inspecting the crash site. Statutory bodies like Aircraft Accident Investigation Bureau (AAIB), a part of Ministry of Civil Aviation, will carry out their probes into the fatal crash. However, the proposed expert panel

will go beyond this crash and look at the whole gamut of the aviation safety ecosystem in the country. But the Minister should ensure the implementation of its report in totality. To be frank, aviation safety protocols in India are not of global standards. Frequent air travellers in the country know this very well. It is a known fact that airline staff handle many safety-related issues with utter callousness. The tragic disaster of Air India's Boeing Dreamliner 787 turning a 'deathliner' in Ahmedabad should be a wake-up for the civil aviation sector, airlines and governments when it comes to air travel safety in the country. It's high time the country has the highest safety standards in aviation space. That's the need of the hour.

## LEARNERS

### Dump all obsolete carriers

THE devastating crash of Air India Boeing 787 Dreamliner (flight AI 171 bound for London) in Ahmedabad is a tragedy of enormous magnitude. It is India's worst civilian air crash in the last three decades. It will have to very meticulously investigate the cause of the crash. In the larger interest of all passengers, the Union Government must start abandoning the old and outdated civil aeroplanes.

Dr Samir Chopra, Ludhiana

### Enhance aviation safety

I am writing this letter to express my profound sorrow and shock at the tragic loss of lives in the Air India flight AI171 crash in Ahmedabad. A Mayday call was issued by the pilots, but the aircraft went silent shortly before the crash. My thoughts are with the aggrieved families and the lone survivor who miraculously escaped the fiery crash. This horrific incident highlights the importance of prioritizing aviation safety and ensuring the highest standards of maintenance and operational procedures. It is crucial that the authorities launch a thorough investigation to determine the cause of this accident and take steps to prevent similar tragedies from occurring in the future. To enhance aviation safety, the authorities should focus on robust training, infrastructure upgrades, enhanced collaboration, accountability, and embracing new technologies. This includes implementing effective Safety Management Systems (SMS), encouraging open communication and reporting, and promoting a positive safety culture.

Jubel D'Cruz, Mumbai

### Makers of Dreamliner must assess reasons for the crash

THE Dreamliner crash in Ahmedabad is an unfortunate event in aviation history. The probable failure of both engines either due to bird-hit or a technical malfunction is one of many assumptions. The pilot's 'Mayday' call just before take-off was too late for the ground aviation experts to avert the catastrophe that led to the loss of 242 lives. As this is the first ever crash since the induction of B-787 Dreamliner in ten years, the manufacturer must strictly scrutinise to assess the reasons for the crash.

P R Ravinder, New Mirjalgauda, Hyderabad.

### A nation in mourning

TODAY, our hearts are deeply broken upon hearing the tragic news of an aviation accident involving a flight from Ahmedabad to London. This is not the first such incident; unfortunately, many such accidents have occurred before, and hundreds of precious lives have been lost. Such incidents compel us to reflect seriously on how to strengthen our air travel system. Every tragedy teaches us a lesson, and it is important that we learn from it.

It is essential that aviation companies and government agencies carry out their responsibilities with greater dedication and vigilance so that such heartbreaking accidents can be prevented in the future.

Omar Faruque, Assam

### Pak flag at peace prayer assembly

A case has been registered in Kerala after a Pakistani flag was displayed at a 'world peace prayer', which is underway since June 1. The prayer has been organised by a protestant group at Jesus Generation Auditorium near Kochi. A policy of zero tolerance must be adopted in such matters, as recent inimical developments between India and Pakistan after the Pahalgam terror attack demand it. All such activities must be considered with utmost suspicion.

Dr George Jacob, Kochi

### Time for course corrections

THE Ahmedabad-London Air India plane AI171 crashed minutes after take-off, killing all except one lucky individual aboard apart from several persons in a medical college hostel, into which the ill-fated plane crashed. It is said that several glitches and technical faults came to the fore during surprise inspections by DGCA on AI aircraft. Round 15 memos have been sent to the AI administration, without eliciting any response. The safety of passengers and proper maintenance of the aircraft are paramount when it comes to safe flying to various destinations. Let us hope that the required course corrections are made by Air India on an urgent basis.

K R Parvathy, Mysuru

thehansreader@gmail.com

## BENGALURU ONLINE

### Over 25,000 sign petition against compulsory Hindi in curriculum

BENGALURU: The campaign for a two-language policy in Karnataka's school curriculum gained renewed momentum as members of the Namma Naadu Namma Aavike team addressed a press conference in Bengaluru on Friday. The group, comprising writers, filmmakers, and language activists, has been advocating for the exclusion of compulsory Hindi as a third language in schools for the past seven months.

Speaking at the event, noted lyricist and director Kaviaraj, a key member of the movement, detailed the various awareness initiatives undertaken since the campaign's launch in 2024. These include a bike rally in Bengaluru on November 1, the distribution of over 1 lakh pamphlets at the Mandya Sahitya Sammelana, and language awareness programs titled 'Eradu Nudi - Jagruthiya Kidi' held at the Kannada Sahitya Parishat.

Kaviaraj also shared that the team had submitted a memorandum to Education Minister Madhu Bangarappa and the Chairman of the Kannada Development Authority, who later forwarded it with recommendations to the Chief Minister's office.

Citing academic data, the group highlighted that in the 2023-24 academic year, over 90,000 tenth-grade students failed Hindi as a third language—a figure they say reflects the growing burden placed on Karnataka's students.

Read more at  
<https://epaper.thehansindia.com>

## Cheating by manufacturers and tampering by owners leading to car pollution

Defeat devices are mainly found in diesel cars and trucks, since diesel emissions control systems are more complicated and expensive than petrol or LPG. Adding an emission control system to meet Euro 6 standards costs about \$600 for a petrol car.



ROBIN SMIT AND ALBERTO AYALA

EMISSION control systems in modern cars have slashed air pollutants such as particulate matter and nitrogen oxides. But these systems face two major challenges: carmakers cheating on pollution tests and owner tampering. Cheating means high-polluting cars can be sold when they shouldn't be, while tampering can increase some pollutants up to 100 times. In our new research review, we found the impacts of cheating and tampering on emissions of pollutants are substantial across the globe.

For instance, researchers in Spain found almost half the diesel trucks had been tampered with, while the Volkswagen Dieselgate cheating scandal uncovered in 2015 led to an estimated \$560 billion in health costs in the European Union.

The solutions? Better detection of tampering, cheating and malfunctioning emission systems—and vigilance to get high-polluting cars off the road. How did we get here?

From the 1950s onwards, smog, air pollution and health issues from car exhausts led many regulators to require carmakers to reduce dangerous air pollutants. These days, modern combustion-engine cars are complex computer-controlled systems optimised to balance engine performance, durability and emission control. Authorities in many nations rely on testing to see if a new model is emitting at rates low enough to meet emission standards. Manufacturers can take advantage of the known quirks of official tests and intentionally alter how their vehicles operate during testing. To do this, they may install a 'defeat device', usually deep in the car's engine or its computer code.

These devices shift the car to a special low-emissions mode if testing is detected. They're typically easy for the automaker to install and difficult to detect. Defeat devices are mainly found in diesel cars and trucks, since diesel emissions control systems are more complicated and expensive than petrol or LPG. Adding an emission control system to meet Euro 6 standards costs about \$600 for a petrol car. For diesel, it can be three to five times higher.

In 2015, the United States Environmental Protection Agency and the state of California announced Volkswagen had been using a software-based defeat device to make its diesel cars appear substantially cleaner.

The scandal drew worldwide attention and cost the company about \$50 billion. For those caught, large fines and mandatory recalls have followed. But this hasn't been enough to stop the practice. The way these tests are conducted usually must be disclosed by law to ensure transparency and make results comparable and repeatable. Unfortunately, having detailed knowledge of the tests makes it easier to cheat. Tampering by car owners is largely done by owners of diesel cars and trucks. Owners can tamper with emission control systems to improve performance, rebel against laws they don't agree with or avoid extra costs such as AdBlue, a liquid needed to reduce nitrogen oxides emissions from diesel trucks. Tampering is usually illegal, but that hasn't stopped the production of aftermarket tampering devices, such as software which deactivates emission control systems.

It's not necessarily illegal to sell these devices, but it is illegal to install and use them. In the road freight sector, the use of aftermarket tampering by vehicle owners also acts as an unfair economic advantage by undercutting responsible and law-abiding operators.

Combustion engine cars and trucks will be on the world's roads for decades to come. Ensuring they run as cleanly as possible over their lifetime will require independent and in-service emissions testing. Authorities will also need to focus on enforcement. Creating an internationally agreed test protocol for the detection of defeat devices will also be necessary.

Combating tampering by owners as well as malfunctioning emission systems will require better detection efforts, either through on-road emissions testing or during a car service. One approach would be to add telemetry to the onboard diagnostics systems now common in modern cars. Telemetry radio transponders can report emissions problems to the owner and relevant authorities, who can then act.

Shifting to EVs offers the most robust and cost-effective way to combat fraud and cut exhaust pollutants and carbon emissions from road transport. But this will take decades. Authorities need to ensure diesel and petrol vehicles run as cleanly as possible until they can be retired.

(Robin Smit is associated with the University of Technology Sydney and Alberto Ayala is from West Virginia University)

# Blood on the runway, silence in the boardroom: Time for a national inquiry

From Maharaja to Mayday: Air India's fall is a national shame



Thursday was not just a day of aviation tragedy—it was a defining moment that exposed the fragile underbelly of India's civil aviation ecosystem. A modern aircraft, operated by what's now touted as a 'national carrier reborn' under the Tata Group, crashed in circumstances that experts suggest may have involved a loss of thrust. But the technical failure, as grave as it is, only scratches the surface. What we are witnessing is a systemic collapse of accountability—from airline management to regulatory authorities and, ultimately, the Government of India. The Tata's, after reclaiming Air India with great fanfare, promised a renaissance in service standards, safety, and operational discipline. Yet, this crash under their stewardship reveals a harsh truth: legacy problems don't disappear with a new logo or corporate pedigree. Behind the slick branding and nostalgia-driven advertising, the reality is grim—India's flag carrier remains weighed down by lethargy, incompetence, and perhaps most dangerously, complacency.

If the aircraft had indeed lost thrust, as early reports suggest, then what does it say about Air India's maintenance protocols? Were there warning signs ignored? Was the aircraft airworthy? These are not rhetorical questions. They demand urgent, public answers.

In any modern aviation system, a crash of this nature—absent severe weather or external factors—signals a failure of basic checks, crew readiness, or worse, systemic neglect.

Friday's development, where a bomb threat note was found by crew officials in the washroom of the Delhi-bound AI 320 Airbus 20 minutes after it took off from Phuket in Thailand, indicates that there were lapses as regards following security protocols. This is another classic example of systemic failure. As usual, the AI management is silent on this and has nothing to tell the public.

The Directorate General of Civil Aviation (DGCA), India's so-called aviation regulator, must share the blame. It has long been accused of functioning less like a watchdog and more like a silent observer—distraught, deferential, and often compromised. Its audits are inconsistent, its penalties are weak, and its oversight appears tokenistic at best.

The DGCA has finally ordered the immediate grounding of all Boeing 787

Dreamliners for thorough checks—fuel parameter monitoring, cabin air compressor inspection, electronic engine control testing, actuator and oil system assessment, and hydraulic system review, including take-off performance parameters. Had this action come earlier, the tragedy might have been averted. Let this be the first step toward real accountability and aviation safety reform.

Air India's performance under Tata has been far from the turnaround narrative peddled in corporate boardrooms and government corridors. New aircraft orders and rebranding exercises cannot substitute for engineering discipline and internal accountability. If a conglomerate of Tata's stature—with access to global aviation partnerships and capital—cannot fix Air India, then it must admit that it either underestimated the rot or, worse, chose to ignore it.

The Government of India cannot simply pass the buck post-privatisation. Selling Air India did not absolve the state of responsibility for aviation safety. That mandate doesn't get sold—it stays with the government. Its silence in the aftermath of this tragedy has been deafening. Where is the Civil Aviation Minister's statement? Where is the Prime Minister's response? When trains derail, officials are trained. When a plane crashes, silence isn't leadership—it's complicity.

What's even more damning is the script-like predictability of the response. No public apology from Air India. No strong accountability note from Tata. No high-level suspension or resignation from DGCA. Just statements, safety audits, and the usual 'wait for the final report.' Enough! These are human lives—not data points for another internal memo or press release.

And that overhaul must begin with consequences—real, demonstrable, institutional consequences. The media must shed its usual deference to power and act as the public's watchdog, not the establishment's lapdog. It must force answers from Air India, Tata, the DGCA, and the Ministry—not let them escape behind press notes and vague assurances.

Bureaucrats and regulators must imagine themselves in the seats of those who perished. After all, they too are frequent flyers—often at taxpayer expense. Tomorrow, they could be the next sitting ducks in a broken system they allowed to rot. This is the moment to say 'Yes' to transparency, 'Yes' to accountability, and 'Never Again' to silence in the face of institutional failure. Enough blood has been spilled in the name of inef-

iciency. Let's face it—India's aviation boom is built on a dangerously thin foundation. Overburdened fleets and understaffed technical teams, fatigued crew, and insufficient safety audits are the underbelly of the glamorised aviation sector. As airlines expand aggressively and push boundaries, safety becomes collateral damage. And when a crash occurs, a familiar pattern follows: blame the weather, laud the pilot's sacrifice, and announce a panel.



A catastrophe in the skies has shattered more than lives—it has broken the nation's trust in its aviation system. As initial reports suggest technical failure, the deeper crash is institutional: Air India, under the Tata Group, has failed to uphold basic safety standards; the DGCA remains a passive, toothless regulator; and the Government of India has abdicated its responsibility post-privatisation. This is not just a tragic accident—it is the outcome of arrogance, neglect, and unchecked complacency. This incident lays bare how brand makeovers and corporate rhetoric cannot mask systemic decay. Unless demonstrative, public accountability follows, the skies will remain a symbol not of progress, but of peril.

Not this time.

This crash must mark the end of that cycle. The Tata Group must accept moral responsibility. It is not enough to acquire an airline and parade a legacy; you must carry its operational burdens and clean up its dangerous mess. It is not enough to inherit an airline; one must also accept its liabilities. If Tata can transform the salt-to-software empire into a global benchmark of efficiency, why is their flagship airline still running on outdated systems and compromised culture? Is it misdirected priorities—branding over substance?

Air India's top management must be held accountable. This is the time for visible resignations, clear audits, and permanent fixes. Safety mechanisms must be made transparent. Whistleblowers must be protected. And the airline must stop treating tragedies as public relations hurdles and start treating them as calls for systemic cleansing.

DGCA, on the other hand, needs radical restructuring. It cannot be a timid wing of

a ministry. India needs an independent, professionally staffed aviation safety authority—autonomous, empowered, and ruthless about standards. Until that happens, no one will trust that the skies are safe.

The Government of India must legislate and not just suggest this change. Safety is not a post-crisis slogan. It's a constitutional duty. A nation cannot claim global power status if its own citizens die in preventable air disasters due to institutional



arrogance. When a plane crashes, it is not just steel and fuel that burn—it is the credibility of the system. The public is no longer in the mood for vague condolences and token inquiries. They want accountability, transparency, and visible change. Every Indian boarding a flight today deserves to know that the system protecting them isn't playing roulette with their lives.

We cannot allow this tragedy to fade into the archives of bureaucratic forgetfulness. The cost has already been paid in blood. Now, it must be paid in justice, reform, and the courage to dismantle a system that puts optics before lives.

This is not merely a test of crisis management—it is a test of national character. Will Tata admit fault? Will DGCA shed its inertia? Will the government act beyond tokenism? The answers to these questions will decide whether India's skies remain a gateway to opportunity—or become graveyards of avoidable deaths.

(The author is former Chief Editor of The Hans India)



INDIAN EXPRESS IS NOT AN INDUSTRY. IT IS A MISSION.

—Ramnath Goenka

## WAR CLOUDS DARKEN RATE CUT HORIZON DESPITE LOW INFLATION

**R**ETAIL inflation fell to a 75-month low of 2.8 percent in May, from 3.2 percent in April. This is the fourth consecutive month where inflation stood below 4 percent. The decline was driven by food prices, which fell to a 43-month low. However, core inflation rose to a 19-month high. On balance, the headline number beat the market consensus of 3 percent. Analysts believe that a robust rabi harvest and expectations of a healthy kharif output due to above-normal monsoon should keep food prices in check this fiscal. But high-frequency indicators show a surge in prices of vegetables and fruits, while the prices of cereals and pulses continue to dip. For now, the core inflation remains benign amid easing international commodity prices. But the escalating Israel-Iran war has overturned market optimism, adding to other geopolitical tensions and trade policy uncertainties.

Following Israel's pre-dawn missile strike on Iran on Friday, Sensex plunged 1,300 points. Iran holds about 9 percent of the world's oil reserves, and as the strike intensified tensions in a key West Asian oil-producing region, crude prices jumped over 13 percent, with the benchmark Brent contract hitting \$78.50 a barrel—its highest since January. If tensions persist for over the next 3-6 months, it's likely that crude prices would rise above \$82-85. J P Morgan analysts expect the new perch to be as high as \$120 in a worst-case scenario. Besides price rise, any disruption of global oil supplies will slow down demand, drive up inflation and exacerbate the prevailing pressure on global markets, which are already reeling under an uncertain US trade policy overhaul.

India relies on imports for over 80 percent of its crude oil needs, and a higher import bill will widen the current account deficit, which is expected at 12 percent of GDP this fiscal. India also is the largest consumer of gold, which on Friday shot past the psychologically significant mark of ₹1 lakh per 10 gram for the first time ever on MCX. So the risks of imported inflation remain elevated, just as the RBI indicated last week about a protracted disinflationary process. As it is, policymakers are grappling with global trade policy uncertainties that are threatening to spur inflation and lower global growth. If this happens, it will restrict the central bank's ability to lower policy rates any further.

## SAVE IRRIGATION SCHEME, ACT AGAINST CORRUPTION

**T**ELANGANA is caught in a cleft stick and the way out appears difficult and risky—at least for now. We are referring to the Kaleshwaram Lift Irrigation Scheme (KLIS) that was constructed in a record three years at an estimated expenditure of ₹92,000 crore and inaugurated in 2019. It is an ambitious project aiming to irrigate 36 lakh acres, including 18.25 lakh acres of new arable. The scheme has had its detractors ever since then chief minister and Bharat Rashtra Samithi chief K Chandrasekhar Rao laid its foundation in 2016.

It's indeed a complex project comprising three barrages at Medigadda, Annaram and Sundilla, 15 reservoirs, 21 pump houses and 1,531 km of gravity canals. The idea is to lift 240 thousand million cubic feet of Godavari water in all during the 120 days of flood season every year. It sounds like a boon for Telangana, which has always been deprived of adequate water for its farmers. The catch, though, is the power requirement of 9,000 MW once the project is operationalised, which translates to an estimated electricity bill of ₹10,000 crore, or ₹37.82 per acre. Several experts and opposition parties had objected to it, arguing that it was unviable and there were other economically feasible ways to achieve the stated objectives. But nobody had anticipated the project would run into a bigger hurdle: the structural damage to the Medigadda barrage and others caused by the floods of 2022 and 2023.

Now, the question before everyone is whether KLIS has turned into a white elephant. The National Dam Safety Authority recommended that a rehabilitation design be drafted for the barrages, but also termed the damage to Medigadda Block 7 irreversible and warned against movement of structures. There were allegations of corruption, too, hanging over KLIS and the Congress government constituted a commission headed by Justice P C Ghose last year to probe alleged irregularities. It hit the headlines recently when KCR deposed before it. A parallel vigilance probe has called for action against 57 engineers. It is inevitable that politics will play out over the charges, as will court cases. But the main task of the government should be to salvage the project. This cannot be achieved without coordination with the Centre. Action must also be taken against those found guilty of corruption.

### QUICK TAKE

#### ANOTHER COLONIAL GAZE

**F**RENCH economist Thomas Piketty's latest study, on how extractive colonialism and unequal exchanges shaped two centuries of North-South inequality, has attracted sharp reactions from both sides of the global wealth divide. The paper, co-authored with Gastón Nievas, shows how colonial transfers and low commodity prices enabled Europe's initial accumulation of foreign wealth and overturned the geography of creditor and debtor regions. While some from the Global North pointed at the authors' ideological locus, scholars from the Global South referred to earlier works by the likes of Arghiri Emmanuel and Samir Amin that established the same point. The differences aside, it helps that someone regarded well among the haves is repeating a point the have-nots are trying to reiterate today.

**T**HE events of the year 2000 resonate vividly in my memory. Back then, I was serving as the deputy chief of mission at the Indian embassy in Brussels, a city known for its rich political history and culinary delights.

It was in a charming, homely restaurant that our ambassador Chandrasekhar Dasgupta—one of the most astute diplomats India has ever produced—hosted a lunch for several members of the European Parliament. Needing to discuss the Kashmir issue with them, he was understandably nervous, pacing back and forth in the reserved room, carefully contemplating his words.

When the guests arrived, we first enjoyed a delightful lunch. But the real treat came when the ambassador took the floor. With remarkable eloquence, he spent approximately 30 minutes elucidating the Kashmir issue and India's perspective on Pakistan. As a newly-minted diplomat, one particular element of his speech struck me profoundly: his impassioned plea to the audience not to think of India and Pakistan as two sides of the same coin.

For years, international dignitaries visiting India would also make a point of visiting Pakistan, seemingly to maintain diplomatic balance. "Do not hyphenate India and Pakistan," he declared. "If you want to come to India, you are most welcome. If you want to go to Pakistan, go to that country. But, for heaven's sake, don't consider that because you came to India, you are obligated to go to that country."

Past forward to the present, and I find myself reflecting on whether there has been a significant shift in India's foreign policy—much like the 'changes' seen in other areas of governance. We criticised Nehru's protectionist policies, yet we now embrace the idea of 'atmanirbharta' (self-reliance) while navigating the complex South Asian landscape. While we once sought dominance in the region, we appear to have ceded some ground to China.

Our previously-friendly ties with US President Donald Trump have revealed an unsettling unpredictability, while our relationship with Russia is emerging as more stable. Perhaps the era of 'Hindi-Chini bhai bhai' (Indians and Chinese as brothers) may come back in some form, as we now find ourselves returning to a non-aligned stance, advocating for the priorities of the Global South.

Trump's assertion that the ceasefire between India and Pakistan was partially due to his tariff threats adds another layer to our understanding of international diplomacy. Although his track record for truthfulness remains suspect, we must study the implications of such statements.

With all this in the backdrop, the government's decision to send parliamentary delegations to the world's capitals to advocate for India's position was perplexing. What was the underlying objective? Was it merely to showcase a united front? Historically, regardless of internal differences, during moments of crisis—be it in 1962, 1965, 1971, or the Kargil and Pulwama incidents—India has presented a unified voice.

India has every right to respond to attacks like the one in Pahalgam. Aside from a few statements from Türkiye, India has not been labelled the aggressor by any significant nation, not excluding the

Islamic bloc of countries. Pakistan's attempt to raise it in the Organisation of Islamic Cooperation failed.

## ERASING HYPHEN BETWEEN INDIA AND PAKISTAN

K M CHANDRASEKHAR

Former Cabinet Secretary and author of *As Good as My Word: A Memoir*



SUDAR K

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Islamic bloc of countries. Pakistan's attempt to raise it in the Organisation of Islamic Cooperation failed.

The facts are clear—no country can equate Pakistan with India. Pakistan is financially, economically and politically precarious, teetering on the brink of crisis. India's GDP stands at almost \$4 trillion, while Pakistan's lingers at below \$400 billion. India's foreign exchange reserves are close to \$700 billion, compared to Pakistan's below \$15 billion. With wildly fluctuating inflation and a repeated need for IMF bailouts, Pakistan's economic landscape has been dismal.

Asim M Husain, a former deputy director at the IMF, in a paper titled '*Rescuing Pakistan's Economy*' published this April, wrote, "Pakistan's economic performance over the past 55 years has been

## HOW NOT TO FLY ON A WING AND A PRAYER

CAPT MOHAN A RANGANATHAN

Retired airline instructor pilot and former member of the Civil Aviation Safety Advisory Council

es the system to be more proactive. Most airports in India are surrounded by structures in violation of ICAO standards. When an accident takes place, access to the crashed aircraft should be easily available. This has been pointed out and flagged earlier. In the report on the Mangaluru crash of 2010, the court of inquiry report made false statements to say the rescue team arrived within 4 minutes. What they chose to hide was the fact that the fire tender never reached the aircraft, as it was



India's aviation regulator has been in breach of a few norms laid down by the International Civil Aviation Organization. We need stricter implementation of rules and learn the hard lessons from accident investigations to make our skies safer

bogged down outside the airport. Those aboard did not die during the crash; they burnt to death in their seats as the rescue reached too late.

Fatigue and rest are two other important factors for aviation safety. The regulator often tailors them more to suit airlines' commercial requirements than for the safety of the crew and passengers. Fatigue and sleep deprivation have caused several accidents worldwide and several countries have implemented strict fatigue risk management systems. In India, we have a system on paper, but

there is no proper monitoring done to ensure the airlines follow them. Premature deaths of pilots seem not to have woken the conscience of the regulator or the aviation ministry.

The accident in Ahmedabad should be a hard lesson for the civil aviation system in India. Do we sweep the lessons under the carpet or implement stricter safety norms? We need a transparent investigation in this case and independent media coverage on aviation safety in the long run. Investigative journalism is one of the needs of the hour to make our skies safer.

The rapid expansion of airlines with insufficient qualified professionals to man the cockpits, maintain aircraft and man air traffic control stations has to be addressed on a war footing. Over-dependence on automation has diluted manual flying skills. The training standards have to be raised to a much higher level. Safety monitoring has to be streamlined, and there should be no compromise on standards.

As far back as 2006, the ICAO had flagged the lack of an independent regulator in India. And in 2025 we continue to have the ministry calling the shots. After several accidents, one hears a defence of the system in spite of blatant safety violations. We should have qualified professionals manning the regulator posts.

Public memory tends to be short. The media frenzy will soon subside and start again after the next fatal accident. Hopefully, the judiciary will wake up to the danger and come down hard on the people manning the controls at the ministry and the DGCA. Lives are always precious and the latest tragedy cannot be wished away. Efforts to make the Indian skies safer have to be addressed as a priority.

The accident investigation timeline laid down in ICAO's Annex 13 must be strictly followed. People have the right to know if the skies are safe. At the moment, we are on a wing and prayer whenever we fly. Before we claim to have the fastest growing aviation system, we need to get our safety levels up.

(Views are personal)

### MAIL BAG

WRITE TO: letters@newindianexpress.com

#### Scarring loss

Ref: A mind-numbing tragedy that demands clear answers (Jun 13). The crash of AI 171 is a deeply unfortunate disaster. It has created a nightmare experience for people across the country and left indelible scars in their minds. We pray for strength to bear the agonising moments.

R Pichumani, Thanjavur

#### Tharoor's feat

Ref: Triumph of India's diplomatic crusade against terror (Jun 13). Shashi Tharoor's talents are not being utilised in the Congress. He rightly pointed out that foreign policy must be agreed upon by the whole nation irrespective of domestic party politics. He has earned his place as a public representative.

S Kanthimathinathan, Kovilpatti

#### Bully diplomacy

Ref: 'Iran is not complying with nuclear obligations' (Jun 13). US President Donald Trump's statement is deeply troubling and aggressive towards Iran, and blindly justifies Israel's militarism. Trump's aggressive rhetoric is dangerous and threatens the sovereignty of nation-states. If peace is the goal, then it must be pursued through dialogue, respect and justice.

K J Haroon Basha, Tirupathur

#### Retaining talent

Ref: Making spectacle attractive (Jun 13). The CII's concern about brain drain from India is fully justified. The return of Chinese students after foreign education is also due to lack of cultural adjustment abroad. Students need to elevate their higher education standards to world-class levels and retain students here.

Rajaram Kumar, Bengaluru

#### AI-aided governance

Ref: Staff attendance in government offices to be AI-monitored in Odisha (Jun 13). Workplace discipline is significant for HR management as a whole, and for the public service sector in particular. It ensures that citizens get quality services. Compliance by officials and regular monitoring are the key.

Satyajay Nanda, e-mail

#### Crowd discipline

Ref: When spectacle crowds out governance (Jun 13). Whoever is to be held accountable, attention should have been given to find out whether the venue was large enough to accommodate the estimated crowd.

Students need to be disciplined in their behaviour in the queue line to avert any mishaps.

R Sampath, Chennai





## The Indian EXPRESS

FOUNDED BY  
RAMNATH GOENKA

BECAUSE THE TRUTH INVOLVES US ALL

## AFTER THE CRASH

Causes of Air India Flight 171 disaster must be uncovered and accountability fixed

A NEW BRIDE from Rajasthan's Balotra district flying to join her husband in London. A Bikaner businessman going to visit, for the first time in a decade, his family settled abroad. A doctor couple and their three young children, en route from Banswara to a much-dreamed-of new life. A 21-year-old flight attendant who belonged to strife-torn Manipur. A former chief minister on his way to visit his daughter. A medical student, in his hostel, eating lunch. They were among the more than 240 lives cruelly cut short when a London-bound Air India flight crashed into a residential area in Ahmedabad on Thursday — a British national of Indian origin is the sole survivor. The video, showing the aircraft crashing into the hostel of BJ Medical College and Civil Hospital and exploding into a fireball, will remain scorched into a nation's memory. The first wide-body aircraft crash of an Indian airline since the 1985 Kanishka bombing leaves behind stories of terrible grief and loss.

The day after, an impartial inquiry — involving Indian authorities, Boeing and international regulators — must be the priority. Till now, the Boeing 787 Dreamliner, having flown over one billion passengers since its introduction in 2011, was considered to have a respectable safety record, even though technical issues like engine shutdowns, flight control failures, smoke in cabins and hydraulic leaks were flagged repeatedly. Quality control issues in 2019 forced the company to pause delivery of new aircraft between January 2021 and August 2022. A Boeing engineer filed a whistleblower complaint in 2024 with the US Federal Aviation Administration (FAA), alleging that it took shortcuts in the making of its 777 and 787 Dreamliner jets.

It might take months or even years before the exact causes of the crash in Ahmedabad are ascertained. But even as India mourns, Air India and the Directorate General of Civil Aviation must act with urgency and transparency. Compensation, while necessary, is not a substitute for accountability. The bereaved deserve closure, they must not be left in the dark, as happens all too often in the aftermath of calamities. The disaster should serve as a wake-up call and draw attention to the structural problems that afflict India's aviation sector. There needs to be a rigorous check of the engineering departments of all Indian airlines. With Air India being one of the two dominant players in the market, there is inadequate pressure to continuously elevate standards of safety and upgrade quality. The DGCA lacks the wherewithal to effectively regulate a growing sector — it was only a few years ago that the aviation watchdog was awarded the power to impose fines on airlines. Aviation consultancy firm Capa India has warned that the shortage of pilots is growing more serious. These gaps must be filled. The investigation of Thursday's crash will be led by the Aircraft Accident Investigation Bureau, under the Ministry of Civil Aviation, with assistance from the US National Transportation Safety Board and the FAA. Every effort must be made to uncover the causes, and to address them. That is the only meaningful tribute to those who boarded Air India Flight 171 but did not reach their destination.

## STEP BACK FROM BRINK

Israel's attack on Iran threatens to turn the clock back and take the embattled region to a new dangerous edge

ISRAEL'S "PRE-EMPTIVE" attack on Iran, dubbed Operation Rising Lion, is an escalation that has taken a region under the shadow of a looming war to a precipice. Israel has bombed several nuclear power stations in Iran and killed at least six nuclear scientists, the head of the Revolutionary Guards, General Hossein Salami, and other senior military leaders. According to Iranian media, at least 78 people have been killed. Iran has retaliated with drone strikes, most of which have reportedly been intercepted. US Secretary of State Marco Rubio distanced Washington from the attack, while President Donald Trump, contradicting his administration, called the move "excellent" and warned of more strikes if Iran does not curb its nuclear programme. A detente in West Asia is now more remote than at any point since Hamas's October 7 terror attacks followed by the Benjamin Netanyahu government's violent reprisals that he widened the theatre of conflict.

