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{ OUR TAKE }

In West Asia, the case for ceasefire

A prolonged conflict will have devastating consequences for the global economy

West Asia appears to be hurtling into an unprecedented crisis after the US joined Israel's conflict with Iran by bombing three Iranian nuclear sites and Tehran retaliated. US President Donald Trump has been quick to describe the bombing of Iranian sites as a spectacular success and American officials claim that Tehran's nuclear capabilities have been severely degraded. Iran has targeted American bases in the region after sending more missile barrages against Israel. The Israeli military has responded with more strikes on military targets.

Clearly, the situation could spiral out of control, with severe political, strategic and economic consequences for the world.

After Iran's parliament backed the closing of the Strait of Hormuz, through which around 20% of the world's oil and gas supplies flow, a senior Iranian official has said a final decision will be made by the Supreme National Security Council. However, the impact of Iran's threat to close the crucial water body is already having an impact on oil prices and global financial markets. Any closure will have significant ramifications for India, which imports about 40% of its oil and half of its gas through the strait.

Iran's leadership has said there can be no talks when the country is under attack, suggesting it may return to the negotiating table if a peace deal is on offer. That should happen. For while Trump may still hint at a regime change in Iran, American and Israeli analysts have clarified that such a move is only aspirational. To be sure, the Khamenei regime has survived only because Iran has been a country under siege and the recent attacks by Israel and the US have only served to unite the Iranian people. Left to its own devices, Iran's street may on its own force a regime change, but that is for the Iranian people to decide.

The world community should get to work on all the players to talk peace because a prolonged conflict in a region that generates most of the world's energy supplies will have devastating consequences for the global economy in a year that is already expected to be the worst in terms of growth since 2008 (barring the pandemic year).

The false binary of old and new cities

HT reported Monday that the Centre has decided to shelve a scheme mooted by the 15th Finance Commission to build eight greenfield cities. The funds, ₹8,000 crore, are now likely to be utilised to improve infrastructure in cities with a population of up to 100,000. Interestingly, at least 26 proposals for new cities were in consideration when the scheme was abandoned. The binary of greenfield versus brownfield cities makes no sense in the Indian context.

India is urbanising at great speed and existing cities are unable to carry the burden of ever-expanding populations. Existing cities need a massive infusion of capital to augment creaking infrastructure to withstand the inflow of people. Spatial differences are vanishing so much that planners now speak about urban conglomerations that subsume peri-urban areas — multiple towns, cities and villages — in existing metropolises. Schemes such as JNNURM and the current AMRUT mission have attempted to fix the infrastructure gaps. This must continue.

But these efforts need to be complemented with greenfield cities that can be sustainable in terms of water and energy use. The case of Amaravati is interesting; the city was conceived as not just the administrative capital of Andhra Pradesh but also as a potential economic hub. India needs more Amaravatis. Cities are not merely the built-up area; they can become living spaces only if the physical infrastructure enables economic activities. Just as roads and rail networks to sewage systems and garbage disposal are needed, cities, greenfield and brownfield, must provide uninterrupted power and clean drinking water, ensure law and order, and build soft infrastructure such as educational institutions and provide entertainment options. Old cities have achieved such 'organicity' over decades if not centuries: City builders of the past considered urban spaces as cultural and economic hubs and made provisions for it. Greenfield projects in India may need tweaks so that they plug into the idea of a layered urban living space rather than elite enclaves -- but they are an idea worth exploring.

FATF's Pak challenge: Tracing routes of funds

The world's foremost authority on money laundering and terrorist finance should be able to unravel the network that enables Islamabad to nurture terrorism

The Pulwama terror attack that killed 40 security personnel happened even as Islamabad was threatened with blacklisting. WASEEM ANDRABI/HT

At one level it seems like a huge win for India. At least one major body has focused on the Pahalgam terror attack rather than the operation that followed it, and ensuing calls for restraint. The Financial Action Task Force (FATF), the foremost authority on money laundering and terrorist finance, has not just condemned the terror attack, but, last week, resolved to launch a probe noting that it could not have been carried out "without money and the means to move funds between terrorist supporters". Unlike various groups asking for proof of who did the attack, the FATF proposes to find it for itself.

The FATF was formed in 1989 by the G-7 countries, the European Commission and eight others (who are not listed), to combat money laundering, including "terrorist financing and the financing of proliferation of weapons of mass destruction". Over the years, it steadily increased its mandate to include all manner of actors including narcotics networks. India joined in 2010, after a rigorous examination of its banking systems, a review which happens periodically to protect the global system from danger.

In 2024, India again got an "outstanding" report for its financial stability and probity, though the FATF warned about "non-profit" associations being used for terrorist finance. A number of NGOs were shut down, causing a cry of illiberalism. Pakistan, on the other hand, was put on a "grey list", which means its financial systems have significant deficiencies, three times: Once in 2008, and taken off the list in two years after some improvements; again in 2012 for not curbing terrorist financing among other things; and again in 2018 for the same reason. This time it kept it there until October 2022, during which period Islamabad sentenced Lashkar-e-Taiba leader Zaki ur Rehman Lakhvi to five years imprisonment, Hafiz Saeed to 33 years in jail, and set in place legislation including an Anti-Terrorism Act (Amendment) Bill, 2020 which updated the legal definition of terrorism to international standards. A legislation was introduced to bring Pakistan's laws in line with the UN laws on terrorist financing, 20 years after Resolution 1373 had been enacted, and further gave the State Bank of Pakistan a degree of autonomy to implement much of this.

That was when Imran Khan was in office, against an Opposition which feared their large unaccounted funds would come under scrutiny. Khan, who had a clean record on corruption, warned that going onto the "black list" would mean an economic crash. A country on the black list is sealed off from the rest of the world in financial terms and faces serious difficulties in securing loans. At that time, Pakistan's external debt was 37.6% of GDP!

But terrorism did not stop. The Pulwama terror attack that killed 40 security personnel happened even as Islamabad was threatened with blacklisting. It paused after India retaliated with air strikes deep inside Pakistan for the first time. Subsequently, government reports showed a significant drop in infiltration attempts from 216 incidents in 2019 to 53 in 2022 (according to MHA reports).

Tara Kartha

But terrorist tactics simply shifted. Narcotics trafficking long associated with terrorism in Punjab returned. According to reports, some 251 transborder sorties by drones brought in weapons and drugs, this time mostly methamphetamine and derivatives from Lahore, even as underground tunnels were spotted along the international border. Second, terrorist groups became smaller in size but better trained and equipped. The personnel could live off the land for months in thick forests and were equipped with phones that evaded mobile towers. Then Pahalgam happened.

As the FATF swoops in, two things matter. The first is whether our forces have managed to crack the communication system of terror groups to trace the source areas. That is vital.

Second, Pakistan, despite the Taliban's crackdown on opium cultivation, seems to be able to access vast amounts of meth, as seen in the 300-kg seizure in April 2025 off the Gujarat coast. Pakistan also has money to continuously raise not just its defence budget — now far above the mandated 1.9% of its GDP when pensions are included — but also the pay of parliamentarians (by 138%) and defence personnel. Then, the FATF has to examine how Chinese funds are coming in to support the army, since none of it is evident in the budget papers. The FATF may also find other sources of financing, from outside the country. The sum of all this is to find out why Pakistan doesn't seem to care even if access to international financial assistance, crucial for it, is cut off.

If Prime Minister Shehbaz Sharif's call for peace has some basis, he could start by emulating Indian initiatives like linking national identity cards with bank accounts, use its very capable investigative agencies to root out terrorist accounts, and those of 'charitable' organisations such as the highly suspect Al Khidmat Foundation. The army will, of course, oppose this. But major financial institutions must back the politicians, by linking aid with democracy. Otherwise nothing at all will move forward.

Meanwhile, India had better look at *hawala* networks at home. Money has no nationality and no morals, and it could be used by hostile agencies as well. Time to get cracking for our own interests. Meanwhile, the Sharifs might actually find the going easier as terrorists are curtailed, and the army's powers with it.

Tara Kartha is director (research), Centre for Land Warfare Studies. The views expressed are personal.

The Emergency and politics of the body

For the average Indian, it was through the tyranny of the dreaded *nasbandi* (sterilisation) camps that the worst consequences of the suspension of civil and political rights under the Emergency manifested itself in their everyday lives. In September 1976, India recorded over 1.7 million sterilisations, a figure that equalled the annual average for the 10 preceding years. By 1977, Sanjay Gandhi, the younger son of then Prime Minister Indira Gandhi, and his bulldozer gang had overseen the conduct of more than 8 million sterilizations. The predominance accorded to forced sterilisation was intertwined with Sanjay Gandhi's growing influence. He needed to consolidate his hold on power within the Congress, family planning (and his other obsession, urban gentrification) became his preferred tools. In the process, he unleashed the worst form of State violence, stripping ordinary citizens of agency over their bodies.

50 YEARS OF EMERGENCY

Much has changed in India's approach to family planning since those dark Emergency years. However, 50 years on, Sanjay Gandhi's weaponisation of family planning and exertion of power over individual bodily rights afford important lessons for how we respond to demographic challenges in the contemporary moment. Above all, it serves as a critical reminder to be patient with democracy, for it is the only pathway for sustainable, socially just economic growth and development.

Yamini Aiyar

On the surface, Sanjay Gandhi's approach to family planning was not new. Malthusian worries had shadowed India's demographic debates long before independence and India became the first country in the world to launch a national family planning programme in 1952. And as Christophe Jaffrelot and Pratinav Anil argue in *India's First Dictatorship: The Emergency, 1975-77*, elements of eugenics, visible in the Emergency, undergirded these debates. "Undesirable others" — minorities and lower castes — were the targets.

Coercive population control measures were introduced as necessary tools for "modernisation" and "development". But it was only in the late 1960s that sterilisation acquired wide policy acceptance. On paper, India took a "cafeteria approach" with sterilisation offered as one of many forms of family planning. In practice, however, sterilisation was prioritised. Targets were introduced and vasectomy camps, cash incentives, citizen motivators, and active coercion became acceptable methods to control India's "population bomb".

But like most policies, implementation waxed and waned. India's sterilisation drive peaked in 1972-3 with 3.1 million sterilisations, falling to just under a million the next year. What differentiated mass sterilisation during the Emergency from the past was the scale and aggressiveness with which it was pursued. International agencies from the World Bank to the United Nations played their part, financing what they called "crash sterilisation".

Sanjay Gandhi effectively leveraged Emergency conditions to direct political and administrative functionaries to use force and coercion with a vengeance. He bypassed the health ministry to directly hand out targets to states and used his powers to harass and intimidate regional leaders, bureaucrats and district administrators to comply. Over time, his tactics became almost necessary to feed the Emergency myth: That suspension of democracy and centralisation of power was necessary to ensure the "trains run on time". Eugenics, Jaffrelot and Anil, note were implicit in this framing in the targeting of Muslims and the poor.

The horror that unfolded has been widely chronicled. The political and administrative zeal to comply with Sanjay Gandhi and his bulldozer gang was shaped by the nature of power he wielded over regional leaders. Inevitably, Delhi and the Hindi heartland became Sanjay Gandhi's playground, with party leaders and willing bureaucrats jostling to curry favour. Family planning policy was now no longer about broader societal goals but a weapon for political power and control. In the process, individual citizens were effectively stripped of any agency over their bodies. From nudging railway commuters to getting vasectomies if caught ticketless by waiving paying fines, to threatening slum dwellers with eviction notices, denying government benefits and when needed enabling violent use of force, Gandhi's bulldozer gang zealously did all that was demanded of them to coerce the poorest and most vulnerable citizens into sterlisation camps thereby fulfilling the political myth of the Emergency. Those who sought to protect their dignity and individual agency by escaping the sterilisation net, lived in terror. As ethnographer Emma Tarlo notes in her account of the *nasbandi* tyranny in Delhi, for anyone who escaped, public spaces and civic institutions like hospitals, schools and government offices, were places to avoid. Unsurprisingly, in many parts of the country, fear led to violence.

Nasbandi was widely attributed to have contributed to Indira Gandhi's resounding electoral defeat. In a direct and tactile way, the ordinary Indian experienced the terror of the powers of the State over their bodies and they used democracy to reclaim control. Since that dark period, India's family planning policy, in tune with global trends, has evolved adopting a much more central focus on reproductive rights. Sterilisation, and associated policies like incentives and camps, continue to be part of the repertoire, indeed they often make headlines for medical negligence and death, but it no longer carries the zeal of the Emergency. The burden has now shifted to female sterilisation.

The Emergency was an illustration of how the body is used as a site for exerting State power. In the contemporary moment, loose remarks by politicians in South India telling women to "have more children" as they navigate delimitation politics is a warning signal that population policy may once again be weaponised. Ironically, these very states offered India an alternative to the tyranny of *nasbandi*: A model embedded in economic growth, choice and reproductive rights. Democracy afforded the path to achieve population goals. Today's politicians would do well to heed to the message that Indians gave to Indira and Sanjay Gandhi in 1977.

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Battle against salt must begin with school meals

Salt in Indian diets holds a special place, not just in our kitchens, but also in our history, language and even politics. It was salt, after all, that Mahatma Gandhi chose as a symbol of resistance against British colonial rule. Even today, the phrase "*namak ka farz*" (the duty of salt) speaks to a deep cultural association between salt and loyalty, sacrifice, and trust. But while salt is rich in symbolism and tradition, it's also quietly contributing to a serious health crisis in India today.

Excess salt consumption is a major contributor to high blood pressure, which significantly increases the risk of hypertension, cardiovascular diseases (CVDs) and other non-communicable diseases (NCDs). NCDs have contributed to more than 60% of all deaths in India over the past decade, with CVDs constituting a quarter of these diseases. Hypertension is a leading cause of the problem, given that approximately one in four Indian adults suffers from the condition.