Earlier this week, the International Atomic Energy Agency censured Iran for not complying with its non-proliferation commitments. Washington has also been trying to negotiate a fresh nuclear deal with Iran — Trump's first administration backed out of the 2015 JCPOA between Iran and the five permanent members of the UNSC, which Israel strongly opposed. Now, the escalation of hostilities by Tel Aviv has scuppered any chance of progress on that front. Israel's contention that military action against Iran — and a possible regime change — is the only route to stability in the region, or Trump's notion that force can carve a path to a "deal" lead to dead ends. They ignore Tehran's role in the broader region. While Iran's proxies are on the back foot, the country continues to be an energy supplier with a capable military. Even if successful, regime changes rarely lead to stability.

The escalation carries the danger of turning the clock back on the ceasefire between the US and the Houthis. It also makes the expansion of the Abraham Accords — one of Trump's most emphatic diplomatic successes in his first term — all but impossible. Trump's appeal to his MAGA base, in part, is about him being a "dealmaker" who can remove the US from global conflicts. Trump had urged Saudi Arabia and other Gulf nations to join the Accords and normalise ties with Israel last month. Israel's prolonged attacks on civilians in Gaza and the humanitarian crisis it has caused make such an rapprochement all but impossible. India, with ties and stakes in the region, has urged both sides to avoid "escalatory steps". The task of diplomacy now is to provide an off-ramp to Tehran. The last thing the region needs is all-out war.

## CHANGE THE ANGLE

First images of Sun's South Pole help piece together many parts of the puzzle of the universe

PERSPECTIVE IS everything. It has now been reaffirmed by the Solar Orbiter — a Sun-observing probe launched jointly by the European Space Agency and NASA in 2020. On Wednesday, the spacecraft released images of the Sun's South Pole, marking a scientific breakthrough in space. Made possible by a tilt in the orbit of the probe, these are first images of the poles from outside the ecliptic plane. The new angle also allowed the Orbiter to map magnetic activity at the Sun's pole — a groundbreaking reveal for the future of solar research.

Carole Mundell, the ESA's director of science, has said, "These new unique views... are the beginning of a new era of solar science." All spacecraft, probes and planets orbit the Sun within a flat disc — images of the Sun so far have also been from this plane. By tilting its orbit, the ESA-NASA probe captured new angles — both to study and gaze at. The only other craft to have flown over the Sun's poles was NASA's Ulysses probe in 1990. But it did not carry a camera. Given that magnetic activity determines a great deal about the environment and character of the Sun, a peek at it opens up new horizons. Most importantly, with the 17-degree tilt expected to last until December 2026, and further tilts in the offing, the best images are yet to come.

With the rapid strides space exploration has made in recent years, many pieces are falling into place, and the puzzle of the universe is clearer today than ever before. That the most recent achievement has been made possible due to a simple shift in perspective is revealing about the nature of science — and humanity. To unveil and capture such significant details of a celestial object through such a tiny manoeuvre offers a lesson. Sometimes, all you need is a change of angle.

## Picking up the pieces

A thorough probe would be the best tribute to the victims of the Air India crash



JITENDER BHARGAVA

THURSDAY'S BOEING 787-8 crash in Ahmedabad is troubling for multiple reasons. More than 250 people are reported to have lost their lives, including more than 20 on the ground. Different nationalities were involved, reportedly including 53 British nationals. The tragedy took place during the day and was repeatedly shown on television. The fact that Air India had a relatively good safety record of late has made the tragedy even more shocking. This is also the first time that a Dreamliner 787-8 has been involved in an accident.

It appears that between the takeoff and the crash, the pilot simply had no time. Pilots receive rigorous training to deal with a variety of situations. They are trained to land in an area free of houses and buildings if the aircraft faces a snag during takeoff. The pilot in charge of the ill-fated 787-8 had 8,000-plus hours of flight time. Situations such as the one that arose on Thursday are also a part of the simulation training that pilots undergo. But the time available to the pilot and the buildings just below the aircraft seems to have made it impossible for him to steer the passengers to safety. Civil aviation rules state that airports should be planned at a distance from buildings. Increasingly, however, cities are getting closer and closer to airports. The losses on the ground have made the tragedy even more heart-rending.

Almost every aircraft accident is followed by a familiar knee-jerk response — that flying is unsafe. But an airline should not be judged by a one-off accident. International safety standards — measured via accidents per million passengers, per million takeoffs and landings — are the

right way to gauge the record of an airline.

Where does Air India stand in this respect? Its records show that it is as safe as most other airlines. Its trustworthiness should not be judged by Thursday's incident. Differentiating between the airline's record when it was run by the government and after Tata assumed control is also not the right way to look at the accident. What matters is not the age but the airworthiness of an aircraft.

The government has done well to issue directions pertaining to the inspection of the Boeing 787 Dreamliner, including a review of take-off parameters. This will inspire some confidence in the public which may be shaken by the crash.

In February 1990, an A320 was involved in a gruesome air crash in Bengaluru that claimed the lives of 92 of the 146 people on board. Then-Prime Minister V P Singh ordered the grounding of all A320 Airbus. Such an en masse grounding shouldn't be repeated after Thursday's tragedy unless Boeing issues an advisory. Let Boeing take a call.

For several reasons, the tragedy has acquired a global dimension. With an increase in the number of flights and passengers in the past few decades, global safety standards have vastly improved. Thursday's incident will, therefore, be analysed thoroughly. It will not be the Indian government alone that decides the course of the investigation. Representatives of India's Directorate General of Civil Aviation (DGCA), Boeing, and the US's Federal Aviation Administration are likely to be involved in the probe. Officials of the US National Transportation Safety Board could also be part of the investigation com-

mittee. That also means the probe could be a long-drawn-out affair. But we should be patient. The involvement of multiple authorities is likely to make the investigation more thorough and its findings could hold lessons for the aviation industry at large.

Many are jumping to hasty conclusions — theories like the tragedy being caused by a bird hit are being floated. The details will soon emerge because the black box has been recovered. They will be investigated, not just by Air India, but by all the concerned agencies, to ensure that there is no cover-up.

That said, there are questions to be asked. What was the traffic record of the aircraft? Did it experience problems in the past? The aircraft's and the airline company's records can help us gauge flaws, if any. Complaints about the airworthiness of an aircraft are usually directed to the DGCA. The agency then sends a show-cause notice to the airline. We need to study not just the notice but the airline's response. We often read about airline companies being fined by the DGCA. However, does fining mitigate the safety risk? Does the authority follow up and ensure the safety violations are addressed?

The probe into Thursday's tragedy must answer such questions. If any of the agencies involved — Air India, DGCA, Boeing — is found culpable, their accountability should be fixed. Accountability on all fronts demands a thorough investigation. That would ensure a proper closure for the families of those who lost their lives. A thorough probe would be the best tribute.

The writer is former executive director, Air India



SHAMBO SAMRAT SAMAJDAR AND SHASHANK R JOSHI

## THE PAST IS AN INSPIRATION

Celebrating those who resisted invasions is not chauvinism, it's reclaiming history

## IN GOOD FAITH

INDIA'S CIVILISATIONAL JOURNEY is one of unparalleled continuity — its roots run deep, nourished by thousands of years of spiritual inquiry, scientific advancement and cultural sophistication. Yet, the collective memory of Hindu empires that upheld this tradition seems to have faded from mainstream consciousness. For a country that takes justifiable pride in its freedom fighters, why do we not celebrate the heroes who defended this land centuries ago? Why are names like Gori, Babur, or Aurangzeb more familiar to students than Lalitaditya Muktapada, Vikramaditya, or Krishnadevaraya? What became of the festivals that once commemorated Hindu sovereignty, cultural flourishing, and spiritual freedom?

This erasure was not accidental. Between the eighth and 16th centuries, India witnessed relentless waves of invasions. Its glorious temples — from Mathura to Somnath, Kashi to Vijayanagara — became the first targets of destruction. Over 12,000 temples are known to have been desecrated or demolished. Libraries were burned, idols mutilated, and scriptures lost. The purpose was not merely conquest — it was to uproot India's sacred geography and replace it with a different historical narrative.

Yet, India did not submit. For every invader, there rose a guardian of dharma. The resistance was not episodic — it was inspired by a sense of cultural and spiritual responsibility. The Vijayanagara Empire, for example, stood as a southern bastion against centuries of Islamic expansion. Under Harihara, Bukka, and later, the legendary Krishnadevaraya, the empire became a lighthouse of Hindu polity, temple architecture, Sanskrit learning, and inclusive governance. Its capital, Hampi, rivalled the world's greatest cities. Its fall in the battle of Talikota (1565) was not just a geopolitical defeat — it was a civilisational rupture.

Modern India has made extraordinary strides. But even as we fly missions to the Moon and craft digital economies, our roots must remain nourished. It is time to reclaim the festivals of our civilisational pride, not in hatred or chauvinism, but in truth, remembrance, and gratitude.

But even from the ashes, the fire did not die. It flared once again in the heart of Maharashtra with the arrival of a lion-hearted warrior — Shivaji Maharaj. Shivaji was more than a military genius. He was a cultural visionary, a spiritual devotee, and a dharmic ruler. At a time when many Indian rulers had become vassals of invading powers, Shivaji declared *swaraj* — not just political independence, but a civilisational reclamation. He did not fight for territory alone. He fought for the right to worship freely, to rebuild temples, to protect women, to govern with justice, and to restore pride in the Hindu way of life. Shivaji's coronation in 1674 was an act of national renewal. Conducted by Vedic scholars with sacred rituals, it was a public declaration that the *satmat* spirit of India still breathed.

Shivaji's governance was marked by pluralism, meritocracy and spiritual grounding. He appointed Muslims to key positions and protected mosques while rebuilding destroyed temples, defending sacred spaces, and promoting Sanskrit. For him, the Hindu *Rashtra* was not a theological state, but a dharmic society based on ethics, justice, and cultural confidence. His message continues to echo: Freedom is sacred, and to defend it is the highest form of worship.

If Shivaji was the sword of civilisational resistance, Swami Vivekananda was its thunderous voice in modern India. At the end of the 19th century, India was once again reeling — not under military invasion, but under psychological colonisation. Generations were taught to be ashamed of their roots, their gods, their texts, their identity. It was then that Swami Vivekananda stood at the Parliament of World Religions in Chicago (1893) and roared: "I am proud to belong to a religion which has taught the world both tolerance and universal acceptance."

His mission was not just religious — it was political in the most profound sense. He reminded India of her true identity. He reminded us that behind every temple, every Upanishad, every raga and sculpture, there was a soul — a mighty civilisation that once led the world in knowledge, trade, ethics, and spiritual wisdom.

To the youth, he said: "Arise, awake, and stop not till the goal is reached." To patriots, he said: "Serve the motherland as God." To all Indians, he declared: "Let new India arise — from the grocer's shop, from the huts of fishermen, the cobbler and the sweeper."

Vivekananda did not ask India to mimic the West. He asked her to be herself — to draw strength from her Vedas, her courage from her warriors, her inspiration from her sages. Modern India has made extraordinary strides. But even as we fly missions to the Moon and craft digital economies, our roots must remain nourished. It is time to reclaim the festivals of our civilisational pride, not in hatred or chauvinism, but in truth, remembrance, and gratitude. We must remember the Hindu empires, the philosopher-kings, the warrior-monks, and the temple-builders who preserved the flame of Bharat through the darkest nights of history. This is not about rewriting history. It is about restoring balance, giving the rightful place to chapters long suppressed, and telling our children that before India was colonised, she was sovereign, scholarly, sacred, and strong.

Let us walk forward — empowered not only by economic progress but by civilisational consciousness. Let Shivaji's sword and Vivekananda's voice guide us in tandem.

Samajdar is clinical pharmacologist and diabetes and allergy-asthma therapeutics specialist in Kolkata. Joshi is a Mumbai-based endocrinologist



## JUNE 14, 1985, FORTY YEARS AGO

## PM CALLS FOR PEACE

PRIME MINISTER RAJIV Gandhi made an appeal for peace and disarmament and regretted that concessional assistance for developing countries was drying up at a time when it was needed most. Gandhi voiced India's concern over the establishment of military bases in various parts of the world. "We are directly affected by militarisation of the Indian Ocean and inflow of increasingly sophisticated arms into our neighbourhood," she said.

## TRAIN COLLISION

AT LEAST 37 people were killed and about 100 injured, 48 of them seriously, when the

Bilaspur-bound Chhattisgarh Express collided with a goods train at Raja Ki Mandi station near the Agra Cantonment. Union Minister of State for Railways Madhwarao Scindia rushed to the site of the accident and also visited the hospital to see the injured. Most of the dead and injured were army personnel.

## ATTACKS ON TAMILS

SINHALESE HAVE ATTACKED some predominantly Tamil villages in eastern Sri Lanka, killing more than 40 people in 10 families. The attacks were in retaliation for a Tamil separatist attack on a Sinhalese village in the east. A reliable source in Jaffna said that Sinhalese, since then, had launched reprisal attacks on

Tamil villages in and around Muttur on the east coast, killing 10 families. Thousands of people have fled their homes.

## US-INDIA DEALS

THE US HAS decided to provide advanced military technology and weaponry in an effort to end the 20-year hiatus in US military sales to the world's largest democracy. The Washington Post reported that the new policy was conditional on Indian acceptance of strict safeguards. PM Rajiv Gandhi and Defence Minister P V Narasimha Rao will discuss the supply of US military technology to India with Defence Secretary Casper Weinberger and John Messey, chairman of the Joint Chiefs of Staff.



The  
Hindustan Times  
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[ OUR TAKE ]

Lessons from the  
Air India crash

The immediate focus needs to be on the probe into the disaster. The Centre must look closely at safety protocols and plug gaps, if any

India is mourning the lives lost in Ahmedabad on Thursday, when an Air India Boeing Dreamliner from the city bound for London crashed into the BG Medical College hostel, 33 seconds after take-off. Of the 242 people on board — 230 passengers, including the former chief minister of Gujarat Vijay Rupani, and 12 crew members — just one person, a British citizen of Indian origin, survived. The survivor, Vishwak Kumar Ramesh, however, lost his sibling, who was travelling in the same flight. Other casualties include medical students taking lunch at the hostel mess hall, and at least one person from the locality, when the aircraft turned into a fireball that charred the surroundings.

Just as we try to come to terms with the loss of so many lives, a slew of questions await answers. The Ahmedabad crash is the nation's worst air tragedy since the 1996 mid-air crash over Charkhi-Dadri in Haryana that killed 349 people. On the top of everyone's mind is how the Dreamliner, which had no record of fatal accidents until Thursday, crashed immediately after take-off. Was dual-engine failure the cause? Did the control system fail? Was there a bird hit? Was the fuel contaminated? Or, were there other concerns? All these will be answered only after a thorough probe. To be sure, such a painstaking process will take time. Until then, it is best not to jump to conclusions, or pin blame on the airline company, the pilots, or the maker of the aircraft, Boeing. Investigation will be a challenge since the aircraft had crashed in an urban space and hundreds of persons gathered at the site before it could be secured by the authorities. A thorough sweep of the site is necessary not just to recover evidence that may help in discovering the cause of the crash, but also establishing the identity of the dead.

The AI-171 crash is also an occasion to closely consider all concerns regarding airline safety. Flying has become safer over time, but an accident of this scale is bound to cast a shadow over the sector, which has been expanding at great speed in India. The expansion of the middle-class, rise in disposable incomes, and professional exigencies have led to a spike in the demand for air travel. New airports have been built and existing ones expanded to meet the demand. Airline companies — Indian and foreign — too have cashed in on the rush and have included new destinations in their itineraries and expanded the number of flights. Between 2019 and 2024, the number of domestic routes rose from 646 to 823. In the same period, domestic air passenger numbers grew from 137.6 million in 2019 to 228 million in 2024. However, it has been a hard task to meet the sector's need for quality personnel — pilots to ground staff including maintenance engineers — with reports flagging a decline in pilot training and so on. These concerns and fears — some of them exaggerated — will have to be considered and addressed to reassure fliers that safety is never compromised.

Indian aviation has been a great story of economic liberalisation — the country is now the world's third largest aviation market. The Centre intends to turn India into an aviation hub and compete with the likes of Dubai and Singapore. Passenger satisfaction and trust is crucial to realising this ambition: The AI-171 crash may cast a shadow over such prospects. Which is why the government should do its best to establish the cause of the crash, pin responsibility, penalise the guilty, and undertake necessary remedial measures.

[ THIRD EYE ]  
Barkha DuttGrief, grace, and  
gratitude — in a  
time of tragedy

Hard questions must be asked about the Air India flight crash. But wait for probe to be completed before pinning blame on the airline company

In this week of absolute tragedy, it is a moment for us to stand in solidarity with Air India.

I am writing this in Vienna, sitting on the tarmac of the airport, where our Air India flight from Newark to New Delhi has been diverted, along with several others because of Israel's overnight strikes on Iran's nuclear facilities.

The aviation challenge — seven Air India flights have been diverted to Vienna alone — has been necessitated because the Iran airspace is closed and the Pakistan airspace has been closed since Operation Sindoor. The aircraft needs more fuel for this unforeseeable geopolitical development and a new flight path to take us home. Captain Sunil Simon, crew members Suresh, Khushboo, among others are all well beyond their duty hours. But no one has shown a single sign of irritability or strain. That this has happened hours after the horrific crash of London-bound Air India 171, less than a minute after take-off, makes this stellar professionalism even more remarkable.

Imagine, operating in the traumatic overhang of losing your colleagues and friends to an air crash. Consider what the last few hours have been like for the airline staff to have to remain stoic, even smiling in the immediate aftermath of a massive personal tragedy. And now this latest strain on their emotions and mental strength.

Yet, how many of us will take a moment to appreciate the airline.

If anything, it's something of a lazy habit for

many Indians to take potshots at the airline, even while choosing it when flying elderly parents abroad, because they know fully well that western airlines will never offer that personal touch. The same people would not even whisper a protest in the face of borderline racism on some airlines.

Think about the crash and the sweeping armchair commentary that followed in sections of social media. One publicity-seeker went from studio to studio cribbing about how the air conditioning had not worked well on the Delhi-Ahmedabad leg of the plane that crashed, making an absolutely inaccurate link to the tragedy. And he was allowed to do so.

Others did not hesitate to make generalisations about the airline or the pilot in command. I am no aviation expert but the alacrity with which some sought to blame pilot Captain Sumet Sabharwal and his co-pilot Captain Clive Kunder, was ghoulish and frankly, tone deaf and callous. We put a timer on the CCTV footage of the crash to show how Captain Sabharwal had only 33 seconds in which to make an intervention. On the CCTV footage you can see the plane take off smoothly and by the clock, half a minute later, it descends, erupting into an orange ball of fire on impact. Those who really wanted aviation and planes point out that when you do not even have a whole minute to respond, Captain Sabharwal did the only thing he could. He made a Mayday distress call to the air traffic controller. In other

**THE ALACRITY WITH WHICH SOME SOUGHT TO BLAME PILOT CAPTAIN SUMET SABHARWAL AND HIS CO-PILOT, CAPTAIN CLIVE KUNDER, WAS GHOULISH, TONE DEAF AND CALLOUS**

Recalibrating the future of  
India-Australia relations

Five years ago, India and Australia elevated their relationship to a Comprehensive Strategic Partnership (CSP), a diplomatic milestone that reflected not only a convergence of values and strategic interests but also a shared vision for a free, open, and inclusive Indo-Pacific. The June 4 visit to New Delhi by Australia's deputy prime minister and defence minister Richard Marles to mark the anniversary of the CSP is not merely an occasion for ceremonial stocktaking. It is a pivotal moment that calls for a bold, forward-looking recalibration. India and Australia must move beyond incremental progress and embrace a transformative vision for their partnership in the Indo-Pacific.

CSP has already delivered substantive gains: robust defence cooperation, deepening economic ties, burgeoning technology linkages, and vibrant people-to-people engagement. And yet, the Indo-Pacific today is more volatile and contested than it was in 2020. Great power rivalries have sharpened, regional fault lines have widened, and internal complexities in both countries demand strategic clarity. To build on, and surpass, the achievements of the last five years in the next five, we must dismantle structural impediments, correct asymmetries, and advance a series of focused, high-impact initiatives that re-imagine the bilateral canvas.

First, the economic pillar of CSP needs to evolve beyond tariff liberalisation and traditional trade. While the Economic Cooperation and Trade Agreement was a historic breakthrough, it must now serve as a stepping stone to a much

more ambitious Comprehensive Economic Cooperation Agreement (CECA). A forward-leaning CECA must encompass services trade, facilitation of investment, regulatory harmonisation, digital governance, and intellectual property frameworks.

A catalytic opportunity lies in unlocking Australia's vast institutional capital — especially its AUDA trilateral super-fund — for investment in India's infrastructure, green transition, and digital innovation. India, in turn, could consider establishing a bespoke sovereign risk mitigation facility to de-risk and incentivise long-term Australian investment in priority sectors.

Second, the 2022 critical minerals investment partnership remains an underleveraged strategic asset. With the global shift towards clean energy and the imperative to de-risk supply chains from Chinese dominance, this partnership must be elevated into a formal institutional mechanism. A Joint India-Australia Critical Minerals Development Corporation, underwritten by concessional finance, technology sharing, and export-import arrangements, could bridge the gap between policy intent and commercial viability.

Third, defence cooperation — though significantly enhanced — must now enter a new phase anchored in industrial collaboration. India's drive towards defence indigenisation under the



While there may be questions about maintenance, surely there should be many sharp questions for Boeing, the manufacturer of the 787 Dreamliner that went down in Ahmedabad.

RAJU SHROFAT

crashes, where an engine has failed, because the plane is already cruising, the pilot has been able to bring it down, let's say on water or a safe patch. Here, the pilot was not able to lift the plane to a higher altitude; he clearly seemed to lose power immediately after take-off and he literally had no options.

Think for a moment of that man at the helm of a split-second response before his life and the lives of the passengers at the back, literally went up in smoke. Think of how a universe can be upended in 32 seconds. And at least then, some of us might be less cavalier and casual in our commentary.

Aerospace engineering expert Aditya Paranjape, a professor at Monash University, told me that "prima facie... there is no human error. That the plane was able to take off smoothly shows the configurations entered by the pilots were accurate." He believes, like many other experts I spoke with, that the engines appear to have failed, however rare that may be.

While there may be questions about maintenance, surely there should be many sharp questions for Boeing, the manufacturer of the 787 Dreamliner that went down in Ahmedabad. Especially if the investigation reveals that both engines did, in fact, collapse on take-off. This would be the time to go back to the appearance of the Boeing CEO before a US Senate Panel. He actually admitted to "serious safety mistakes". This hearing took place after the door of an

Alaskan Airlines 737-Max blew out. Isn't he the one playing with lives? Shouldn't some of our contempt and anger be directed at corporate behemoths like Boeing?

Over the years, there have been management issues with Air India. When the airline was government-owned (across parties) it was not able to unshackle itself from a *sarkari* subculture. When the ill-conceived and unplanned merger of Indian Airlines and Air India took place under the UPA government, the airline took a hit. And now that the Tatas have given Air India a new beginning, its staff — pilots and crew — should not be shackled by capitalist corporate norms. Not when it comes to a profession that literally can be about life and death.

On the plane just now — we are still on the ground a few hours later — a huge round of applause went up when the Captain announced that the crew had agreed to work well beyond their stipulated shifts and in what is meant to be their rest period (with official dispensation) to try and get us all home.

As families across India mourn — a father who lost both his daughters, a husband who came home with his wife's ashes, a couple who posted a last selfie only to go down with the plane — the rest of us should show humility, and some gratitude and grace.

Barkha Dutt is an award-winning journalist and author. The views expressed are personal

Atmanirbhar Bharat initiative opens up promising avenues for joint research and development, co-development, and co-production. A dedicated Defence Innovation and Industrial Corridor linking Indian and Australian MSMEs, research universities, and start-ups could become a flagship initiative. Emerging domains (autonomous maritime platforms, undersea surveillance, and space-based intelligence) warrant deeper trilateral collaboration with trusted Quad partners.

Fourth, diaspora-related frictions, notably around the fringe Khalistan separatism, have at times complicated bilateral diplomacy. Such

issues, often inflamed by misperceptions and misinformation, need calibrated responses. Robust law enforcement must be complemented by more strategic and sustained engagement with the diaspora. An India-Australia Diaspora Dialogue Forum (comprising civil society leaders, scholars, and young professionals) can serve as a platform to deepen mutual understanding, temper polarising narratives, and anchor people-to-people ties in shared civic values. India's public diplomacy, too, must evolve, moving beyond cultural showcasing to substantive policy dialogues, youth exchanges, and think tank residencies.

Fifth, education and innovation must now occupy the frontline of bilateral engagement. With Australia a preferred destination for Indian students, the next frontier lies in two-way academic mobility and co-creation of knowledge ecosystems.

We propose the establishment of a bi-national University of Indo-Pacific Studies, with campuses in both countries, as a world-class hub for research in maritime law, AI, sustainability, and public policy. A complementary Australia-India Inno-

vation Corridor, connecting IITs, Australian universities, and innovation clusters, can tackle grand challenges in climate tech, health, digital public infrastructure, and food systems.

Encouragingly, Australia's new institutional footprint in India, be it Deakin University's campus in GIFT City or the University of Melbourne's Global Centre in New Delhi, is setting the stage for a new era of educational diplomacy. But systemic reforms are still needed. Recognition of qualifications, faculty mobility, and regulatory harmonisation must be fast-tracked.

Finally, CSP must become a more proactive force in shaping regional architecture. India and Australia have collaborated well within Quad and IORA, but should now play a leading role in newer multilateral formats — like the Indo-Pacific Economic Framework (IPEF). Partners in the Blue Pacific, and the Supply Chain Resilience Initiative. The time is ripe for trilateral and multilateral initiatives involving Asean, Pacific Island, and African littoral states. Coordinated development finance, digital connectivity programs, and joint maritime security training in third countries can enhance the normative reach of this partnership.

In these five years, CSP has laid a strong foundation. But for the relationship to fulfil its potential, the scaffolding must now become more ambitious, institutionalised, and future-oriented. This is a historical juncture in the Indo-Pacific, and the India-Australia partnership must not just be a bilateral success story; it must become an axis of regional transformation and stability.

Amitabh Mattoo is professor and dean, School of International Studies, JNU, and founding director of the Australia India Institute and Manish Dabhadre is associate professor, School of International Studies, JNU. The views expressed are personal

Time to reassess safety  
priorities of airline sector

The Air India flight AI-171 tragedy has reignited concerns around safety oversight, emergency handling and regulatory transparency in India's aviation sector. While investigations are ongoing, early observations point to insights that merit the attention of industry and policymakers.

Video footage showed a plume of dust kicked up as the aircraft became airborne, an unusual sight during normal take-off. The sole survivor says he heard a loud bang, raising the possibility of an engine malfunction. In a normal situation, the aircraft would have taken a bit less runway length to get airborne using the powerful GE Trent engines. The stress on the crew to manage an emergency during a critical phase of flight would have increased considerably.

Another concern is that the landing gear

remained extended during the climb. Leaving the gear down significantly reduces climb performance, especially critical if thrust is compromised. Whether this was due to workload saturation, distraction, or checklist omission remains to be seen. But, it illustrates how a high-stress environment can interfere with routine procedures, even in a modern cockpit.

It is essential to avoid speculation and await official findings. Still, the pattern emerging here aligns with known risks: Multiple stressors occurring close together can overwhelm human capacity and lead to omissions. This points to the importance of robust emergency training and real-time support systems. While the latest ICAO State Safety Briefing claims zero fatal accidents in

India over the last five years, the tragic Air India Express crash at Kozhikode in August 2020, which claimed 21 lives, tells a different story — one that can't be buried under statistical oversight. This raises concerns about safety data accuracy reflecting operational realities.

The absence of such a significant accident from India's safety narrative is troubling. It suggests that a focus on meeting numerical targets may obscure critical lessons. Although India claimed Level 4 implementation of its State Safety Programme (SSP), the SSP Foundation value remains unreported. This gap, coupled with the lack of transparent debate or reform after the Kozhikode crash, suggests that the mechanisms for identifying and mitigating risk may not be functioning as intended.

India's growth in aviation must be matched with an equally strong commitment to a safety culture based on openness, accountability, and learning. Selective reporting or focusing only on positive indicators risks fostering a false sense of security. The AI-171 incident is a reminder that avi-

ation safety extends beyond infrastructure and certification. It is about the readiness of systems and people to respond when things don't go as planned. For airlines and regulators, this is an opportunity to revisit crew resource management protocols, standardised training, and post-incident learning frameworks.

India has substantially improved its safety oversight systems over the years, as reflected in ICAO's effective implementation score. However, sustained progress depends not only on audits and metrics but on acknowledging gaps and acting on them without delay. For a nation with global aviation aspirations, the foundation must be built on more than compliance — it must rest on trust, accuracy, and continuous learning. As the AI-171 investigation proceeds, the focus must remain on identifying lessons and ensuring they lead to meaningful change. Only then can we say that safety is not just promised — but truly practised.

Amit Singh has been associated with the aviation industry for over three decades and is a trustee of Safety Matters Foundation, an NGO. The views expressed are personal

## [ EDITOR'S PICK ]

HT's editors offer a book recommendation every Saturday, which provides history, context, and helps understand recent news events

## LAWS OF IMMIGRATION

As the protests in Los Angeles show, the politicisation of immigration — legal and undocumented — has significant divisive potential. The US, built on the shoulders of immigrants, is now, under Donald Trump, deporting "illegals" by the busload. Given certain communities have become the focus of, is there an element of discrimination?

**America Classifies the Immigrants** provides some perspective here. Perlmann, a Bard College professor, traces the early history of immigration to the US, and how prevailing ideas and biases about race and nationality got embedded into the 1897 List of Races and Peoples, which is foundational for the country's immigration laws, census, and the exclusion these created. *America Classifies* shows how, despite several later reforms, US immigration law and its treatment of undocumented immigrants, continue to be shaped by centuries-old biases.



**America Classifies the Immigrant** Joel Perlmann Year: 2018



# Oil's lost decade is about to be repeated



DAVID FICKLING

For as long as most of us can remember, a rule of thumb has held true: Every year, the world's production of oil goes up by one million barrels a day.

In 1983, the figure stood at 56.6 million barrels. In 2023, 40 years later, it was 40 million barrels more: 96.6 million. Annual figures may jump around thanks to wars, recessions, and the rise and fall of econ-

omies, but averaged over the longer term, every decade we've added an extra 10 million daily barrels to the headline total.

But you have to look closer than that. Much of what's labelled "oil production" isn't oil at all, but gases such as ethane, propane and butane as well as biofuels. If you consider only crude oil — the stuff subject to Organization of the Petroleum Exporting Countries (Opec's) quota policies, with prices quoted on the nightly news — production is barely increasing at all. Global output this year will be just 360,000 daily barrels greater than in 2015, according to the latest outlook from the US government's Energy Information Administration.

Even looking forward to 2026, crude output is likely to remain below the production peak of the world in 2018. This will be the first time the industry hit a lost

decade since the 1980s, when it was buffeted by the aftermath of the 1970s oil crises and decline of the Soviet bloc. As electric vehicles (EVs) take more market share and climate damage grows, subsequent decades will be even worse.

That's certainly what you'd expect from the way the oil industry is investing. Upstream oilfield spending will fall 6 per cent this year to \$420 billion, the International Energy Agency (IEA) was last week, less than the \$450 billion going to solar. Fossil fuels as a whole will receive \$1.1 trillion of investment, just half the \$2.2 trillion for clean energy. Spending on new supplies of oil and gas did indeed increase after Russia's 2022 invasion of Ukraine, but only slightly. The growth wasn't enough to lift investment even to the levels seen in the early part of that decade.

Inflation makes the picture even more stark. Clean technology is getting cheaper, with the price of the best standard solar modules falling 20 per cent over the past year to 9 cents per watt, according to BloombergNEF. That means each dollar spent is buying more energy than in the past.

The opposite is happening in the oil patch — particularly in the US, where President Donald Trump's 50 per cent steel tariffs are making it far more expensive to buy pipes and machinery. After adjusting for costs, activity levels in the upstream oil and gas sector are set to fall globally by about 8 per cent this year, according to the IEA, the first drop since 2020.

That's being felt most sharply by US shale players, some of the highest-cost and most price-sensitive producers ever there. They're retrenching rapidly as the

Opec pumps extra barrels into an oversupplied market. The signs are showing up throughout the chain, from exploration to development. Since the end of March alone, about 5.6 per cent of all operations drilling in the US have been pulled from the fields, according to global energy technology company Baker Hughes, leaving the drill fleet almost a third smaller than at its last peak in late 2022. That suggests companies are spending less on exploration.

In previous years, slumps in those measures were often justified by the large backlog of development wells waiting to be drilled until prices recovered, but even this so-called fracklog is shrinking. The number of such drilled but uncompleted wells now stands at 5,332, about half the level in early 2020. December's figure was the lowest on record.

If you thought the Gulf would come to the rescue, don't hold your breath. These days, Saudi Arabia's oil is spending more on gas than on crude. Its largest de-

velopment project is the Jafurah gas field, due to start production later this year. Riyadh's decision last year to cut Aramco's maximum oil capacity target only makes sense if prospects for crude demand are dimming. Look to China, and you can see why. Apparent oil consumption has been falling ever since September 2023, based on government data. Even the more granular estimates by state-owned China National Petroleum Corp suggest demand will hit its ceiling this year, five years earlier than expected. Consumption of gasoline and diesel will also follow a similar downward trend in 2022, according to the IEA, as EVs, more-efficient vehicles, and shifts to public transport cause usage to evaporate. The situation in India, as my colleague Javier Blas has written, may be even worse.

As we've argued, the oil industry is already past its peak. The decades to come will only be worse.

Bloomberg



ILLUSTRATION: BINAY SINGHA

## Needed: A war on accidents

VIEWPOINT  
DEVANGSHU DATTA

An air crash in Ahmedabad. A suburban rail disaster in Greater Mumbai. A stampede in Bengaluru. Three tragic events in a few days. And before that, a stampede at the Kumbh. It's too early to say why the Dreamliner crashed. The stampedes at the Kumbh and the stadium exemplify the madness of crowds and are new chapters in an age-old narrative of stampedes.

The tragic accident between Mumbai and Diwa stations led to the least loss. "Only" four commuters died, and nine were injured whereas the counts in the other incidents were much more. However, the suburban incident is the tip of a very large iceberg and despite being the least in terms of apparent body count, it is the most noteworthy.

There are between 2,500 and 3,000 accidental deaths every year on the Mumbai suburban system. That works out to seven a day, mostly from falling off trains or from being hit while crossing tracks. Some of these may be misclassified suicides — 76 suicides were officially recorded on Mumbai's suburban system in 2022. For context, three people die every year from accidents on London's rail system, and another 40 commit suicide. Paris each year has around 60 deaths, including suicides.

The Mumbai-Diwa incident

occurred because commuters leaning out of the doors of a train collided with commuters leaning out of another train as the two crossed on adjacent tracks. In 2022, the last year for which the National Crime Records Bureau data is easily available, over 21,000 deaths from all train accidents were registered, and 73 per cent of these occurred because people fell off trains, or were hit by trains.

Over 10 per cent of those deaths occurred in Mumbai alone. The latest tragedy has led to assurances that automatically closing doors will be introduced on suburban coaches. That could cut the toll to some degree. But it will also lead to resentment — commuters hang out of coaches because they are desperate to get to work in time. Auto-doors will delay many journeys.

Running more trains during peak hours on a system already running at over capacity is difficult. But Mumbai has to find ways to increase transit capacity, whether it's via metro, or buses, or through creating additional rail capacity. If it wishes to reduce the desperation that leads to risk-taking.

In addition to increasing capacity and introducing auto-doors, other safety measures must include the smart redesign of rail infrastructure (like more footbridges) and education to persuade commuters not to risk crossing tracks and jumping on or off moving trains.

So, it's a tough act. But it has to be done. This is a problem faced by every megacities and other cities handle it much better. Delhi also has substantial deaths on public transit systems but it's come down since Delhi Metro started operat-

ing, and governors were introduced on DTC buses to reduce speeds. Kolkata has far fewer such deaths than Mumbai or Delhi, probably because the Kolkata commuter cares less about punctuality. While this bleeding continues year after year, it casts a pall of shame on the authorities running India's financial capital. Mumbai, with its suburban spread, cannot function without an efficient public transit system, and a system that kills seven people a day cannot be classified as "efficient".

One of the behavioural issues is that these deaths occur in drip-drip fashion and no single incident causes much outrage. The Indian Railways is not held to account politically; nor are municipal authorities, which should coordinate with the Railways to redesign transit infrastructure and increase capacity for greater safety.

The stampedes, on the other hand, hark back to tradition. India has a tradition of stampedes triggered by religious fervour. The British remarked on the large number of fatalities that occurred at the Puri Rathayatra in the 1800s. Cricket is the most fervently practised religion in the subcontinent so it fits with the tradition.

Large crowds can stampede and effective crowd management is required to prevent this. Crowd management should surely be part of the skillset of any administration. It isn't hard to predict where a crowd will gather during a festival or a protest for that matter. Governments use many methods to reduce the scale of protest, including buses, shutting down stations, deploying large police contingents with drones, and cordoning off spaces to break up protesters. Similar means could, and should, be used to control happy crowds.

## H-word, M-word & fading K-word

If the only superpower, which calls India an ally, sees the region through an India-Pakistan prism, it is unacceptable. Rather than endorse India's sphere of influence, this undermines it

Much as I would've wanted to use "*khota sikka*", the challenge of finding an exact translation brings me to the usual bad penny. Let's say, therefore, that like a bad penny, the dreaded H-word is back with us — H, as in hyphenation with Pakistan.

And its return is dreaded because our successive governments have laboured for three decades to rid us of what we see as the equivalence the big powers (read the United States) used to draw between us and Pakistan. Three things follow.

Let's call the first the "zero-sum game". If Washington sees the subcontinent in a hyphenated manner, then it must balance the relationship. Gain for one is loss for the other. It brings an equivalence India detests. It believes it stands in a class by itself and linking with Pakistan demeans it.

The second can be called "stature denial". Given its growing comprehensive national power (CNP), India believes it deserves a sphere of influence. If Washington, an ally, sees the region through an India-Pakistan prism, it's unacceptable. Rather than endorse India's sphere of influence, this undermines it.

This is double trouble as China is already working hard at denying India that pre-eminence. And whereas India would expect US backing in this competition, it is galling when the US keeps saying sweet things to Pakistan. We thought we were partners in a project to contain China through Quad.

And the third, this means the return of the M-word that so triggers us — M for mediation. For Indian public opinion, American President Donald Trump has undone the work of the past decades by continuing to insist that he mediated the India-Pakistan ceasefire. Now, we know that his interest isn't in any mediation but in getting credit: "No body gives me credit for stopping a nuclear war." I stopped a nuclear war and I haven't seen any stories about it," and so on.

You can't blame the Pakistanis for latching on to it. They think Mr Trump's renewed interest in the region emanates only from a fear of nuclear conflict. Therefore, they think they've been able to switch the global attention back to the nuclear threat, from the case India had built over decades to partnership in global war on terror. Personally this rediscovered moral is Bilawal Bhutto, who said, in his usual breathless hyperbole, that the US

would drag India to the negotiation table, if necessary, then by the ear. The Pakistani establishment has thrown everything in their desperation to revive their faded American connection. But anybody who's sided up to Mr Trump has ended up singing that sad old song: "*Ik bewafa se pyar kiya... haye re hum ne yeh kya kiya*" (best-of-for translation: "I fell in love with one who knows no love, how the hell did I get into this mess?").

This is a very transactional Trump with no loyalties, and as focused on his domestic base as Narendra Modi in India. Any US partner who doesn't accept this is setting herself or himself up for a feeling of grand betrayal and humiliation.

The good thing is our policy establishment is still wise not to respond emotionally and to avoid any public expression of anxiety. It is quietly progressing on the issue that matters right now — an India-US trade deal. If that works, much clutter would die down. In any case, nobody has brought back that other demon — the K-word.

Nobody is saying India and Pakistan should negotiate on Kashmir, and further that we are willing to mediate. I am not even sure if Mr Trump is aware of an issue like that.

That said, Mr Trump is now reshaping the world in his own vision uncluttered by history, facts, and ideology. He's gutting the North Atlantic Treaty Organization, he ridicules the Western alliance, serially insults Canada's Prime Ministers (Justin Trudeau and Mark Carney), and is impatient with Benjamin Netanyahu. He detests Volodymyr Zelenskyy and adores Vladimir Putin. Check out the latest gem from him: "Putin says the last 50 years people in (World War II) and we were your allies. Now everyone hates Russia and they love Germany and Japan. Let's explain that sometimes. It's a strange world. It's unrealistic to expect that somebody making radical shifts not confused by history would even know or appreciate our concern over de-hyphenation."

The Modi government's current approach of social media noise-cancellation is wise. Noted Assistant Secretary of State Kapur's full testimony to the committee voting on his appointment is mature and fine for India. But just that one line saying he'd work with Pakistan where it suits America's interests has made so many in India sulk like a jilted lover.

NATIONAL  
INTEREST  
SHEKHAR GUPTA

## Master of artistic coups

EYE CULTURE  
RAJNITA GANESAN

In their response to Iranian filmmaker Jafar Panahi's Palme d'Or for *It Was Just an Accident*, one thing united commentators at Cannes and state-affiliated media in Iran. Both called it a "political" win, albeit for different reasons. Global media said the prize was a sign the French film festival was faltering on its traditionally "political" stance to engage with international affairs, while Iranian government-backed outlets — under scrutiny for brutally suppressing protests since 2022 — dubbed it a West-sanctioned smear campaign.

A simple examination of Panahi's oeuvre, however, shows his lens belongs only to himself. The 64-year-old is a master of artistic coups. He routinely subverts government restrictions to arrive at unique ways of seeing, which are not influenced by the European gaze either — *This is not a Film* and *Taxi Tehran*, for instance. His films cannot be shown within his country, and are riskily smuggled into overseas festivals. But despite this recognition, the battle-hardened filmmaker is not smitten with the West, declaring he was "bored there", both personally and professionally.

Producing films under the constraints of censorship has kept him on his toes. He shoots in secret to avoid government permission. This earned him stints in prison and long bans on making films and travelling abroad.

which were lifted only in 2023. A festival-circuit joke had it that all his recent films were about not being allowed to make films. This is partly true, though not a new development. Every director essentially makes one movie in his lifetime — Abbas Kiarostami (Panahi's cinematic parent) certainly thought so — and Panahi has pondered one question ever since his 1995 debut *White Balloon*.

He is singularly interested in the absurdity of restrictions placed on people by family, society, and government — and the natural desire to break free. A product of the Kanoon school of filmmaking, emerging from Iran's Center for the Intellectual Development of Children and Adolescents, he started making neorealistic children's films. Since filmmakers could not truthfully depict the domestic lives of adults (rules of the Ministry of Culture and Islamic Guidance dictate that women wear headscarves even in scenes at home), the world of children was a suitable substitute.

In 1997's *Ayneh*, he continued filming even after the child protagonist Mina, tired of make-believe, looked at the camera and protested, "I'm not acting anymore!" The resulting blend of fiction and documentary is a striking allegory for women seeking agency. *White Balloon* too featured young lead characters determined to get their way, often going against what they are told to do. His narratives, more confrontational than the more poetic Kiarostami, shifted to include adult rebellions, but always outside the home.

*Dayereh*, the first bold step in that direction, was welcomed with a Golden Lion at Venice and punished with a ban in Iran. The women in the film may have managed to escape prison but most of a series of impediments were outside too — they often wore a cigarette yet are always discouraged from lighting one, a telling trope for their powerlessness. Where *Crimson Gold* drew its drama from the boundaries of class, *Offside* imagined teen girls defying the exclusion of women from football stadiums. The worst of his problems then had been the indefinite wait for permission, after showing solidarity with 2009's Green Movement in Iran, a period of house arrest followed.

This opened up a phase of clandestine filmmaking, starting with *This is not a Film*, where he technically only discusses a film he wanted to make. Iranian filmmakers could not be innovators in the road movie genre, and Panahi advanced the car movie format (car-named, if you will) with *Taxi Tehran* and *3 Faces*. Apart from the practical function of letting the director work undetected, the car is analogous to the sense of confinement and movement felt by people at large.

Oppressive rules are a universally occurring absurdity, as Panahi's travel experiences establish. As an Iranian artist, he spoke out when he struggled to secure a visa to enter Hong Kong in 2001 and was detained by US Customs the same year. While global media tend to represent Iran through a binary view of evil establishment versus suffering masses, Panahi lets us glimpse ordinary Iranians in a nuanced milieu. His body of work always was and remains about women, life, and freedom.

## Tragedy and farce

TICKER  
MIHIR S SHARMA

We may not know for some time what led to Air India 171's tragic crash just a few seconds after it took off. Crash investigations are some of the most comprehensive such inquiries carried out, and it is vitally important that we wait for this process rather than speculate.

After all, there are some things that we already know: The class of aircraft in question, the Boeing 787 "Dreamliner", has never previously been involved in a fatal incident — unlike, say, the same company's controversial 737-MAX, which has suffered several crashes and been grounded more than once. It has been less than a fortnight since Boeing came to a deal with the United States (US) government to pay \$1.1 billion in order to avoid prosecution for two past crashes of the 737-MAX. Critics of Boeing — of whom there are many — would say that the Dreamliner was de-

veloped when engineers rather than accountants ran the company, and so is a more reliable aircraft. Nevertheless, the company's share fell 5 per cent after news of the crash broke.

In other words, the reasons for this crash may wind up being more than usually difficult to ascertain. Any initial assumptions and statements may wind up being corrected over time; this is often the case with aviation accident investigations.

It is worth noting that it has been five years since the last large-scale civil aviation accident in India, the 2020 crash of Air India Express's 314 from Dubai to Kozhikode — one of the "Vande Bharat" repatriation flights during the pandemic. And the one before that was a full decade earlier: Air India Express 812, flying from Dubai to Mangalore in 2010.

Investigation into both these crashes revealed a startlingly similar pattern of behaviour: an indictment, indeed, of both Air India Express and of the Airports Authority of India. Both the crashes involved planes landing at dangerous "tabletop" runways, which drop off sharply at the end in an artificially flattened hilltop. In both cases, the captain ignored the advice of a junior first officer to "go around", or avoid landing, when

it seemed that they were landing too far into the runway to avoid going off its end. Much of this could be explained by problematic human-resource practices within Air India Express, where the captains may have been international pilots or on deployment from Air India, and thought themselves superior to the Air India Express first officers. And in both cases, the end of the tabletop runway was improperly maintained, and so the aircraft were not slowed as they should have been.

It is worth noting that the two Air India Express crashes were, till Thursday, the only major crashes this century, except for an Alliance Air crash in early 2000, killing 60. Given the many disasters that plagued Indian aviation to that point, the level of improvement in aviation safety in this country is worth noting. Even so, in those crashes, it is disheartening to see an echo of past problems. When Air India 855, the Emperor Ashoka, crashed into the sea a few kilometres off Bandra on New Year's Day 1986 — the "Bandstand Crash", as people call it at the time — a faulty attitude indicator misled the captain. But the US courts eventually determined also that his reaction time was slowed by diabetes medication which could also have been the case for the captain of AI 314 in 2020.

Even more controversial was the crash of Indian Air-

lines 605 in Bangalore in 1990. Instead of overshooting the runway, as was the case in Kozhikode and Mangalore, this one touched down short, missing the runway. This was the first time a worldwide investigation by the International Civil Aviation Organisation (ICAO) was required to review the then brand new Airbus 320, which had computerised "fly-by-wire" instrumentation — if one overlooked the fact that it had crashed on debut at a French air show. The crash investigation concluded that pilot error was responsible, though the quiet improvements to the A320's design thereafter suggest that a new and confusing interface might bear some share of the responsibility.

And then there is the most tragic farce of all, the 1993 fall of Indian Airlines 491, which failed to achieve proper gradient on its takeoff from Aurangabad airport and collided with a truck carrying bales of cotton along a road that crossed the end of the runway. Everything went wrong in that one — a poorly designed runway, a captain who ignored a (female) first officer, and, most importantly, poor systems on the ground leading to a possibly overweight aircraft that failed to achieve proper height.

AI 171 also failed to achieve the gradient it needed, but as history shows, any number of things could have been responsible. A rush to judgement of any kind would be irresponsible.

Next week: The perils of self-hypnotism  
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Editor's  
TAKE

## Digital revolution: A giant leap forward

The digital wave must carry every citizen forward, empowering them with tools, access and opportunities

Over the past 11 years, India has undergone a sweeping digital transformation that has redefined governance, empowered citizens, and reimaged the nation's developmental trajectory. Spearheaded by visionary leadership and powered by a blend of political will, technological innovation, and mass participation, India's digital revolution has moved beyond urban confines to touch the remotest corners of the country, bridging the once-formidable digital divide. Union Minister and BJP President JP Nadda recently remarked that this transformation has not only connected millions of people but also ensured that technology reaches every citizen.

Today, governance is more transparent and efficient than ever before. Real-time dashboards, data integration, and digital infrastructure have brought a level of accountability and speed to welfare delivery that was previously unimaginable. Major Government schemes like Digital India, CoWIN, Ayushman Bharat Digital Mission, U-WIN, and e-Sanjeevani have become lifelines for millions, particularly in rural and underserved areas. These platforms are not merely digital tools — they represent access, empowerment, and dignity for the common citizen.

One of the most celebrated facets of this revolution is the rise of digital payments through the Unified Payments Interface (UPI). The Government is actively investing in future-ready domains like artificial intelligence (AI). Plans are underway to set up three AI Centres of Excellence in top educational institutions, and several indigenous AI models — such as BharatGen, Sarvam-1, Chitralekha, and Hanuman's Everest 1.0 — are being developed to place India at the forefront of the global AI race. The digital revolution has also brought connectivity to the grassroots. With more than 94 crore broadband connections, India is among the most connected nations on the planet. Under the BharatNet project, over 2.18 lakh Gram Panchayats have been linked with high-speed internet, and more than 6.9 lakh km of optical fibre has been laid across the country. India also offers the world's cheapest mobile data, further enabling digital inclusion at scale. However, the road to a truly digital India is not without its challenges.

Despite the vast spread of digital infrastructure, a significant portion of the population still struggles with digital literacy. Many people, especially in rural areas and among vulnerable groups, lack the skills to use digital platforms effectively. This gap in digital understanding threatens to limit the benefits of technological progress. Additionally, the rapid growth of digital activity raises serious concerns about cybersecurity and data privacy.

As digital transactions and data usage rise, there is a pressing need for strong legal frameworks, robust cyber defences, and widespread public awareness to ensure safety and trust in the digital ecosystem. Infrastructure gaps also persist in certain remote and geographically difficult regions, where inconsistent power supply and connectivity remain major hurdles. The challenge now lies in making digital pushy more inclusive, secure, and equitable. As India marches toward its vision of Viksit Bharat @2047, the digital wave must carry every citizen forward, empowering them with tools, access, and opportunities.

## PIC TALK



White Tiger Bheem and Bengal Tiger Skandi play at the Nahargarh Biological Park, in Jaipur. PTI

# From Nobel Laureate to National Liability

Muhammad Yunus, once hailed as a visionary economist and social reformer, now accused of steering Bangladesh into deeper division and decay through a caretaker regime defined more by personal retribution than national stewardship

This week's attack on Rabindranath Tagore's ancestral home in Sirajganj is no mere incident but a stark symptom of Bangladesh's deterioration. Once a cultural sanctuary, it now lies desecrated by mob violence over a trivial dispute — reflecting a nation fraying under extremism, institutional decay, and political chaos. The state's feeble response exposes its waning control, while the turmoil mirrors the catastrophic misjudgements of Chief Adviser Muhammad Yunus's fractured stewardship. Once revered worldwide as the architect of microfinance and a Nobel laureate whose work redefined social entrepreneurship, Muhammad Yunus's trajectory into Bangladesh's political arena has proved paradoxically corrosive. His appointment as the head of the caretaker Government, intended to ensure impartiality and a smooth transition, has instead become synonymous with deepening partisan rancour and administrative short-sightedness. Yunus's virulent antipathy towards the Awami League, and particularly its leader Sheikh Hasina — a scion of the revered Bangabandhu Sheikh Mujibur Rahman — has become the defining characteristic of his Governance. It is widely known that Sheikh Hasina once sought to imprison Yunus on charges of financial irregularities, charges that Yunus has deftly manipulated to foment public dissent against her and to galvanise efforts not merely to dislodge her from power but to systematically excise her family's enduring imprint on Bangladesh's national consciousness. This vendetta is no more visible than in the excision of Bangabandhu's visage from the nation's currency notes.

Since 1971, the Father of the Nation's image has been etched onto the Taka, an emblematic tribute to the liberation struggle and a unifying symbol of identity. The Yunus administration's replacement of this enduring iconography with cultural landmarks, framed under the pretext of "depoliticising" currency, reveals itself as an act of sober governance than of emotional retribution. To excise the very face that personifies Bangladesh's birth is to leave the country from its roots, a symbolic mutilation that threatens to fracture collective memory.

Yunus's rhetoric has further inflamed divisions. In a contentious address at London's Chatham House, he openly questioned the legitimacy of the Awami League. His inflammatory statements do not merely delegitimise a political party; they alienate millions of citizens who have invested their faith in the Awami League over decades. This polarising discourse deepens the fissures within an already fragile polity, fostering discord where unity is desperately needed. Compounding these political fissures is the dire economic



reality confronting Bangladesh under Yunus's leadership. At the same Chatham House forum, Yunus lamented that the economy had not simply stalled but regressed beneath zero, burdened by "immense debt pressure" and foreign reserves "at the bottom" — because they're empty. The banking sector, he revealed, has "completely collapsed," the victim of "rampant corruption, bribery and money laundering" allegedly perpetrated during the previous Government's tenure.

The revelation that billions — estimated at \$234 billion — have been siphoned off via illicit channels paints a grim picture of systemic plunder, one that threatens to choke any prospects of recovery. However, the indictment of the past also illuminates the present conundrum: the interim Government itself inherited and perpetuated systemic rot. The wholesale replacement of bank boards with cronies issuing loans as "gifts" compounds institutional dysfunction. The challenge of rehabilitating a banking sector crippled by nepotism, impunity, and political interference looms large, a task made all the more formidable by ongoing factional infighting and a deteriorating governance framework.

Globally, Yunus's stature has suffered a perceptible decline. Despite proclamations of "enormous support" from the IMF and foreign Governments, reality paints a more sobering tableau. Notably, the UK Prime Minister reportedly declined to meet Yunus during a

recent diplomatic mission, a pointed gesture of diplomatic coolness that exposes his precarious standing on the world stage. This tacit rebuff marks a sharp contrast to his previous global acclaim, highlighting how domestic political entanglements and perceived instability have diminished his credibility. The interim Government's revisionist approach to history and national symbolism has only served to alienate broad swathes of the population. The rewriting of textbooks, removal of Sheikh Mujib's statues from public spaces, and suspension of Awami League activities are widely perceived not as reforms but as punitive purges. This behaviour reeks of sectarianism disguised as statesmanship — a profound breach of the mature leadership Bangladesh urgently needs. Responses from emergent political entities, such as the National Citizen Party, articulate the widespread scepticism gripping the political milieu. While tentatively welcoming the prospect of elections in the first half of next year, the NCP conditions its support on the implementation of the July Charter and Declaration, alongside comprehensive institutional reforms.

Their insistence on restructuring the Election Commission and postponing local elections signals a demand for foundational renewal before any credible national vote can transpire. This cautious posture encapsulates the broader anxieties of a civil society wary of being entrapped in another cycle of compromised democracy. The quest to recover stolen assets in countries riddled with entrenched patronage systems is widely acknowledged as Sisyphean. Extensive research by governance watchdogs like Transparency International and the World Bank elucidates that such endeavours demand not only domestic resolve but also robust inter-

national cooperation, forensic accounting expertise, and a judiciary capable of withstanding political pressure. Bangladesh's current fissures and institutional weaknesses severely constrain such ambitions, casting doubt on the feasibility of Yunus's promises to reparate illicit capital without a concerted, unified national effort. Yunus's tenure illustrates the peril inherent when a fragile democracy is entrusted to a leadership that substitutes vindictiveness for statesmanship — rewriting history not to enlighten but to erase. The rise and precipitous fall of Muhammad Yunus as Bangladesh's political architect serve as a sobering admonition of the consequences wrought when personal animus supplants public duty.

His relentless pursuit of political objectives, seemingly intertwined with an abiding enmity towards the Awami League and its storied legacy, has not only imperilled his standing but threatens to thrust the nation further into fragmentation and despair. The symbolic purging of Bangabandhu from the currency and public memory is more than mere iconoclasm; it is an affront to the nation's very soul. Consequently, the future of a 'New Bangladesh' hangs precariously in the balance, burdened by economic stagnation, vindictive politics, and a rising tide of extremism. Without a fundamental shift towards inclusive governance, respect for historical legacy, and robust institutional reform, Bangladesh risks becoming a cautionary case study in the devastating aftermath of regime-change projects orchestrated by warmongering Western democracies — nations devoid of conscience in their interventions, willing to sacrifice anything for political expediency.

(The writer is a columnist based in Colombo. Views are personal)

## Is Chirag Paswan emerging as the BJP's CM Face in Bihar?

### SECOND Opinion

Young, dynamic, and often referred to as the "Hanuman of PM Modi," Chirag Paswan seems poised to emerge as the BJP's potential Chief Ministerial face for Bihar. The BJP currently has a compelling CM candidate from within its ranks to present to Bihar's electorate. After the demise of Sushil Modi, it has failed to fill the void. The Bihar Assembly elections, covering 245 constituencies with over 7.64 crore registered voters, are expected to be held by November 2025. As the political climate begins to shift, the BJP appears to be preparing to position Chirag Paswan as a serious contender to lead the state.

#### Nitish Kumar and BJP's Dilemma

The current Chief Minister Nitish Kumar, popularly known as "Sushasan Babu," has gained a reputation for frequent political realignments. Having shifted alliances between the Rashtriya Janata Dal (RJD) and the BJP, Nitish's credibility has taken a hit. His past partnerships, especially with Lalu Prasad Yadav's RJD and his son Tejashwi Yadav as Deputy CM, followed by a return to the BJP-led NDA, have created a trust deficit both within the electorate and among his allies. Although the BJP has stuck with Nitish Kumar for pragmatic reasons, the party is known to be uncomfortable with his unpredictable political manoeuvres.

With Samrat Chaudhary, a senior BJP leader and Deputy Chief Minister, lacking the mass appeal to rival Nitish, the BJP is in urgent need of a charismatic, youth-driven leader who can bridge this gap and Chirag Paswan fits the bill.

#### Why Chirag Paswan?

Chirag Paswan brings a unique mix of youthful energy, soft-spoken charisma, and a clean image. The son of the late Ram Vilas Paswan, he leads a splinter group of the Lok Janshakti Party (LJP) and has demonstrated unwavering loyalty to Prime Minister Modi. Despite being a Union Cabinet Minister, Chirag is reportedly discontent with his current portfolio — Food Processing Industries, a ministry often considered low in political weight. His preference is clear: to play a larger, more influential role in his home state. According to party insiders, two primary scenarios are under discussion between the BJP high command and Chirag Paswan:

#### Full Merger into BJP

Chirag merges his party, LJP (Ram Vilas), into the BJP and is officially declared the party's CM candidate for Bihar. This option would likely offer Chirag greater political stability and authority but requires his total integration into the BJP, which some of his party colleagues may resist.

#### CM face of the alliance

Chirag contests the elections as an NDA ally, projected as the

CM face. However, this route is fraught with challenges — primarily the seat-sharing dilemma. As the dominant partner, the BJP would demand a major share of constituencies and ministerial portfolios, potentially limiting Chirag's influence in a future coalition Government.

#### A Calculated Risk or Strategic Shift?

Chirag's potential elevation to the top post could serve multiple purposes for the BJP. It would allow the party to refresh its leadership in Bihar, address the vacuum created by Nitish Kumar's waning influence, and tap into the Dalit vote bank, a demographic traditionally loyal to his father, Ram Vilas Paswan. While Chirag Paswan has not publicly committed to either path, his growing restlessness within the Union Cabinet and increasing clout in Bihar politics indicate that a shift is imminent. A merger, though complex, might offer him a long-term political future with deeper roots in Bihar's governance. In the 2020 Bihar elections, LJP managed to win just one seat and its nine candidates were placed second. In the last General elections, Chirag Paswan's LJP got five seats. To sum it up, LJP merger with the BJP could mean a win-win situation for both parties as Chirag's candidates would get a fair share of upper caste votes in the name of the BJP and the BJP could benefit from Chirag's vote bank and the legacy of his father, late Ram Vilas Paswan. As the 2025 Bihar Assembly elections draw closer, the question looms large: Will Chirag Paswan become the face of BJP's Bihar?

(The author is a political analyst. Views are personal)

## Letters to the Editor

#### Air India plane crash

It is deeply shocking that Air India Flight-A1171, a Boeing 787-8 Dreamliner en route from Ahmedabad to London Gatwick, crashed shortly after take-off on June 12, 2025, into the BJ Medical College hostel in Meghna Nagar. Of the 242 people on board, only one British national, seated near the emergency exit, miraculously survived and is now in stable condition.

Tragically, 241 passengers and crew lost their lives, along with at least 28 individuals on the ground, bringing the total fatalities to approximately 269. Among the victims were 169 Indian nationals, 53 Britons, seven Portuguese, and one Canadian. The crash also claimed the lives of several medical students and staff; five medics were killed and over 60 others injured in the hostel. Rescue teams from NDRE, IAF, ISR, and NSC responded rapidly, and the aircraft's black boxes have been recovered.

Preliminary data indicates the plane crashed just over 600 ft before descending and issuing a mayday call, with initial reports citing a possible mechanical issue, such as the landing gear not retracting. The nation mourns this rare but utterly devastating tragedy. With rescue operations completed, a thorough technical investigation is now critical to uncover the root cause and prevent future incidents. International condolences continue to pour in, underlining the global impact of this catastrophe.

DVG SANKARA RAO | VIZIANAGRAM

#### Mumbai local turning into death line

Apologies news item, "Mumbai's death line: four killed, nine injured," published on June 10, is my response. The accident that took place in Thane district, Maharashtra, when passengers fell off two overcrowded running local trains, resulting in four dead and several others injured, raises a serious question over the safety standards in Mumbai's suburban railway system, well known as the "lifeline" of the city. Reportedly, several passengers, clinging to the footboards due to lack of space inside, were seen brushing against each other as the trains passed closely. With over 80-lakh daily commuters, Mumbai's suburban train system is arguably the busiest in the world. Yet, overcrowding, outdated infrastructure, and lack of real-time monitoring make it a frequent site of accidents.