Urvashi Prasad

This crisis is not just limited to adults. The Comprehensive National Nutrition Survey (CNNS) (2016-18) found that 5% of Indian adolescents between 10 to 19 years old are hypertensive. This is a concerning statistic, as children with hypertension have about seven times higher odds of developing hypertension in adulthood. Moreover, dietary habits formed early in life tend to persist, excessive salt consumption during childhood can shape taste preferences, making children more likely to prefer salty foods later in life. Research indicates the typical daily salt intake for Indians ranges from 8-11 grams of salt. This is double WHO's recommended daily salt intake of less than 5 grams. The recommended intake for children is below 4 grams of salt.

Against this backdrop, a compelling strategy to address this silent crisis is to improve what children eat at school. PM Poshan (Pradhan Mantri Poshan Shakti Nirman), India's critical school meal programme, provides cooked meals daily to 118 million students across 1.12 million schools. Each PM Poshan meal accounts for 25-30% of a child's daily nutritional requirements, making it important to ensure that they are wholesome and nutritious. Initiatives like school nutrition gardens, or Poshan Vatikas, under the scheme are a positive step, encouraging the use of fresh ingredients and healthier food habits.

School meals can be made healthier by reducing salt, a key proposed policy intervention outlined in the National Multisectoral Action Plan to combat NCDs (2017–22). This will help achieve India's national goal to cut population-level salt intake by 30% by 2025. While PM Poshan guidelines specify nutritional norms for calories, proteins and various food groups, they offer a broad recommendation to add salt "as per taste'. Introducing standards to require a gradual reduction of salt in PM Poshan will help reduce salt intake among school children and also modify their taste towards low salt food.

Globally, countries are adopting comprehensive strategies to make public food healthier. These include limiting the use of ultra-processed foods, and prioritising fresh, nutrient-rich ingredients in public food programmes. These experiences exhibit success stories in ensuring healthy public food procurement. Singapore mandates lower-sodium menus across government institutions. In Brazil, school feeding programmes emphasise fresh, minimally processed foods while reducing ultra-processed ingredients. Chile has introduced front-of-pack warning labels and prohibits high-sodium foods in school kiosks. India, too, has a well-designed school meals policy that reflects many of these principles, such as the use of fortified staples, provision of mid-day meals, and adherence to nutritional guidelines. The impact of these provisions could be further strengthened through consistent implementation and enforcement of FSSAI's regulation on promoting healthy food environments in schools by restricting the availability and marketing of foods high in saturated fats, trans fats, added sugars, and sodium (HFSS).

As a first step, we must set clear, age-specific salt standards at the population level, beginning with PM Poshan. There should be no ambiguity about how much iodised salt is appropriate for children of different age groups. Equally important is involving parents and caregivers in this effort since children's taste preferences are shaped not only in schools and *anganwadis*, but also at home.

This is a moment for the ministries of education and health to come together to develop and implement guidelines on salt consumption for children. Ultimately, this isn't just about cutting down on salt. It's about reimagining public health, starting with what's served on a child's plate.

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Investment booster

New project finance rules can help boost lending

The final guidelines on project finance issued last week by the Reserve Bank of India mark a welcome shift towards a more liberal policy. The draft guidelines on income recognition, asset classification and provisioning for project finance issued by the central bank in 2024 were influenced by the experience of the bad loans crisis between 2013 and 2019.

This, in turn, was the result of a credit boom in the first decade of the millennium. Now, the situation has changed considerably. The 'twin balance sheets' problem has vanished. With improved regulations, companies are conservative in their borrowing and repayment practices. Even so, the credit tap is drying up. To correct this imbalance, the latest guidelines have taken a benign stance on provisioning, so that banks loosen up on project lending. The NPA crisis of the last decade had persuaded banks to clamp down on project finance; they preferred financing working capital requirements instead. This has led to deceleration in bank credit to industry. Bank credit to industry grew at a lower pace of 7.8 per cent in 2024-25, compared to overall credit growth. Growth in lending to large industries was at just 6.2 per cent. It is therefore good that the RBI has heeded the concerns voiced by banks regarding stringent provisioning norms in the draft guidelines for project finance.

The draft had recommended a steep provisioning of 5 per cent for all project loans during the construction phase. Though it was to be increased gradually over three years, it would have impaired bank balance sheets since the existing rules prescribe provisioning of just 0.4 per cent. The final rules have reduced the provisioning requirement to just 1 per cent for infrastructure and residential real estate projects. This provisioning can be lowered to 0.4 per cent, on commencement of the project. The provisioning is slightly higher at 1.25 per cent for commercial real estate projects in the construction phase, since the risk is higher. In a further relief to banks, these revised guidelines will be applicable only on fresh project lending. With land and other regulatory clearance impeding the progress of several infrastructure projects in the past, the stipulation in the final rules that only partial disbursement of the loan amount should be made when clearances are still pending, makes sense. The rule that only 50 per cent of the sum must be transferred before the land clearances are obtained for infrastructure projects under PPP model will help mitigate the risk for lenders. For non-infra projects, 75 per cent of the funds can be transferred, pending such clearances.

The relaxed rules are likely to spur banks to lend freely to infrastructure projects, once demand revives. The rules could, however, have been improved further by introducing ECL (expected credit loss) based provisioning for infrastructure projects, in line with global best practices. This helps lower provisioning in projects where risk is lower, freeing up more funds for banks.

POCKET

RAVIKANTH

"Help me in the kitchen — or, I will switch on the TV!"

MADHUSUDHAN PILLAI

PTI

Health insurance must be inclusive

SHORTCOMINGS. Bulk of the premium comes from a few States, there are gaps in claims settlement, and pricing needs to be reviewed, especially for group health

Health insurance contributed ₹1.18 lakh crore in FY 24-25, which is around 36 per cent of general insurance premium in India. It has been in the news for both pricing and claims settlement issues. We analyse some asymmetries, issues and consider how these can be addressed to enhance welfare.

Health insurance is divided into three categories: individual, group (excluding government) and government business.

General and health insurers cover 57.28 crore lives with a premium of ₹1.07 lakh crore, per the IRDAI Annual Report 2023-24. Individual category covers only 5.58 crore lives with ₹41,501 crore (39 per cent premium; 10 per cent lives; average premium, ₹7,437), group health covers 25.59 crore lives with ₹55,666 cr (52 per cent of premiums; 45 per cent of lives; average premium, ₹2,175) and government schemes 26.11 crore lives with just ₹10,513 crore premium (39 per cent premium; 10 per cent lives; average premium, ₹402).

The data subsumes varying sums insured, but is however indicative of an imbalance, with retail health insurance covering fewer lives with higher premium share, while government schemes cover more lives reflecting lower sums insured and premium. The overall incurred loss ratio for health was high at 88.15 per cent, with individual at 75 per cent, group at 94 per cent with government schemes at 115.28 per cent

Further the insurers had a differential incurred claims ratio with public sector (103 per cent), private (89 per cent) and standalone health at 65 per cent reflecting their own strategy, pricing and trend over the last few years.

Spread: IRDAI Annual Report shows that about 64 per cent of the premium originates from four States and one Union Territory — Maharashtra (29.5 per cent), Karnataka (11 per cent), Tamil Nadu (10 per cent), Gujarat (7 per cent) along with Delhi (6.5 per cent) — indicating a lack of spread, with concentration of corporate group health in urban centres.

Provider network: NSSO data reveal that the health provider network is lopsided, with private sector infrastructure providing around 65 per cent of hospitalisation care in urban areas and 54 per cent in rural areas, and 74 per cent of outpatient care in urban and 67 per cent in rural areas. The private sector costs of treatment are also higher for in-patient treatments of severe illnesses such as cancer (3.7x), cardio (6.8x), injuries (5.9x), gastro (6.2x), and respiratory (5.2x) as per the Economic Survey. There is limited oversight of the health sector in the area of pricing.

KEY ISSUES, SUGGESTIONS

Pricing: Health insurance pricing needs to be reviewed particularly for group health (excluding government) for the public sector as loss ratios have been consistently over 100 per cent. This can be with data-based pricing aided by Insurance Information Bureau/GI Council to ensure that group health is not being cross-subsidised by retail health premiums.

Claims as per the IRDAI Annual Report 2023-24, out of total health claims of general and health insurers of ₹1.17 lakh crore, only 71.31 per cent (₹83,493 crore) was paid; policyholders did not get 22.22 per cent (₹26,037 crore) of the claims. A significant amount of ₹15,100 crore i.e., 12.89 per cent, was disallowed as per policy claims and conditions, and ₹10,937 crore (9.33 per cent) was repudiated. This is indicative of a disconnect, as to contract terms as well as cost of medical care. This is compounded further by the ₹7,584 crore (6.47 per cent) pending for settlement as at the end of FY24.

A healthcare regulator is essential for optimal health insurance pricing, transparency and access to quality care by policyholders

Recently, IRDAI was asked to examine the settlement process of some companies. There are significant variations in the level of service rendered by insurers. Reviewing policy terms and riders along with Board level monitoring of health claims settlement data is essential.

Standard policy: The Arogya Sanjeevani policy — which has uniform terms and conditions across companies, with difference being only in pricing — needs to be pushed more as this has the potential of reducing disputes regarding coverage.

Provider network regulation: . There are significant variations in the costs of medical treatment for similar procedures across providers. Further, there are differences even within same hospital groups between cities, thereby impacting the categorisation, pricing and revisions in premium of health insurance products. Besides there is the need to factor in medical inflation, advanced technologies — for example, robotics and other procedures — into health insurance pricing.

A healthcare regulator is essential for optimal health insurance pricing, transparency and access to quality care by policyholders.

Health infrastructure: Building more public health infrastructure in tier-2/3 cities can be enabled through special financing measures like issuance of health infrastructure bonds of 10/15-year tenures by Municipal authorities /hospital networks. These can be included as approved securities for investments by insurers.

GST: Government should amend the GST rate on health insurance (currently at 18 per cent); it should be reduced to nil, especially for senior citizens.

Process improvements: Insurers should enhance processes by integrating data and adopting tech solutions to improve claims efficiency and meet regulatory timelines. Customer perceptions on service can be positively impacted. Effective fraud monitoring with embedded indicators is essential. Additionally, while brokers and banks aid in outreach, reducing intermediation costs, enhancing spread through direct sales and preventing mis-selling are important.

Public health measures: The PMJAY public health scheme, run by the National Health Authority, offers ₹5 lakh health coverage to eligible families based on the 2011 socio-economic caste census and now includes seniors over 70. Over 73.98 crore Ayushman Bharat Health Accounts have been created, emphasising inclusion. The 2025 Economic Survey highlights ₹1.25 lakh crore in reduced out-of-pocket spending due to PMJAY which is impactful, as also the operationalisation of 1,75,560+ health and wellness centres.

The General Insurance Council's recent insurance awareness campaign is praiseworthy. However, private health insurance can deliver effective welfare benefits only if a comprehensive review of all issues is undertaken with steps to build an integrated end-to-end approach rather than piecemeal action.

The writer is a senior insurance professional

Manufacturing sector needs transformative push

National Manufacturing Mission has its task cut out, in fostering innovation and skill development

Sanjaya Mariwala

Indian manufacturing, despite its vast potential, still lags behind its international peers. The sector's contribution is approximately 14 per cent to the country's Gross Value Added (GVA), a modest number, considering the government's ambitious plan to develop manufacturing into a $1 trillion economy. While Vietnam has successfully moved up the manufacturing value chain and gained strong export momentum, India remains confined to basic manufacturing with limited global competitiveness. The regulatory environment becomes a hurdle between businesses and investors due to being overlaid with cross-cutting regulations, inconsistent enforcement, and conflicting laws. Import duties on intermediate goods and raw materials inflate input costs, making goods from India costlier globally.

While India produces a large number of engineers and graduates, regional imbalances persist. Just five or six States, such as Gujarat, Maharashtra, Tamil Nadu, account for 90 per cent of all activity, whether in domestic investment, manufacturing, or foreign investment. Moreover, social barriers and housing shortages restrict labour mobility, particularly affecting women's participation in the workforce. This limits the pool of skilled labour available to industries. Initiatives such as the Goods and Services Tax (GST) reform, Production Linked Incentive (PLI) schemes, and digital infrastructure development are yet to bring about a significant change.

The government has established a panel on redrafting the National Manufacturing Mission (NMM). The panel addresses five key areas: enhancing the ease and cost of doing business, preparing a future workforce, empowering MSMEs, developing a spur for advanced technology, and ensuring product quality.

ESTABLISH NEW TASKFORCE

A key recommendation for the government is to establish a multi-stakeholder taskforce, a separate body comprising representatives from government, regulators, corporations, industry associations, and academia. This taskforce will ensure ground-level implementation of policies, evaluate their effectiveness, and recommend changes when necessary. To catalyse change, the government should pilot manufacturing-specific regulatory sandboxes in select States to test compliance simplification, fast-track approvals, and labour flexibility.

Skill development has been an area of focus, with setting up of programmes such as five National Centres of Excellence for Skilling, 50,000 Atal Tinkering Labs, and exclusive AI training centres. Yet, the gap remains between theoretical and on-the-job skills needed for modern manufacturing industries. To counter this, there should be greater interaction between academia and industry for curriculum alignment with demands from emerging technologies — primarily from robotics, AI, automation, and CNC machining.

FOCUS AREA. Tech and innovation must be at the heart of manufacturing

A cultural shift in manufacturing entrepreneurship is also essential. The panel should promote risk-taking, value creation, and global orientation. Mechanisms such as industrial VC funds, innovation clusters, and incubation hubs can nurture high-potential ventures. Encouraging the professionalisation of family-run firms can also help scale businesses up the value chain.

A fresh perspective is needed on redefining medium enterprises in India. Rather than the current ₹20-100 crore turnover limit for medium enterprises, India should consider ₹5,000-50,000 crore as a benchmark. Support systems must accompany this reclassification, including concessional finance, export support, and market access for scaling firms. In parallel, MSME-focused corridors with plug-and-play infrastructure and shared logistics facilities can accelerate formalisation and competitiveness.