Railway experts point out that lack of platform screen doors, dedicated city rail governance, and insufficient rolling stock are core issues behind such recurring tragedies. The incident serves as a grim reminder of the urgent need to modernise Mumbai's railway system, not technologically alone, but structurally and administratively also. This tragic event underscores the critical need for immediate action. Without swift and comprehensive reforms, the "lifeline" risks becoming a constant threat to those who rely on it daily, ensuring commuter safety must be the absolute top priority.

RANGANATHAN SIVAKUMAR | CHENNAI

#### Wife poisons husband: Eroding Values

A 33-year-old woman poisoned her husband, kids, and in-laws' food with sleeping pills to hide an extramarital affair. Husband-killing crimes are coming into existence rapidly in India. Women are becoming beasts in domestic life. It is affecting society badly. Society is required to be reformed from such heinous moves, or else it will be a social crisis for prospective generations. It marks a lack of nurturing. Parents must nurture their children in a proper order. They must be aware of domestic responsibilities, affection, and rights to the husband and other members to overcome such dreadful crimes. Life is very limited; it shouldn't be destroyed due to extramarital affairs after tying knots. Parents must ask their children what they want; until they understand their psychology, society will deteriorate in such a way.

A woman poisoning her family to conceal an affair is not just a crime but a reflection of deep societal decay. Such incidents underline the urgent need for emotional education, responsible parenting, and moral grounded values may lead future generations into a moral and social crisis. This alarming trend necessitates a collective introspection on familial values and marital sanctity. Only through fostering empathy and commitment can society hope to curb these devastating betrayals.

NADEEM AASIM | MUMBAI

## RAFALE FUSELAGE DEAL: A BIG BOOST FOR MAKE-IN-INDIA

In a big boost to Make-in-India, Dassault Aviation of France and India's Tata Advanced Systems Limited will partner for Rafale aircraft fuselage manufacturing at a dedicated facility in Hyderabad. The key structural sections of the aircraft to be manufactured in India include the central fuselage, rear section, lateral rear shells, and the front section.

The first fuselage sections are expected to roll out by FY2028, with a production capacity of up to two complete fuselages per month. Investing in strategic and high-tech manufacture of fuselage parts for Rafale as an offset against its purchase. Such foreign tech deals to build local jobs along with domestic capability need to be replicated across other sectors where advanced R&D is tied with job creation. There are any number of emerging areas for similar initiatives: Aerospace & Defence Manufacturing, Biotech and Genomics, EVs and Battery Tech, Space Tech & Satellite Systems, AI,

Robotics & Quantum Tech, Agri-Tech and Food Engineering are sectors that carry exciting possibilities. In all these, we are equipped with the needed technical and engineering make-up and eager manpower. India can turn strategic spending into jobs and innovation engines for not only local markets, but global exports.

Outlays on R&D-intensive, job-multiplying sectors like aerospace, biotech, and energy is an investment to future-proofing India's workforce. The Rafale fuselage project in Hyderabad signals India's ascent in high-tech manufacturing. By aligning foreign partnerships with domestic capabilities, India can transform strategic spending into engines of innovation, jobs, and exports. Scaling such initiatives across emerging tech sectors will help secure India's global competitiveness and future-proof its workforce.

R NARAYANAN | MUMBAI



## Aung San Suu Kyi at 80: Forgotten Behind Bars

Once a global icon of democracy, her plight now draws diminishing international outrage. Yet even as the West looks away, resistance forces in Myanmar are gaining ground. The junta's grip is slipping, but Suu Kyi's life remains in peril as the battle for Myanmar's future intensifies

**FIRST COLUMN**

On June 19, 2025, Aung San Suu Kyi will complete 80 years of her life and step into the 81st year. She remains in prison. The last one of her sham trials — all widely condemned the world over — which ended on December 30, 2022, sentenced her to seven years in prison. With this, the total number of years to which she was sentenced came to 33, which was subsequently reduced to 27 years. This suggests that Myanmar's ruling junta, which calls itself State Administration Council, wants her to die in prison.

What is striking in this context is the waning interest of the Western democracies in her incarceration and the struggle for democracy in Myanmar. They, doubtless, continue treat the junta as an outcast and retain the sanctions imposed on it and its leaders. Yet expressions of outrage over her continued imprisonment and the junta's savage military action against civilian populations in the areas controlled by the People's Defence Force (PDF), the armed force of the opposition National Unity Government (NUG), and the ethnic armed organisations (EAOs), which are waging war against it in cooperation with one another, are now fewer and less strident.

This, of course, is a result of the emergence of new issues like the Ukraine war and Israel's action in Gaza which now occupy centre stage in the general global discourse. Nevertheless, this diversion of global attention helps to reduce the pressure on the junta to restore democracy in the country and conduces to making sure that it will be ousted only if, and when, it is defeated in the civil war now raging in Myanmar.

The opposition forces include, besides the PDF, the Three Brotherhood Alliance (henceforth the Alliance) comprising the Myanmar National Democratic Alliance Army (MNDAA), active in the Kokang Special Region of northern Shan State, the Tsing National Liberation Army (TNLA), also active in the Shan State and the Arakan Army (AA), based in the Rakhine State in the country's western part, acting in close cooperation with the PDF and other ethnic armies. They are increasingly gaining the upper hand.

The Sit-Tat (as Myanmar's army is called), has suffered a series of reverses since the Alliance launched its offensive, codenamed Operation 1027, on October 27, 2023. The AA had brought almost the entire Rakhine State under its control by April, 2024. The MNDAA claimed on July 31, 2024, that it had captured Sit-Tat's military base in Lashio, a city in Shan State close to the border with China, and its



airport. This was a major loss for the junta. As Vivek Shankar has pointed out in a piece in The New York Times dated August 5, 2024, the "city of Lashio and its airport lie on a crucial trade corridor to Yunnan Province in China, which is spending hundreds of millions of dollars on a high-speed rail link and other infrastructure projects on both sides of the border."

The opposition forces now control large swathes of territory along Myanmar's borders and mountainous regions; the military retains control over the major cities and lowlands in the central Irrawaddy Valley.

It is losing even the cities and towns. A report (dated August 13, 2024) by-lined The Irrawaddy, in the website The Irrawaddy, and carried under the headline "Junta Controls Fewer Than 100 of Myanmar's 350 Towns; NUG," cited the latter's defence minister, U Yee Mon, as saying that only 98 of Myanmar's 350 townships remained under the junta's control. According to the report, the NUG's Defence Ministry divided Myanmar's towns into four categories — 75 completely captured by anti-regime groups, 105 surrounded by anti-regime groups, 75 being fought over, and 98 towns remaining under the regime's control.

**THE OPPOSITION FORCES NOW CONTROL LARGE SWATHES OF TERRITORY ALONG MYANMAR'S BORDERS AND MOUNTAINOUS REGIONS; THE MILITARY RETAINS CONTROL OVER THE MAJOR CITIES AND LOWLANDS IN THE CENTRAL IRRAWADDY VALLEY. IT IS LOSING EVEN THE CITIES AND TOWNS**

According to an article (dated June 4, 2025) by Banyar Aung, carried in The Irrawaddy, the ethnic Arakan Army (AA) has notched up major gains since launching its Rakhine offensive in November 2023, seizing control of 14 out of 17 townships in the western state. Of the three townships still under junta control, battles are raging in Sitwe and Kyaukphyu, while Manauing is the only township from where clashes have not been reported.

The AA has also secured the entire stretch bordering India and Bangladesh following its capture of territory along the Naf River including Maungdaw, Buthidaung, and Chin State's Paletwa Township. This has led to Bangladesh establishing direct contact with it and India maintaining ties through the Government of Mizoram.

The junta, doubtless, has sought to hit back. In an article (dated March 19, 2025), appearing under the headline "Mapping the Myanmar Junta's Gains, Losses and Stalemates Since 1027", in The Irrawaddy, Moe Seti Nyen Chan, a military analyst, writes that in 2024, the Sit-Tat, as the junta's army is called, switched to a more dynamic strategy, employing mobile and pro-active defensive tactics and launching counter-offensives across the country, relying heavily on war planes

and drones. These tactics, however, have yet to produce meaningful or decisive victories. As stated in the article, the areas reclaimed by the junta collectively account for less than one per cent of the territory, towns, and camps previously seized by resistance forces. Besides, the regained areas remain under constant threat, encircled by resistance forces.

The article further states that the opposition forces have responded by intensifying guerrilla-style operations involving ambushes, the laying of mines, and repeated attacks on the Sit-Tat's positions. They doubtless have to battle numerous odds. The junta, for example, recaptured most of Loikaw Township in 2024 after Karenni resistance forces withdrew, apparently because of ammunition shortage.

The Sit-Tat, however, is facing serious problems of its own, and is starting at almost certain defeat in the long run. Its morale is very low. Internal discord is growing. Several three-star generals have been removed. Many younger officers are unhappy as they recognise that almost the entire country is against them. According to a piece by Ye Myo Hein (dated March 4, 2023) featured by the United States Institute of Peace, it was found that the Sit-Tat, whose "headcount" showed a "strength of a total 300,000-400,000 before the coup," currently "had a strength of about 150,000 personnel."

Roughly 70,000 are combat soldiers. At least 21,000 service members have been lost through casualties, desertion and defection since the coup. The advantage the Sit-Tat has in its possessions of tanks and armoured vehicles, is, to a great extent, neutralised by the fact that these are very difficult to deploy in the densely-forested mountainous areas, marked by deep gorges and steep climbs, which are the strongholds of the opposition.

It has artillery and air-support. These, however, do not win wars even when supported by heavily-armed trained troops. Otherwise, the United States would have romped to a victory in Vietnam.

It is a matter of time before the junta is ousted. When that happens, it will be a great vindication of the prolonged struggle Aung San Suu Kyi has waged, at great cost to herself, for freedom and democracy in Myanmar. There is, however, a very serious danger that needs to be talked about. It is of the junta getting her murdered in prison and trying to pass it off as death caused by old age-related natural causes.

If this happens, one of the causes will be the junta's belief that the West has lost interest in Myanmar and will do no more than expressing routine condemnation before passing on to subjects considered more pressing.

(The writer is a consulting editor with The Pioneer. Views expressed are personal)



HIRANMAY KARLEKAR

## From Eden to Eternity: A Fan's Fifty-Year Journey with Indian Cricket

I still vividly remember the first day of the third Test at Eden Gardens, Calcutta — the moment my lifelong romance with cricket began. It was the winter of 1974, during the India-West Indies Test series. I was just eight years old, a curious boy drawn by the electric buzz of the crowd and the anticipation of something big. The chill in the December air did nothing to dampen the excitement. That morning, unknowingly, I stepped into a world that would accompany me through the next five decades. That game, that series — it wasn't just cricket. It was the spark that lit an eternal flame.

India, under the regal leadership of Mansoor Ali Khan Pataudi, was down 0-2 in the five-match series. The team had lost in Bangalore and Delhi, and the third Test at Eden Gardens was a must-win. The West Indies, led by the charismatic Clive Lloyd, were a powerhouse brimming with pace and power. India won the toss and batted. What followed was a spirited fightback, and India clinched a memorable win. The stadium was packed — 80,000 fans roared with every stroke and wicket. I can still hear those cheers echoing in my ears.

The series then moved to Chennai, Madras — a ground that favoured the artistry of spin. There, Gandappa Viswanath played an elegant 97, full of delicate wristwork and clever placements, helping India level the series 2-2. And then came the decider at Bombay's Brabourne Stadium, a historic venue that predates the Wankhede. That was my initiation into the magic of radio commentary, listening to the crackle of Sunil Gavaskar's blade as he took wicket.

Though India lost the final Test, and the series 3-2, something even more lasting had been sown — my love for cricket. It wasn't just about scores or wins. It became a part of who I was, something woven into the fabric of my being. From that day on, I followed every Test match, every India series — first as a wide-eyed child, then a college student, a public servant, and now a senior officer nearing the end of a long career. Cricket has been my constant. Through this fifty-year journey, five cricketers have symbolised different stages of my life — five icons who inspired, moved, and accompanied me as time unfolded.

### Sunil Gavaskar: The Pathbreaker

During my school and college years, Sunil Gavaskar was my north star. Calm, precise, and courageous, he stood up to the might of the West Indies pace battery with nothing but a cap and unshakable technique. No helmets, no flamboyance — just resolve. His debut series in 1971, with 774 runs, announced that India had

arrived. When he retired with over 10,000 Test runs and 34 centuries, he left behind not just records, but a legacy.

Gavaskar gave Indian cricket an identity. We called him the "Little Master," but his influence was monumental. His final Test innings — a poetic 96 on a difficult pitch against Pakistan in 1987 — was a masterpiece. I was in college, captivated by every stroke. He taught us that we could be world-class, that Indian batsmen could dominate with skill and patience.

### Kapil Dev: The Gamechanger

As I entered Jawaharlal Nehru University for my postgraduate studies, Kapil Dev exploded onto the scene. Fast-bowling, hard-hitting, and fiercely proud, he was the antidote to all the clichés about Indian cricketers. Hailing from Haryana, Kapil broke barriers with his athleticism and charisma.

He took 434 Test wickets and scored over 5,000 runs. But what sealed his place in the hearts of millions was that magical summer of 1983 — leading India to their first World Cup win at Lord's. His unbeaten 175 against Zimbabwe remains etched in legend. He was raw courage. Kapil didn't just change matches — he changed mindsets. He told us, through every action, that India could win, anywhere, against anyone.

### The God of Cricket

By the time Sachin Tendulkar made his debut in 1989, I had joined the police force. It was a demanding life, but no matter where I was — in a distant district, on night duty, or in a high-pressure post — I found a way to follow Tendulkar. At 16, he took on Pakistan's fearsome bowlers. From then on, he carried our hopes with unmatched consistency. Tendulkar's career — 100 centuries, 34,000 runs — is astonishing. But even more inspiring was how he carried himself. His Sharjah heroics, his double century in Gwalior, his resilience after the Mumbai attacks — they were more than just cricket. They were moments of collective healing and pride. For me, Sachin was not just a cricketer. He was a life lesson. His poise, discipline, and humility were as instructive as his batting. I remember watching his farewell at Wankhede with moist eyes. It felt like the end of a personal era.

### MS Dhoni: The Calm Conqueror

Then came MS Dhoni, just as I had reached the peak of my career. Hailing from Ranchi, he showed that dreams didn't require big cities. With his lightning glove work and icy nerves, he revolutionised Indian cricket.

His leadership was fearless. Under him, India won the inaugural 2007 T20 World Cup, the 2011 ODI World Cup, and the 2013 Champions Trophy — a trifecta never achieved before. That last six at Wankhede in 2011 is a memory etched in national consciousness.

Dhoni was my modern hero — understated, tactical, and unfailingly composed. Even amidst my busiest days, I made time for his matches. His helicopter shot, his late flourishes, his cool behind the stumps — they were moments of joy in an otherwise hectic life. He taught us that silence could be strength, and success could be simple.

### Virat Kohli: The Modern Warrior

Virat Kohli came into my life as I took on challenging leadership roles and even represented India in UN missions. In the fast-paced, digital world, cricket became more accessible — but no less meaningful.

Kohli, with his aggression and ambition, brought a new edge to Indian cricket. He led from the front — fit, fierce, and unrelenting. His centuries overseas, especially in England and Australia, were not just personal triumphs but national milestones. Under his captaincy, India became the world's No. 1 Test side and won a historic series in Australia.

His recent retirement, alongside Rohit Sharma, marks the end of another golden chapter. But his legacy will endure — one of passion, purpose, and pride. Kohli redefined belief. He made us expect victory — not just hope for it.

### A Constant Companion

As I now stand at the threshold of retirement, I find myself reflecting on this extraordinary fifty-year bond with cricket.

From transistor radios to mobile apps, from whites to coloured kits, from five-day Tests to T20 thrillers — cricket has evolved, and so have I. But the emotion remains unchanged. Every boundary still brings a smile. Every wicket still raises my heartbeat. I've seen stadiums change, formats shift, players come and go — but the love has never dimmed. Cricket has mirrored my life — full of struggle, grace, intensity, and occasional triumphs. Today, as I complete five decades of being a fan, I feel only gratitude. Cricket has been my joy, my escape, my teacher. It taught me patience, resilience, teamwork, and, above all, hope.

For many, cricket may just be a sport. But for me, it is memory, meaning, and music — a rhythm that continues to play in the background of my life, beautifully uninterrupted.

(The writer is IPS DIG / Additional Director UPSIFS LUKNOW. Views are personal)

## How India's Rural Revolution Redefined Global Development

Some statistics stop you in your tracks. They don't just tell you a story — they change the very narrative of a nation. One such number is this: India's extreme poverty rate has fallen from 27.1 per cent in 2011-12 to just 5.3 per cent in 2022-23. That means 269 million Indians — nearly the population of an entire continent — have broken free from the clutches of extreme poverty in just over a decade. Behind this staggering statistic lies not just good luck or economic growth, but a quiet revolution led by Prime Minister Modi. Eleven years of determined, ground-level governance, hard-nosed reforms, and the revival of India's most ignored strength — its cooperative economic framework.

This isn't just a policy shift; it's a transformation of mindset, of machinery, and of the meaning of development itself. For too long, poverty alleviation was viewed as charity or top-down welfare. But under PM Modi's leadership, poverty reduction has become an outcome of empowerment, not entitlement. And the beating heart of this transformation?

The recent World Bank report gives global recognition to this shift, but Indians have been living it daily. It acknowledges what we on the ground already knew: that this isn't mere statistical luck. It is the result of deliberate structural reforms, institutional innovations, and a relentless push to bring prosperity to the last mile. For the first time, the World Bank is forced to rethink the way poverty is measured and tackled — not with foreign aid or fiscal sop, but through farmer-centric systems, rural institutions, and localised wealth creation.

Let's not forget: this isn't about cities. The most significant poverty reduction has taken place in Uttar Pradesh, Maharashtra, Bihar, West Bengal, and Madhya Pradesh — states that are as rural and agrarian as they are populous. That's no coincidence. These are also the very states where cooperative movements have taken deep root over the past decade, where PACS are being digitised, where FPOs are thriving, and where rural women lead dairy and seed cooperatives with pride. Over the past eleven years, PM Modi has not just created schemes — he's reformed governance itself. Ministries have become mission-oriented. The Ministry of Cooperation was established not as an afterthought, but as a declaration that India's villages matter. Cooperative societies are no longer marginalised — they are central to our economic planning. With the creation of three new national-level multistate cooperative institutions for export, seed, and organic produce, the message is loud and clear: Bharat will rise from its grassroots.

And this is no longer an emotional or cultural belief — it is an economic reality. Procurement planning is now integrated with production. Farmers are no longer growing in the dark. They know in advance who will buy their produce, at what price, and when.

This pre-season certainty has changed the game. Add to this the rural warehousing revolution, where PACS are being upgraded into service and storage hubs, and you have a system where value doesn't leak — it stays with the farmer.

This transformation is not just an Indian success story — it is a model that challenges the very foundations of global development thinking. For years, institutions like the World Bank, IBRD, and various climate finance bodies have equated development with billion-dollar urban projects, often disconnected from rural realities. However, India has shown that structural poverty reduction, economic dignity, and climate resilience can go hand in hand when rooted in cooperative — led governance.

Investment in agriculture — especially in procurement infrastructure — has reoriented India's supply chain around the farmer. This is no longer a system of distressed sales and middlemen. It is a model of forward-planned procurement, storage, and distribution backed by local institutions. This subtle but

powerful disruption in the supply chain has already begun reshaping how development is financed, measured, and delivered. Warehousing reduces post-harvest losses — that's climate action. Local procurement cuts down on emissions and transport costs — that's mitigation. Community irrigation saves water — that's adaptation. But most importantly, these are models of development that are owned, run, and sustained by the people themselves. This is why the upcoming High-Level Political Forum at the United Nations, beginning July 5, must pause and reflect. The SDG playbook can no longer ignore India's cooperative-led success.

Suppose the world is serious about achieving SDG 1 (No Poverty), SDG 2 (Zero Hunger), SDG 13 (Climate Action), and SDG 8 (Decent Work and Economic Growth). In that case, it must look beyond outdated aid paradigms. It must look towards India. India has proven that poverty isn't defeated by dependency — it is crushed by dignity. When farmers are seen not as beneficiaries but as entrepreneurs, when supply chains revolve around producers, and when communities build their resilience, transformation becomes inevitable. The World Bank report isn't the end of the story — it's the beginning of a new chapter. A chapter where the world rethinks its assumptions, where financial institutions align with grassroots wisdom, and where rural India shows the way forward. Let us send a message from Bharat to the world: Poverty is not destiny. Prosperity is not a privilege. With the right structure, spirit, and support, any nation can rise. But for that to happen, the world must finally listen to Bharat's voice — from its villages, its cooperatives, and its people.

(The writer is Secretary General, Confederation of NGOs of Rural India. Views expressed are personal)



BINDU ANAND



## 13 THE IDEAS PAGE

## Old conflict, new front

Israel's goal is to weaken not just Iran, but also its proxies. The attack on nuclear installations is part of this objective



P R KUMARASWAMY

AFTER WEEKS of brinkmanship and uncertainty, Israel has crossed the Rubicon and launched a massive attack on a host of strategic targets in the Islamic Republic of Iran. Code-named Operation Rising Lion, this is the most dramatic, extensive and scaled-up Israeli offensive against a state, at least since the June War of 1967.

The two states have been at loggerheads since the founding of the Islamic Republic in 1979, but Israel's attacks are a definite escalation. Tehran's theological approach to Israel meant that a modicum of ties was impossible, even unimaginable. Over the decades, Iran has propped up regional proxies to ensure a severe but cost-effective military option vis-à-vis Israel. Iran created, co-opted or emboldened several non-state players committed to Israel's defeat. Thus, Hamas in Palestine, Hezbollah in Lebanon, the Houthis in Yemen and the Popular Mobilisation Forces in Iraq have been Iran's principal instruments in furthering its interests.

The proxy approach is not only cost-effective but also offers a strong element of deniability. Thus, when benefiting from the actions of these groups in tying down Israel and its military capabilities, Iran avoided any direct military reprisal from Israel. Through this proxy war, Iran has successfully expanded its influence beyond its territorial limits, and its sphere of influence can be felt not only in the immediate vicinity of the Persian Gulf but also in the Mediterranean Sea, the Red Sea, and the northern shores of the Arabian Sea.

For a long time, Israel has been in a strategic dilemma. Military responses to the proxies, which it carries out at regular intervals, only provide temporary relief until the next cycle of violence. Despite the prolonged ground and air offensive and massive displacement of the Palestinians — indifferent to international disapproval and criticisms — Israel has not been able to "defeat" Hamas in the Gaza Strip. Its military operations have weakened the groups and eliminated some of the known figures. But Hamas appears to be very much alive in the Gaza Strip, and the same can be said, albeit at a limited scale, for Hezbollah in Lebanon. The destruction of several infrastructure facilities, including the Sanaa airport, has not forced the Houthis to seek a truce. While Hamas has a base independent of Iran, the others — including the PMF in Iraq — depend heavily on Iran. Reining in these groups — especially against Israel — does not serve larger Iranian interests.

Running out of patience, Israel now seeks to minimise the long-term potential of these militant groups by targeting the source of their political legitimacy, support and arsenal. The Tehran-centric Axis of Resistance, according to Israel, cannot be defeated without directly confronting Iran. Earlier rounds of direct confrontation between Iran and Israel, in April and October 2024, did not significantly alter the



C R Sankumar

equation. While both countries claimed "victory", the confrontation also exposed the tacit regional support for Israel.

Ironically it sounds, Iranian Supreme Leader Ali Khamenei should be credited as the progenitor of the Abraham Accords between Israel and some Arab countries. Perceived threats from Tehran compelled Gulf Arab countries — tacitly supported by Saudi Arabia — to bury their erstwhile antagonism towards Israel, even sidestep the Palestinian question and normalise relations with the Jewish state. While US President Donald Trump got all the accolades and publicity, it was the belligerence from Tehran that propelled the Sunni Arab countries to move closer to Israel. These agreements endured even the 20-month-old Gaza crisis following the October 7 terror attacks.

According to the Israeli military spokesperson, in the early hours of Friday, with 300 different types of ammunition, 200 aircraft struck 100 targets in different parts of Iran. These include several military and missile bases, as well as nuclear installations, including the Natanz nuclear facility and the headquarters of senior military officials. There are also indications that some of these strikes were land-based and were carried out from within Iran.

Israeli officials describe the military strike as an "existential" battle "to degrade, to disrupt and to remove" the nuclear threat from Iran.

In the past, Israel had carried out such a successful strike at the Osirak nuclear reactor outside Baghdad — incidentally on June 7, 1981 — to scuttle the nuclear ambitions of Iraq. Similar surgical strikes were carried out in the Deir ez-Zor region in Syria in September 2007. Iran is a different story. The element of surprise, critical for any military operation, is absent as the international community has been discussing and speculating about an impending Israeli military strike against Iranian nuclear assets for decades. Anticipating such an eventuality, Iran has for-

tified its nuclear facilities.

The Israeli offensive comes amidst two closely linked developments: One, Oman has been hosting negotiations between Iran and the US towards reviving the 2015 nuclear deal, from which the earlier Trump administration had walked out. Second, in recent days, the International Atomic Energy Agency has expressed displeasure over Iran's non-compliance with its commitments to non-proliferation. The Israeli action scuttles any immediate political settlement to the Iran quagmire.

Initial reports indicate that Iran has replaced some of the senior military officials who were killed in the Israeli operations. Within hours, Iran responded by launching a wave of drones against Israel. Some of them were reportedly intercepted and destroyed over Jordan, whose territories they violated. In April last year, a host of Western and regional powers were involved in shooting down several aerial projectiles fired by Iranian proxies in Iraq, Lebanon and Yemen. Will the same happen this time?

Rather than targeting the proxies, this time Israel decided to target the patron. As an Israeli official declared, it is not an operation but a war. In the absence of any international power willing and capable of mediating, the military confrontation will likely continue and intensify. So far, Israel has established that it is capable, willing and prepared to act alone in defence of its critical national interests. The intelligence establishment, which failed miserably on October 7, has managed to deliver some critical results against Iran.

Amidst the escalating conflict, the people of Iran and Israel will rally around the flag and seek a definite "victory" for themselves. It is easier said than done. For centuries, conflicts have had one golden rule: You know how to start a war, but not how it will end. The current confrontation will not be an exception to this maxim.

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## Reframing religious freedom

The discourse must be situated in national contexts

RAM RAJYA  
BY RAM MADHAV

IN AN INTERESTING report, "Changing the conversation about religious freedom: An integral human development approach", published in June last year, the Atlantic Council, a US-based think tank, claimed that it was seeking "a new approach to religious freedom that integrates it with integral human development (IHD)". In a welcome departure from the earlier practice of demonising countries in the name of religious freedom, the report argued that religious freedom should not only be treated as a human right but also as "a crucial component of overall human flourishing and sustainable development".

Religious freedom became a bogey to defame countries after the US Congress passed the International Religious Freedom Act (IRFIA) in 1998 and created the United States Commission on International Religious Freedom (USCIRF) to "monitor, analyse and report on violations of religious freedom worldwide". The commission's annual reports have acquired notoriety for misrepresenting facts, often with an alleged political bias, in branding several countries as "Countries of Particular Concern" (CPCs). Several countries have questioned its focus stand in interfering in their sovereign affairs. India took an aggressive stand by refusing to recognise the commission and denying visas to its officials. Earlier this year, the Ministry of External Affairs not only rejected the commission's 2025 report, which included India as one of the CPCs, but went further to brand the commission an "entity of concern".

The USCIRF's reports have no sanctity outside the four walls of the US Congress. Yet, they have helped create a "religious freedom industry". A breed of "religious freedom ambassadors" has emerged in over 30 countries.

Religious freedom, per se, is not contentious. Several democracies, including India, hold it as sacrosanct. Articles 25 to 30 of the Indian Constitution offer various freedoms to religions including the freedom of conscience, the right to freely profess, practice, and propagate, and the freedom to manage their affairs without state intervention. Minority religions enjoy positive discrimination by way of special rights to run educational and cultural institutions. The same rights are not available to the majority Hindu religion.

India is the only country where people of all religions, including several Christian denominations and Muslim sects, coexist in harmony. It's not that there are no religious tensions, but they must be seen in the context of India's population of a billion-plus Hindus, almost 200 million Muslims and 40 million Christians. In its long history, Hindu society has endured enormous religious persecution by invading Mughal armies as well as violent religious inquisitions by Christian rulers like the Portuguese in Goa. The country was partitioned in 1947 on religious grounds after a brutal and violent campaign led by the Muslim League.

That history has made the leaders of modern India recognise the need for strengthening the bond of national unity based not only on political and constitutional

foundations but also on cultural and civilisational ethos. Religious bigotry and fundamentalism — majority or minority — were rejected and emphasis was laid on creating a national mainstream. For a vast and diverse country with a long history of religious strife, that's not an easy task. Yet, occasional outbreaks notwithstanding, India has achieved commendable success in demonstrating unity and harmony.

Still, India remained in the USCIRF's crosshairs. There are two important reasons for that bias. One is that the commission places its religious freedom discourse in a Eurocentric framework. It refuses to take into account country-specific sensitivities. Two, it relies on scholars who are reportedly biased. I was at a conference in Rome recently where the Atlantic Council's initiative to view religious freedom from the prism of integral human development was the central theme. Pounded first by Jacques Maritain, a French Catholic philosopher, in 1936, and followed three decades later by Deendayal Upadhyaya, the ideological father figure of the BJP, integral humanism emphasises the need to rise above religious to secure not only the material but ethical, moral and spiritual well-being of individuals. It advocates a pluralistic approach for achieving such an integral development.

It is imperative that the religious freedom discourse be situated in the national context to achieve a proper understanding of the role of religions in the integral growth of people. The Indian Constitution imposes reasonable restrictions on public order,

morality and health on all fundamental rights, including the freedom of religion. That calls for religions that came from outside to internalise the cultural experience of India, in which pluralism and respect for all religions is an important basic principle. No religion can claim universality or superiority. Hence, in the Indian context, the religious narrative should shift from "one god" to "only god" — everything is divine — and "one truth" to "only truth".

Religious conversions are an important challenge in this context. In a landmark judgment in *Rev. Stanislaus vs State of Madhya Pradesh* (1977), the Supreme Court held that the right to "propagate" does not include the right to proselytise and hence there is no fundamental right to convert another person. The Court clarified that it does not impinge on the freedom of conscience guaranteed by the Constitution, but rather, protects it. It may be worthwhile to recall that Pope John Paul II and Pope Francis had criticised proselytism, albeit in the limited context of Catholics being won over by other denominations.

A proper understanding of the cultural and civilisational experiences of various nations helps in reframing the religious freedom discourse in the right perspective. Otherwise, the Atlantic Council's efforts will also be seen as "a form of cultural imperialism" or a "Western" endeavour with a hidden agenda" to, borrow from its own report,

The writer, president, India Foundation, is with the BJP. Views are personal

## WHAT THE OTHERS SAY

"It is unacceptable that seven months after the resignation of its chairperson and members, the National Human Rights Commission (NHRC) still remains leaderless, powerless, and largely ineffective." — THE DAILY STAR, BANGLADESH

## Aspiration, choice, demography

UNFPA's report reveals that the real crisis is the denial of reproductive agency to women, not declining birth rates

S IRUDAYA RAJAN AND  
ANDREA M WOJNAR

THE UNITED NATIONS Population Fund (UNFPA) has released its State of the World Population Report 2025, which focuses on "Real fertility crises: The pursuit of reproductive agency in a changing world". As fertility rates decline worldwide, the crisis lies not in population numbers but in unmet reproductive aspirations of women and couples. It specifically refers to the gap between an individual's or couple's desires regarding children and family size and the social, cultural, or policy-driven expectations placed on them. Concerns about population shifts are driving demographic anxiety that is undermining the reproductive autonomy of women globally, including in India.

Global demographics are transforming at a whirlwind pace. Fertility rates are declining, and the world's population is projected to peak this century. The global fertility rate has decreased from around 5 in 1960 to 3.3 in 1990 and 2.2 in 2024, though significant regional variations exist. Fertility rates less than 2 are becoming the norm, with more than half of the world's countries — accounting for more than two-thirds of the global population — having a fertility rate below 2.1 births per woman (World Fertility Report 2024). Globally, it is projected that all countries will have a fertility level less than 4 by 2054.

In India, the national fertility rate declined from 2.9 in 2005 to 2.0 in 2020 (SRS, 2020) although large inter-state variations exist. The overall population of children under five peaked in 2004, followed by a peak in the number of children and adolescents under 15 in 2008. These large cohorts of young people, combined with increasing life expectancy and declining mortality rates, will continue to drive population growth for some time, with India's population projected to reach its peak in the middle of this century.

As part of the report, the UNFPA and YouGov conducted an online survey of over 14,000 adults across 14 countries to better understand people's reproductive experiences and challenges. A central finding was widespread unmet reproductive aspirations: Many individuals face obstacles both in avoiding unintended pregnancies and in having children when they want to. In India, over 36 per cent of respondents reported an unintended pregnancy, while over 30 per cent were unable to have a child when they wished to. This reflects a dual challenge: Underachieved fertility, where people have fewer children than desired, and over-achieved fertility, where they have more children than they intended. National data from NFHS-5 underscores this, with 9.4 per cent of currently married women aged 15-49 reporting an unmet need for family planning. Among 14,000 respondents who reported having or wanting children, the most commonly cited challenges were economic, ranging from financial insecurity and unemployment to inadequate housing and limited access to quality childcare.

These are compounded by social norms and unequal relationship dynamics. Increasingly, women report difficulty in find-

ing a suitable partner and negotiating equitable division of household and caregiving responsibilities. Marriage in India continues to place a burden on women, who are expected to manage cooking, child-rearing, and other domestic duties. The lack of supportive workplace policies such as paid parental leave, flexible hours, and childcare facilities further discourages women from balancing careers with family life. There is also the fear of career setbacks or discrimination due to pregnancy. For many women in the informal sector, these supportive policies do not exist. A growing number of women and couples are also expressing hesitation about raising children in a difficult global environment.

It is important to address infertility, an issue stigmatised in India, where marriage is often equated with childbearing. Despite advances in healthcare, many women still face barriers in accessing maternal care and reproductive health information. For couples struggling with infertility, the options are often limited, expensive, or poorly regulated. Treatments are dominated by private players, and high costs, combined with lack of insurance coverage, make the experience prohibitively expensive for most.

Reproductive agency is further constrained by widespread reliance on sterilisation. Encouraging access to reversible, modern contraception methods, not just for birth control but also to preserve choice, is essential to ensure people can plan families on their own terms.

Another challenge lies in changing patterns of childbearing. Early childbearing is on the decline, with more women choosing to have children later in life (World Fertility Report 2024). In India, many educated, working individuals from higher income groups are marrying in their late 20s or early 30s and having their first child soon after. However, when it comes to a second child, spacing practices — critical for maternal, child and societal health — are overlooked. According to NFHS-5, 4 per cent of currently married women aged 15-49 report unmet needs for spacing. This is shaped by social norms that discourage contraceptive use and a preference for male children. These factors undermine women's reproductive autonomy. The stigma around family-planning conversations needs to be dismantled urgently.

The global conversation around population shifts is filled with alarmist narratives, with blame often directed toward women. This rising demographic anxiety stems from unforeseen developments but from a failure of planning and policy foresight. The discourse is dominated by concerns about an ageing population, declining fertility rates, and, in some cases, overpopulation. Yet, what people themselves want for their fertility, families, and futures continues to be ignored.

The moment calls for a proactive perspective to engage women, families and communities around their reproductive autonomy through informed choices. The future lies in building a country's capacity to anticipate, adapt to, and take advantage of demographic changes within a human rights framework. By centring reproductive policies on people's aspirations rather than controlling their choices, we can move toward a model of demographic resilience and a future rooted in dignity, equity, and reproductive autonomy.

Rajan is chair, The International Institute of Migration and Development, Kerala, and Wojnar is UNFPA India representative and country director, Bhutan

## LETTERS TO THE EDITOR

## UP FOR THE JOB

THIS REFERS TO the article, "Murder in Meghalaya" (IE, June 13). The Meghalaya honeymoon murder triggered an online vilification campaign against the people and governments of northeastern states. People brought into question the ability of the Meghalaya Police to crack the case and nab the accused. The MP CM is among the people who demanded a CBI investigation into the case. But the Meghalaya Police know their job.

SH Quadri, Bikaner

THIS REFERS TO the article, "A murder in Meghalaya" (IE, June 13). The Meghalaya Police played a pivotal role in uncovering the murder of Raja Raghunath, exposing the conspiracy that led to his death during his honeymoon in Sohra. The Meghalaya Police's success proves that they are capable of solving crimes in a timely fashion.

SS Paul, Nadi

## A NATIONAL TRAGEDY

THIS REFERS TO the report, "A-1 plane with 242 crashes, 1 survivor" (IE, June 13). The Air India crash, which claimed over

240 lives and left only one survivor, is a national tragedy and a wake-up call for India's aviation sector. As one of the deadliest air disasters in India's history, it demands a transparent, thorough, and timely investigation. With speculation rife about possible causes — from a bird to mechanical failure or structural flaws — it is vital that the Aircraft Accident Investigation Bureau (AAIB) collaborate closely with Boeing, Air India, and the FAA.

Sanjay Chopra, Mohali

## REVIEW NEEDED

THIS REFERS TO the article, "Peer review is the proper channel" (IE, June 13). The writer makes a strong case for following the Constitution's lead in matters where judges need to be investigated. However, in the past quarter-century, the country and its institutions have moved far from the era when the document was drafted. It is only fair that mechanisms for accountability be scrutinised and held to a standard that is in line with democratic values. In Justice Verma's landmark case, the executive should be permitted to step in and at least file a criminal case.

Shreya Thomas, Thane



# 14 BIG PICTURE

## AHMEDABAD PLANE CRASH

# LUNCHTIME ON JUNE 12

Meena Mistry was rolling out rotis, Aryan Rajput moved to the handwash area, Jeet Bhuriya walked in late for lunch. At the hostel mess of a medical college in Ahmedabad, nothing was out of the ordinary. Until, moments later, an Air India plane crashed in through the wall

SADAF MODAK, RITU SHARMA, BRENDAN DABHI & MOHAMED THAYER

FOR THE hostellers and students of B J Medical College, the sound of airplanes roaring overhead was nothing unusual. Until one flew too close.

On June 12, an Air India Boeing 787 Dreamliner flight carrying 242 people to London Gatwick Airport, went down moments after it took off from Ahmedabad airport at 1:38 pm, killing 241 of those on board. As it plunged with a vertical speed of 475 feet per minute, its tail first struck the college's Atulyam hostel mess, where students had turned up for lunch, turning the first-floor dining room into a jumble of twisted concrete and leaving at least four medical students and the wife of a doctor dead. Around 20 students were wounded, five of them critically.

The hostel is at a distance of around a kilometre from the Sardar Vallabhai Patel International Airport, the two complexes separated by the Ahmedabad cantonment area. Since it fell on the flight path, one of the favourite pastimes for students was to stand on the roof, look up at the belly of the flying planes and guess the airlines, the aircraft type, the model, says a former student.

"We could even see the landing gear being brought out before the planes touched down on the runway and the flaps opening when the flights took off. When we had nothing to do, we would go to the roof for some plane spotting," says the former student.

He says he once saw an Air India flight trying to touch down six times, circling back each time, before it landed successfully. "We were used to conversations being interrupted by the sound of aircraft," he says, explaining why there may have been nothing to alert the students in the mess and the hostels about the approaching aircraft.

When the tail hit the building, bringing down a wall and engulfing the mess in a cloud of smoke and dust, some managed to run, others got stuck.

### 'I thought a cylinder exploded'

A little past 1:30 pm, Meena Mistry, a cook at the Atulyam hostel mess, reprimanded a few stragglers who walked into the mess. "Lunch time starts at 12:30 pm, but some of them came late and I scolded them," she recalls.

She and the other cooks were making rotis for the 25-30 students in the mess when disaster struck. "Initially, I thought that one of the cooking cylinders had exploded. But when a wall of fire came towards me, I realised it was a major accident. I ran for my life," she says.

"A part of the plane crashed into the hand wash area. While many students were trapped, others ran out of the building. I ran too. It was so dark we couldn't see anything. When we reached down, the entire plane was burning."

Apart from the students, there were at least

13 women workers in the dining hall. At least one of them, Sarika, and her infant grandchild, have been missing since the incident. "Sarika mausi and her granddaughter are still missing. When the baby's parents go to deliver tiffins to doctors at the hospital, they leave the baby in the mess. Mausi's son is still looking for them."

With 250 MBBS students and 400 students in 24 postgraduate branches, B J Medical College is one of the oldest in the state. The medical college is part of the 110-acre Civil Hospital 'Medicity' campus.

Said to be the biggest medical complex in Asia, the campus houses many other institutions, including the Institute of Kidney Diseases and Research Centre, U N Mehta Heart Hospital, Dental & Cancer Hospital, TB Hospital and Paraplegia Hospital. The mess and the hostel blocks are the buildings closest to the airport. Adjacent to the mess are four hostels — all for superspecialty postgraduates, some staying with their partners.

The two-storeyed mess, with dining spaces on both floors, usually offers a no-frills, middle-of-work meal with dal, rice and rotis. Students say while most of them opt for the mess food when they join and pay for it as part of their fees, it is mostly frequented by undergraduate students.

"Postgraduate students usually work 24x7 or have no fixed timings, with all the bedside rounds and classes. So they prefer eating their tiffins in the hospital itself, whenever they get some time. Most of them would smuggle a hotplate to their rooms and cook some basic food since they would never make it in time for the canteen lunch and dinner. But the first- and second-year MBBS students at least get to eat on time at the canteen," says the former student.

On June 12 too, most of the students at the mess were undergraduate students. "Unfortunately, the incident happened bang in the middle of lunch hour. Had it taken place before 1 or post 2 pm, hardly anyone would have been there. Had the flight gone any further, he says, it would have hit the L200-bed hospital on campus," says a warden.

Jeet Bhuriya, 18, was among those who turned up late for lunch that day. A first-year MBBS student, he and his friends had just reached the mess when the plane crashed into the building, burying them under a debris of concrete and steel. "As soon as we reached the ground floor of the mess hall, the ceiling collapsed on us. I don't remember what happened after that. I was told four students carried me to the trauma centre," says Jeet, who suffered head and leg injuries, and is undergoing treatment at the adjoining civil hospital.

At his home in Dahod, Gujarat, his father Govindbhai Narubhai says, "We are lucky he made it out alive."

Ritesh Kumar Sharma, a second-year student from Bihar, was in the mess on the first floor when the plane crashed, a friend says. He was taken to the civil hospital. Nikul, another second-year student, was riding to the mess with his friends when he saw black smoke rising in swirls just ahead. "They tried to run for

cover, but all three suffered burns," says Nikul's uncle Rameshbhai Chaudhary.

### 'I could smell smoke'

Metres away from the mess are the four hostel blocks that bore the brunt of the crash, charred and covered in soot from the fire that engulfed the fallen aircraft. A postgraduate student, 23, says he was sleeping in his fifth-floor hostel room when the plane crashed.

"I was on night shift and slept around 10 am. A few hours later, I heard a blast. Within seconds, I could smell smoke. I rushed out of the building and saw fire in the mess building. It was difficult to make sense of anything. I rushed to the hospital along with others," says the student. In some rooms, those who suffered injuries too were brought to the hospital.

A day after the crash, wardens have been assigned to ensure that students go back to



their rooms to retrieve their belongings, and vacate the premises. The wardens said the students were being relocated to other hostels for now. College authorities said that the students have been asked to take some time off to recover from the traumatic incident.

"We doctors are used to seeing all kinds of emergency situations. But this is unlike anything we have seen," says a doctor.

INPUT FROM PARIMAL DABHI



(clockwise from top) The hostel mess at Ahmedabad's B J Medical College; Meena Mistry was making rotis in the mess when the plane crashed; rescue operations at the site

their rooms to retrieve their belongings, and vacate the premises. The wardens said the students were being relocated to other hostels for now. College authorities said that the students have been asked to take some time off to recover from the traumatic incident.

"We doctors are used to seeing all kinds of emergency situations. But this is unlike anything we have seen," says a doctor.

INPUT FROM PARIMAL DABHI

## In hostel mess: 'You go ahead, I'll join you'. He never did

ANAND MOHAN J BHOPAL, JUNE 13

TWO MINUTES. That's how close MBBS student Aryan Rajput's friend came to sharing his fate.

On June 12, as the Air India flight hurtled toward the hostel building of Ahmedabad's B J Medical College, the two medical students were finishing lunch in the mess around 2 pm. Handing his mobile phone to his friend, Aryan, 20, told him, "Tum chalo. Main hath dhokar aata hoon (You go ahead, I'll just wash my hands)."

The friend walked out of the mess. Aryan stayed behind to wash his hands. In that split second, the aircraft crashed through the building, and everything changed forever.

Within 10 minutes, that same friend — traumatised, but alive — picked up Aryan's phone and dialled one of his relatives in Gwalior: "Aap jaldi se aa jaiye. Aryan ghayal ho chuka hai. Usse ICU mein admit kiya gaya hai (Come quickly, Aryan is injured and in the ICU)."

Aryan's family left for Ahmedabad from Madhya Pradesh's Jiksooli village immediately. By the time they arrived, they learned the devastating truth — Aryan was dead.

Dr Dhaval Ghameeti, president, Junior Doctors' Association, and member, Federation of All India Medical Associations (FAIMA), told

The Indian Express, "Aryan was a second-year MBBS student. He was present (in the mess) when the plane crashed. He succumbed to his injuries. His body has been handed over to his family."

Aryan's cousin Bhikam Singh had received the call that upended their world that day. "Within 10 minutes of the plane crash, Aryan's room-mate called us. Aryan had just gone to the mess to eat. That's when this disaster struck and my brother was gone," says Bhikam.

What makes Aryan's story particularly remarkable was his tale of perseverance. In a country where NEET coaching institutes are a must to crack the coveted medical entrance examinations, Aryan scored 700 out of 720 without stepping inside a coaching centre.

Calling Aryan "brilliant", his cousin Bhikam says with a mixture of pride and profound sorrow, "He scored 700 out of 720 in his first attempt. While his peers in cities had access to expensive preparation courses and expert guidance, Aryan, who prepared on his own in the village, relied on study materials he found on the Internet and his own determination."

Aryan's score represents more than just an academic achievement. His father Ramhet Rajput says he was consumed by just one dream: to make his younger son a doctor. While his elder son prepared for civil services, Ramhet channelled all his resources and hopes into Aryan's medical education. As a farmer whose fortunes depended on the ebb and flow of the monsoons, Ramhet says he worked hard to give his children a life away from the back-breaking work in the fields.

A daily phone call at 9 pm had become a sacred ritual between the father and son. Every evening, without fail, Aryan would call his father to share details of his day — his classes, the food he ate and the small victories he scored.

During his visits home every few months, villagers would mob Aryan. "He would tell them, 'Aap sab ki seve karunga (I will serve all of you)'," recalls Bhikam.

Meanwhile, back in Jiksooli village, the residents have been asked an unpleasant pact — no one will approach Aryan's modest home at the moment. Sarpanch Pankaj Singh Karat says, "His mother doesn't know about Aryan's death. We are all buying time till his body arrives home for his final rites."

## 'He had finished his lunch, was washing his hands when plane crashed'

PARUL KULSHRESTHA JAIPUR, JUNE 13

JAIPRAKASH CHAUDHARY was a person of many firsts. Son of a labourer and a second-year medical student at B J Medical College and Hospital, he was the first of his family to go to college and, if he had lived, would have been the first doctor in his remote Barmer village of Bor Charanani — something that his family would advertise proudly.

But the 20-year-old's life was tragically cut short when the London-bound B787 Boeing Dreamliner Air India flight carrying 242 passengers and crew members crashed into the medical college hostel soon after it took off Thursday afternoon. The crash killed 241 of 242 passengers and crew on board and five people at the hostel, four

medical students, and a doctor's wife — all of them in the hostel's second floor mess at the time of the crash.

Of these, 12 people — 11 on board the plane and Jaiprakash — are from Rajasthan. According to a family member, Jaiprakash had spoken to them just before he went for lunch. He got into the government medical college after scoring 688 out of 720 in the National Eligibility cum Entrance Test (Undergraduate) two years ago.

He is survived by his father, mother and younger school-going sibling.

"From what we were told, Jaiprakash had finished his lunch and was washing his hands when the plane crashed into the hostel building. The flames after the crash and the weight of debris both killed him. Initial reports said he had 30 percent burns in his body," the family member said.



(From left) Medical student Jaiprakash Chaudhary; siblings Shagun and Shubh were on the flight that crashed

As his family brought his body back to the village Friday, several officials — including Barmer district collector Tina Dabi — came down to pay their respects.



But Jaiprakash wasn't the only young life that was lost in the crash. In Udaipur's Saheli Nagar, the house of marble businessman Sanjay Modi has plunged into deep mourning after both of his children — son Shubh, 25 and daughter Shagun, 23 — died in the crash. The two were on their way to London for a vacation.

As they wait for the siblings' bodies to be identified and brought home, the family is inconsolable. Satish Bhandari, a relative, said,

"They were going to London for a vacation. Shubh had done chemical engineering from London and he was going to visit some of his friends. The sister decided to tag along," he said.

In a video that went viral soon after her death, 22-year-old Khushboo Rajpurohit from Balotra district in Rajasthan is seen

weeping as she parts with her family. Married only a few months, Khushboo was going to London to join her husband Vipul Singh, who works there.

The heart-rending video shows Khushboo hugging every female member of her family as she bids them farewell.

"Her father had gone to Ahmedabad to drop her," Thank Singh, a relative, told The Indian Express. "He was on his way back when he heard the news of the crash."

Devastated, the family is now in Ahmedabad waiting for the body to be identified. Meanwhile, her husband Vipul is expected to arrive Saturday.

"DNA samples have been given to the hospital for identification. Once that's done, we'll bring the body for the funeral. In only a few days, we went from joy to mourning," he said.



## EXPRESS INTERVIEW

GREG FEITH

WHAT COULD have caused the crash of the London-bound Air India Boeing 787 Dreamliner in Ahmedabad? Is it rare for an aircraft to crash during take-off? What will be the key priorities of investigators? **RITIKA CHOPRA** poses these questions to a former senior air safety investigator.

A day after one of the deadliest aviation disasters in recent history, India's Aircraft Accident Investigation Bureau (AIB) initiated a formal investigation into the plane crash in Ahmedabad which has killed at least 249 people. The United States' National Transportation Safety Board (NTSB), an agency responsible for civil transportation accident investigation, and the United Kingdom's AIB team will also join the probe.

### What could have led to the plane crash shortly after take-off?

Looking at the video of the crash, one of the first questions is whether the aircraft was properly configured for take-off.

During takeoff — when the aircraft is heavy, low, and slow — it needs extra lift, which is achieved by deploying the trailing edge flaps. These flaps are retracted as the aircraft climbs and gains altitude to ensure that the wings are in their optimal shape for high-speed flight.

(Flaps are adjustable, hinge-like surfaces on the trailing edge of the wing that can be lowered to change wing shape to increase wing area and curvature, allowing the aircraft to operate efficiently at lower speeds during take-off and landing.)

If the correct flap setting was not used, the wings may not have produced enough lift to support the aircraft's weight at low speed. This can lead to what we call getting on the "backside of the power curve" (an aviation expression for when an aircraft is flying so slowly that more power is required to

maintain altitude than to maintain speed).

So even with fully functioning engines, the aircraft can "mush" or settle into the ground if the wings are not properly shaped to generate sufficient lift. Notably, in the video, the flaps appear to be up or at a minimal setting, which is not typical of a normal take-off.

Also, the plane's landing gear (the system of wheels, struts, and other components that allow the aircraft to safely land and take off) should have been retracted at 600 feet, but it was not.

While landing gear is hydraulically held in place and retracted, flaps are electrically operated. So the other question is if there was a hydraulic or an electrical problem. And why these systems were in an improper position at a low altitude.

In the video, the aircraft's pitch attitude — the nose-up angle — appears normal for a climb, yet the aircraft is settling into the ground. That could indicate inadequate thrust from both engines. There have been similar cases — such as a Northwest Airlines crash in the US in August 1987 — where improper flap settings during take-off led the aircraft to lift-off briefly, settle into the ground, and crash on a highway, killing the majority of the people.

Note that it was also very hot on the day of the crash which could have significantly affected both engine and overall aircraft performance. If the crew did not factor in the high temperature or did not set the correct thrust, the engines might not have generated enough power to keep the plane airborne after lift-off.

A fuel issue could also have caused an inadequate thrust from the engine.

The aircraft climbed only 600 feet before crashing. How much room does a pilot typically have to recover from an emergency at such an altitude after take-off?

It depends on the nature of the problem. For example, aircraft are certified to fly on a single engine. So if only one engine fails during take-off and the initial climb pilots will continue doing what they were doing, and monitor the aircraft's performance to reach a safe altitude.



The debris of the Air India Boeing 787 Dreamliner after it crashed in Ahmedabad on Thursday. At least 249 people were killed in the accident. AP

If there is a total electrical failure, the airplane would still fly but it would require a different kind of corrective action. Therefore, being at 600 feet is just an altitude — what the pilots should do depends entirely on the specific situation they are facing.

### How common are air crashes during the take-off phase?

For a major air carrier, take-off accidents are rare. That is because, before take-off, the crew has had time to configure the aircraft to make sure that the flight management

computer has all the relevant information necessary to determine the proper engine thrust for lift-off. As they head to the runway, they set up the aircraft by putting the flaps in the appropriate setting for the conditions they are taking off in. Then, on the take-off roll, one pilot flies the aircraft, and the other monitors airspeed, engine thrust, etc. Also, take-off and climb under normal conditions are not considered a high-workload phase.

The aircraft's ability to fly is affected in very rare events such as in the case of encountering a flock of birds — like what happened with the "Miracle on the Hudson", where Sully Sullenberger flew through a flock of geese and lost thrust. Or if the take-off happens during bad weather which causes wind shear or some other issue. However, pilots typically do not take off in dangerous weather.

More accidents tend to take place during landing as the aircraft is committed to its destination. The weather might have more of an adverse effect on landing performance than on take-off.

### What would be the top priorities of investigators probing the crash?

If I were running this investigation, my top priority would be recovering the flight data recorder (FDR) and the cockpit voice recorder (CVR). They are popularly known as black boxes. These will give the most reliable information to determine the direction of the investigation, telling whether there was an aircraft issue, a pilot issue, or a combination of both.

Another priority would be collecting as much video evidence as possible — including what is already circulating online, and any additional footage from airport security systems. This could give clues about the plane's configuration while it was taxiing or was on a take-off roll. Security cameras can capture such information, helping investigators assess whether they need to focus more on mechanical systems or flight crew actions.

Also, physical wreckage has to be examined. Investigating the accident site for any visible signs of damage or failure can help determine whether there was a mechanical

malfunction or not.

For example, if investigators find the trailing edge wing flaps, they will examine the mechanical devices that move them — like the jack screws — to measure how much the flaps were deployed. If one flap is at five degrees and the other is at fifteen degrees, that is an anomaly. Then, they will see why this happened.

In the cockpit, investigators will look at the physical positions of the thrust levers, the flap handle, and the landing gear handle. They will compare those positions to the data from the flight data recorder. If the recorder shows the landing gear or flaps were in the "up" position, but physically the gear was still down, that is another anomaly.

It is like working a crime scene — sometimes it is the smallest pieces of evidence that matter most. As the saying goes, the devil is in the details.

### How long does it typically take for an investigation like this to conclude?

For the Air India plane crash case, the investigative process will have two stages.

The first stage will involve gathering as much information as possible to determine whether there was some kind of deficiency, inadequacy, or failure within the broader system. This means looking at not only the aircraft but also policies, procedures, regulations, training etc.

The second stage will try to identify whether there were any mechanical failures or malfunctions with the aircraft itself.

The goal is to find out what went wrong as early as possible — so if there is something that needs to be fixed, it can be addressed immediately, while other aircraft are still flying. That is why investigators push to get actionable information quickly. This can be executed within a week if CVR and FDR provide useful information. Investigators could also other repositories as well to gather actionable information as aircraft constantly transmit data to the ground.

However, the full investigation typically takes between 18 and 24 months.

Greg Feith worked with the US National Transportation Safety Board (NTSB)

## EXPLAINED GLOBAL

# Israel's biggest ever attack at the heart of Iran

## N-facility hit, top military brass killed: How Israel struck Iran

ARJUN SENGUPTA  
NEW DELHI, JUNE 13

In what is its most ambitious military operation in recent years, Israel launched a series of air strikes against Iran on Friday, targeting nuclear sites, missile facilities and other military infrastructure. The attack killed some of the country's key military and civilian personnel as well.

### Why now?

These strikes came after the International Energy Agency (IEA) Board of Governors on Thursday passed a resolution declaring Iran as being non-compliant with its non-proliferation obligations — the first such resolution in two decades. The resolution came on the back of a recent IEA investigation that found Iran was conducting "secret nuclear activities" at three locations.

Explaining Israel's "pre-emptive strikes", Prime Minister Benjamin Netanyahu said Iran had "taken steps that it has never taken before... to weaponise enriched uranium," and "if not stopped, Iran could produce a nuclear weapon in a very short time," perhaps even "within a few months."

Israel has always considered a nuclear Iran to be an existential threat; preventing Tehran from developing an atomic weapon has been Netanyahu's signature platform for decades. Notably, this latest development comes while Tehran and Washington are negotiating a deal that would prevent Iran from developing atomic weapons in exchange for sanctions relief.

### What did Israel target?

In its attack on Friday early morning, Israel claims to have deployed 200 aircraft — around a third of its active fleet — to hit more than 100 targets across Iran, including both strategic infrastructure and key personnel.

**NATANZ NUCLEAR FACILITY:** This is Iran's main uranium enrichment facility, where the country produces most of its nuclear fuel. Located in the central province of Isfahan, the Natanz facility is "the beating heart of the Iranian nuclear programme," analysts say.

Reviewing satellite images taken before and after Friday's attack, *The New York Times* reported Israeli airstrikes had caused severe damage to the facility, and that "several buildings and critical energy infrastructure either destroyed or heavily damaged". It is still unclear whether these strikes damaged the all-important centrifuge halls, where uranium is enriched, that are buried deep under the Persian desert and protected by metres of reinforced concrete.

The IEA on Friday afternoon said Israel had not yet struck Iran's other major nuclear enrichment plant at Fordow in the northern province of Qom. This facility, unlike Natanz, is entirely underground, and much harder to hit, according to analysts. One expert told the NYT, "If you don't get Fordow, you haven't eliminated [Iran's] ability to produce weapons-grade material." On Friday



(Top) Iran's Supreme Leader Ali Khamenei and Israel PM Benjamin Netanyahu. (Right) A sight after Israel's strike in Tehran, Iran, on Friday. NYT/AP



evening, however, Iranian media reported explosions at Fordow.

**KEY PERSONNEL:** Israeli strikes in Tehran took out Iran's top military leadership. Among those killed were Maj Gen Mohammad Bagheri, chief of staff of the

armed forces, and Gen Hossein Salami, chief of the Islamic Revolutionary Guards Corps, arguably the most powerful institution in the country.

While Israel claims that the Islamic regime in Iran poses an "existential threat" to the Jewish nation, the opposite might be more true. At the end of the day, Tel Aviv stands with steady support from Washington, which establishes a fundamental asymmetry between itself and Iran on the battlefield.

US President Donald Trump on Friday said Israel's "next already planned attacks" could be "even more brutal," and warned that Tehran "must make a deal, before there is nothing left."

those of more than a dozen others, leave a vacuum in Iran's military leadership ahead of what may be a protracted regional conflict.

Israel also killed top nuclear scientists, including Fereydoon Abbasi, the former head of Iran's atomic agency, and Mohammad Mehdi Tehrani. This is not the first time Israel has gone after Iranian nuclear scientists. It is, however, the first time that it has done so through conventional military means and not covert operations.

Another significant casualty on Friday early morning, especially in the light of ongoing Iran-US nuclear talks, was Ali Shamkhani, one of Iran's top politicians who was appointed by Khamenei to oversee negotiations with Washington. Shamkhani's killing could severely jeopardise the possibility of a deal in the near future.

**MILITARY INFRASTRUCTURE:** Israel also targeted a number of military sites across Iran. These include a nuclear research centre and two military bases in Tabriz in northern Iran; the missile development and production facilities in Bid Kaneh, on the southern edge of Tehran; a missile base in Kermanshah in central Iran; and multiple military bases in and around Tehran.

Note that this is not an exhaustive list, and Israel has maintained that its attack is "ongoing". Friday evening saw a fresh wave of strikes on Tabriz and Tehran.

### What now?

For Iran, this is possibly the gravest threat ever to the Islamic regime. In a letter to the UN Security Council, Iran Foreign Minister Abbas Araghchi said Israel had "now crossed every red line, and that it would 'deeply regret this reckless aggression'."

The biggest question now is how Tehran will strike back. Put simply, Iran is caught between a rock and a hard place. It can, as it has done in the past, activate its proxies and even launch more drone and missile attacks. But Israeli attacks over the years, and rather muted responses from Tehran, have repeatedly exposed Iran's limitations in this regard.

While Israel claims that the Islamic regime in Iran poses an "existential threat" to the Jewish nation, the opposite might be more true. At the end of the day, Tel Aviv stands with steady support from Washington, which establishes a fundamental asymmetry between itself and Iran on the battlefield.

US President Donald Trump on Friday said Israel's "next already planned attacks" could be "even more brutal," and warned that Tehran "must make a deal, before there is nothing left."



Satellite image of the Natanz nuclear facility in Iran in January 2025. AP

## Why strike on Natanz may not cause radiation leak

AMITABH SINHA  
NEW DELHI, JUNE 13

ISRAELI STRIKES on Iran's Natanz nuclear facility, and reports of significant damage to several buildings and infrastructure, have led to fears of a nuclear explosion or radiation leak. But such strikes are unlikely to cause a nuclear disaster. Here's why.

### Natanz & what it houses

Natanz, in central Iran, is the country's main uranium enrichment facility. Enrichment is the process through which uranium-235 is separated from naturally occurring uranium (predominantly uranium-238). U-235 is a fissile material, meaning its nucleus is unstable and susceptible to splitting by a neutron. The fission of U-235 results in the production of large amounts of energy and more neutrons, which in turn split more U-235 nuclei, causing a chain reaction.

Nuclear weapons require uranium to be enriched to 90% or more, meaning at least 90% of the material has to be U-235. Around 3-5% enriched uranium is all that is required to produce electricity in nuclear power plants.

Among the material stored at Natanz is uranium hexafluoride (UF<sub>6</sub>), a white crystalline solid which is heated to become a gas for the enrichment process. The facility has a number of centrifuges, or enrichment chambers, sensitive nuclear material and equipment, and some stock of enriched uranium (it is unclear how much).

### Nuclear calamity unlikely

Simply hitting nuclear material or equipment with conventional weapons does not lead to a nuclear explosion or a widespread radiation leak, although a more localised dispersal of radioactive

substances cannot be ruled out.

"It all depends on the configuration of nuclear material stored at the facility. If the nuclear material and explosives are kept separate, there isn't much danger of an explosion or leak, even if there is a direct hit on the nuclear material," Anil Kakodkar, former head of India's Department of Atomic Energy, told *The Indian Express*.

"The strikes are likely to result in a dispersal, or the spread, of nuclear material into the environment. But this is likely to remain restricted within the facility or the place of the attack," he added. Even if Israel were to have hit assembled nuclear weapons, the result is more likely to be a "radiation leak" than an "organised explosion", according to Kakodkar.