Technology and innovation need to be at the heart of India's manufacturing strategy. Currently, the country spends just 0.7 per cent of its GDP on research and development, far behind the levels of China (2.4 per cent) and Korea (4.9 per cent). The government has announced a ₹1 lakh crore R&D fund that needs to be channelised for cutting-edge technology areas like quantum computing, space technology, next-gen materials, and bio-manufacturing through collaborative R&D with academia and industries. A dedicated industrial-tech venture capital fund can also spur the adoption of advanced technologies. To foster scale, a fast-track programme should help medium-sized firms become large enterprises, offering tailored support in finance, exports, and global market access.

The writer is President, IMC Chamber of Commerce and Industry

LETTERS TO EDITOR

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Safety of copter service

Apropos 'Flying coffins' (June 23), helicopter accidents on the Char Dham Yatra route are occurring with disconcerting frequency — five within 37 days —raising serious alarms. The recent Aryan Aviation crash near Guptkashi, which claimed seven lives, underscores systemic regulatory fragility and operational chaos. Despite the high-altitude risks, oversight appears minimal, with no enforced standard operating procedures or sortie limitations. Commercial imperatives seem to eclipse safety, eroding *yatris'* confidence and exposing a governance vacuum. The continuation of copter service without rigorous safety audits and enforced compliance mechanisms risks normalising negligence. The state must urgently recalibrate its regulatory framework to prioritise passenger welfare over profit. Without accountability and reform, the sacred pilgrimage is perilously shadowed by preventable tragedy.

N Sadhasiva Reddy
Bengaluru

Impact of Hormuz crisis

With reference to 'Strait of Hormuz crisis triggers trade jitters for India' (June 23), though our oil supply chains have been diversified in recent times, the impact of the closure of Strait of Hormuz would have a significant effect on our imports and exports. The immediate impact could be the spike in oil prices and cost of logistics, which will have a serious effect on our economy, as roughly 80 per cent of our crude oil requirements is imported.
The entry of the US into the Israel-Iran war threatens to widen the conflict. India needs to think ahead and plan to minimise the impact of possible disruptions of major supply chains, possibly by encouraging domestic manufacturing, and also looking eastward for alternative markets to strengthen our supply chains.

Kosaraju Chandramouli
Hyderabad

Base year revision

This refers to 'Base year for GDP, CPI & IIP set to change; CPI basket to expand' (June 23). Real gross domestic product, which is calculated on the basis of base year prices, is a better indicator (than GDP at nominal/current) of the nation's growth. It is interesting to know that the government is going to expand the current price index (CPI) basket and calculate the index of industrial production (IIP) too on the basis of revised base (FY 23). One hopes the government increases the number of people surveyed while calculating GDP at constant prices, CPI and IIP, and the figures they plan to release on these parameters on February 27, 2026, are comprehensive and authentic

S Ramakrishnasayee
Chennai

Air crash probe

This refers to 'Post Air India Crash, DGCA initiates special audits, intensifies checks' (June 23). The special audits and the intensified checks that are now being undertaken should fix responsibility if negligence by staff is proved. Such audits should become standard practice as they will help avoid accidents and restore the confidence of air travellers.

Katuri Durga Prasad Rao
Hyderabad

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Boards and geopolitics

Corporates must learn to tackle geopolitical risks

Deepti Berera
Shefali Goradia

According to a Deloitte study, 63 per cent of global leaders now cite geopolitical risk as their top concern, surpassing inflation and economic volatility. The World Economic Forum's Global Risks Report 2025 identifies state-based armed conflict as the most immediate global risk.

From Red Sea disruptions and tariff wars to India-Pakistan tensions and data localisation mandates, geopolitics is no longer peripheral, it's central to business strategy.

Unlike financial risks, geopolitical risks are ambiguous, asymmetric, and fast-moving. A tweet can wipe out billions, and a visa rule can halt expansion. Boards must now factor in war-game scenarios and diplomatic fallout.

This is the new language of governance — market exits, trade dependencies, data flows, and supply chain weaponisation.

PROACTIVE BOARDS

Make geopolitical risk a governance priority: In most companies, geopolitics appears reactively when something goes wrong. That must change. Boards should institutionalise and prioritise this category of risk, elevating geopolitical risk as a core part of enterprise risk management, coupled with business continuity and resilience.

Several progressive Indian conglomerates now regularly brief their boards on key geopolitical flashpoints, from retaliatory tariffs to energy security concerns in the Middle East to India's border tensions.

Scenario planning with a local context: Forward-looking boards prepare for tomorrow's headlines before they break. What if a carbon border tax is signed between major economies? Or a regional bloc bans digital exports? Or a critical trade route is disrupted? Boards must anticipate global shocks and their country-specific ripple effects.

Key questions: Do organisations have a defined process for geopolitical scenario planning? (ii) Are there tangible actions and mitigations developed to reduce the impact of specific geopolitical situations? (iii) Have trigger points been identified for timely action?

Embed intelligence into board discussions: Geopolitical foresight should extend beyond

GEOPOLITICS. The new game /ISTOCKPHOTO

CXO inboxes to the boardroom. Some boards now receive periodic dashboards summarising regional and sector-specific developments — a form of "geopolitical weather reporting" that flags slow-moving risks early. A growing practice is setting up board-level geopolitical advisory councils with economists, diplomats, and military experts, offering direct input to risk and strategy committees.

Balance market optimism with exit options: Geopolitical risk involves both defence and offence. Boards need to ask where they should expand and where they should start thinking about graceful exits. Can you shut down operations in a politically unstable region without reputational damage or litigation? Do you have insurance clauses that cover sovereign risk?

Put purpose at the centre of crisis decisions: Amid all this, directors must remember that geopolitical risk is also deeply human. Sanctions, war, and conflict displace communities, upend livelihoods, and generate public scrutiny. Corporate responsibility in such contexts is not just about compliance, but also about conscience.

This is where the board's ethical compass — its independence, diversity, and courage — becomes central.

From reactive to resilient: In today's world, geopolitics sits inside procurement contracts, digital infrastructure, ESG obligations, and cross-border investments.

Boardrooms now realise they must think like diplomats, negotiators, and scenario planners. Boards should actively seek members with international experience, government interface, or exposure to sovereign institutions.

Geopolitical risk is not a fire to be extinguished. It's a climate to be navigated.

Shefali is Chairperson, and Deepti is Partner, Deloitte South Asia

thehindu businessline.

TWENTY YEARS AGO TODAY.

June 24, 2005

3 banks get RBI nod for China foray

Three Indian banks have recently received approvals from the Reserve Bank of India to open representative offices in China and many more may be waiting in the wings. Allahabad Bank, UTI Bank and UCO Bank have got RBI permission for opening representative offices in China and are waiting for approval from the monetary authority in China.

GE wants to 'move forward' on Dabhol

The 2,184-MW Dabhol power project is close to being restarted, with GE, one of the major equity holders, expected to reach an agreement with Indian financial institutions by this month end. "We will sign a comprehensive settlement agreement with the FIs led by IDBI.. This will put an end to all disputes," Mr Scott Bayman, President and CEO, GE India, said at a news conference.

Cabinet reshuffle likely tomorrow

The Government is likely to undertake another Cabinet reshuffle on Saturday. Indications are that most of the new entrants would be from the Congress while the former Coal Minister and Jharkhand Mukti Morcha chief, Mr Shibu Soren, is expected to make a comeback as Coal Minister.

Capitalism's investment blues

Global capitalism has lost its dynamism. It is time to regulate capital for social good and inclusive development

MACROSCAN.

CP CHANDRASHEKHAR, JAYATI GHOSH

As the world economy (ineffectively) battles multiple crises, humanity now has to reckon with the real threat of regional and even global wars, which have the potential not only to wreak enormous human and material damage, but even bring to an end the world as we know it.

It's worth trying to understand why so many different forces, which seem to operate separately but are not unrelated, are now creating existential threats for humanity and the planet. One underlying cause is that capitalism, the economic system that now rules nearly the entire world in a way that it had not earlier, has basically run out of steam.

Instead of the pursuit of profits based on innovation, we increasingly see a focus on the extraction of rents based on ownership and oligarchic control over states. And this in turn means that fixed investment, which is the basis for any real expansion of economic activity, has largely turned stagnant or even declining in most of the world. Having run out of other avenues, the tried and tested means of warfare is once again emerging as the means for both destruction and economic expansion.

FALLING INVESTMENT

How do we know this? Largely because capitalism simply lacks the dynamism which is supposedly inherent in its very workings. This is evident in both slower investment and growth and greater inequality in the distribution of the proceeds of any growth that does occur.

It is generally recognised that GDP (gross domestic product, essentially the sum of all goods and services exchanged in markets, along with the imputed value of some others provided more informally) is a very inadequate and even misleading indicator of human progress. It includes much that could be socially undesirable (instruments of war and violence) and excludes much that is socially desirable and even essential (such as unpaid care work). Yet this measure survives and continues to be used so widely not only because it is there, but because its expansion is the essential *raison d'etre* of capitalism. For this system, aggregate economic growth — in purely monetary terms — is all that matters, and growth depends on investment.

Indeed, the most important defining characteristic of a capitalist economic system is accumulation, or investment. And clearly, it is fixed investment that matters, because ultimately financial investments only serve any "useful" purpose as enablers of investment in fixed and working capital.

So, to judge how capitalism is doing in its own terms (which need not — and generally are not — the terms that would benefit society in general) we have to look at how fixed investment patterns have played out over the past decades.

Figure 1 presents some estimates of global gross fixed capital formation, or new fixed investment, since 1980. Bear in mind that these figures (using data from the World Bank) are estimations at best, involving all sorts of assumptions, extrapolations and interpolations. Nevertheless, they do show a trend of deceleration and even stagnation of investment rates as shares of GDP,

INVESTMENTS. Losing steam STOCKPHOTO

especially after the Global Financial Crisis of 2008.

However, it is striking that this global average is the result of two very different trends across types of economies. Figure 2 compares investment rates across high income countries and low-and-middle-income countries. From the mid 1990s, the latter group overtook the high income countries, with rising investment rates that continued to rise until around 2018, while those of the rich countries actually declined on average.

It's important to remember that because of the larger base of GDP, even lower investment rates in high income countries could amount to greater absolute levels of investment. Even so, Figure 2 suggests that the locus of investment dynamism shifted, from rich to lower and middle income countries.

In itself, that could be a very positive sign for global capitalism. After all, the low and middle income countries are where the majority of the world's population (around 85 per cent of people) actually reside, so higher investment there should presumably indicate that capitalism, in its voracious spread across the globe, is actually enabling higher investment, monetary incomes and other benefits to people in these places.

CHINA, THE OUTLIER

However, this substantial shift is mostly due to one economy — China — which has not functioned under the rules of the capitalist game that were agreed upon by or forced upon most of the rest of the world.

Figure 3 shows the fixed investment rates of the three largest economies: the US, the European Union, and the People's Republic of China. Both the US and the EU show much lower, largely stagnant, and recently declining rates of investment. China, by contrast, showed a dramatic rise in investment rates from the mid 1990s to around 2010, after which it has also stagnated and declined, albeit at a much higher level.

But China is a clear outlier, and it is an outlier precisely because it has been implementing a more complex and top-down version of state-led capitalism that is very different from the neo-liberal finance-driven capitalism that has marked policies and economic processes in the rest of the world.

Indeed, it could be argued that China (along with some other late 20th century and early 21st century smaller success stories) showed investment dynamism precisely because it was able to regulate and control capital — especially large and multinational capital — in ways that other countries and regions could not.

SKEWED PATTERN

This becomes evident from Figure 4, which looks at fixed investment rates for some of the major regions: Latin America and the Caribbean, the Middle East and North Africa, Sub Saharan Africa (SSA) and South Asia. Investment rates declined in Latin America over these four decades, to levels even below those in the US and the EU. They were mostly stagnant around a low trend in the MENA and SSA regions.

It is only in South Asia (mostly driven by India) that investment rates rose significantly from around the turn of the century to just around the time of the Global Financial Crisis, but thereafter they have been falling.

What all this suggests is that capitalism is no longer inherently capable of investment dynamism unless it is controlled and regulated in ways that make it oriented towards productive investment. The past decades of "deregulation" have really not liberalised markets so much as weighted laws, rules, and regulations heavily in favour of big capital.

This has created humongously large capital that is too powerful for its own good, and therefore unable to be truly dynamic as it purports to be. The responses of states and citizens to this state of affairs should be obvious: regulate and control the activities of capital and direct them to the social good and inclusive development, before they enable not just stagnation and inequality, but absolute destruction.

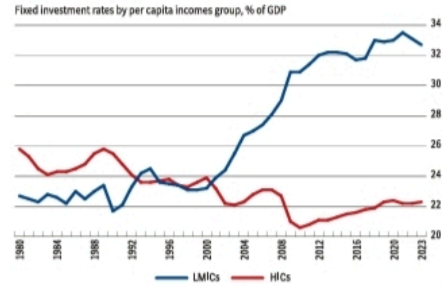
> Though from the mid-1990s the low-and-middle income countries' investment rates have exceeded that of high income nations, they are heavily skewed in favour of China and South Asia

Stagnating trend CHART 1

Global gross fixed capital investment

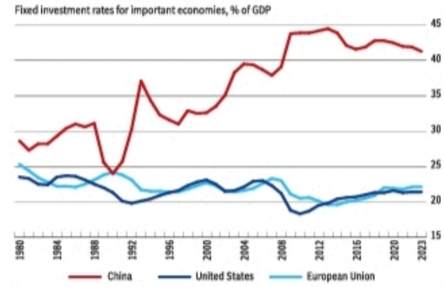
Divergent paths CHART 2

Fixed investment rates by per capita incomes group, % of GDP



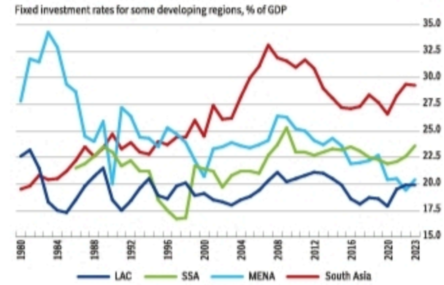
China dominates CHART 3

Fixed investment rates for important economies, % of GDP

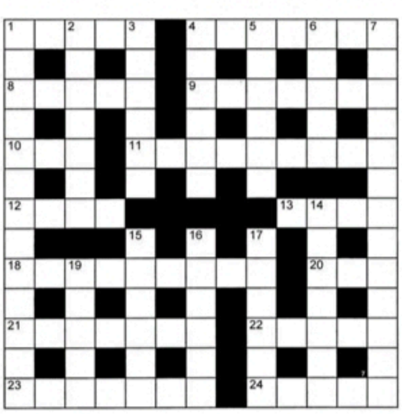


South Asia surge CHART 4

Fixed investment rates for some developing regions, % of GDP



BL TWO-WAY CROSSWORD 2724



EASY

ACROSS

01. Having a decided taste (5)
04. Lose all hope (7)
08. Extravagant, fantastic (5)
09. Dirigible aircraft (7)
10. Young lion (3)
11. Reservedness (9)
12. To pour, empty (4)
13. Land measure (4)
18. Person interested in own inner processes (9)
20. Print measures (3)
21. Snarled, intricately interwoven (7)
22. Pulsate (5)
23. Mechanical apparatus for throwing out (7)
24. Eagle's nest (5)

DOWN

01. National emblem of Scotland (6,7)
02. Can be drunk (7)
03. Gloomy, cheerless (6)
04. Orders for payment of money (6)
05. Took industrial action (6)
06. Very pale-faced (5)
07. Blameworthy (13)
14. More lucid (7)
15. Collar; part of ring containing stone (6)
16. A dive head foremost (6)
17. Representation of a being in the round (6)
19. Stretched tight (5)

NOT SO EASY

ACROSS

01. It's as tasty as dip can be (5)
04. Might be praised for its hopelessness (7)
08. A way-out revue may contain what's improper (5)
09. Dirigible his pair may have constructed (7)
10. A youngster copper started to belabour (3)
11. How to make Crete nice, with its unforthcoming quality (9)
12. Get together, come back and pour (4)
13. Wise to get this measure of a smart Alec (4)
18. One who's withdrawn from river no IT, as it turns out (9)
20. Measures of print start to encode the manuscript (3)
21. It's too involved to get land out of it (7)
22. A pulse used in making broth (5)
23. Sort of seat may serve as a chucker-out (7)
24. Jane took one in to build a nest at a height (5)

DOWN

01. After whisky, let this run riot as a national emblem (6,7)
02. Can be drunk as a petty officer on board (7)
03. Ready perhaps to include the right, but how dull it is (6)
04. Among the doctors at the back these plans are made (6)
05. It occurred to one that the clock was sounding the hour (6)
06. Like producer of eggs to be very pale (5)
07. Her rebels pine about it being so deserving of censure (13)
14. It isn't as obscure as the bank that passes one's cheques (7)
15. Part of a ring, one will gather, has no carbon in it (6)
16. One aspect of brick in wall may take a dive (6)
17. The model man may be standing in the street (6)
19. It may be perfect to a classicist to be so strung up (5)

SOLUTION: BL TWO-WAY CROSSWORD 2723

ACROSS 1. Pastrycooks 8. Tenon 9. Creates 10. Who's Who 11. Idiom 12. Yankee 14. Agenda 18. Lungi 19. Plummet 21. Blotter 23. Cynic 24. The naked eye

DOWN 1. Pathway 2. Sundown 3. Renew 4. Cuckoo 5. Opening 6. Set 7. Sodom 13. Epistle 15. Nominee 16. Article 17. Sparta 18. Label 20. Uncle 22. Oft

The Pioneer
NEW DELHI | TUESDAY | JUNE 24, 2025

Editor's TAKE

World on edge as US launches strikes on Iran

The US direct involvement in West Asia could disrupt the fragile world order

The Israel–Iran conflict has taken a grim turn as the US has directly involved itself in the fray by breaching Iranian airspace and hitting its three nuclear sites. The United States' unprecedented strikes on three Iranian nuclear facilities — Natanz, Fordo, and Isfahan — have raised the chances of other powers like Russia and China joining it covertly. What began as a shadow conflict between Israel and Iran has now erupted into a wider confrontation with global stakes, as Washington's intervention risks igniting a regional conflagration with cascading consequences for energy security, international diplomacy, and global peace. In a moment of grave international concern, Indian Prime Minister Narendra Modi emerged as a voice of restraint and reason. He spoke directly with Iran's newly elected President, Masoud Pezeshkian, and urged immediate de-escalation, emphasising dialogue and diplomacy as the only viable path forward. The entry of the US into the fray dramatically raises the stakes. With multiple US military bases spread across the Gulf and Iran's bid to block the Strait of Hormuz — a vital chokepoint through which over 20 per cent of the world's oil passes — the risk of a broader regional war is real and immediate, resulting in hardships for many nations dependent upon Gulf oil, including India. India, with its deep energy dependence on Gulf states and close ties to both Iran and the US, is vulnerable to the ripple effects of the conflict. A disrupted oil supply could cause domestic inflation to spike, derail economic forecasts, and strain foreign exchange reserves. Moreover, India's strategic investment in Iran's Chabahar Port — a crucial component of its connectivity to Afghanistan and Central Asia — could be imperilled by continued instability. India's diplomatic tightrope walk is therefore not just about foreign policy symbolism; it is about national interest and regional stability. PM Modi's appeal reflects not only India's strategic calculus but also its potential to play the role of a mediator in a time of intensifying hostilities.

Beyond regional tensions, the current escalation has shaken global oil markets. Prices have surged amidst fears of supply disruption. This is not merely an Israel–Iran war anymore. It has the contours of a conflict that could draw in global powers, unsettle economies, and rupture the fragile world order. With tensions at an all-time high, the window for diplomacy is narrowing. Yet, it is precisely at this point that the world needs more statesmanship and less brinkmanship. Iran must be given diplomatic avenues to avoid escalation without losing face.

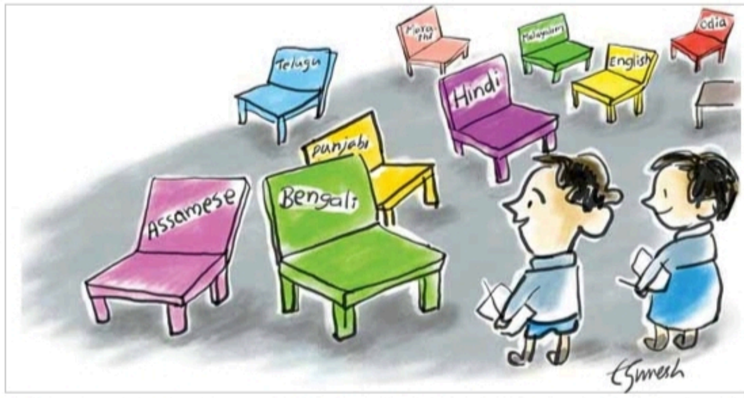
The US must show strategic restraint and allow space for mediation. Israel must realise that regional peace cannot be achieved through unilateral military campaigns. In this fragile moment, countries like India can serve as credible voices for peace. By engaging all sides through backchannels and multilateral forums like the UN, BRICS, and the Non-Aligned Movement, India could help forge a ceasefire framework — or at least open lines of dialogue. In this fraught hour, the world must heed calls like that of Prime Minister Modi — calls for de-escalation, dialogue, and a return to diplomacy.

PIC TALK

Devotees participate in the palanquin procession of Sant Dnyaneshwar Maharaj, in Pune. PTI

Rethinking Language in Indian Education

As global examples from Germany to Japan reaffirm the value of native-language education, it is time India embraced its own plurality — not as a barrier, but as the very foundation of holistic learning and national identity



The linguistic and cultural diversity of any country must be celebrated with great attention and in its true spirit. India's multilingual phenomenon has always been an integral part of society, but the nature of plurality of languages differs greatly. India, as one of the richest linguistic nations in the world, represents the plurality and diversity in its society, which has been seen as its biggest strength.

The dominance of English as a global language of education has derecognised the linguistic, cultural and epistemic identities of multilingual people. During the colonial days, English was taught for vested interests. It was believed to have the quality of broadening the horizons of knowledge, and because of the variety of texts, it was thought to promote critical thinking and analytical skills, which was ably supported by the learning of rhetoric.

Even after independence, we fail to appreciate the mother tongue as a cognitive and pedagogical resource and find absolutism in the dogma of monolingualism as a language-teaching resource. English has been, for most people, a skill to master, not just a language to learn to express. English is, for the most part, a foreign language, but treated as a second language in India.

The immense damage done by communicative English language courses — by shifting the onus of communication to the receiver of the communication rather than the creator — has led to a peculiar situation of incomplete cognitive processing, or at best, partial understanding. If we look at the globe, we can see that some leading countries like Germany, China, and Japan, with the highest technological expertise, are offering primary education in their mother tongue.

The push for teaching in a universal language such as English has been shown to hinder children's educational progress in such countries. The key to human resources development is education, and the English-only policy fails to appreciate the mother tongue as a cognitive and pedagogic resource.

As a hapless victim of linguistic robbery, the schoolchild is terminally disabled from utilising the immense linguistic arsenal offered by his mother tongue. This reveals the fact that primary education in the mother tongue is as effective and functioning as it could be in any other dominant language. The use of home language, local language, and mother tongue-based primary and secondary education also entails that each language can provide cognitive and educational resources to its learners. The historic and transformative National Education Policy (NEP 2020), in its section dedicated to language education called "Multilingualism and the Power of Language", endeavours to foster and accept linguistic diversity within the realm of education.

The policy recognises the significance of language as a potent instrument for fostering effective communication, advancing students' cognitive abilities, and cultivating cultural awareness. It further states that, wherever possible, the medium of instruction should be the mother tongue or the local or regional language. Thereafter, the home or local language shall continue to be taught as a language wherever possible.

M J WARSI

It further emphasises that all efforts should be made to ensure that any gaps that exist between the language spoken by the child and the medium of teaching are bridged. NEP 2020 also provides fluidity to the three-language formula, as there is no specific language that shall be imposed on any State. The States, regions, and the students as well, are free to choose the three languages which the students want to learn, whereas at least two of them are to be native to India — one of which is most likely to be the home, local, or regional language. The objective of the NEP 2020 is to make India a knowledge superpower by equipping its students with the necessary skills and knowledge, and to eliminate the shortage of manpower in academia, science, technology, and industry. In recent years, education in mother tongue, regional, local, or home languages has attracted serious attention worldwide. Mother tongue plays a critical role in the cognitive and intellectual development of a learner. Studies have shown that individuals fluent in their mother tongue tend to have higher educational success rates than those who are not.

Languages are instrumental in preserving cultural values and traditions, and having a strong foundation in one's mother tongue can aid in learning new languages. Unfortunately, many countries — particularly those that were colonised — continue to use the language of their colonisers as the medium of instruction in higher education. This is often done under the pretext of the unavailability of books and journals in local languages.

However, this practice puts students who come from schools that use local languages at a disadvantage, particularly in specialised fields such as medicine, science, literature, technology, and law. It is essential to recognise the importance of the mother tongue and to encourage its continued use in education and wider society to develop the foundational skills of a society — such as literacy and critical thinking. The initial investment in multilingual programmes seems to be high because of the additional cost of developing new learning material, especially for languages that have not been standardised or do not have a script. It would also require teachers trained to teach in a multilingual classroom.

This requires renewed resource allocation and a clear policy to enrich the local languages to achieve the ultimate end of an effective mother tongue-based education system. It has now become essential to promote home, local, and regional languages to ensure the continuation and transmission of culture, customs, and history. UNESCO, too, is taking urgent action to encourage broad and international commitment to promoting multilingualism and linguistic diversity, including the safeguarding of endangered languages.

Mother-tongue education needs to be prioritised in policy development to ensure more responsive and nuanced approaches that take into account the unique linguistic and cultural needs of learners. Unfortunately, as everyone is a language user, they think they can comment on language — as it is everybody's business and nobody's business.

(The writer is an eminent linguist and author, currently serving as the President of the Linguistic Society of India. He is a former faculty member at the University of California, Berkeley. Views are personal)

Is liberty withering in a wary world?

SECOND Opinion

I am writing this column from the land of opportunities that has, for long, been the destination for the dreamy-eyed, and last week I visited the iconic place that encapsulated all that this vast nation stood for: freedom, democracy, and hope. The very symbol of freedom is being recast in the mould of modern-day servitude. It might have been my imagination. Or perhaps it was the echo of the silent protests unfurling elsewhere in New York City that day. One thing, however, is clear: people everywhere are more circumspect now.

They are wary of encroachment; of being silenced; of losing their livelihoods — in short, of everything that would rob their peace of mind. There is fear everywhere, and it is making people feel like they are walking on eggshells. There's a palpable fear lingering, from the edge of the heart to the corner of the street, even in the words we once spoke freely when expressing an opinion. But then again, it made me wonder: is the fear of losing freedom an emotion of only ordinary folks? Or is there a more invisible enslavement at play — one that shackles even those who appear to be in power? The fear, I reckon, is not one-sided. It is all-pervading, existing everywhere. Among the ruled and the rulers. Among subjects and sovereigns. It is open, yet often silent — in those who whisper their reservations about how their individual liberty is being stripped away, in ways that leave them feeling emasculated. The others, who hold the baton, make it more visible through mindless proclamations and impulsive acts. The missiles and drones, much as they seem to be symbols of power, are in reality a variation of the anxiety that's cloaked in bravado. Authoritarians are afraid of being taken over by an enemy at some point in time. They go on a rampage destroying life and property because their nights are going sleepless with the horrifying thought of being taken down by an unexpected ambush from somewhere in their periphery. Let's admit, without pretensions or reservations: even the tall claims we make on our social handles are tacit demonstrations of an unmistakable fear — of being dethroned, overshadowed, or rendered redundant by those who appear more able and influential.