### Precise initiation needed

A nuclear bomb does not explode when it is dropped or damaged — it remains inactive unless a precise mechanism is initiated to release a neutron in exactly the manner required to trigger a chain reaction. This is because nuclear fission materials are not explosives like TNT or RDX. They become a weapon only because of an uncontrolled release of large amounts of energy under very specific conditions. All nuclear weapons have built-in safety mechanisms to prevent accidental detonation.

The Israeli attack on Iran's nuclear facilities, therefore, is unlikely to result in a nuclear explosion or a major radiation leak, but could certainly be a health hazard and to people working within the facility and in the localities immediately outside.

Similar fears of a nuclear accident have prevailed in the Russia-Ukraine war as well, particularly when Ukraine's Zaporizhzhia nuclear power plant had got caught in the fighting. The plant did suffer some damage, but even in that case, a major nuclear accident was unlikely.



## KERALA



**Vulnerabilities exposed:** Smoke billowing from the Singapore-flagged container ship MV Wan Hai 503 that caught fire nearly 44 nautical miles off the Azhikkal coast in Kerala on Monday. SPECIAL ARRANGEMENT

# Floating inferno

MV Wan Hai 503, the Singapore-flagged cargo ship, catches fire nearly 44 nautical miles off the Azhikkal coast in Kerala, raising concerns about marine biodiversity and maritime safety. **A.S. Jayanth** speaks to experts to gauge the impacts of the accident, the second one in a fortnight in the State

**T**he silence of the night outside the Emergency Medicine department of A.J. Hospital and Research Centre in Karnataka's coastal city of Mangaluru on June 9 was shattered by the siren-blaring ambulances that came rushing in. Caregivers at the hospital, along with a couple of Navy staff, rushed near the vehicles to pull out patients, some of them in critical condition.

The six patients were among the 18 crew members who were rescued from MV Wan Hai 503, a 27-metre-long Singapore-flagged cargo ship that caught fire nearly 44 nautical miles off the Azhikkal coast in Kannur, Kerala, that morning. The ship had 22 crew members and four of them, two from Taiwan, one from Indonesia, and one from Myanmar, were reported missing.

A joint team of the Indian Coast Guard and the Indian Navy engaged in mid-sea rescue operations. The vessel had departed from Colombo in Sri Lanka on June 7 and was supposed to reach Mumbai on June 10. An explosion in one of the containers is reported to have led to the fire, which triggered an unprecedented crisis mid-sea, as plumes of smoke soon swirled up in the air.

The disaster set off alarm bells in Kerala, as the incident came just weeks after MSC Elsa 3, the Liberia-flagged container ship, sank off the Kochi coast on May 25. While the authorities were grappling with the impact of this incident on the marine and coastal environment, another tragedy has brought forth more serious questions about maritime safety and the potential risks such accidents pose to humans as well as the marine ecosystem.

## Cargo classified as dangerous goods

The cargo manifest of MV Wan Hai 503 shows the ship had 1,754 containers onboard, of which 143 contained hazardous substances. The contents included substances classified by the International Maritime Organisation as dangerous goods under its Class 3 (flammable liquids), Class 4.1 (flammable solids), Class 4.2 (substances liable to spontaneous combustion), Class 4.3 (substances that, when in contact with water, emit flammable gases), Class 6.1 (toxic substances), Class 8 (corrosive substances), and Class 9 (Miscellaneous Dangerous Substances and Articles) cargoes. The falling of some of the containers into the sea after the explosion and the listing of the vessel have raised health concerns.

C. Anulekshmi, senior scientist and head, Kozhikode regional station, Central Marine Fisheries Research Institute (CMFRI), says the short-term impact of chemicals or debris spilling onto the sea includes immediate harm to marine life, causing death of organisms, and reduced water quality. "These effects can range from direct toxicity to organisms, habitat destruction, and disruption of ecosystems. There could be mixing of water in these areas by tides, water current, and wind. There are chances of dilution of the chemicals in water. The immediate effect will be on the surrounding organisms of the ship," she says.

The chemicals can directly poison sedentary and benthic marine organisms as they can accumulate the hazardous materials in their body. The organisms in the neritic zone, a shallow, sunlit region of the ocean above the continental shelf, can move away from the location to a safer place. All of these depend on the quantity of chemicals spilt, she says.



Injured crew members of fire-struck Singapore-flagged container ship MV Wan Hai 503 being shifted to a hospital in Mangaluru on June 9 night. INDIAN COAST GUARD

**The short-term impact of chemicals or debris spilling onto the sea includes immediate harm to marine life, causing death of organisms, and reduced water quality.**  
**C. ANULEKSHMI**, senior scientist and head, Kozhikode regional station, CMFRI

"If the hazardous chemicals are spilt into the sea, they may immediately affect planktons in the surrounding places, which may further impact all organisms in that area. These basic parts of the food chain will not be available to marine organisms and will affect the food chain. If there is any possibility of an oil spill and discharge of other pollutants, it can devastate habitats around the area by preventing the mixing of oxygen in the waters. However, the ocean is very vast, dynamic, and resilient," Anulekshmi says.

Rajeev S. Menon, Professor, Department of Chemistry, University of Calicut, says that most of the dangerous goods on the ship are widely used industrial feedstock chemicals for the production of common polymers, resins, pesticides, and other advanced fine chemicals.

The cargo manifest shows the presence of nitrocellulose with alcohol. "Mixing and dispersion of nitrocellulose in seawater will prevent explosions, and this is probably the most desirable outcome to hope for, as it is a non-toxic substance. Chemicals such as chloroaniline, 1,2,3-trichlorobenzene, naphthalene, benzophenone, and maleic anhydride are hazardous chemicals that are insoluble and will persist in the marine environment for a longer duration," he says.

Hydrobromic acid and phosphoric acids, which are highly corrosive acids, are soluble in water and will dissipate in seawater rather quickly. On mixing, they will cause a localised, short-lived dip in the pH (measuring its acidity or alkalinity) of the seawater, which could be detrimental to aquatic life. He says that a direct reading of the enlisted hazards of these chemicals may be slightly misleading as their mixing with a large volume of seawater will significantly reduce and dissipate some of the dangers.

Meanwhile, faced with recurrence of such incidents and the ensuing threat of large-scale pollution, the Union Ministry of Ports, Shipping and

Waterways and agencies such as the Mercantile Marine department (MMD) are in the process of reading an action plan to enhance India's maritime framework and prevent/lessen the impact of such incidents, according to highly-placed sources.

## Wake-up call for stakeholders

The sources say that the two back-to-back incidents off the Kerala coast have laid bare critical vulnerabilities in India's maritime regulatory architecture. Complex ownership issues, threat from hazardous cargo, and delayed emergency response in the wake of the sinking have been a wake-up call for stakeholders.

"The proposed action plan draws on the key lessons from the recent incidents to outline a comprehensive set of steps, including those aimed at strengthening maritime safety, environmental protection, and institutional readiness," MMD officials say.

They include upgrading of the port infrastructure and responsibilities and ensuring availability of towing infrastructure, and improving efficiency in distress response. To cater to the increasing number of ships, India must expand its sanctioned strength of Port State Control Officers, which is now encountering a 40% vacancy rate. There is also a need to equip them with advanced

**The two back-to-back incidents off the Kerala coast have laid bare critical vulnerabilities in India's maritime regulatory architecture. Complex ownership issues, threat from hazardous cargo, and delayed emergency response in the wake of the sinking have been a wake-up call for stakeholders**

digital inspection tools, say MMD sources.

Trade union leaders in the fisheries sector are worried about the impact of the accidents on the livelihood options of the fishers. The recurring accidents, they fear, could hit the fishers hard.

Representatives of trade unions in the fisheries sector say there is a need to improve inspections at ports, including at the newly inaugurated one at Vizhinjam. Charles George, president, Kerala Matsyathozhikalai Aikya Vedi, notes that the sinking of the Liberia-flagged MSC Elsa 3 could have been prevented if a thorough fitness inspection had been done at Vizhinjam to ensure ballast-water management.

"There has been a delay of over a fortnight in registering a case against the vessel's owner firm. Why are such vessels that are over 25 years old being permitted to operate to ports in India with hazardous cargo," he wonders.

Officials in the Union Ministry of Ports, Shipping and Waterways, however, say that older vessels need not always be unfit for use, especially if they have been given a safety certificate by classification societies.

## Efforts on to usher in reforms

"Efforts are on to usher in reforms in the sector. While June 13 has been set as the deadline to complete the oil-recovery process from the vessel that sank off the Alappuzha coast, July 4 is the target to demobilise the ongoing multi-agency response and salvage efforts that are being led by the Directorate General of Shipping," they say.

News about the possible contamination in marine organisms, including fish, following the accident has forced a few people in Kerala to abandon their staple diet and choose meat. The shift in dietary practice has hit fish vendors like Sreedevi Lateesh, who used to commute daily with fish from her home in Valikom to Kochi by bus.

"Despite financial difficulties, I had to take a break from selling fish for over a week due to a fall in demand for fish from households," she says, adding that demand for fish is yet to pick up.

Meanwhile, CMFRI officials are collecting water and sediment samples from the coastal areas of Kannur, Kozhikode, and Malappuram and are continuously monitoring the fishery around there.

## Concerns allayed over fish consumption

A senior official says only small fishing vessels are operating in these areas due to the ongoing monsoon trawl ban. "So far, there are no reports of dead fish on the coast or in the fishing locations. At present, the fish available in the markets are coming mainly from the coastal areas of Kerala and Tamil Nadu and Andhra Pradesh. There may not be any serious concern about consuming fish now," the official adds.

Five Coast Guard ships, two Dornier aircraft, and one helicopter are engaged in the rescue mission. The primary focus is to restrict the movement of the ship, which is adrift. The vessel will be towed to a safer location to avert a potential ecological disaster, according to the central agencies involved in the mission.

The recurring marine accidents have called for a comprehensive study on ship accidents and the safety and precautionary measures to be adopted, as Kerala's sea routes are getting busy following the commissioning of the Vizhinjam international port.

(with inputs from John L. Paul in Kochi)



## the hindu businessline.

SATURDAY, JUNE 14, 2025

## Tragedy in the skies

Thorough probe into Ahmedabad air crash imperative

**T**he catastrophic crash of Air India flight AI-171 in Ahmedabad on Thursday would go down as the worst aviation disaster in recent history. The Boeing 787-8 Dreamliner, en route to London, crashed into the premises of B. J. Medical College, after seemingly losing power in the take-off stage, claiming the lives of 241 passengers on board and many more on the ground. This accident and the overwhelming loss of lives raises critical questions about aviation safety and protocol.

The timing of the calamity could not have been more inopportune for Air India. In recent weeks, the airline has faced punitive financial and logistical pressures due to Pakistan's closing of airspace. This has added to operating expenses, burdening an airline still navigating the legacies of ageing assets and a workforce stretched thin. The crash now threatens to unravel a hard-won turnaround under Tata Group's stewardship, and understandably reignites questions about maintenance rigour and fleet integrity.

At the heart of this catastrophe lies the Boeing 787 Dreamliner — an aircraft that arguably has posted a decent safety record so far. A total of 1,175 Dreamliners have done 2,100 daily flights and flown about 1 billion passengers in the 14 years since the aircraft's introduction. The age of the aircraft in question — the Air India Boeing 787 named VT-ANB — was also not an issue, being only 11 years old. Yet, its manufacturer is no stranger to controversy. The grounding of the 737 MAX after two fatal crashes in 2018-19 raised serious questions about Boeing's safety culture. A mid-air blowout in January 2024 led to further management upheaval. US Congressional hearings went into Boeing's safety standards. It turned out that cutting corners was not alien to Boeing's ways. Allegations included compromised production standards where engineers reportedly forced fuselage panels into place under pressure to meet deadlines. While the 737 MAX tragedies reshaped global aviation oversight, the 787 Dreamliner escaped similar scrutiny — until now. The focus in this tragedy invariably turns to how the aircraft lost power seconds after take-off.

The temptation to find swift answers and take immediate action is understandable. However, the victims and their families deserve a commitment to uncovering the truth. It is imperative that all authorities — the Aircraft Accident Investigation Bureau (AAIB) of India, international agencies like the NTSB and Boeing, and the Directorate General of Civil Aviation (DGCA) — resist knee-jerk reactions. Grounding fleets prematurely or assigning blame in the absence of evidence helps no one. What is required is meticulous, transparent, and unimpeded investigation. Every plausible factor must be scrutinised — the aircraft's maintenance logs, black box data (CVR and FDR), crew training and records, air traffic control communications, weather conditions, and potential technical malfunctions. A comprehensive audit of Air India's maintenance procedures for its Dreamliner fleet is just as important.

## OTHER VOICES.

## The Guardian

## Iran's N-programme: A new deal is urgently needed

A year into his first term, Donald Trump pulled the US out of the hard-nosed international deal that had slowed Iran's advance towards nuclear weapons, and imposed punishing sanctions. Europe tried to keep the joint comprehensive plan of action on life support. But the strangling of Iran's economy, and the US assassination of Qassem Soleimani, the powerful head of its Quds force, undermined the country's moderates and the progress on non-proliferation. The fallout of Mr Trump's Iran policy is still becoming evident. On Thursday, the UK nuclear watchdog found, for the first time in two decades, that Tehran was not in compliance with the nuclear non-proliferation treaty. Iran vowed to "significantly" increase production of enriched uranium in retaliation, following a pattern of escalation in response to IAEA criticism. LONDON, JUNE 12

## THE WALL STREET JOURNAL.

## Don't Sell Out the Aussies on Aukus

The Trump Administration is reviewing the 2021 Aukus defense agreement with the U.K. and Australia to see if it fits President Trump's priorities. That should be a short review. The Aussies are stepping up to help deter conflict in the Pacific, and a President vowing peace through strength would build the submarine's free world needs. The core of the defense agreement is selling to Australia three to five nuclear-powered attack submarines, with a first sale in 2023. Pentagon leaks to the press raised a concern is whether the U.S. industrial base can provide those subs to Australia while also meeting U.S. defense needs. These pages have warned for years about the sorry state of U.S. submarine production and maintenance. There is bipartisan agreement that the U.S. needs to build two stealthy submarines every year to grow the fleet and deter China. NEW YORK, JUNE 12

## Rate cuts alone won't revive growth

DEMAND SIDE. Measures to stimulate demand like tax breaks for consumers, infra spending and support for MSMEs can be considered

SAUMITRA BHADURI  
SHUBHAM ANAND

**I**n a surprising move, the Reserve Bank of India slashed the policy repo rate by 50 basis points to 5.5 per cent on June 6, marking the largest cut since March 2020. This decision, aimed at stimulating growth, comes amid a sharp decline in inflation and persistent global uncertainties. The RBI's Monetary Policy Committee (MPC) also shifted its stance from 'accommodative' to 'neutral', signalling limited room for future rate cuts.

While this move is expected to inject liquidity into the system and boost credit demand, the real challenge lies in addressing the lack of consumer demand that has been plaguing the economy. Despite the RBI's efforts to infuse liquidity, with a cumulative injection of approximately ₹9.5 lakh crore this year, transmission has remained muted. The banking system has moved from a liquidity deficit to a surplus of ₹2.9 lakh crore, yet the anticipated boost in credit demand has not materialised.

**DEMAND COMPONENTS**  
Analysing the components of aggregate demand provides clarity on the underlying issue. Using the long-term trend estimates after removing short-term fluctuations, a recent article by C. Rangarajan and DK Srivastava highlights that Private Final Consumption Expenditure (PFCE) has stabilised at around 57 per cent of GDP, while Government Final Consumption Expenditure (GFCE) has averaged approximately 10 per cent of GDP over the last decade.

Gross Capital Formation (GCF) has stabilised around 35 per cent, and Gross

Fixed Capital Formation (GFCF) is about 33 per cent. These stable ratios indicate insufficient dynamism in consumption and investment to drive economic growth.

Additionally, recent trends in capacity utilisation rates, per the RBI Order Book, Inventories, and Capacity Utilisation Survey (OBICUS), show stability at around 74 per cent in the most recent quarters, reflecting a balanced yet cautious approach to production amid weak demand and muted capital expenditure. Therefore, merely increasing liquidity without addressing the underlying demand constraints may not be sufficient to revive economic activity.

Government expenditure and investment are key to stimulating demand in the short and medium term. However, to effectively stimulate growth, it is crucial to focus on the components of aggregate demand that exhibit significant transitory variations. Investment expenditure, both private and government, along with government consumption expenditure, shows higher variability compared to private consumption from 1991-92 to 2024-25.

This indicates that these expenditures are more autonomous and can be utilised as instruments for raising demand in the short and medium term, signalling that an investment-led growth strategy should be prioritised. Several factors are influencing investment decisions beyond the cost of credit. Demand uncertainty remains a significant barrier, as companies are hesitant to invest in new projects.

**The private sector's reluctance to invest is evident, as companies prioritise protecting their return on capital employed over expanding capacities.**

without confidence in future demand. The focus on maintaining high Return on Capital Employed (ROCE) further deters businesses from making investments that might temporarily lower this metric.

Additionally, global uncertainties and geopolitical tensions create an environment of caution among enterprises. Let's explore each of these to understand further.

First, insights from a recent survey on private sector capital expenditure (Capex) intentions by the Ministry of Statistics and Programme Implementation (MoSPI) reveal a cautious approach by enterprises. There has been a significant Capex increase from ₹3.95 lakh crore in 2021-22 to ₹4.22 lakh crore in 2023-24, reflecting a 7 per cent growth.

However, the intended Capex for 2025-26 is expected to decline by 25 per cent compared to 2024-25, reflecting cautious planning amid global uncertainties. This caution is evident in investment strategies, where 40.3 per cent of enterprises plan to focus on core assets, while 28.4 per cent aim to add value to existing assets.

## INSIPID INVESTMENT

Second, the private sector's reluctance to invest is evident, as companies prioritise protecting their ROCE over expanding capacities, which has seen a steady increase from 27 per cent in 2010 to 31 per cent in 2024 and is expected to rise further in 2025. This efficiency in capital management has been recognised by the stock market, with the Nifty50 up 20 per cent annually over the same period.

Third, investment trends vary across sectors. Sectors such as healthcare and manufacturing have seen increased capital expenditure, driven by visible demand and the need for capacity expansion.

On the other hand, sectors such as real estate and trade have experienced a

decline in investment rates. This is partly due to high pent-up demand tapering off and structural challenges such as regulatory hurdles and market saturation.

Additionally, some companies face idle capacities due to insufficient demand, further deterring investment in those segments.

To truly stimulate economic growth, it is imperative to address the demand side of the equation as well. The government must focus on policies that boost consumer confidence and spending. This could involve targeted fiscal measures, such as tax relief for consumers, increased public spending on infrastructure, and initiatives to support small and medium enterprises (SMEs).

Moreover, addressing structural issues such as unemployment and income inequality could help increase disposable income and, in turn, consumer demand. The government should also consider measures to enhance the ease of doing business, thereby encouraging private sector investment and job creation.

In conclusion, while the RBI's rate cut is a step in the right direction, it is not a panacea for the economy's woes.

An investment-led growth strategy should also be prioritised. By focusing on increasing investment, particularly in infrastructure and other capital-intensive projects, the government can leverage the multiplier effect to stimulate broader economic activity.

This approach not only addresses immediate demand constraints but also lays the foundation for long-term growth by enhancing productive capacity and technological advancement. Only by boosting consumer demand can the economy truly recover and thrive in the long term.

Bhaduri is Professor at Indian Institute of Management (IIM) Ahmedabad and is a PhD scholar at MSE.

## Agri education must focus on export constraints

Increasing production has so far been the thrust of farm education. Sustainable practices for exports also deserve attention

Smita Sirohi

**A** NITI Aayog study projects domestic food demand to grow at about 2.5 per cent annually until 2047, while agricultural output could grow 3-4 per cent. This surplus must be absorbed through exports, which currently account for just 6-7 per cent of agri-output value.

The National Agricultural Research, Extension and Education System (NAREES), led by ICAR and State Agricultural Universities (SAUs), has helped achieve self-sufficiency in foodgrains and milk.

Yet trade remains a missing link in our agri-research system. A scan of ICAR and SAU projects reveals a focus on productivity traits — yield, resistance, drought tolerance — while market signals, export standards, and consumer preferences receive scant attention.

## COMPLIANCE GAP

Despite our large research network, India struggles with compliance in high-value markets.

UNIDO data (HS Chapters 1-23) show that Australia, the EU, and the US rejected 3,553 Indian consignments from 2020-22 — far more than Vietnam (789) and Thailand (702). Most rejections cited pesticide residues, antibiotics, fungal toxins, and other SPS violations.

Good Agricultural Practices (GAPs) must reflect both domestic needs and international standards. Misalignment can be costly. Consider chlorpyrifos — a pesticide banned in the EU, UK, Canada, and Argentina but still approved for some crops in India.

In early 2025, the EU issued 18 alerts on Indian cumin, coriander, fennel, and mangoes with chlorpyrifos residues. Even rice, where it is approved, faced alerts for exceeding limits.

This reflects systemic failure. If chlorpyrifos is still in GAPs, non-compliance is institutionalised. If not, its use reveals weak extension and enforcement. What's "good" domestically may no longer suffice globally. Our research and extension systems have been slow to adapt, leaving farmers unprepared for shifting standards.

Global markets demand more than food safety — consumer tastes, packaging, and labelling matter too. For instance, in the EU and US, low-fibre mangoes with Brix levels under 16 per cent are preferred. Most Indian varieties are high-fibre and high-Brix (>20 per cent) — great for domestic markets, but ill-suited for export.

Varietal research must align with overseas demand for exports. India's 730+ KVKs focus mainly on local concerns — pests, rainfall, sowing — not export advisories on MRLs,



AGRI PRODUCTS. Export push stock.com

certifications, or traceability. Private exporters and firms fill some gaps, training farmers on compliance. But efforts are patchy. A public-private model is needed to expand scale and reach.

At the core of this disconnect lies outdated education. Trade, value chains, non-tariff barriers, and food safety standards barely figure in agri-curricula. The lone UG course on marketing and trade skips evolving global rules. Some PG programmes in agribusiness offer exposure, but most disciplines stay disconnected from trade concerns.

The result: students aren't taught trade because faculty were never trained, and researchers stay focused on production due to limited exposure to trade issues.

Contrast this with land-grant universities in the US or Wageningen in The Netherlands, where trade and

sustainability are central to education and research. Ironically, India's SAUs were modelled on the US system but haven't kept pace.

Some changes are underway — such as posting agricultural scientists in Indian Embassy to support export policy, initiated under past ICAAR leadership. Current leadership is also focused on aligning research with global trade demands, but deeper reforms in NAREES are essential.

## THREE URGENT STEPS

**Rethink research:** Launch export-focused programmes with exporters and trade bodies — on compliance, differentiation, and value addition.

**Upgrade extension:** Enable KVKs to issue export advisories — on MRLs, SPS norms, certifications, and global trends. **Revise education:** Add global trade, SPS/TBT norms, and market intelligence to curricula. Train faculty and foster global linkages.

Export-led agricultural growth is more than an farm income booster — it's a strategic pathway to position India as a global food leader. If agriculture is to power India's growth, the institutions that power agriculture must first be modernised. For a Viksit Bharat, retooling NAREES is imperative.

The writer is an Agricultural Economist at ICAR Agri Education Division. Views expressed are personal

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## Tragic crash

Apologies. Over 200 dead in Ahmedabad plane crash? (June 13), the horrifying crash of an Air India Boeing 787 Dreamliner in Ahmedabad on Thursday has left 265 dead and only one survivor, devastating families and shaking India's faith in aviation safety. As one of the world's largest aviation markets, India must confront hard truths.

Boeing's Dreamliner has faced global scrutiny, but the burden doesn't lie solely with manufacturers. As investigators search for answers, India must act swiftly. This disaster is

a grim reminder: policy reforms, and stricter safety protocols, investment in preventive measures is no longer optional — they are a national imperative. **N Sadhasiva Reddy**  
Bangalore

## Remarkable achievement

With reference to the Editorial 'Poverty (In)truthful', India has registered a remarkable drop in extreme poverty in the last decade and this has been achieved due to food subsidies and welfare schemes that supported rural livelihoods. It is a testimony of a transformative

shift in millions of lives. Now to sustain this positive momentum the government will have to work on areas like inequality, quality of jobs and inclusive growth across the society and country so that rural-urban poverty gap can further be bridged. **Bal Govind**  
Mumbai

## Target better

With reference to the Editorial 'Poverty breakthrough' (June 13), the poverty alleviation schemes of the government are enabling the targeted groups to raise their

income and also helping them to come out of acute poverty and starvation. The direct benefit transfer system ensures that the entire benefits are reaching in the hands of the intended beneficiaries without any cut in the benefits.

The criteria stipulations for the above and below poverty lines need to be reformed to include the beneficiaries ineligible to receive the benefits under various poverty alleviation programmes to curtail the expenses. Even though poverty eradication is progressing the quality of life of

those targeted groups is not improving. The health conditions and education of people who are below the poverty line are still poor and as such it is negatively impacting their involvement in the development of the nation. Given the significance of the inclusion of all stakeholders in the development of the country, the government must look to formulate a comprehensive poverty line criterion that must cover all aspects of the needs of life to bolster living standards and quality.

**VSK Pillai**  
Changanacherry (Kerala)



## TELANGANA



**Palm promise:** Farmer G.Sridhar Reddy working at his four-year-old oil palm tree plantation in Dandempalli village of Nalgonda district. Under the Telangana State Oil Palm Mission, the government plans to expand cultivation from 2.45 lakh acres to 20 lakh acres. NAGARA GOPAL

# The crop that is raising farm incomes — and eyebrows

Once a fringe experiment, oil palm cultivation has rapidly taken root across Telangana, reshaping rural economy and farmer aspirations. Backed by subsidies, buyback guarantees and political push, the crop promises steady returns and sustainability. But beneath the optimism, there are concerns over volatile prices, labour shortages, water stress and ecological fallout. As the State races to expand acreage, experts and farmers have one question — can this boom withstand market shocks and environmental strain? **P. Laxma Reddy and P. Sridhar report**

In Pedavegi, a non-descript dot on the map of West Godavari district in what was then undivided Andhra Pradesh, an act of symbolism took root, literally, way back in 1986. Then Chief Minister N.T. Rama Rao knelt on a patch of farmland and planted a palm sapling. At that point, it may have seemed like just another photo op. But that simple act would outgrow its moment in history, rooting itself into the soil, and the future, of two States.

Four decades later, that one sapling has morphed into a sweeping oil palm culture that now sustains thousands of farmers across Andhra Pradesh and Telangana.

What started in the lush delta districts of West and East Godavari soon crept into Krishna, before leaping across the newly-drawn State borders into Telangana. Khammam was the first to embrace it, followed by Adilabad and Nalgonda, where farmers looked westward for inspiration, and returns too.

Among the early adopters was Gutta Venkata Rama Rao, a farmer from Malkaram village in Dammamapeta mandal, now in Telangana's Bhadrachalam district. He vividly remembers the early 1990s, not just for the gamble he took, but also for what it gave back.

"It was N.T. Rama Rao's vision of promoting oil palm cultivation that lit the spark. He wanted farmers to have a stable income and the country to become self-reliant in edible oil. That is what pushed me to plant oil palm in 1994."

And that decision paid off. For over two decades, oil palm gave him what few crops could: predictability, prosperity and peace of mind. His success did not go unnoticed. Soon, other farmers in Dammamapeta followed, turning the region into a hub for oil palm cultivation.

It wasn't long before word spread beyond Dammamapeta and Aswarapeta, also in the same district. Farmers from across the State began travelling to these mandals to see the transformation firsthand. Among them was V. Veerya, a tribal farmer from Singaram village in Mahabubabad district.

Once a chili grower, Veerya had battled erratic yields and constant crop damage by monkeys. But after a study tour to the oil palm heartlands in 2019, he returned home with a plan, and four acres of land waiting to be repurposed. "Seeing what they had built there, it opened my eyes," he recalls. With support from the Horticulture Department and subsidies for seedlings and drip irrigation, he made the switch.

Today, the results speak for themselves. On June 10 this year, Veerya harvested his first oil palm crop — six tonnes of fresh fruit bunches. "It's not just a harvest, it is security. No longer do I



It was N.T. Rama Rao's vision of promoting oil palm cultivation that lit the spark. He wanted farmers to have a stable income and the country to become self-reliant in edible oil. That is what pushed me to plant oil palm in 1994.

**GUTTA VENKATARAMA RAO,**  
Farmer in Malkaram village, Bhadrachalam district

have to fear not having a sustainable income."

## From trial to triumph

What's fuelling this quiet agricultural shift is not just curiosity, it is a strong support system backing the crop. Subsidies, assured buyback arrangements, functional processing units and a farmer-friendly environment have turned oil palm into a serious option in Mahabubabad district, says District Horticulture and Sericulture Officer J. Marianna.

Exposure visits to oil palm clusters in Aswarapeta and Dammamapeta gave local farmers more than just inspiration; they offered a hands-on understanding of the crop's lifecycle, from planting to profit. The district now plans to ramp up cultivation from 8,000 to 12,500 acres in the 2025-26 financial year. To ease the transition, farmers are being offered ₹2,100 per acre annually for the first four years to support intercropping while the palms mature.

Meanwhile, Bhadrachali Kothagudem continues to lead Telangana's oil palm march, with over 75,000 acres already under cultivation. The goal is to expand to one lakh acres and make the crop a central pillar of rural income. The district's edge lies not just in its soil and climate, but also in infrastructure — two factories run by the Telangana Co-operative Oil Seeds Growers Federation at Aswarapeta and Apparapeta, capable of crushing 30 tonnes and 60 tonnes of Fresh Fruit Bunches (FFBs), respectively, per hour, ensure that farmers have a reliable place to process their harvest.

In the districts of Nalgonda and Suryapet — regions better known for their citrus orchards — a new class of oil palm growers is emerging. From NRIs and retired officials to big landowners, many are making the switch, drawn by the promise of higher returns. "In four years, oil palm can fetch ₹1 lakh per acre in profit," explains Narasimha Reddy, vice-president of the Nalgonda Oil Palm Farmers Association, adding, "That is nearly three times what paddy offers."

But even here, challenges remain. A lack of trained harvesters has forced farmers to pay up to ₹1,200 a day per labourer to cut the heavy bunches. "We need to set up processing facilities and train locals to ease this burden," Reddy says.

Still, the numbers tell a story of momentum: from 2016-17 to 2024-25, over 10,800 acres in Nalgonda have been brought under oil palm, cultivated by some 2,450 farmers.

## Returns, resilience and ripple effect

Backed by policy muscle and political will, Telangana is now betting big on oil palm. Under the Telangana State Oil Palm Mission, which is part of the National Mission on Edible Oils-Oil Palm

(NMEO-OP), the government has unveiled an ambitious plan: expanding cultivation from the existing 2.45 lakh acres to 20 lakh acres.

To make this leap, the State has done more than roll out subsidies. It has opened farmers' eyes to the possibilities. In a strategic move, delegations of farmers and officials were sent on exposure visits to countries like Malaysia to understand modern oil palm farming techniques. The initiative was led by Agriculture Minister Tummalapalli Nageshwar Rao, who hails from Khammam, the district where Telangana's oil palm journey began.

Even during the BRS regime, the push was palpable. Then-MLA Balka Suman not only championed the cause but led by example. He launched oil palm cultivation on 20 acres of his own land, sparking a ripple effect among neighbouring farmers.

At a recent awareness event in Husnabad of Karimnagar district, Minister for Backward Classes Welfare and Transport Ponnampati Prabhakar pitched oil palm as a resilient, high-return crop. "It keeps monkeys at bay and withstands seasonal rains and hailstorms, which are major concerns for our farmers," he had said, highlighting income potential ranging from ₹60,000 to ₹1.5 lakh per acre annually.

The numbers back the intent. Since 2022, the State has aggressively expanded cultivation across 26 districts, targeting five lakh acres by 2025 out of a total identified potential of 20 lakh acres — an exponential leap from just 45,000 acres in 2014. The NMEO-OP scheme, with 60:40 funding ratio between the Centre and State, has identified 246 of Telangana's 563 rural mandals as viable zones for oil palm.

To facilitate this expansion, the government has roped in 14 private companies, each assigned a factory zone to ensure farmers aren't left with unprocessed harvests. Hindustan Unilever is setting up a palm oil processing unit in Kamareddy district, while 12 acres in Incherla of Mulugu district have been earmarked for another unit. These initiatives are aimed at easing the burden on farmers who have started harvesting but do not have processing infrastructure within a 50-km radius.

So far, approximately 2.43 lakh acres are under oil palm in the State, with 1.97 lakh acres added under NMEO-OP between 2021 and 2024 alone. To make the transition attractive and viable, farmers are being offered subsidies of up to ₹50,918 per acre over four years. Of that, ₹22,518 goes toward drip irrigation in the very first year, an essential input for this water-intensive crop.

The momentum is strong, but the clock is ticking. The Agriculture Minister has urged officials in the Horticulture Department and partnering oil palm companies to accelerate efforts and ensure that the five lakh-acre mark is reached by the end of this financial year.

But there is a shadow of uncertainty. NMEO-OP, the backbone of the State's oil palm push, is set to expire at the end of this fiscal. "We are hopeful it will be extended. If not, farmer enthusiasm may take a hit," shares a senior official.

While the atmosphere is largely favourable, the road ahead is far from smooth. At the heart of the concern lies a recent policy shift: the Centre's reduction of import duty on crude and refined palm oils — from 27.5% to 16.5% in May — has sent ripples of worry across the farming community. Many fear this move could depress the price of FFBs, which currently fetch about ₹20,000 per tonne, potentially cutting deeply into profits.

Bonthu Rambabu, district secretary of Telan-

gana Rythu Sangham in Khammam, flags not only the volatile pricing but also the ageing of existing plantations and patchy returns as key issues that could undermine long-term farmer confidence.

According to Rambabu, the onus is now on government agencies and departments to step up, by ensuring timely supply of high-quality seedlings, expanding localised processing capacity and delivering consistent support to cultivators at the grassroots.

Echoing these concerns, Telangana Oil Palm Growers Association president Alapati Ramachandra Prasad says that Minister Nageshwar Rao had recently taken the matter to the national stage. In a meeting with Union Agriculture Minister Shivraj Singh Chouhan, he pushed for a fixed procurement price of ₹25,000 per metric tonne for FFBs — an ask that, if met, could safeguard farmer margins and morale.

In his representation, Nageshwar Rao also made a larger point that oil palm is not just another cash crop; it holds the key to self-reliance (achieving the objective of Atma Nirbhar Bharat) in edible oil production. With a high oil yield of 4-5 metric tonnes per acre and a perennial lifecycle, it offers unmatched productivity. But for it to fulfil that promise, farmers need more than just seeds and subsidies; they need assurance that their investment will pay off.

## Price of oil palm ambition

Yet, even as oil palm promises economic transformation, environmentalists and grassroots organisations are raising red flags. A mature oil palm, typically aged 8 to 10 years, requires approximately 250 litres of water per day in red soil and 150 litres per day in black soil. According to the Indian Institute of Oil Palm Research in Pedavegi (West Godavari), the recommended planting density is around 57 plants per acre.

In Telangana, where borewells remain the lifeline for irrigation, such water-intensive cultivation raises serious sustainability questions, especially during peak summer.

"Telangana is inherently dry. Pushing for a crop that thrives in humid, high-rainfall regions could prove ecologically disastrous," says farmer leader Kanneganti Ravi, vice-president of Rythu Swarajya Vedika. He warns that aggressive oil palm expansion could degrade soil health, diminish biodiversity and push groundwater levels further into distress.

Ravi also questioned the wisdom of putting all of Telangana's eggs in one oil basket. By focusing so heavily on oil palm, he argues, the State risks edging out diverse, possibly healthier and more resilient alternatives that could offer long-term sustainability.

India's oil palm map is already lopsided. Andhra Pradesh, Telangana and Kerala together account for 98% of the country's oil palm output. Telangana's recent thrust, powered by policy and protected under the Oil Palm Act, 1993, is undoubtedly a bold leap toward redefining that dominance. But ambition must be balanced with ecological foresight.

The sapling once planted by N.T. Rama Rao has grown into something far more symbolic than a productive tree — it now represents a turning point in Telangana's farming economics. For thousands of paddy-dependent farmers, oil palm holds the promise of higher, more stable returns. But success won't be measured by yield alone. Market stability, processing infrastructure, responsible water management and a diversified cropping strategy will be just as critical.

For that, the government must act swiftly and decisively, with strong extension services, sustained subsidies and assured buyback mechanisms to ensure that oil palm doesn't become a short-lived boom or an ecological bust.

Until then, the journey from a hopeful sapling to a truly sustainable plantation may still remain a slippery slope.

(With inputs from R. Ravikanth Reddy)



# JAMMU AND KASHMIR

Srinagar is now closer to the rest of India with the newly inaugurated Udhampur-Srinagar-Baramulla link, of which the stretch from Jammu and Kashmir's capital to Katra is operational. **Peerzada Ashiq** takes the train and speaks to those travelling on it to understand what the Vande Bharat Express means to people in the Valley. With 36 tunnels, the world's highest railway arch bridge, and India's first cable-stayed railway bridge, it is an engineering landmark that showcases the natural heritage of India's northernmost region

## Building bridges

The newly constructed Anji bridge, India's first cable-stayed railway bridge. At 331 metres above the riverbed, it stretches 725 metres and is anchored by 96 high-tensile cables. **IRFAN NISSAR**

**T**he summer sun shines pleasantly down on the Nowgam railway station in Srinagar, located at an altitude of 1,730 metres above sea level, and just nine kilometres from Lal Chowk, the city centre. It's around 7 a.m. on June 10.

India's railway stations usually smell of a heavy mix of diesel and fried food. Nowgam doesn't; it smells of timber instead. The red-brick, double-storey station with a sloped green tin roof has elements of Kashmiri architecture: woodcarving on the windows and *khatamband*, parquet on the ceiling. The two-platform station has the cleanliness of a well-kept hospital and the security of an airport. Outside, the central kerb of the two-lane road is lined with cypresses, and on the roadside are a few signatory chinars, unique to Kashmir.

Outside the station is a larger-than-life hoarding with three faces: Prime Minister Narendra Modi, Jammu and Kashmir Lieutenant-Governor Manoj Sinha, and Chief Minister Omar Abdullah. It announces the inauguration of the Vande Bharat Express between Srinagar and Katra, opened by the PM on June 6, integrating the line with the rest of India's. The hoarding has three bold terms to call people's attention to it: "Strengthening national integration", "Boosting trade and tourism", "Empowering economic growth".

For Abid Dar, 48, and Khurshid Dar, his father in his late 60s, apple orchardists from Pulwama district's Newa village, the train is a journey to hope and recovery. Abid has stomach cancer, and the duo will travel to Jammu, from where they will catch another train to Delhi.

"We plan to go to the All India Institute of Medical Sciences there. The train has been a great comfort for patients like my son," says Khurshid. Previously, the journey from Srinagar to Katra in Jammu, would have taken 24 hours; now it will take 13 hours, covering 191 km.

The operation to connect Kashmir to the rest of India was started in 1994, and declared a national project in 2008, funded by the Central government. Now, the 272-km Udhampur-Srinagar-Baramulla rail link, of which the Srinagar-Katra stretch is now operational, is the first train to connect the Kashmir Valley to Jammu, in the plains. While trains on the broad-gauge tracks plied within Kashmir, the connection to the rest of India was only through air and road.

The project that cost ₹43,780 crore runs through mountains and over deep gorges. It offers a glimpse of India's engineering strength and the extreme Himalayan terrain, with many firsts to the project.

### Before the train came

Until 2009, Kashmir was connected to the rest of India via road and air, the former treacherous, the latter expensive for most. There was only one major surface link: the Srinagar-Jammu National Highway 44 that stretched down 294 km.

In 2009, the 84-km-long Mughal Road was inaugurated, connecting Shopian district of the Kashmir Valley with Jammu's Poonch district. Both roads depend on the weather. In the rains and snow, parts would cave in, or boulders would fall on them from the mountains above, or there would be landslides.

According to J&K government data, the highway remained closed for 20.5 days (488 hours) in 2024 and 58 days (1,392 hours) in 2023. Up to 1,750 people have died on the highway between 2010 and 2020, according to the J&K Traffic Department, with injuries to 12,131. The road is so dangerous that parents ask children to recite their prayers or play a recording of the Koran before leaving for Jammu.

Those who don't own cars have to show up at the bus station an hour earlier to get a seat. Cabs are often shared, and never punctual, with riders having to wait hours for other passengers to board to make it worthwhile for the driver.

The highway has deep gorges on one side and steep mountain faces on the other. Ramban, Reasi, and Udhampur districts have sharp, blind turns. There are few food and restroom stops along the way, which takes 6-8 hours to traverse.

While the weather remains a threat for the train too, it is security that people are more concerned about. A traveller, who does not want to be named, says, "The security of the train needs to be reviewed and revised regularly. It remains an area of concern for us." In 2016, the Indian Railways recorded a loss of over ₹4.5 crore during



There is a festive atmosphere among passengers. Everyone wants to enjoy the experience. No seats are available for the next 10 days

**JUGAL KISHORE SHARMA**  
Station Superintendent,  
Mata Vaishno Devi Katra railway station

## 'It will boost travel, trade, and tourism in Jammu and Kashmir'

Railway Minister Ashwini Vaishnaw on the importance of the new line

*Edited excerpts from an e-mail interview:*

### What was the most challenging part of the project?

This dream of decades has become a reality overcoming many challenges, the unique Himalayan geology with earthquake-prone zones and difficult terrain being a significant one. Each of the 943 bridges had its own hurdles. Inaccessibility of the bridge sites was a common issue. Construction of over 215 km of approach roads to these sites was a project in itself. The 36 main tunnels and eight escape tunnels had a separate set of challenges, including landslides, cavity formations, water ingress, and the presence of methane gas.

### How important is the rail link for the strategic and military needs of the region?

Kashmir was, is, and will always be an integral part of India. The rail link provides all-weather connectivity to border regions. The key difference in people's lives is that they will now move easily between the Valley and the Jammu region. People will have access to transportation throughout the year.

### How are you taking care of safety on two counts: extreme weather and the threat from terrorists?

Passenger safety is one of the topmost priorities of the Indian Railways. The bridges on the rail link have been designed to withstand extremely high wind speeds and high magnitude earthquakes. For instance, Chenab



bridge can withstand wind speeds up to 266 kmph, and earthquakes of up to 8.0 magnitude on the Richter scale. Sensors installed on the bridge provide real-time data on factors like wind velocity, temperature, humidity, and vibrations. Advanced tunnel safety technologies have been employed. The 12.77-km-long Tunnel T-50 is India's longest transportation tunnel. It is equipped with a series of CCTV cameras and a central control room for monitoring. Regarding threats from terrorists, the [PM Narendra] Modi doctrine is quite clear and now well-known to the world. Operation Sindoor has established a new normal where decisive retaliation is a key pillar.

### How do you see the rail link integrating Kashmir into the mainland?

The line will boost travel, trade, and tourism in Jammu and Kashmir. Travel time from Jammu to Srinagar is halved. The Kashmiri golden apple, cherries, dry fruits, Pashmina shawl, and handicrafts will have quicker and easier access to global markets. During a recent interaction with local Kashmiris, they expressed a firm belief that the rail line will bring back the glory days and vibrancy of tourism. It is not only a dream come true but also a rekindling of hope for a Viksit Kashmir as part of a Viksit Bharat by 2047.

the turmoil triggered by the killing of Hizbul Mujahideen commander Burhan Wani in south Kashmir during an encounter.

### Firsts of many kinds

It's 8.10 a.m. Passengers in twos and threes board the train, a mix of local students, families, businessmen, and tourists. For many youth, this is the first time they will ride in a train. "I am excited to see the engineering marvels that made it possible to connect Kashmir to the outside world through a rail link," Ejaz Pandit, a Computer Science student from Srinagar, says. "I can now plan to apply for jobs easily and reach my destination in time, unlike in the past," he adds.

There are eight coaches, including an executive coach offering chairs that tilt and with wider leg room for comfort. The number of bogies has been restricted to ensure that the train manoeuvres well through the mountain passes. For many, the journey right now is a joyride.

As the train leaves the station, it passes through swathes of rice fields on the periphery of Srinagar, drifting into the apple orchards of Pulwama. The Pir Panjal peaks play hide and seek through the clouds, and the panoramic windows allow for sweeping views.

Closer to the Banihal-Qazigund railway tun-

nel, south of Kashmir, the rice fields grow sparse and the mountain passes higher. Vegetation vanishes as the craggy, jagged surface of the Himalayas emerges with ridges and troughs. Banihal station, nestled in mountain ridges, is the only stop. The train enters the mouth of a mountain only to pass into another within minutes.

The 36 tunnels turn the journey into an experience of praxinoscope, with eyes catching mere fleeting images. Passengers pull out mobile phones and get up from their seats to catch a glimpse of Anji Khad, India's first cable-stayed railway bridge. At 331 metres above the riverbed, it stretches 725 metres and is anchored by 96 high-tensile cables. Crossing the deep Anji river valley, the train heads for the Banihal-Katra section, snow-capped peaks visible in the distance. The Anji is a tributary of the Chenab.

The Chenab Rail Bridge, spanning 1,315 metres, has become a major attraction for many to board the train. It has been built to last 120 years and endure wind speeds of up to 260 km per hour. Khalid Majeed, a civil engineering student, is travelling with friends to see the bridge, which stands 359 metres above the riverbed. The world's highest railway arch bridge is 35 metres higher than the Eiffel Tower in Paris.

As mobile phones struggle to record the

mighty Chenab that looks like a stream from this height, people shout, "Bharat Mata ki jai". The journey ends with the Trikuta mountains of Katra, also home to the Vaishno Devi temple. Now the mountains diminish in size, but faraway peaks still tower over Kashmir.

Jugal Kishore Sharma, Station Superintendent at the Mata Vaishno Devi Katra railway station, says, "There is a festive atmosphere among passengers. Everyone wants to enjoy the experience. No seats are available for the next 10 days."

### A future for apples and tourists

Jammu and Kashmir has seen an upscaling of apple production in the past few years, with 20.56 lakh metric tonnes (LMT) produced in 2024-2025 of which 13.13 LMT was exported up to February 2025. Apple growers produced 16.9 LMT in 2020-2021, according to figures from the J&K Horticulture Department.

Izhan Javed, 32, who deals with apples and owns a cold storage in Pulwama, has mixed feelings. "Once the refrigerated goods trains start running, it will mean great connectivity to southern markets. South India is not easily accessible to our apple dealers, and due to its proximity to ports, imported apples dominate the market there. The supply chain for our apples is costly, and the train can change that," says Javed, who is also a member of the Jammu and Kashmir Fruits and Vegetables Processing and Integrated Cold Chain Association.

However, Javed says many questions remain unanswered so far: "How soon will the refrigerated train start? How will the point-to-point supply chain of apples be handled? As perishables require a fast and dedicated service, how affordable and accessible will that supply chain be made to small farmers?"

In the wake of the Pahalgam terror attack, the train represents hope for the tourism sector too. "We expect a major jump in tourist footfall in the coming months. The Valley must upgrade tourism infrastructure to cater to bigger volumes," says Nasir Shah, managing director of Culture and Nature Expeditions, which organises adventure holidays within Kashmir. He also sees many youth joining the tourism industry in Kashmir in the years to come.

### The Abdullahs on the train

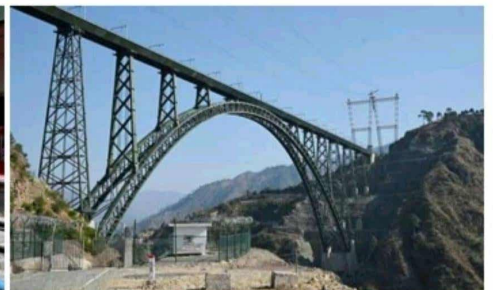
In the executive coach is National Conference leader Farooq Abdullah, 87. He guides his grandsons Zameer and Zahir, both in their 20s, to their seats. They order food from one of the four menus that cater to north and south Indian tastes. The only thing from the area is Kashmiri pulao.

On the train, Abdullah speaks to reporters, his eyes moist, saying, "Our long-awaited dream has been fulfilled. It will reduce the cost of travel for ordinary Kashmiris, especially students and patients. Besides, the train is also the first step towards reducing 'dil ki doori' (gulf of hearts). More steps are needed."

Zameer, who has lived across Kashmir and Delhi, says, "Beyond basic transportation, it's an economic catalyst for Jammu and Kashmir. We are already seeing spontaneous tourism growth as pilgrims from Katra are travelling to Kashmir and exploring new routes." He hopes to see other changes, like youth exploring education and employment opportunities and women travelling for jobs. His pride is in Kashmir's "majestic valleys" seen from "this engineering marvel".



The Vande Bharat Express between Srinagar and Katra at a platform in Srinagar; the world's highest railway arch bridge over the Chenab river, at a height of 359 metres above the riverbed. **IRFAN NISSAR**







## Crash and burn

India's aviation sector needs to address safety concerns

The first hull loss of the 'Dreamliner', one of aviation's most advanced twin-aisle aircraft, is one that is unsettling, more so when there have been recent examples of survivability in modern widebody jets. The tragic end to Air India flight AI171, on June 12 – there was one surviving passenger – just minutes after its liftoff from Ahmedabad for London Gatwick, and it touched a recorded barometric altitude of 625 feet, will be under much global scrutiny. That the crew were faced with a sudden and sharp turn of events on the 11-plus-year-old Boeing 787-8, a plane with ample avionics redundancy, and reliable twin engines – the GE9X-B67, rated at 67,000 lbs of thrust each – has led to much speculation about the cause. Experts have suggested reasons such as issues with load planning, ambient air temperature and engine performance, wing surface settings, and even a bird hit. Inducted by Air India during its government-owned days, as part of a 68-aircraft deal signed with Boeing in 2006, the subfleet of 787-8s has played a role in its medium to long-haul network expansion to Europe, the Far East and Australia. The plane's global safety record has been strong in general, but it has also been an aircraft type that has raised some concerns. These have included assembly-line quality control, 'whistle-blower' statements, engine icing problems that resulted in a safety directive, a lithium-ion battery-related electrical system issue that led to extensive worldwide groundings, an emergency locator transmitter battery fire that caused heat damage, and, in 2024, an in-flight upset that was linked to a feature in the flight deck crew seat.

All eyes will be on how the airline's new owner, Tata Sons (with a 25.1% shareholding by Singapore Airlines Limited), steers its operations and addresses safety concerns after an 'unprecedented' four-airline merger. The group is in the middle of executing Vistara.AI, the airline's 'transformational roadmap over five years', with the appointment of a 'head of group safety, security and quality' integral to this. In parallel, the airline has also faced scrutiny by India's civil aviation regulatory body, the Directorate General of Civil Aviation. With a formal investigation, that includes international participation, having been initiated, in keeping with aviation protocols, the complexities that a first-time 787 crash analysis could throw up should be ironed out. At the 88th International Air Transport Association annual general meeting and World Air Transport Summit in New Delhi last week, India was recognised to be one of the largest aviation markets. However, its rapidly expanding aviation sector needs to address the challenges, which include safety, on the ground and in the air.

## Rogue nation

Israel has pushed West Asia into a security abyss

Israel's strikes on Iran's nuclear facilities, at a time when Washington and Tehran were in talks, are brazenly illegal, reckless and dangerous. If there was any possibility of resolving the nuclear issue through dialogue, Israel has practically killed it. That Donald Trump, despite his repeated warnings, failed to stop America's closest ally from launching the attacks – threatening his own diplomatic push – suggests that the U.S. President was either not serious about his words or had limited influence. Israel's overnight attack targeted the Natanz nuclear enrichment facility, ballistic missile factories and the residences of Iran's top nuclear scientists and military chain of command. In retaliation, Iran launched a drone attack, with most shot down. Supreme Leader Ayatollah Khamenei has promised a harsh response. If Iran launches ballistic missiles, which seems likely, Israel would carry out more attacks, as Prime Minister Benjamin Netanyahu has indicated. So what possibly awaits West Asia are prolonged attacks and counterattacks, with potential regional spillover effects.

There are legitimate concerns about Iran's nuclear programme. It has enriched uranium to 60% purity, way above the grade for civilian purposes. Israel says Iran was making attempts to build a bomb in secret. While the IAEA says Iran has enough highly enriched uranium to make bombs, there is no conclusive evidence to suggest that Iran has moved in this direction. Tehran once agreed to scuttle its nuclear programme in return for the lifting of sanctions as part of the multilateral agreement in 2015, but it was Mr. Trump who sabotaged the agreement. And when Mr. Trump, in his second term, offered dialogue, the Iranians seized it. But what Iran got instead was an attack on its nuclear plants. Israel did this as it knew it could get away with any form of aggression, thanks to the U.S.'s military, political and diplomatic support. Israel has behaved like a rogue nation ever since the October 7 attack by Hamas. It is facing allegations of committing genocide after its destruction in Gaza that has killed over 54,000 Palestinians. It routinely bombs Lebanon despite a ceasefire with Hezbollah. It has carved up more territories in Syria after the collapse of the Assad regime. And now, by attacking Iran, Tel Aviv has pushed West Asia into a deeper security abyss. Israel's unchecked militarism is closing the space for diplomacy in a tumultuous region. If the conflict spills over into the Gulf waters and kingdoms, it would be catastrophic for the global economy, especially for India whose millions of citizens work and live in the region. There must be an immediate, coordinated international effort to rein in the Jewish state and re-bout diplomacy to restore stability in West Asia.

# The rot starts at the top of the aviation ladder

There is a version of Murphy's law which says that "if there is a possibility of several things going wrong, the one that will cause the most damage will be the one to go wrong".

The fiery end to Air India flight AI171 at Ahmedabad, Gujarat, on June 12, 2025, just after its departure for London Gatwick, is a rude wake-up call – one that has been sounded for several years. But the Ministry of Civil Aviation (MoCA), the judiciary, the statutory body the Directorate General of Civil Aviation (DGCA), the Airports Authority of India (AAI) and all airlines in India have been turning a blind eye to the need to ensuring stringent training and safety standards. Sound bites such as the one about India being the fastest growing aviation system have all come to nothing due to years of corruption and political manipulation in the system. A major failure in India is the complete lack of accountability. Other than pilots being blamed, no one else has been held accountable. The rot starts at the top of the aviation ladder.

### Downward slide

After every major crash, beginning with the Indian Airlines Airbus A320 crash (IC605) in Bangalore on February 14, 1990, followed by an Alliance Air Boeing 737 crash (CD7412) at Patna on July 17, 2000, an Air India Express crash (IX-812) in Mangalore on May 22, 2010 and another Air India Express crash at Kozhikode (IX1344) on August 7, 2020, the aviation authorities have been lulled into complacency. The crash of the Air India Boeing 787 at Ahmedabad is another accident in the chain. Meanwhile, the same set of people continue to be at their desks even as safety and training have been on a downward slide over the years. The lack of accountability and the inaction have cost the lives of hundreds of passengers.

Take the case of the Union Minister of Civil Aviation. After every crash, the first statement made is to defend the safety standards of airports in India even when there are blatant violations of International Civil Aviation Organization (ICAO) standards. It is no exaggeration to say that accident investigators are picked and chosen on the basis of who will toe the line and place the blame squarely on pilots. There have been violations in the Ahmedabad accident. We have had the DGCA issuing a statement that is in clear violation of ICAO standards – naming the pilots who were involved in the crash. No other country would mention the names of the crew even in the final report. We need professionals to head the DGCA and the AAI, and not bureaucrats and persons who seek publicity in these crucial



**Captain A. (Mohan) Ranganathan**  
is a former airline instructor pilot and aviation safety adviser. He is also a former member of the Civil Aviation Safety Advisory Council (CASAC), India

The air crash in Ahmedabad is a wake-up call, and aviation officials and airlines in India need to ensure stringent training and safe flight operations

organisations and positions. India has one of the weakest judicial systems as far as aviation safety is concerned. After the crash in Mangalore, a public interest litigation was filed that listed irrefutable data and safety violations by the MoCA, the DGCA, the AAI and Air India. A Bench of the Supreme Court of India swept this aside by passing on the case file to the MoCA to check whether this was a valid case.

This was a move that hammered the last nail in the coffin of aviation safety. Apart from the last crash, at Kozhikode, there have been so many accidents and serious incidents, but things carry on without any accountability. The loss of over 300 lives in Ahmedabad (the passengers and also local residents) should shake the people in the system who are in slumber. Even the Pakistan Supreme Court comes down very hard on its aviation regulator and airlines.

### Reading the visual evidence

The video recordings and images of the Ahmedabad accident that are out on social media are the only sources of information available at this moment. The take-off captured on CCTV at Ahmedabad airport has led to more information. There is much speculation about the flaps of the aircraft not having been configured for take-off. All modern Boeing aircraft, which includes the Boeing 787, have take-off configuration warnings and no pilot would attempt a take-off if all conditions are not met. There is also much commentary floating around about this flight having taken off from an intersection. Data from a leading flight data provider clearly shows that the crew used the full length of the runway, from the beginning. The initial part of the CCTV footage from the airport clearly shows the growth of a fair amount of grass along the sides of the runway. The southwest monsoon has arrived, but monsoon preparation mandates the mowing of grass at airports to less than three inches before the rains arrive. This will aid in reducing insects and worms which would otherwise attract bird life. Ahmedabad has a history of bird menace in the airport area.

The initial take-off acceleration of the Air India plane appears normal until lift off. Going by the statement of the sole passenger/survivor and also a video grab quoting a person during a television interview, a loud thud has been reported about 30 seconds after lift off. It is quite possible that birds flying close to the runway in search of worms and insects may have got sucked into the powerful aircraft engines and caused a compressor stall at the point of rotation. The lift off and initial climb appear shallow before the nose is raised high. But the climb rate is very

shallow due to possible partial thrust loss as a result of bird ingestion in both engines. Thereafter, the nose is raised and the aircraft appears to descend slowly with a high nose angle. The aircraft appears to have stalled and the impact on the building with the tail section intact, points to a stall. The Digital Flight Data Recorder and Cockpit Voice Recorder will give us the clear picture.

The second reason that may have caused the partial thrust loss could be Foreign Object Damage such as what happened to the Air France Concorde flight (AF-4590) on July 25, 2000 while on a flight from Charles De Gaulle airport in Paris to New York. The crash was caused by a metallic strip that had fallen from a light that had taken off minutes earlier. It was lying on the runway and punctured the wheel of the Air France plane. Fragments from the exploding tyre hit the fuel tank, causing a leak and fire. All lives were lost with some fatalities on the ground. It would be worthwhile checking whether something similar happened to the Air India flight. The most intriguing part of the video is of the aircraft's landing gear extended throughout the climb till the final moments. If there had been bird ingestions in both engines, the loud noise may have been due to a compressor stall, which could have created what is called the stall effect.

The DGCA's statement which mentions the names of the pilots and their experience levels, also says that the captain was line training captain. Was this a training flight? And was the copilot at the controls? In such a situation, the change of controls and the partial loss of thrust could have been overwhelming and may have been a reason for the crew to miss landing gear retraction. If the gears had been raised, the drag would have not been present and the aircraft would have had a better climb gradient to clear the obstacles on the ground.

### Focus areas in the investigation

With global aviation bodies such as the National Transportation Safety Board from the United States, and the Air Accidents Investigation Branch from the United Kingdom now a part of the crash investigation, the officials should also look at obstacles in the take-off funnel. The building which the aircraft crashed into was multi-storied (one plus five floors, according to a report). Having a seventy-foot structure so close to the take-off path should be investigated. This should also be a lesson for authorities in India not to issue no objection certifications for construction activity by caving in to political pressure.

Whether we will learn lessons from this tragedy is the big question.

# Endgame of a 2,611-year-old Jewish-Persian enmity

Despite mutual loathing, Israeli Prime Minister Benjamin Netanyahu and Iranian Supreme Leader Ayatollah Ali Khamenei agreed yesterday about the primordial significance of their latest conflict. While Mr. Netanyahu called it "a decisive moment in Israel's history", Khamenei was equally definitive in his verdict: "With this crime, the Zionist regime sealed for itself a bitter and painful destiny."

### Inflection point

Indeed, June 13, 2025, when Israel launched its "Rising Lion" operation to obliterate Iran's nuclear and missile threat, is to go down as an important inflection point in the epochal legacy of Jewish-Persian conflict dating back to 586 BCE when the Babylonian King Nebuchadnezzar II destroyed the first Jewish temple and obliterated the Kingdom of Judah. The current unfolding Israeli campaign leverages the gains from 21 months of war against Iran and its proxies by waging a short-but-intense technology and intelligence-driven blitzkrieg. It began with a multi-pronged, well-coordinated attack on Iran's hard and soft strategic infrastructure, hitting the nuclear, missile and human assets. More than 200 Israeli air force jets attacked over 100 targets. Among the high-value targets assassinated were the chief of staff of the Armed Forces, the commanders of the Revolutionary Guards and Emergency Command as well as six nuclear scientists.

The campaign was well prepared for by both Israel and its friends, many of whom cornered Iran. Since the October 7, 2023 attack by Hamas, Israel has systematically pulverised Iranian proxies. Further, the ouster of the pro-Iran al-Assad regime in Syria denied Iran the first line of defence facing Israel. Provocative assassinations on Iranian soil pushed Iran into launching missile attacks on Israel, triggering Israeli retaliations against Iranian air defences. Israel also beefed up its multilayered air defence



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Israel's operations against Iran were limited to eliminating Tehran's strategic capabilities, but may have unforeseen consequences in the region and beyond

capabilities and acquired offensive assets needed to attack Iran's well-defended underground nuclear facilities.

While the United States and other friends of Israel have called for a diplomatic solution, the circumstantial evidence suggests the contrary. Trump LO tore up the nuclear agreement in 2018, instead applying "maximum pressure" on Iran, which was tightened further during Donald Trump's second term. Saudi Arabia was pressed to unwind OPEC+ oil production curbs to create a global oil glut to curb Iran's clandestine oil export revenues. America launched heavy air attacks on al-Houthis, forcing them to abandon their maritime disruption campaign. Additionally, on June 12, the western countries got the International Atomic Energy Agency's Board of Governors to adopt a resolution condemning Iran for violating its nuclear commitments. The passage of this resolution a day before Israeli military action was perhaps intended to provide legal cover for the latter. The recent and sudden U.S. overtures towards Islamabad can also be explained by the need to harness Pakistan, Iran's largest neighbour with the longest common border.

### Arab world's apprehensions

The largely Sunni Arab world has mixed feelings about the Israel-Iran hostilities. It has little love lost for either of them but is deeply apprehensive about any blowback from Iran or its proxies. This may come in several ways, such as disrupting the oil flow through the Strait of Hormuz through which a fifth of global oil supplies pass daily, attacks against high visibility strategic targets, and inciting Shia minorities against Sunni regimes. The regional instability may also revive their terrorist campaigns by non-state actors such as ISIS and al-Qaeda.