ASHA IYER KUMAR

We are afraid at all times, and it is slowly eating into our vitals. Whatever we create comes not from that wellspring of energy innately stored within us, but by external forces. We are substantiated not by the cosmic inspirations but by the cosmetic pulls of a nervous multitude that wants to appear invincible. Our imagination is at stake, and we are merely following trends and norms because we are afraid of losing importance. The fear is chipping away at our ability to be genuine conversationalists in our daily walks of life. There is an unwritten code that we cannot break, lest the participants in the curated conversations take offence.

And it hurts to see men and women connect only with the customary "thank you" and "you're welcome" in our daily businesses. We can't talk beyond what is essential, because it could press someone else's fear button. The whole charade of being good and civil to protect our private realms is eroding our personal courage to be truly human. We are someone far removed from what we are supposed to be as people, friends, relations, neighbours, subjects, rulers — and an entire species. And this, I say, applies not just to ordinary people. It applies to everyone from the pedestrian to the powerful. It seems unlikely that the fear that is dominating the world — at different levels, in different measures, and for different reasons — will vanish anytime soon.

Yet there are rare times when the true spirit of being an ordinary human who respects the equal existence of another, who loves the holy heart that beats in tandem and the spirit that holds us all together as one entity, springs forth. In one such flitting moment, dispelling all fears, I said to an officer at the immigration gate at the airport in the land where dreams once used to take flight: "You remind me of Barack Obama, sir." The gentleman was mighty pleased, and giving me a gentle laugh, he said, "I have had many people say this to me. I hope he can come back to office." Miles away, Lady Liberty might also have smiled at the lovely banter we had, and readjusted her crown — in the hope that courage and hope will return home, and everywhere else in the world. Without fear or favour.

(The writer is a columnist, independent journalist and writing coach based in Dubai. Views are personal)

Letters to the Editor

The erosion of true dharma

Earlier, dharma was a way of life — quiet acts of kindness, done without applause. Helping an old man cross the street or feeding the hungry were acts rooted in silent compassion, not selfies. But today, religion feels more like a marketplace. Godmen have brand value, temples sell VIP passes, and rituals come with fixed rates — one for exams, another for car purchases, even one for back pain. Is this devotion or a menu card? In our childhood, naam prasanga was about inner peace.

Now, it's about social media likes. A donation to a temple makes front-page news; feeding cows becomes an Instagram story. Without the camera, the compassion vanishes. Even religious events have sponsors — one banner from a cement company, another from a soft drink brand.

One wonders if even the Gods are confused — should they grant blessings or endorse brands? Once meant to unite, religion now divides. Turn on the TV, and faith is reduced to shouting matches and breaking news debates. Dharma, once sacred and simple, is now a billboard competition. The real question is no longer about surrender or truth, but: "Who is the bigger devotee?" Perhaps it is time we return to dharma as quiet integrity, not public display. For in humility, not hashtags, lies the essence of true faith.

NOOPUR BARUAH | TEZPUR

Household savings are declining

According to a report by CAREEdge Ratings, the household savings rate was 32.2 per cent in the financial year 2015, which has declined to 30.7 per cent in FY 2024. This marks the third consecutive year of decline, bringing savings close to just 18.1 per cent of the GDP. Despite rising incomes and controlled inflation, it is evident that people are left with little to no money for savings. Even though workers' incomes have increased and inflation is under control, rural savings continue to fall. It is expected that lower interest rates and reduced inflation will boost demand. At the same time, household debt has increased to 6.2 per cent of GDP, nearly double compared to the previous decade. This suggests that people are increasingly relying on loans to meet their expenses and needs. Meanwhile, in the IT sector, employee-related expenses are showing signs of slowing.

While salary expenses had jumped 261 per cent in Q3 of FY 2023, they rose only by 4 per cent in Q3 of FY 2024, indicating that companies are becoming more cautious with their spending. There is hope that overall demand will see a broad-based recovery in the near future. The decline in savings is not just a statistical concern — it reflects deeper economic vulnerabilities. Strengthening financial literacy and household resilience must now be a national priority.

DATTAPRASAD SHIRODKAR | MUMBAI

Safeguarding voter privacy

The Election Commission of India (ECI), in a letter dated May 30, directed State Chief Electoral Officers to destroy CCTV, webcasting, and video footage of the election process after 45 days — if no legal challenge is raised — to protect the privacy of voters and non-voters alike from possible political harassment.

Yet, a deeper privacy concern lies in the current method of EVM-based counting. Unlike the earlier practice with paper ballots — where votes from different booths were mixed to maintain secrecy — EVMs reveal polling station-specific results. At counting centres, results from each booth's EVM are displayed and recorded in Form 17C in the presence of party agents, exposing voting trends down to the street or village level.

This risks political targeting and undermines voter anonymity. To address this, the ECI proposed using a "totaliser" as early as 2008. This device combines votes from 14 EVMs, concealing booth-wise data. The Law Commission, in its 255th Report, also backed amending Rule 66A of the Conduct of Election Rules, 1961, to enable its use. During the 2024 general elections, the ECI confirmed that totaliser technology — developed by BEL and ECIL — is ready. Its widespread implementation is vital to uphold the voter's right to secrecy, ensuring truly free and fair elections.

SRINIVAS MADHAV | HYDERABAD

US STRIKES IRAN, IGNORES PAKISTAN: WORLD'S SELECTIVE LOGIC

In a typically dramatic move, US President Donald Trump launched military strikes on Iran's nuclear facilities at Fordow, Natanz, and Isfahan — just two days after claiming he had opened a two-week diplomatic window.

Using B-2 stealth bombers and bunker-busting bombs, the US targeted Iran's uranium enrichment programme, reversing Trump's earlier stance on avoiding foreign wars and sparking fears of Iranian retaliation. Ironically, Iran currently possesses no nuclear weapons, but the US deemed it a threat.

Meanwhile, Pakistan, a nuclear-armed nation with a proven terror footprint, continues to enjoy diplomatic courtesies. Pakistan's army chief, Asim Munir, was even invited for a cordial lunch — suggesting diplomacy works differently when it's convenient. Interestingly, Pakistan condemned the US strikes on Iran, even after recently endorsing Trump for the Nobel Peace Prize for his "decisive diplomacy" during the India-Pakistan crisis. This contradiction exposes the farcical nature of international politics. If Iran is labelled the top terror sponsor, then what about Pakistan, which continues to support cross-border terrorism, including a recent attack that killed 26 tourists in Kashmir?

Trump's America thrives on selective justice and commercial threats. The real irony? The US exists because of a historical genocide, yet continues to dictate global morality. If Trump had stayed true to his 14 promises of non-intervention, perhaps Pakistan's terror infrastructure would have been dismantled by now. So, who's the real bully? The world must look beyond headline diplomacy and demand accountability without double standards. Only then can global peace be more than a slogan.

BIDYUT K CHATTERJEE, FARIDABAD

Please send your letter to the letterstopioneer@gmail.com. In not more than 400 words. We appreciate your feedback.

Yeast shows physics can give rise to multicellular life sans mutations

Scientists' consensus is that multicellular organisms evolved billions of years ago when mutations accumulated over time. But a new study suggests physical and chemical phenomena alone could have helped unicellular organisms evolve into multicellular ones before genetic changes appeared

Sayantan Datta

By the time Nishant Narayanasamy joined Shashi Thutupalli's lab at the National Centre for Biological Sciences (NCBS) in Bengaluru in 2019, the lab had a new guest: a yeast colony that had seemingly grown way beyond its expected size.

The snowflake yeast had been shipped from William Ratcliff's laboratory at the Georgia Institute of Technology in the U.S. Regular yeast – the same organism that makes bread fluffy – grows as a single cell. When it reaches a certain size, a small bump appears on its surface. The yeast's nucleus, the compartment that holds its genetic material, splits into two and moves into this bud. The bud grows until it reaches a certain size and eventually falls off from the parent, making new yeast.

But a small change in snowflake yeast's genetic composition prevents the bud from falling off. As newer buds appear, the yeast clusters in the shape of a snowflake. And as the cluster grows, in about 12 hours it becomes a large blob visible to the naked eye.

Snowflake yeast has been used to study how lifeforms first became multicellular. Multicellular organisms can grow much larger than those with only one cell – as long as they can deal with the other effects of largeness.

For example, how does the organism ensure all cells in its body receive the nutrients they need to grow?

This is why most animals and plants evolved specific structures to transport nutrients. Blood and blood vessels do this job in humans.

A scanning electron micrograph of *Saccharomyces cerevisiae*. MOGANA DAS MURTEY AND PATCHAMUTHU RAMASAMY (CC BY)

A simple process

Snowflake yeast has no such facility, however, which means at some point the yeast should stop growing. Any further increase in size would cause at least some of its cells to not get enough nutrients. However, defying expectations, the snowflake yeast in Thutupalli's lab continued to grow – that too at an exponential rate. How the yeast attained this feat was a mystery.

Narayanasamy and Thutupalli, along with a team from Georgia Tech, reported in the June 2025 issue of *Science Advances* a mechanism by which the yeast can ensure all its cells receive nutrients, even when the cluster is big.

In the absence of a biological structure, the yeast continue to grow thanks to a simple physical process, the authors wrote in their paper.

The implications of the work go beyond how yeast grows.

The work "offers support to an unconventional view of how major changes are initiated in evolution," Vidyanand Nanjundiah, an evolutionary biologist and a professor at the Centre for Human Genetics, Bengaluru, said. He wasn't associated with the study.

The consensus among scientists is that multicellular organisms evolved billions of years ago when mutations accumulated over time.

But Narayanasamy's and Thutupalli's work suggests physical and chemical phenomena alone could have helped unicellular organisms evolve into multicellular ones before genetic changes came into the picture.

Flowing into multicellularity

In a lab, yeast can be grown in either a solution or a jelly-like substance that contains all its nutrients. Narayanasamy and Thutupalli observed that large clusters of snowflake yeast continue to grow exponentially only when kept in the solution. It seemed being surrounded by a fluid was crucial.

Diffusion is one way in which nutrients move through a fluid: the particles moving from a place in which their concentration is higher to one where it's lower. But Narayanasamy and Thutupalli knew from previous work that diffusion alone couldn't account for the size of large snowflake yeast clusters. Per their estimate, diffusion can explain the growth of these clusters only up to a size of about 50 micrometers (µm) whereas their clusters could grow up to 20x larger.

So they hypothesised that a different process is at play: advection, when the fluid itself moves around, carrying with it the dissolved nutrients. To test their hypothesis, they added to the solution small particles coated with a dye that glows in blue light. Using a microscope to trace how these particles moved in the solution could help them visualise the flow of the fluid. They added a snowflake yeast cluster to this solution and let it grow. The duo observed that as the cluster expanded, the solution around it moved inside the cluster from its sides, then escaped from the top.

A natural motor

Some unicellular organisms can make fluids flow using specialised hair- or whip-like structures called cilia or flagella. Snowflake yeast have neither. This is where physics becomes important.

Multicellular organisms grow larger than those with only one cell – as long as they can deal with the effects of largeness, namely the need to ensure all cells receive nutrients needed to grow. Animals and plants have structures to transport nutrients. Blood and blood vessels do the job in humans

When snowflake yeast clusters grow, they consume glucose from the solution. This reduces the density of the solution in places where it surrounds the yeast. The cluster also produces alcohol and carbon dioxide, both of which are less dense than the solution, according to the paper.

Fluids that are less dense – in this case the surrounding solution depleted of glucose and enriched with alcohol and carbon dioxide – rise above the rest of the solution. The team reasoned the flow it observed resulted from the same principle: as the cluster consumed the sugar and produced alcohol and carbon dioxide in the solution, the solution's density dropped. This fraction spontaneously moved upward, generating the flow that kept the yeast cluster alive and growing.

To confirm this, the duo checked whether flows were present around clusters that are dead and not actively consuming sugar. They didn't find any, and concluded the living clusters metabolising sugar from the solution created the flows.

A different view of evolution

Biologists have used snowflake yeast clusters as a model to study how multicellular organisms evolved from unicellular ones. Contrary to the view with genetic changes, the new study supports the idea that "multicellularity could originate and be maintained initially solely on the basis of physics and chemistry, with no genetic change," Nanjundiah said. "A later genetic change could then have made multicellularity inevitable in the ... living beings of today," he added.

The next step for him is to check if such a change subsequently occurs in the yeast, rendering multicellularity a part of its biological blueprint.

Gautam Menon, a professor of physics and biology at Ashoka University in Sonepat, called the study "fascinating" and the alternative model "temptingly attractive."

As researchers wait for more evidence of this model, the NCBS team is investigating whether these flows can account for other major evolutionary changes: the ability of organisms to move, for example.

Experiments on snowflake yeast have something more to teach about the nature of biology, Thutupalli said. "There may not exist any organism in the wild that generates flows by such a mechanism," he said, "but biology, in its much larger sense, can do it."

This is why, he added, our view of biology must extend beyond what we see in the natural world to novel phenomena that may occur only in the laboratory. "These may or may not happen outside [the lab] but they are genuinely a feature of livingness – of biology."

(Sayantan Datta is a science journalist and a faculty member at Krea University.dattasayantan95@gmail.com)

The researchers built a real mattress with flexible plastic panels joined by thin metal strips. Representative image. HUSH NAIDOO JADE/UNSPLASH

Alternating pressure mattresses aim to reduce bedsores

The Hindu Bureau

Pressure ulcers, also known as bedsores, happen when the same spots on a person's skin are squashed for too long, cutting off blood flow and killing tissue.

Today's alternating-pressure (AP) mattresses try to stop this by gently inflating and deflating air-filled sections so no one patch of skin stays under pressure.

But many of these beds simply aim to reduce the peak pressure and the results have been mixed.

In a new study, researchers from the University of California, Los Angeles asked a surprising question: what if the best way to stop ulcers is to raise the peak pressure for short periods and drop it, rather than keep it low all the time?