Though the day-old Israeli operations are limited to eliminating Iranian strategic capabilities, they may have unforeseen

consequences in the region and beyond. It would depend on whether Israel can accomplish its objectives surgically without either backlash or collateral damage, such as radioactivity and contamination. Iran may be able to withstand the onslaught and live to fight another day. This would not only run counter to Israeli strategy for a short, surgical strike but also force hitherto uncommitted Iranian masses to stand along the beleaguered regime facing an external threat. The unilateral adventurism against Iran further isolates Israel from the Third World. In case the hostilities protract over a long period, the costs would add to the global economy's existing travails due to other regional conflicts and tariff wars. The resultant higher inflation due to an oil price surge, lower growth, disrupted supply chains and stock market mayhem may burden us all. It belies Donald Trump's boast about him stopping the "endless wars" that other U.S. Presidents unleashed.

### Looking ahead

The conflicts often defy their neat prognosis, and this one could well pan out very differently from its initial choreography, under which Tehran is defanged and left to its own devices, akin to Saddam Hussein's Iraq after Operation Desert Storm in 1991.

On the other hand, a wounded Iran could well expand the conflict to inflict retributions upon pro-western states that it perceives to be accomplices in the Israeli invasion. This may well drag in the United States directly, with consequences that range from a forced regime change in Tehran to a kaleidoscopic redraw of regional geopolitics.

Iran, well-endowed with hydrocarbons, has long chased a nuclear mirage, estimated to have cost it up to \$100 billion, to ensure its national security. The current turn of events may entitle many to wonder if this imprudent quest had exactly the opposite effect.

## LETTERS TO THE EDITOR

### Operation Rising Lion

Israel's strikes on some of Iran's facilities mark a dangerous escalation in an already volatile West Asian theatre. While Israel cites preemptive security concerns, such unilateral actions risk provoking severe retaliation from Tehran, which could engulf the region in wider conflict. Iran's possible military or proxy-based response may destabilise not just Israel but also the Gulf states, threatening vital global

energy supplies. This tit-for-tat brinkmanship undermines ongoing diplomatic efforts, especially the already fragile Iran nuclear deal framework. Moreover, it raises the spectre of nuclear arms race in the region, as other nations may seek similar deterrents. India, with its strategic ties to both Israel and Iran, and its dependence on Gulf energy routes, has cause for concern. The international community, particularly the

UN and regional powers, must act swiftly to de-escalate tensions and revive meaningful dialogue before the situation spirals beyond control.  
**Gopalaswamy J., Chennai**

**U.S. ties, the reality**  
A report that the Pakistani Army Chief General has been invited to an event in Washington DC on the occasion of U.S. Army Day, on June 14, makes one wonder what the true state

of India-U.S. ties is like. There is also another report of General Michael Kurilla having praised Pakistan for its "counter-terror efforts" and helping the U.S. achieve its objectives in the region (June 11). This runs counter to India's repeated line that Pakistan is the penetrator of terrorism. Such reports only strengthen doubts about America being a 'reliable partner'.  
**Yash Pal Rathin, Jalandhar, Punjab**

**Air safety**  
In an interview to a YouTube channel, Captain Mohan Ranganathan, an aviation safety expert, has said that Ahmedabad airport is known to have a high risk factor of bird hits and that most airports in India function in violation of International Civil Aviation Organization and Directorate General of Civil Aviation rules. The government may have set up an inquiry committee to probe the crash at

Ahmedabad, but more often than not, all these inquiries end with the authorities signing up on the dotted line and not caring about the real conditions. Therefore, if the inquiry is to be impartial, it should include committed experts. The government must implement safety recommendations.  
**N.G.R. Prasad, Chennai**  
Letters emailed to letters@thehindu.co.in must carry the postal address.



## GROUND ZERO



The crash site in Ahmedabad. V.JAY SONE/L

## Skyfall in Ahmedabad

On June 12, an Air India aircraft carrying 242 passengers and crew members crashed into the B.J. Medical College in Meghani Nagar, just moments after take-off in Ahmedabad. The Boeing 787-8 Dreamliner burst into flames, killing 241 people aboard and several others in the medical college dining mess and its premises.

**Jagriti Chandra and Abhinay Deshpande** report on one of the worst aviation disasters in recent history

Surajbhai Patani sits silently in an autorickshaw on the premises of Ahmedabad's Civil Hospital in Gujarat. Just hours earlier, on June 12, his son, 15-year-old Akash, had rushed to deliver lunch to his wife, Sitaben, at her tea stall in Meghani Nagar, about 5 kilometres from the airport. Now, Akash's body is lying in the hospital morgue, while Sitaben is fighting for her life in the trauma care centre, just a few meters away.

Sitaben and Akash were not on the Air India passenger plane, which crashed into the B.J. Medical College in Meghani Nagar just moments after take-off in Ahmedabad. Yet the tragedy killed Akash in an instant.

Suraj is torn between grief and relief. "Should I be distraught that my son has died or happy that my wife has survived," he asks.

Vishalbhai, Akash's brother-in-law, says Sita was at her usual work spot near the medical college when Akash, a Class 9 student at a private school, brought her lunch. "She told me that as she started eating, he lay down on a wooden cot," says Vishal. "Suddenly the aircraft crashed and burst into flames. Akash was burnt alive."

Suraj, an autorickshaw driver, was on duty when the disaster struck. He learned of the accident 30 minutes later and rushed to the scene only to learn that his son was no more.

Air India announced later that 241 of the 242 passengers and crew had died in the crash. There is no confirmation yet on the number of deaths in the medical college and elsewhere in the area although rescuers estimate a death toll of at least 50 people. After the crash, the Tata Group, Air India's owners, announced a crore compensation to the families of those who lost their lives. The Group said that they would also cover the medical expenses of those injured and ensure that they receive the necessary care and support. Additionally, it stated that it would provide support in rebuilding the medical college.

"No money can replace him," says Suraj sobbing, on being told about the compensation. Suraj now hovers between the trauma care centre, where Sita battles severe burns, and the morgue, where Akash's body awaits post-mortem. Like many others, he has given his DNA sample to doctors and hopes to get his son's body soon.

Relatives say Sita's survival is a "miracle," but they are unable to fully appreciate it during this moment of loss. "He was just a boy," Vishal says, clutching his own toddler. "All he did was to help his mother."

## The crash

At 1.38 p.m. on June 12, the aircraft, a Boeing 787-8 Dreamliner, steered by pilot in command Sumit Sabharwal, and co-pilot Clive Kunder, took off from Ahmedabad's Sardar Vallabhbhai Patel International Airport for London's Gatwick Airport. It was carrying 169 Indians, 53 British nationals, seven Portuguese, and one Canadian; there were 12 crew members.

Just seconds after taking off and climbing to a height of about 600 feet, the aircraft began a shallow descent, according to flight radar data. It then quickly crashed into a building and burst into flames, according to CCTV footage from the



How can both engines of such a massive plane fail at once? Who cleared this aircraft for take-off? It was clearly a death trap

**RAFIQ**  
Relative of passenger,  
Syed Javid Ali

airport. Residents of the area say they heard an explosion. The Directorate General of Civil Aviation says the pilots had issued a mayday call moments before the crash.

By 10 p.m., the smell of charred flesh, chemical fumes, and aviation fuel had permeated the air in Ahmedabad's Civil Hospital. The wailing sound of ambulance sirens constantly pierced the air. Volunteers who were directing traffic and managing the crowd blew whistles. The hospital staff made announcements on loudspeakers for relatives who were seeking news of loved ones.

Outside the hospital's post-mortem division, dozens of stretchers, draped in white sheets, lined the road. Besides relatives and helpers, a swarm of journalists had gathered around with cameras and notepads. By then, Air India had announced that 241 of the 242 passengers had died in the crash. Among the dead was former Gujarat Chief Minister, Vijay Rupani, who was on his way to London to meet his wife and daughter. One passenger had miraculously survived.

On June 13, Prime Minister Narendra Modi arrived at the accident site along with the Aviation Minister, Ram Mohan Naidu. As he inspected the site, the tail section of the aircraft could still be seen jutting out of a corner of the hostel dining area. Fragments of the aircraft's wing and engine cover could also be seen on the sandy ground separating the hostel mess from other buildings on campus, where typically children gather to play cricket, according to residents. The remaining parts of the aircraft, including its engines, the fuselage, and the nose appear to have been consumed by the ferocious inferno.

The black box has been retrieved from the building. The DGCA has ordered Air India to carry out additional maintenance action on all Boeing 787-8 and 787-9 aircraft equipped with Genx engines, including checks before departure.

## A lunch that turned tragic

According to a security guard who was on duty at the medical college at the time of the crash, nearly 1,200 residents gather at the men's hostel mess

for lunch between noon and 3 p.m. "Fortunately, the crash happened at the time the lunch break was concluding, or else the casualties would have been much higher," says the guard, who helped pull out bodies from the wreckage.

The guard recalls hearing a loud noise. When he rushed to the site, he saw huge plumes of smoke coming out of the building. "The smoke was so thick that it was impossible to see the surroundings," he says. He couldn't believe his eyes when he figured out that an aircraft had pierced through the building.

Personnel of the Central Industrial Security Force, deployed at the airport, were among the first responders, says the guard. "They arrived within 20 minutes, while the fire brigade arrived within 45 minutes. Then multiple other agencies came to help in rescue efforts, including the National Disaster Relief Force," he says.

One of the guard's colleagues was injured in the crash and is being treated at the hospital. "He was stationed at the residential complex of the intern doctors. That is the area that bore the maximum brunt of the crash in the hostel premises," the guard says.

The residential complex of the intern doctors had turned into a hot furnace, which made it impossible for rescuers to approach the building, the guard adds. He says bodies could be removed only when the fire tenders arrived on the scene.

## An anxious wait

The hospital morgue has been pushed to its breaking point. Doctors and staff have transformed the post-mortem waiting area into an emergency mortuary. "We had no choice. The numbers were beyond our capacity," says a harried hospital worker. To slow decomposition of bodies, authorities have installed multiple air conditioners. They say they are buying time for DNA identification so that families can claim their loved ones. So far, the bodies of six victims have been handed over to their families after identification on Friday, say the police.

Rafiq, from Mumbai's Goregaon, sits outside the morgue. His nephew, Syed Javid Ali, a 36-year-old hotel manager in London, had just celebrated his mother Fareeda's birthday before boarding the flight back to the U.K. on June 12. His family is now left waiting for his remains.

"How can both engines of such a massive plane fail at once," Rafiq asks. "Who cleared this aircraft for takeoff? It was clearly a death trap."

Rafiq says Syed had lived in London for more than 15 years. He visited India occasionally to see his mother. Syed's family had given their DNA samples at 4 a.m. and were clinging onto the hope of claiming his body. They were told it would take at least 72 hours.

When officials announce financial aid for victims' families, Rafiq says, "They talk about money, but all we want is our child to come back. All we want are answers."

## Providing DNA samples

At the B.J. Medical College on the premises of Civil Hospital, relatives have been escorted into the auditorium to submit DNA samples. Among them is a woman from Bengaluru. Sitting alone on a bench, she says her brother was on the flight. She refuses to say anything more. "Respect my privacy," she says. The woman gives her sample, returns, and breaks down. Volunteers give her water and guide her through the paperwork.

Ahmedabad's Ellis Bridge MLA, Amit Shah, and Amraiwadi MLA, Dr. Hasmukh Patel, assist the families in the DNA sample collection process. They say they began working at 6 a.m. "The party (Bharatiya Janata Party, in power at the centre and in Gujarat) has assigned us to remain at the medical college and help facilitate the DNA sampling process. Once our six-hour shift ends,



We don't know if my mother and daughter are alive. My mother cooks for junior doctors, and my wife and I deliver lunch boxes to the resident doctors. Deep down, I fear the worst.

**RAVI KUMAR THAKUR**

two other MLAs will take over," he says.

Ravi Kumar Thakur stands on the auditorium dais. He is waiting anxiously for any information about his mother, 50-year-old Sarala Prahalad Thakur, who works as a cook at the hostel. She had been in the rear section of the building, where the aircraft had struck, along with his two-year-old daughter, Adhya, he says.

"We don't know if my mother and daughter are alive," Ravi says. "My mother cooks for junior doctors, and my wife and I deliver lunch boxes to the resident doctors. All of us serve the doctors here, and our house is opposite the outpatient block. My DNA sample has been taken. Deep down, I fear the worst." Ravi says his five-year-old son, Madhav, had just finished lunch and was playing near the laundry area when the plane hit the building. "Somehow, he escaped unscathed. It is a miracle," Ravi says.

Recalling the chaos following the crash, Ravi recalls how the building was engulfed in thick black smoke. "People were screaming and running for their lives. We have been searching all day through the rubble for my mother and little girl, but we haven't found them," he says. He stares at a video on his phone. It shows Sarala laughing as she feeds Adhya.

Across the civil hospital campus, volunteers from the Rashtriya Swayamsevak Sangh (RSS), the BJP's ideological wing, can be spotted in their trademark white shirts and khaki pants. They move swiftly through the crowds, along with the State police, directing grieving families and distributing food and water.

Authorities have started the process of returning the dead to their loved ones. Bodies that could be visually identified were released after autopsy. Among them was Aryan Rajput, a 19-year-old first-year MBBS student from Gwalior. The promising young doctor had been eating lunch in the medical college hostel mess when the aircraft hit the building.

"Aryan's body was identified without DNA testing. So the autopsy was conducted and his mortal remains are being sent to his native place. He was a bright student," says Aryan's senior in college, who was assisting with the procedures.

## Passenger IIA

Vishwash Kumar Ramesh, the sole survivor of the crash, told a reporter from Doordarshan, the state service television channel, that he still can't fathom how he made it out alive. Prime Minister Modi visited Ramesh at the Civil Hospital and enquired about his condition.

Ramesh, 45, who was sitting near the emergency exit in IIA, recalled that moments after take off from Ahmedabad, the aircraft appeared to stall. "For a moment, I thought I would die, but when my eyes opened, I was alive. I saw that air hostesses and aunts and uncles had died."

His side of the aircraft did not hit the hostel building. This, he said, gave him a slim chance to escape. "The aircraft landed on the ground. There was some space on my side. When the door broke open, I removed my seat belt and exited. My left hand got burnt in the fire but I walked out of the crash site," he said.

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## Colossal tragedy

Boeing & Air India have their tasks cut out as in aviation, what's paramount is the brand's identity with safety

**T**HE CRASH OF Air India flight AI 171 is a national tragedy, marking one of the deadliest air disasters the country has seen. The sheer scale of devastation is numbing. As details continue to emerge, full clarity on what caused the crash will take time. Aviation investigations are meticulous by necessity. Yet, even as the due process unfolds, one conclusion demands attention—that safety in aviation, whether in engineering or operations, remains a non-negotiable frontier. It will not be wrong to say that the systems meant to enforce it have failed before, and the penalties for lapses have clearly not been able to act as a sufficient deterrent. The track record of both Boeing, the manufacturer of the aircraft, and Air India, the carrier, is troubling enough to raise serious questions. While no airline is without flaws, the evidence in Boeing's case goes beyond unfortunate coincidences. And Air India, even under the Tata Group since 2022, has seen repeated penalties for compromising core aspects of airline safety and service.

The aircraft involved, a Boeing 787-8 Dreamliner, had flown nearly 8,000 cycles over 11 years, not abnormally old by international standards. Dreamliners were hailed as next-gen marvels when introduced in 2011, but the fleet has been dogged by a series of alarming technical faults over the years. Battery fires grounded the global fleet in 2013. Structural defects flagged by whistleblowers about manufacturing shortcuts like leaving structural gaps unfilled and even workers jumping on parts to force alignment sound unreal until one recalls Boeing's broader pattern of quality control lapses, including two 737 Max disasters in 2018 and 2019, and the mid-air blowout of a Max 9 door plug in January 2024. Thursday's crash now brings the Dreamliner into the centre of this mounting credibility crisis. The real damage lies in the erosion of public trust. Boeing has promised cooperation, but accountability, not public relations, is what's needed.

On the Indian side, Air India has hardly distinguished itself. Since the Tata Group took over, the Directorate General of Civil Aviation (DGCA) has penalised the airline multiple times for violations ranging from safety equipment failures to operating flights with non-qualified crew. Each time, the fine amounts were ridiculously low—₹30 lakh here, ₹1.1 crore there—surely not enough to act as a deterrent. In one tragic instance, a passenger died after being denied wheelchair assistance. For an airline, the brand's identity being linked with safety is paramount, and Air India should work harder on that.

Thursday's crash shows how such loose ends in safety oversight can, and do, culminate in disaster. Of course, India's skies remain largely safe. The last major crash in India was in 2020. But that is no excuse for complacency, especially in a country where air traffic is growing faster than almost anywhere else in the world. Investigators from India's Aircraft Accident Investigation Bureau (AAIB), Boeing, and the US Federal Aviation Administration (FAA) must get to the bottom of what went wrong, and the findings must lead to swift and visible change. That includes tighter rules for manufacturers and operators alike, and sharper punishments for violations that endanger lives. For far too long, both Boeing and Air India have been allowed to deflect criticism with statements and settlements. That must now end. This tragedy must serve as a turning point for how aviation safety is enforced.

## Crypto bros are a risk to stability, just like trade

**CIRCLE INTERNET GROUP** Inc.'s blockbuster initial public offering has lent an aura of legitimacy to digital clones of fiat currencies. It has also put regulators and policymakers on notice. With crypto going mainstream, they need to assess the threat it poses to global financial stability.

Circle Group Inc. is describing 2025 as a possible "ChatGPT moment" for stablecoins, which its analysts have pegged for a sevenfold expansion over the next five years. However, for the market to reach \$1.6 trillion by 2030, a lot of the dollars held as banknotes and other liquid assets by households and firms will have to get tokenized into the likes of Tether's USDT and Circle's USDC.

Stablecoins defend 1:1 convertibility into fiat money by parking funds in liquid assets in the currency they promise to pay out.

The overwhelming majority of the \$61 billion of USDC in circulation, and USDT's \$155 billion in liabilities, are supported by short-term US government debt. More such digital dollars are coming. Big US banks have had discussions on a joint stablecoin project to challenge the tech industry's dominance, according to the Wall Street Journal.

That will have a huge bearing on traditional finance. Barely a decade old, issuers of stablecoins have already come to acquire bigger positions in short-term US securities than amassed by major investors like China. The issuers' hunger for safe assets has its costs. It locks up securities that are needed by the world's monetary authorities, banks, insurers and pension providers. But what happens when this craving gives way to a sudden loss of appetite? Can a run on crypto compromise financial stability?

A "ChatGPT Moment" for stablecoins? Citigroup analysts' core forecast is for sevenfold growth by 2030. Arccent Bank for International Settlements working paper has attempted to quantify the impact. A five-day stablecoin inflow of \$3.5 billion triggered by a sudden boom may lower three-month Treasury bill yields by about 2 to 2.5 basis points within 10 days. That may not sound like much, especially since the shock doesn't tend to reverberate in longer-dated bonds. Still, it's the unexpected crypto bust that needs attention. Outflows could raise yields by two to three times as much as inflows lower them.

As the trading data used in the study are mostly from a growing market, they "likely underestimate the potential for non-linear effects under severe stress," authors Rashad Ahmed and Ifkai Aldasoro write. Ultimately, though, it's expansion in activity that will add to risks. "The financial stability impact of such fire sales may not be significant while the stablecoin sector is small, but this may change," the researchers say.

These are anxious times. With the US and China holding on to a fragile truce over tariffs and technology, policymakers globally may have a moment of reprieve. They must use the interlude to pay attention to crypto. After all, the emergence of a new vulnerability will compound the regulators' headache. Particularly worrisome to them is the rise of yield-bearing stablecoins.

The temptation of earning a return would send some of the existing USDC and USDT customers toward more remunerative alternatives. It could also eat into deposits of banking institutions.

Making sure that stablecoins keep their promise of exchanging 1:1 to fiat currency is challenging enough when they aren't paying interest. Things could get tricky if they start saving savings products, but without deposit insurance. Which is why yield-bearing coins are banned in Europe, Hong Kong and the United Arab Emirates.

But US legislation isn't quite ready yet. Tether, the incumbent leader, would likely side with banks against yield-bearing stablecoins, though new players might want the leeway. Regulators worldwide, distracted as they are by tariffs, chips and rare-earth magnets, need to be on guard.



**ANDY MUKHERJEE**  
Bloomberg

**I**NDIA IS FACING a summer of extremes. Delhi is sweltering in heat and humidity with temperatures regularly crossing 40°C even as it grapples with occasional thunderstorms. Keeping the erratic nature of this summer aside, a recent analysis by the Council on Energy, Environment and Water (CEEW) found that 57% of Indian districts, home to over three-fourths of the population, now face high to very high heat risk. The occurrences of very warm nights are rising faster than hot days, and humidity is up 10% in parts of north India. This mix is driving a rapid surge in the demand for cooling—from air-conditioners (ACs) to coolers and fans. This has serious implications for power demand, grid stability, and building climate resilience.

In a move to curb air-conditioning-driven electricity consumption, the government wants to increase the minimum set-point limit to 26°C (from 16°C) for residential and commercial establishments. The mandate is targeted to shape consumer behaviour to responsibly achieve thermal comfort and avoid over-cooling of spaces while reducing energy bills. Why is this important? In 2023, India sold 11.1 million room ACs—a number that jumped by 30% to a record 14 million units in 2024. These were mostly 3-star labelled models, which consume ~30% more energy annually than 5-star units. The market is projected to grow at a 20% compound annual rate, with annual sales likely to exceed 30 million units by 2030—significantly exceeding the 15% growth projected by the India Cooling Action Plan. If this trend continues, India's room AC stock will expand nine-fold by 2050. As an alternative for affordable thermal comfort, the cooler market will also

## HIMANSHU DIXIT DISHA AGARWAL

Respectively programme associate and senior programme lead, Council on Energy, Environment and Water (CEEW)

grow at ~15% annually. This surge in cooling devices will substantially increase electricity demand, particularly during peak hours. Already, over the past five years, peak demand in major states has outpaced total energy demand growth. By 2035, room AC usage could account for up to 180 GW—nearly a third of India's projected evening peak demand.

The mandate of higher minimum temperature for air-conditioners is a welcome move to manage power loads, which can be further bolstered through a coordinated, consumer-focused response that combines energy-efficiency measures with clean power and thermally comfortable designs. Four immediate strategies stand out.

First, we must double-down on responsible and energy-efficient AC purchase, use and upgrading. Consumer incentives such as rebates can encourage the uptake of higher star-rated models. Awareness campaigns should promote the total cost of ownership (including operating and maintenance costs) and the benefits of optimal temperature settings (like 24°C), and regular servicing through trained service technicians. Simultaneously, manufacturers must be incen-



tivised to introduce super energy-efficient models. The existing stock of inefficient ACs must also be addressed. A targeted replacement scheme, as proposed by the government, could offer discounts for exchanging older units. However, safeguards are needed to ensure that scrapped units aren't refurbished and resold.

Second, the integration of cutting-edge cooling technologies into India's built environment needs to be scaled up. Buildings account for ~30% of India's electricity use, with homes as the largest users. Studies show that buildings could cut operational energy demand by up to 70% by adopting innovative, non-traditional cooling approaches, such as district cooling systems (like Gujarat's GIFT City), radiant cooling, and high-efficiency ventilation and air conditioning infrastructure (such as UN House, New Delhi). New tech like non-vapour compression systems and Internet of Things-enabled energy management tools offer further gains. Energy conservation building codes must be implemented through targeted incentives and monitoring to scale solutions.

Third, decentralised renewable energy solutions like rooftop solar with energy

storage should be promoted to meet rising peak demand affordably. States like Gujarat, Maharashtra and Rajasthan have led in rooftop solar adoption, easing day-time load. But evening and night-time cooling demand surges—when solar dips—continue to strain supply and raise costs. States must reform tariffs and enable business models that promote solar-plus-storage deployments to meet the cooling-led peak demand cost-effectively. Competitive procurement models for large-scale stand-alone storage, already underway in some states, can be adapted for rooftop solar clusters.

Fourth, passive cooling strategies should be brought to the mainstream to minimise reliance on active cooling. Design measures like shading, ventilation, cool roofs, and insulation can significantly lower indoor temperatures and should be embedded at scale in government housing schemes. Increasing the thermal mass of walls—using materials that absorb and slowly release heat—also helps affordably block external heat ingress. The Smart GHAR (Green Homes at an Affordable Rate) III project in Rajkot under Gujarat's Affordable Housing Mission, is one such example. Depending on local context, passive design can cut energy use by 10–50%, reducing grid stress while ensuring thermal comfort for all.

Managing India's cooling boom is not optional—it's essential to protect lives, livelihoods, health, and energy security. It is also a frontline response to climate change. Rising temperatures and humidity are already reshaping how and where we use energy. How scale cooling today will determine whether we merely survive the heat or thrive regardless of it.

*Views are personal*

## Competing with the dragon



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**T**HE VIKSIT BHARAT vision aspires towards a \$30 trillion economy by 2047—yet, barring bold rescaling of existing expertise, the timeline of crossing that milestone closer to 2050. Meanwhile, China races ahead, predicted to touch \$42 trillion by then. Once dismissed as a low-cost, copycat factory floor, China has stealthily morphed into a deep-tech juggernaut—leading in artificial intelligence (AI), quantum computing, biotech, and green energy. This transformation is no accident; it's the product of architected statecraft, strategic investments, and a technological vision.

India now stands at a significant crossroads. It boasts of a formidable young bulge, a globally entrenched diaspora, and a vibrant digital backbone. Yet, it lacks a DeepSeek moment. While the Chinese playbook holds critical cues, mimicry alone won't suffice. What India needs is not imitation, but intentional innovation powered by clarity of vision and consistency of execution. A closer look at the Chinese techno-ascendancy reveals six major planks of policy thrust:

**Techno-nationalist industrial policy.** In 2015, China launched the "Made in China 2025" industrial strategy, aimed towards dominating ten core technology sectors. From subsidies and tax incentives to state-backed venture capital, the government pushed to the rise of behemoths like DJI (drones), Huawei (telecom), and SenseTime (AI). It took decades to see tangible results, which included strategic decoupling from foreign tech dependencies, acceleration of indigenous innovation, and global tech leadership.

**Prodigious R&D investment.** China's R&D investment skyrocketed from under \$100 billion in 2006 to over \$440 billion in 2022, making it the second-largest spender globally. More crucial was the surgical precision of the spends. Through five-year plans and innovation blueprints, the budget was channelled into sectors

like AI, 5G, semiconductor fabrication, aerospace, and biotechnology. The agenda was to enable indigenous capability and a parallel innovation ecosystem without excessive Western dependency. Institutions like the Chinese Academy of Sciences (CAS) have been given autonomy and funding to pursue moonshot research. Results became salient after a decade of consistent investment. The current AI supremacy was seeded in 2010.

**STEM human capital renaissance.** China produces over 1.4 million science, technology, engineering, and mathematics (STEM) graduates annually, which is double that of the US. Its universities like Tsinghua and Peking rival the Massachusetts Institute of Technology (MIT) and Stanford in talent output. Initiatives like the Thousand Talents Plan helped reverse brain drain by offering lucrative research grants, labs, and prestige. It has taken more than a decade to reshape this talent landscape and get a vertically integrated knowledge economy where research transitions into application.

**Silicon clusters with Chinese characteristics.** Zones like Zhongguancun in Beijing and Shenzhen's Greater Bay Area have been cultivated as high-density innovation biotopes. The government ensured the integration of academia, industry, and state labs in these zones to drive serendipitous collaboration for faster market-readiness. It took around a decade to build such matured ecosystems, but today, these are localised centres for global innovation leadership.

**The alchemy of PPP.** China pioneered a unique model, titled "Guidance Funds", which is public-private partnership (PPP) to seed tech ventures. These funds, now over 2000, control nearly \$900 billion. This confluence of state vision and private

India should take inspiration from the Chinese playbook, but not copy it. It needs to innovate, powered by a clear vision

acumen gave birth to thousands of start-ups, especially in deep tech. It has taken 3–5 years to generate such long-term returns. The impact? De-risked innovation, diversified capital pool, and sustained funding beyond hype cycles.

**Bureaucracy as first adopter.** From AI surveillance systems to smart city initiatives, the Chinese state has itself become an enormous tech consumer by adopting emerging tech first. This resulted in a massive domestic market for new tech, giving startups an unparalleled sandbox for experimentation. Such initiatives take almost no time to mature. The impact has been terrific—iterative learning, training data accumulation, and early revenue.

Even with a brutal majority, the government of India cannot mimic the authoritarianism of China, but it can emulate its strategic intentionality. Here are six policy interventions that might replicate India's 2047 trajectory:

**A national techno-strategic doctrine.** India needs a unifying doctrine, echoing the ambition of "Made in China 2025", but rooted in democratic pluralism. The Niti Aayog can lead this with global industry and academia collaboration and aim to delineate moonshot sectors, benchmarks, and ethical parameters. The impact should be on cohesion in policymaking and investor confidence. Tangible results will be seen within a year of formulation and implementation.

**Sovereign deep-tech funds.** Similar to the guidance funds, India should establish sovereign venture capital pools in collaboration with state governments, specifically for high-risk, high-reward ventures in deep tech. It will take 3–5 years to see a visible impact in terms of financial scaffold-

ing for capital-starved hi-tech domains.

**Revamp STEM and research institutions.** India's curriculum must be updated to include AI, quantum theory, computational biology, and applied sciences. Co-location of universities with research parks and incubators should be institutionalised. It will need 7–10 years to see the impact on the industry-ready talent pool.

**R&D budget to 2% of GDP.** India's paltry 0.65% GDP allocation to R&D is grossly inadequate. Elevating this to 2% over five years, directed toward AI, materials science, quantum computing, and green tech is non-negotiable. To build foundational scientific capacity and spur intellectual property creation by 2035, this must happen now.

**Dispersed innovation clusters:** We must move beyond the cities and cultivate clusters in smaller towns, replete with tech parks, investor hubs, and university alliances. This requires the mindset to execute meticulously and promote meritocracy. In 5–8 years, the impact will be visible in the form of geographical democratisation of innovation and mitigation of urban monocentrism.

**The State as innovation incubator.** India needs to institutionalise procurement policies that privilege indigenous tech—blockchain for land records, AI in health diagnostics, or drones in precision agriculture. Public sector undertakings should become early adopters. The impact on start-ups will be visible in 3–5 years.

China's deep-tech leadership is of sustained strategic fidelity. India has the intellectual capital, market size, and global goodwill for its own renaissance. What it requires is not political optics, but the executive tenacity. To paraphrase Deng Xiaoping, "It doesn't matter whether a cat is black or white, as long as it catches mice." For India, the colour of its model is immaterial; so long as it catalyses innovation.

flaws—it is vital that the Aircraft Accident Investigation Bureau (AAIB) collaborates closely with Boeing, Air India, and international agencies like the US FAA. The preliminary report, due to the International Civil Aviation Organisation within 30 days, must be made public without delay.

—Sanjay Chopra, Mohali

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## LETTERS TO THE EDITOR

### Minerals truce

Apropos of "Rare earth reality" (FE, June 13), the increasing use of rare earth minerals in the production of clean energy and defence equipment has created a huge demand for them. China possesses more than 50% of these minerals, thus giving it a huge bargaining power. Even the US was forced to tone down to ensure

uninterrupted supply from China. Indian electric vehicle makers were in a bind over the supplies as a shortage of the critical components could cause a huge disruption in the industry. China at present may have the advantage, but the world must search for them across the planet so that the former does not possess the present advantage forever.

—Anthony Henriques, Maharashtra

### AI 171 tragedy

The Air India crash of its Ahmedabad-London flight on Thursday, which claimed 246 lives, is a national tragedy and a wake-up call for India's aviation sector. It demands a transparent, thorough, and timely investigation. With speculation rising about possible causes—from a bird strike to mechanical failure or structural

flaws—it is vital that the Aircraft Accident Investigation Bureau (AAIB) collaborates closely with Boeing, Air India, and international agencies like the US FAA. The preliminary report, due to the International Civil Aviation Organisation within 30 days, must be made public without delay.

—Sanjay Chopra, Mohali