The team built a full-sized research bed containing 1,260 small electric rams. Each ram could rise or drop by up to 10 cm, allowing the surface to form a chess board of hills and valleys that could flip back and forth.

Then, using an anatomically correct 100-kg dummy, a thin foam pad, and an electronic pressure-mapping mat, they recorded the pressures under the back, hips, and heels for many patterns of hills and valleys.

Researchers sought to know if the best way to stop ulcers is to raise the peak pressure for short periods and drop it. The team built a bed containing 1,260 electric rams. Each ram could rise or drop by up to 10 cm, allowing the surface to form a chess board of hills and valleys that could flip back and forth

During this, they tracked the hill-to-hill spacing and the depth.

For each pattern, they calculated the total area of skin that stayed above the blood cut-off pressure, about 32 mm (Hg). They also checked how sensitive this area was to people who have slightly higher or lower personal cut-off pressures, from 20 to 40 mm (Hg).

The data revealed that patterns with higher peak pressures actually reduced the area above the cut-off and that larger pressure differences between the parts with and without pressure helped too.

In fact, the team found the sweet spot to be a pattern with a 12-13 cm gap between hills and a 2.5 cm distance between valley bottoms and hill tops.

Finally, the researchers built a real mattress with flexible plastic panels joined by thin metal strips.

When someone lay on it, the panels snapped into a stable pattern.

With the dummy lying flat, the new mattress reduced the area under the cut-off by 34x relative to a regular 160 sq. cm hospital foam pad.

The area also changed very little when the cut-off was shifted from 20 to 40 mm (Hg), meaning it could work for many body types.

The findings were published in *Science Robotics* on June 18.

For feedback and suggestions for 'Science', please write to **science@thehindu.co.in** with the subject 'Daily page'

THE SCIENCE QUIZ

Fossil fuels have a legacy, too

Please send in your answers to science@thehindu.co.in

Vasudevan Mukunth

QUESTION 1

Fossil fuels are sometimes also called "dinosaur juice," but this is a misnomer. The vast majority of crude oil, formed when the bodies of dead lifeforms undergo anaerobic decomposition, comes from ________. Fill in the blank.

QUESTION 2

Name the geological period of the Palaeozoic era from 359 million to 299 million years ago, when many of the coal beds found worldwide today first formed. Its name means "carbon-bearing" in Latin.

QUESTION 3

During World War I, oil from ______ was widely used to ward off a condition called trench foot. The oil is also credited with being a good lubricant that kept the world's first industries running smoothly, catalysing the Industrial Revolution. Fill in the blank.

QUESTION 4

______ ________ is a compound consisting of methane trapped within water ice crystals. Scientists study the earth's historical climate record by examining ice cores for oxygen, carbon dioxide, and this compound. Fill in the blanks.

QUESTION 5

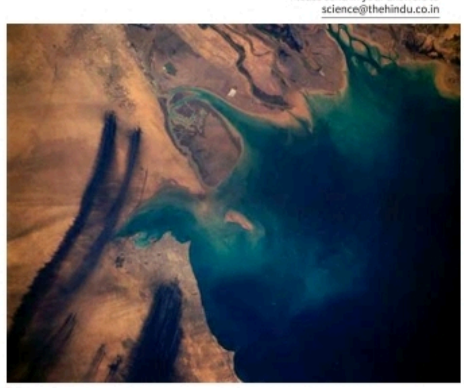
The last coal mine on the X archipelago, part of the kingdom of Norway, is scheduled to be closed in 2025. While coal mining dominated the local economy from the early 20th century, the region has pivoted away in favour of cleaning up the islands. Name X.

Answers to June 19 quiz:

1. Polylithic structures with a horizontal stone atop two vertical ones – **Ans: Dolmen**
2. Single standing stones of the Neolithic age – **Ans: Menhirs**
3. Remote-sensing tech to measure height of a built platform – **Ans: Lidar altimeter**
4. Practice where only half of a feature is excavated – **Ans: Sectioning**
5. Region associated with Northern Black Polished Ware – **Ans: Indian subcontinent**

Visual: **Dholavira**

First contact: K.N. Viswanathan | Amar Pratap | Anmol Agrawal | Tamal Biswas | Joe V.R.



Visual: Name the location of the fires in this satellite image of a West Asian country in 1991. Smoke from the fires precipitated an infamous environmental disaster. CREDIT: PUBLIC DOMAIN

Text&Context

THE HINDU

NEWS IN NUMBERS

Slower growth of retail credit in the fourth quarter of FY25

5 In per cent. The retail credit market continued to see a softening in the last quarter of 2024-25, as new loan originations (partly a measure of credit demand and supply) grew at a slower rate in March as against 12% a year ago. The slowdown was despite the RBI slashing its lending rate by 25 basis points. PTI

First estimate of public spending for the 2024 Paris Olympics

6.8 In $ billion. France's court of auditors provided the first official estimate of public spending tied to the 2024 Paris Olympics, with global public expenditure estimated at nearly six billion euros. The report said that the spending includes €2.77 billion for event organisation. PTI

The decline in Ukraine's 2025 wheat harvest

3 In per cent. Analyst ASAP Agri sees Ukraine's 2025 wheat harvest falling to 21.74 million metric tonnes and that yield could average 4.37 tonnes per hectare, 3.5% less than a year earlier, the consultancy said on Monday. Ukraine has exported 15.64 million tonnes of wheat as of June 23. REUTERS

Fall in oil production at Sakhalin-1 in the month of July

135 In thousand barrels per day. Russia's largest oil producer Rosneft will suspend output of its export-oriented Sokol crude grade at its far eastern Sakhalin-1 project in August because of maintenance. The maintenance will last between 20 and 25 days. REUTERS

Indians in the second batch of evacuees from Israel

443 The second batch of Indian nationals from Israel saw two groups of 175 and 268 people leave through Israel's border with Jordan and Egypt, taking the total number of Indians taken out of the war-torn country to 603 in two days. PTI

COMPILED BY THE HINDU DATA TEAM

Pakistan's role in the U.S.-West Asia calculus

Pakistan has a complex relationship with Iran, with the two countries competing for influence in Afghanistan. Iran is dependent on food imports which make trade routes via land important. Pakistan can play a role for the U.S. in isolating Iran in case of a conflict with Israel

WORLD INSIGHT

D.P. Srivastava

On June 22, U.S. President Donald Trump announced that the U.S. had conducted military strikes against three Iranian nuclear installations. This is a momentous event, the outcome of which could change the shape of West Asia for decades to come.

Previous western interventions in Iraq (1992 and 2002), and in Libya (2011), saw quick military outcomes, but long term destabilisation of the countries.

Mr. Trump warned of 'far greater' attacks in the future if Iran does not 'make peace'. Iranian Foreign Minister Abbas Araqchi has said that "Iran reserves all options to defend its sovereignty, interests and people". Will this then be a long drawn-out war? How will it impact the situation in the sub-continent, as the U.S. strike was preceded by Pakistan's Chief of Army Staff General Munir's meeting with President Trump. The general, who got himself promoted to Field Marshal only recently, arrived in Washington soon after Israel began its attack on June 13.

Contradictory stance: Supporters of the 'Jamaat-e-Islami' hold a demonstration to condemn Israeli strikes on Iran, in Karachi, Pakistan, on June 23. AP

THE GIST

General Asim Munir's private lunch with Mr. Trump at the White House on June 18 was an unprecedented departure from protocol.

In Pakistan's budget for FY2025-26 presented on June 10, defence was provided an increased outlay despite overall downsizing of the expenditure by 7%.

The timing of the U.S.'s entry into the Iran-Israel war could not have been better from Pakistan's point of view. It's sinking economy needs continued assistance despite the 25 IMF bailout packages it has received so far.

U.S. interests'

General Asim Munir's private lunch with Mr. Trump at the White House on June 18 was an unprecedented departure from protocol. Normally, heads of states or governments have to vie for this honour. While the meeting was projected by both sides in the sub-continent's context, this makes little sense as India-Pakistan hostilities came to an end a month ago. There was no urgency to demand the U.S. President's attention.

Earlier in June, Pakistan was praised in a Senate hearing by General Michael Kurilla, the head of the U.S. Central Command (CENTCOM). He praised Pakistan's 'value as a partner' in countering terrorism and mentioned its role in the arrest and extradition of Mohd. Sharifullah, accused of killing 13 U.S. soldiers, who were deployed during the U.S. evacuation from Afghanistan, at Kabul airport on August 26, 2021.

This was a curious statement considering that Pakistan undermined the two decade-long U.S. effort to stabilise Afghanistan despite receiving $20 billion as U.S. assistance during the period. Imran Khan, the then Pakistan prime minister gloated over the U.S.'s humiliating withdrawal and said that 'shackles of slavery' had been broken. It is unlikely that the CENTCOM chief had forgotten such recent history, and therefore one needs to understand what exactly led to the sudden change in the U.S.'s position.

For the U.S., West Asia is far more important than South Asia. Though America is no longer dependent on oil imports from the Gulf, it has large economic stakes there. During his recent visit to the region, Mr. Trump extracted more than $3 trillion worth of commitments in investment in the U.S. from Gulf monarchies. The security of Israel is also deeply enmeshed in American politics. The focus of the CENTCOM chief's testimony was not South Asia, but the situation in the West Asian region and how to deter Iran with Pakistan support.

Pakistan-Iran relations

Pakistan has a complex relationship with Iran. The two countries compete for influence in Afghanistan. Pakistan takes pride in being the only Muslim majority state possessing nuclear weapons, and it does not like the idea of losing that status. There have also been attacks on Iranian security personnel by groups based in Pakistan. This had triggered missile exchanges between the two countries in 2024.

Pakistan can play a role in isolating Iran in case of a conflict with Israel. Iran depends on imports for most of its food requirements, and therefore trade routes via land are important in case conflict in the region leads to a closing of ports along the Persian Gulf. There are five trading posts on the Iran-Pakistan border through which there is smuggling of petrol and diesel from Iran to the Pakistani side of the border. Iran also supplies electricity for the Gwadar port situated in Pakistan's Balochistan province.

On June 15, Pakistan announced – around the time General Munir arrived in Washington – the closure of its land borders with Iran, except for the return of Pakistani nationals. In 1965, Iran under the Shah regime had provided sanctuary to the Pakistan Air Force. And now, Pakistan has slammed the door shut in Iran's face.

The understanding between Pakistan and the Trump administration was probably in the works for some time. It may be recalled that Pakistan received a fresh commitment of $1.4 billion under the climate resilience program of the International Monetary Fund (IMF) in the midst of recent hostilities with India. This was in addition to the release of $1 billion under the existing commitment of $7 billion from the IMF as the nation faces a desperate economic situation. President Trump's intervention also helped Pakistan when Indian armed forces neutralised Pakistan's air defences, and struck a critical facility near Nur Khan Air Base in Rawalpindi.

Increased defence outlay

In Pakistan's budget for FY2025-26 presented on June 10, defence was provided an increased outlay despite overall downsizing of the expenditure by 7%. The stated figure for defence expenditure was 2.55 trillion Pakistani rupees. This, however, does not include an allocation of 742 billion Pakistani rupees on account of military pensions. Therefore, the overall defence outlay is 3.29 trillion Pakistani rupees ($11.65 billion). This represents a sharp hike of more than 17% over the previous year's budget. The development sector, already neglected, has seen a 50% reduction to 1 trillion Pakistani rupees in the recent budget.

Pakistan is a heavily indebted country. The interest payment of 8.207 trillion Pakistani rupees is the largest item of expenditure in the budget, accounting for 74.14% of the federal government's revenue share of 11.07 trillion Pakistani rupees. The total expenditure on account of defence and debt service exceeds Islamabad's share of revenue. Federal government departments, other than defence, have to be run on the basis of fresh loans. While Shahbaz Sharif's government has projected an improved foreign exchange position with reserves amounting to $11.5 billion, this was made possible only by the rollover of $16 billion of loans by friendly countries.

Ideology

On April 16, General Munir in a speech told his Pakistani audience that they belong to a "superior ideology". He also mentioned the two-nation theory, and said that Kashmir is the jugular vein of Pakistan. However, Mr. Munir was simply repeating what has become Pakistan's official creed.

It was Muhammad Ali Jinnah who had originally propounded both these ideas. The ideology of Pakistan since then has been to impose a uniform religious identity ignoring national and linguistic diversities of its people. This lies at the heart of the conflict in Balochistan, which never wanted to join Pakistan. The Khan of Kalat had declared independence in 1947, supported by the Loya Jirga. While Jinnah initially recognised Balochistan's independence, he later sent in troops to suppress the new founded state.

The thrust of General Munir's April speech was on suppressing the Baloch national struggle. Balochistan is strategically important as it borders the Sistan-Balochistan province of Iran where the Chabahar port is located. Gwadar is essentially a military facility for the Chinese navy, and not a transport hub. It accounts for only 1% of Pakistan's maritime trade.

Has Pakistan discovered new fault lines to exploit? The timing of the U.S.'s entry into the Iran-Israel war could not have been better from Pakistan's point of view. It's sinking economy needs continued assistance despite the 25 IMF bailout packages it has received so far.

With the increasing imprint of religion in Pakistan's polity, the sectarian divide has coloured its relations with Iran. Internally, there has been a rise in attacks by Sunni extremist groups on Shia pilgrims going by the land route to Shia holy cities in Iran and Iraq. This is not a coincidence – these groups enjoy the Pakistan army's support which has used them to counter Baloch nationalism. While a tacit understanding with the U.S. on Iran could hold the fort, it will have a domestic cost. It will not go down well with the jihadist constituency the Pakistan army has cultivated. For in the same speech in which he ranted against India, General Munir also pledged support to the struggle of the people of Gaza against Zionist Israel.

Pakistan has thus lived and is continuing to live with such contradictions.

D. P. Srivastava is former Ambassador to Iran and author of Pakistan: Ideologies, Strategies and Interests.

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Destabilising the world

US strikes on Iran pose threats to global security

Over the weekend, B-2 stealth bombers from the United States (US) Air Force attacked three sites within the Islamic Republic of Iran — all associated with that country's nuclear weapons programme. These installations — in the towns of Fordo, Natanz, and Isfahan — are known to be buried deep underground and thus are not accessible by most munitions. When Israel launched strikes against Iranian targets last week, it was assumed that the buried nuclear sites would survive unscathed. Only the US' "bunker-buster" bombs — officially the GBU-57 Massive Ordnance Penetrators — might have a chance of penetrating the (at least) 60-metre depth at which these facilities were designed. There was considerable speculation as to whether US President Donald Trump would follow up on the persistent requests from Israel to do what their air strikes could not. While he had promised on the campaign trail to not involve the US in any new wars, he had also spoken positively about the outcome of bombing Iran. And he has long stated that the US has been too soft on Iran, particularly in the context of the nuclear restrictions agreement negotiated by his predecessor, Barack Obama.

It is unclear, however, whether these strikes will have actually achieved the desired outcome — setting back Iran's nuclear programme by a decade. The small quantity of enriched uranium that was being targeted, alongside the capability to make more, might already have been long gone and stored in new and untargeted areas. In any case, even if controlling Iranian capabilities was a priority, such a strike can hardly be considered urgent. Creating the elements of a warhead is one thing; miniaturising it in such a way that it can be delivered by a missile is quite another. Israel has been arguing in public and private for too long that Iran is within a few months of concluding its programme, but there is no independent verification of Israel's claim. And the US is once again behaving like an untrammelled superpower, launching attacks with its overwhelming strength on countries that have not been demonstrated to be violating international law. The perpetuation of conflict with Iran serves no purpose other than keeping the current dispensation in Israel — implicated in attacks on Palestinian civilians that have shocked the world — in power. Neither global security nor US national interests are served in any way by this action.

Indeed, this is a major setback for global security. It is not only a fact that the US has demonstrated that it intends to behave without any restrictions or even consultations with close allies in Europe. It is also that this may serve as the final nail in the non-proliferation coffin. Countries that do not have nuclear weapons — Ukraine or Iran — face existential threats while those that have them — North Korea and Israel — behave with impunity under their nuclear umbrella. The only conclusion that many other countries can arrive at is that they need an effective nuclear programme to ensure their long-term security against threats, invasions and air-strikes from nuclear-armed adversaries. Not all new members of the nuclear club are likely to be as responsible about their doctrine or nuclear safety as India has been. In other words, Mr Trump has, through this one decision, made it likely that Iran will double down on its nuclear efforts — and ensured that many other countries will follow in its wake.

New talent war

AI is pushing the boundaries

The proliferation of artificial intelligence (AI) and AI-driven activities is causing a shift in compensation in the information-technology (IT) sector. While the penetration of AI is widely expected to lead to job losses and lower labour intensity across industries, there is a large and widening demand-supply gap within the AI ecosystem itself. The demand for AI developers and users skilled enough to develop and run AI-based algorithms and applications far outruns the supply of individuals capable of performing these tasks. As a result, IT companies are trying to hire AI-capable talent and setting up upskilling programmes. Along with the rest of the world, India will struggle to bridge the demand-supply gap.

Consequently, compensation packages for top AI researchers are skyrocketing. OpenAI's Sam Altman has complained about Meta offering packages running into over $100 million in order to induce OpenAI's researchers to jump ship and join the social-media giant. Meta has invested $14.3 billion in data-labelling startup Scale AI, and hired its cofounder, Alexandr Wang, to lead the new Meta "superintelligence" team. Meta is by no means the only Silicon Valley company making such massive investments. Google DeepMind, Anthropic, and X are also offering eight- and nine-figure packages to bolster respective AI units. Also, Silicon Valley isn't the only place where programmers with AI-specific skills are in high demand. China's giants are also making enormous investments with Baidu, AliBaba, DeepSeek, and the like, offering salaries "with no ceiling" for graduates recruited directly from university. Indeed, China arguably has an even stronger focus on AI, with over 4,500 Mainland (China) corporations working across the AI value chain.

Things changed even more after ChatGPT publicly launched in November 2022. That was followed by the release of other large-language models (LLMs) alongside the rapid scaling up of AI-capable infrastructure. Gemini, Grok, Llama, and Claude all hit the market soon after ChatGPT. The next breakthrough came with the release of China's DeepSeek in January this year. DeepSeek lowered the barriers for LLM-related work. It was developed for a fraction of the reported costs of ChatGPT and Llama and thus "democratised" development. However, the bottleneck remains in human talent. Baidu, for instance, is boosting its AI research team by 60 per cent this year to carry out research across 23 core businesses and 11 research areas, focusing on fields such as LLMs, machine learning, and speech technology. Over the next five years, the Chinese giant says it will "cultivate 10 million AI professionals for society".

That projection of 10 million by Baidu may not be hyperbolic. McKinsey forecasts China will require at least six million AI professionals by 2030, but could face a shortfall of four million. The requirements for AI professionals have evolved beyond technical skills, with employers also looking for professionals with the ability to work across sectors and identify commercial opportunities. In India, AI job openings are projected to surpass 2.3 million by 2027, according to a study by Bain & Company. But the AI talent pool is expected to grow to only around 1.2 million, leaving a gap of over 1 million roles that would require reskilling and upskilling initiatives. Addressing the talent gap will require educational institutions to step up, with an emphasis on creating AI-related courses. The corporate sector and policymakers have to collaborate and coordinate such efforts if India is to be a front-runner in AI.

ILLUSTRATION: AJAYA MOHANTY

Are we on track for tech advancement?

Public support for innovation must shift towards radical improvement in higher education and financial support for startups and new innovators


NITIN DESAI

India wants to move from being a lower middle-income country to a high-income developed nation by 2047 — the target year for Viksit Bharat. To achieve this, and to avoid the middle-income trap, technological dynamism and an improved quality of its workforce will be crucial. It is not just factor accumulation, but factor productivity — driven by technological advancement — that will matter most for sustained growth performance.

One can attribute improvements in capital quality and factor productivity to advances in technology. According to the reliable KLEMS (capital, labour, energy, materials, and services) calculation of total factor productivity (TFP), the sum of improvements in capital quality and TFP value growth from 1990-91 to 2022-23 averaged just 0.9 per cent per year for the economy. For manufacturing, the average was zero per cent per year. Clearly, we are not on track when it comes to technological advancement in our production systems.

When it comes to support for technology development in India, the striking feature is the low percentage of Research & Development (R&D) expenditure in gross domestic product (GDP). According to World Bank data, the share of R&D in GDP in India was 0.64 per cent in 1996, rose to 0.86 per cent by 2008, and has steadily fallen since, reaching 0.65 per cent in 2020.

The same database shows a steady rise in China — from 0.56 per cent of GDP in 1996 to 2.56 per cent in 2022. The Viksit Bharat aim requires that India's GDP growth rate average 8 per cent for the 25 years to 2047 to reach just the base level of the high-income category. Its R&D expenditure would need to reach at least 3 per cent of GDP, which would require an annual growth rate in R&D spending of 16 per cent.

But despite its low level of R&D spending, there are some signs of significant technological progress in recent years. The World Intellectual Property Organization's Global Innovation Index of 2024 has placed India at 39th globally out of the 133 countries rated, a significant improvement in its earlier standing. There is a 2025 index about performance on five technologies critical for future development — artificial intelligence, semiconductors, biotech, space, and quantum technology where it is placed 10th. While this is well below the US and China, India ranks only slightly below developed countries like Japan, Britain, France, and Germany, though much lower than South Korea and Taiwan in semiconductors. These positive signs are essentially the result of talented individuals and research units.

Have our corporations played a useful role in promoting new technologies? In 2020-21, they accounted for 36.4 per cent of the total R&D expenditure. If one includes the public sector corporations, the share goes up to 40.8 per cent. The Central and state governments, along with higher education institutions generally funded by them, account for the rest of the R&D expenditure.

Corporations in India do not appear to treat R&D as a major factor in their advancement. A detailed 2024 study on R&D by the 1,000 largest listed companies, conducted by the Office of the Principal Scientific Adviser to the Government, offers revealing insights. According to this report, in 2022-23, R&D spending amounted to over 6 per cent of turnover in defence and pharmaceutical companies, around 3-4 per cent in automobiles and healthcare, marginally over 1 per cent in auto-components and heavy electrical equipment, and well below 1 per cent in the remaining 24 sectors covered in the study.

This consistently low level of R&D spending by most large corporations reflects the low priority given to technology development in Indian industry and commercial services as a tool for corporate growth, and this is despite the availability of 100 per cent (and, in some cases, 200 per cent) tax concessions for R&D expenditure. The government has now announced a scheme to support R&D in the private sector, with a provision of ₹20,000 crore in the current Budget. The inadequate technology development results, except in sectors like pharmaceuticals, suggest that R&D spending may be overstated by companies because of the tax advantages. The private sector must undertake much higher and more productive R&D effort as a basis for growth or even survival, and the government must use its resources not for established corporations, but for more direct support of basic research and for backing young innovators and startups that cannot rely on the commercial finance market.

The promotion of technological advancement as a major driving force for rapid growth cannot rely solely on R&D-linked fiscal concessions and government subsidies to the private sector. It must rest on opening up the industrial and perhaps even the commercial services sectors of the Indian economy to the global market. Stronger global competition, for exports or competing with imports, will do more to stimulate more effective action by corporations on technology R&D.

Let us learn a broader lesson from two major success stories of technology-based economic development in India —the rise of the country as a major global source of infotech services, and the successful, rapid spread of the digital transaction system.

The foundational base of the spread of export-oriented infotech services and the rapid increase in global capability centres is the low cost and substantial availability of technically qualified personnel. This was the result of the substantial development of higher education in engineering, particularly in the south and west of India. Learning from this, the government must support a quantum leap in the quality of higher education in universities and high schools — not just in engineering but also in other areas. Learn from the experience of China: Their higher research and teaching institutions account for 8 out of 10 in a ranking prepared by *Nature*, a scientific publisher, on the basis of contributions to 145 journals. The government must also recognise the importance of ensuring freedom in the management of universities and high schools, and of maintaining their separation from political control.

An additional example of successful technological advance is the dramatic growth of digital transactions, particularly through unified payments interface (UPI). This success involved the effective absorption of foreign technologies and their adaptation to suit Indian transaction conditions. The rapid spread of digital transactions did involve many startups, particularly for UPI services, and a forceful pressure on established large companies like the banks to join in with the startups.

These two examples of successful technological advancement suggest that government financial support should be refocused on new startups and enterprising individual innovators — as happened during Silicon Valley's expansion in computer-related technologies, when the US federal government provided early funding to some of today's tech giants.

To summarise the argument — technological advancement for reaching high-income status requires:

Rapidly raising the quality of education, particularly at the university and high-school level; opening up of the economy, particularly the established corporate sector, to global trade and finance; combining technology import with technology development; focusing government financial support more on startups and new innovators rather than on established companies.

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Outline for GST 2.0


V S KRISHNAN

The eight-year journey of goods and services tax (GST) has been much like the mythological story of the churning of the ocean by the *devas*: The toxins of transition, aided by technical glitches in the system software, surfaced early — but now we are seeing the nectar of higher revenues, with two consecutive months of gross GST revenues exceeding ₹2 trillion.

While GST reform was truly transformational, some work remains. The tariff winds are nudging policymakers to rationalise GST rates. The key point here is that rate rationalisation should not be viewed in isolation as a revenue exercise, but as one integrated with trade policy and broader macroeconomic objectives. In its trade negotiations with the UK, EU, and the US, India is seeking greater market access for labour-intensive manufacturing sectors such as textiles, leather, food processing, and toys. It logically follows that domestic taxes on products of these sectors must be at the merit rate under GST. The critical question, then, is what that merit rate should be. There is a strong case for making the merit rate 8 per cent instead of 5 per cent. Otherwise, crucial input tax credits (ITC) will accumulate and these products will not be able to fully utilise ITC on key imports.

On the import policy side, all single-use inputs and intermediates used in these four sectors should bear zero import duty, along with a waiver of all non-trade barriers, including quality control orders. This integration between GST rate rationalisation and trade policy will stimulate employment by raising the employment elasticity of investment, which has dropped from 0.44 in 2000 to 0.16 in 2024.

Once we have the merit rate of 8 per cent, we can merge the 12 per cent slab into the 18 per cent standard rate after bringing medicines and textiles to the merit rate. With this, the textile sector, which has a dual rate of 5 per cent (for cotton yarn and lower-value apparel) and 12 per cent (for higher-value apparel), will uniformly bear the single merit rate of 8 per cent. In addition, bringing all food products under the merit rate will remove the multiplicity of classification disputes currently widely commented upon in the media.

The next step in the rationalisation exercise is to phase out all exemptions. The guiding principle should be to restrict exemptions to those that were value-added tax-exempt in the pre-GST regime, as recommended by the Committee on Dual Control, Threshold & Exemptions in its 2015 report. The non-exempted products would move to the merit rate.

Another area of rationalisation is the thinning of items in the 28 per cent slab. All durable white goods — including air conditioners and dishwashers — should be moved to the 18 per cent slab. This would expand the market for these products, making domestic investment more viable. Similarly, two-wheelers should also be brought under the 18 per cent slab.

Finally, the big-ticket change would be bringing cement down from 28 per cent to 18 per cent. While this will result in significant revenue loss, it would be partly offset by reduced expenditure on construction projects. The measure would also give a boost to affordable housing, which is currently lagging. To compensate for the revenue loss from cement, the government should raise the duty on gold and gold ornaments from 3 per cent to 6 per cent. According to an NCAER study, the top two income deciles account for over 80 per cent of the purchase and sale of these items. The tradeoff may be justifiable on grounds of equity.

The biggest complexity in the GST system arises from the compensation cess, levied at different rates using different measures on sin goods like cigarettes, aerated water and pan masala. As the cess is set to expire next year, this is an opportunity to merge it into the general rate of 40 per cent, levied on an ad valorem basis uniformly on all sin goods. At present, if we factor in the compensation cess and add it to the 28 per cent rate, the overall rate ranges from 36 per cent to 38 per cent. This can be rounded off to 40 per cent to raise the average GST incidence, which has declined since the pre-GST era. The rationalisation exercise can also be used to green the GST. All electric vehicles, regardless of size, should be moved from the current 28 per cent slab to 18 per cent. This would result in a three-tier slab structure of 8, 18 and 40 per cent, with minimal exemptions and the phasing out of multiple cess rates.

The proposed GST structure would achieve several objectives — simplify the rate structure, eliminate multiple cesses, boost labour-intensive manufacturing, and green the GST. It would also raise the incidence of GST duties from the present level of around 12 per cent without stoking inflationary pressures. A wide section of the population would benefit from lower taxes on mass-consumption goods such as medicines, clothing, and affordable housing. Further, integrating GST rationalisation with trade policy will stimulate foreign and domestic investments in labour-intensive manufacturing by lowering the cost of doing business. The GST 2.0 structure outlined above could be followed later by GST 3.0. Its implementation would require expanding GST coverage to sectors such as electricity, real estate, and parts of the petroleum sector — a move that would significantly impact factor market reforms. To forge consensus with the states, a white paper — perhaps prepared by the chief economic adviser in consultation with the Central Board of Indirect Taxes and Customs (CBIC)—should be submitted to the NITI Aayog for circulation and discussion. This could then be brought to the GST council for acceptance.

In conclusion, the suggested rationalisation exercise will make GST a good and simple tax. The GST journey also offers a lesson for other reforms, demonstrating what can be achieved when the Centre and the States sincerely embrace cooperative federalism.

The author is a former member, CBIC

'Big cycles' and 'beautiful deleveraging'

BOOK REVIEW

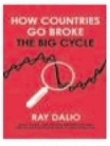
SANJEEV AHLUWALIA

Ray Dalio is a successful hedge fund founder with a net worth of about $14 billion as his calling card. A YouTuber, his opinions on investments, politics and why things happen are freely available. In a recent episode, an NBC anchor asks whether Donald Trump's tariff war can mitigate MAGA dissatisfaction about jobs and stagnating incomes. His answer is ambivalent — agreeing with the diagnosis of the problem that the demise of manufacturing has enhanced strategic risk and lowered family income, but not with the solution proposed.

Rather than raise tariffs and risk inflation, he would broaden the scope of reform. Reduce the fiscal deficit from 6 per cent to 3 per cent of GDP to manage debt build-up (340 per cent of GDP and growing). To protect business sentiment and enhance economic growth, cut fed interest rates to 3 per cent from 4.25 per cent currently — implicitly agreeing with President Trump that Jerome Powell is wrong. Increase domestic tax revenues by 1 per cent to achieve what he describes as a "beautiful deleveraging".

Mr Dalio views world history as "big cycles," each lasting between 60 and 90 years and composed of "small cycles" of six to nine years each. Each cycle is shaped by five forces. First, the use of money, credit, debt, and interest rates, which dominates the analysis. Second, the health of the "domestic political order," ranging from collaboration to violent contestation. Third, the health of the geopolitical order. Fourth, "Black swan" events. Fifth, the impact of demographics and climate change. The existing big cycle began in 1945 and is now ending badly, as multilateralism is rejected, violent confrontation escalates, and normative fundamentals crumble. Sadly, these will "squelch" the accompanying, unprecedented benefits from innovation and technology.

Mr Dalio is a globaliser but recognises that the "world order", created post-1945 by victorious Western countries no longer aligns with global realities — the massive growth of Asia, and the shrinking economic space for Europe. He is a cheerleader for multilateralism and identifies the build-up of unsustainable debt as the beginning of the end. He devotes two chapters to Japan and China. The one on China leans towards a review of political history rather than monetary policy. The one on Japan describes how once rapid export growth and private exuberance ended in 1990, Japan failed to adopt the principles of "beautiful deleveraging", even though most of its debt was in local currency and owed to domestic creditors. Nor did it restructure its debts leading to a decade of deflation with interest rates above economic growth and inflation rates and government debt piling up.



How countries go broke
by Ray Dalio
Published by Simon & Schuster
400 pages ₹1,499

Post-2013 , the policy stance changed under Shinzo Abe. The "three arrows" of enhanced money supply, fiscal stimulus, and reforms were released. Fiscal stimulus and debt monetisation by the Bank of Japan pushed interest rates down and depreciated the yen by 40 per cent, making exports more competitive. The losers were foreign investors. Domestic buyers of bonds earned less than if they had invested in foreign bonds or gold. Domestic consumers enjoyed stable incomes and prices for goods. Non-monetary factors favouring this strategy were an ageing, shrinking population with high per capita income, high quality infrastructure and a deep arsenal of foreign exchange built by buoyant exports. Nevertheless, the Bank of Japan is skating on thin ice, with a monetary base five times that of the Fed's, making it vulnerable to hardening of interest rates. Mr Dalio might be amazed to know that India achieved the objectives of "beautiful deleveraging" by adapting the path he advocates to the context of the four other forces. A functional democracy, wedded to multilateralism, it grew out of poverty to middle-income status. The highest fiscal deficit (Union and states) since 1960 was 13 per cent of GDP during the pandemic, now down to about 8 per cent versus the norm of 7 per cent, with debt at about 90 per cent. The highest inflation rate since 1960 was 29 per cent in 1971 during the "oil shock". The average was 7.3 per cent and the average since 2014 is 5 per cent with a downward trend. Not too shabby. The unanswered questions are: Does "beautiful deleveraging" work only for high income economies? Cyclical economic patterns are only visible post the fact. How do policymakers identify in real time, where they are, if cycle lengths vary by as much as 50 per cent? Of the "five forces" mechanically creating cycles — four relate to politics or chance. How significant, then, is adherence to the prescriptions on debt, credit and interest rates for a "beautiful deleveraging"? Jerome Powell might be straying from these prescriptions. But is he not adapting to the limitations of his context?

The reviewer is distinguished fellow, Chintan Research Foundation, and a former IAS officer & World Bank official

WHAT THE OTHERS SAY

"The US President has chosen war at Israel's behest. He may imagine he has scored an easy win, but the world is likely to pay a steep price."

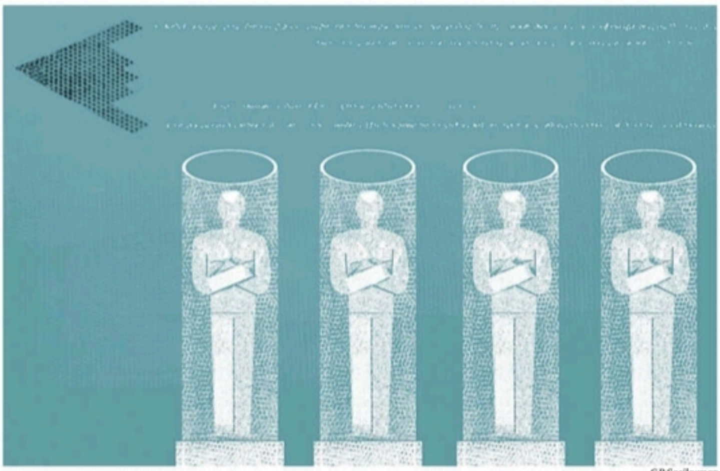
— THE GUARDIAN

Our moral paralysis

On US attack on Iran, let us not distract ourselves with the banal excitement of war, or the noise of side stories of oil prices and radiation levels. Let's think, question and judge

DESHKAAL

By Yogendra Yadav



C R Sasikumar

WORLDWIDE REACTIONS TO the US attack on Iran demonstrate once again that we live in an age of moral paralysis. This refusal to speak up is not born out of a genuine ambiguity, complexity or confusion. This is fear in the face of capricious power. This pathetic spectacle of morality turned upside down does not affect us all equally. As with every episode of moral equivocation, there are perpetrators of evil and their collaborators who stand to gain. Then there are losers, direct or indirect, and bystanders. As we know from the last episode of global moral paralysis — the failure of European powers in the 1930s to act in time against Adolf Hitler — such abdication comes back to haunt everyone.

Let us try explaining the situation to a 10-year-old child. Here is a state that attacks a distant country on the ground that it is about to develop weapons that are a serious threat to its neighbourhood and to the world. That is simple. She would understand. But she would also ask some questions: Are you sure they are developing such weapons? Is there no one that already possesses such weapons? If so, why would one more country pose a special threat? And why is this country acting on everyone else's behalf?

Now, try answering these questions for her. Minus all the jargon, the simple answers would be something like this.

No, there is no clear evidence that Iran was about to make atom bombs soon. The global inspector of those weapons, the IAEA, does not think Iran is anywhere close to making nuclear weapons. This answer was endorsed by the US Director of National Intelligence in March.

Yes, many countries in the world are in possession of hundreds of atom bombs. Actually, within this region, Israel is already believed to be in possession of nuclear weapons. No, there is no reason to think that the people or leaders of Iran are more dangerous than those of all other countries that have atom bombs.

And no, the US was not authorised by anyone (except perhaps Israel) to act on their behalf. Actually, there are decisions, rules and laws that prohibit any country from doing what the US has done.

The thought experiment of speaking to a child serves to foreground the simple truth that lies buried under expert-speak. It also helps us focus on the real issues, and not distract ourselves with the banal excitement of war or the noise of side stories of oil prices and radiation levels. It invites us to think, to question and to judge.

Since the US attack on Iran's nuclear establishments, just note the double standards of those who scrutinise Iran's minutest deviations from the norms set by the IAEA, but do not notice how the US attack violates UN resolutions and the NPT itself. While there is some attention on whether POTUS may have violated US laws, there is little discussion on how the US action has violated every international law and convention. Remember, the US President had already spoken about "taking out" (killing) the head of the Iranian state without the context of war. Remember, he had announced a two-week window, and then attacked within two days. Rogue state, would you say? No, POTUS tells us that Iran is the rogue state. Was POTUS not playing a duplicitous game by inviting Iran to negotiations? No, the US Secretary of State has actually accused Iran of entering into "fake negotiations" ahead of the strikes! We are in a make-believe world where "fair is foul, and foul is fair".

If the US is the bully trying to cloak its aggression, the rest of the world is a study in moral bankruptcy. French President Emmanuel Macron calls upon Iran, yes, the country that was just attacked, "to exercise utmost restraint in this dangerous context to allow a return to the diplomatic path". If you thought he was conservative, here is the progressive Labour Party leader and UK PM Keir Starmer, in a distinctly imperial tone: "Iran can never be allowed to develop a nuclear weapon and the US has taken action to alleviate that threat... We call on Iran to return to the negotiating table and reach a diplomatic solution to end this crisis." Besides the hypocrisy of the idea of "non-proliferation" and the double standards implicit in the NPT, there is something pathetic about shifting the onus of negotiations on the victim. It was left to Iran's Foreign Minister, Abbas Araghchi, to point out that he was negotiating with the EU till the day before and ask: "How can Iran return to something it never left?" After Gaza and Iran, one must wonder if all the sweet talk of liberalism and pluralism that emanates from Europe is a cover for White supremacism.

If there is a much-needed note of caution, as in the statements from many of Iran's neighbours, it is not out of any real concern or ability to take a stand. It reflects a desperate need to balance conflicting interests: The need to please the US and persist with its military base on the one hand and the desire to escape Iranian retaliation and their citizens' ire for letting down a Muslim country on the other. It says something about the nature of our times that the most amoral powers, Russia and China (besides the comic U-turn by Pakistan), themselves implicated in acts of aggression and expansion, can call out the US attack for what it is and condemn it in no uncertain terms.

> If the US is the bully trying to cloak its aggression, the rest of the world is a study in moral bankruptcy. French President Emmanuel Macron calls upon Iran, yes, the country that was just attacked, 'to exercise the utmost restraint in this dangerous context to allow a return to the diplomatic path'. In case you thought he was conservative, here is the progressive Labour Party leader and UK Prime Minister Keir Starmer, in a distinctly imperial tone: 'Iran can never be allowed to develop a nuclear weapon and the US has taken action to alleviate that threat... We call on Iran to return to the negotiating table and reach a diplomatic solution to end this crisis.'

When the entire world is struck with moral paralysis, should we be surprised that India, too, has belittled itself? We should, because we were told that, over the past decade, India had arrived on the global stage, that India now had an independent voice, sans any camp or ideology. So far in this global redefining moment, India has been a bystander. No one seems to think that the country that was once seen to be the voice of the Global South matters in this instance. Worse, we have let down Iran, an old ally that stood with us in difficult times and went out of its way to evacuate our stranded citizens. All we know is that the President of Iran called our Prime Minister, who expressed "deep concern at the recent escalations" and reiterated a call for "de-escalation, dialogue and diplomacy". No mention of the US strikes. Forget any "condemnation", there was no "regret" or call for "ceasefire" in the PM's statement. That is perhaps too much to expect from a government that could not join the UN resolution for a ceasefire in Gaza.

We are told that this is the new "realism", a smart approach to advance our national interest, unconstrained by moralism. History tells us otherwise. Too-clever-by-half and momentary pursuits of selfish interest get you the worst of both worlds: You don't get respect, nor do you protect your interests. Just replace the US and Iran with China and India in an imaginary future, and you understand the lesson of history: You need friends and some principles to survive in the real world. The rich and the powerful can afford moral paralysis, at least for some time. We can't.

The writer is member, Swaraj India, and national convenor of Bharat Jodo Abhiyaan. Views are personal

On Tehran, what Delhi should do

India must avoid taking sides in Israel-Iran conflict, use its influence to support de-escalation and a return to the negotiating table

Ramachandran Swaminathan

DURING THE EARLY hours of Sunday, the US launched Operation Midnight Hammer, a series of precision strikes on Iran's key nuclear facilities: Fordow, Natanz, and Isfahan. President Donald Trump declared that Iran's enrichment infrastructure had been "completely and totally obliterated" and warned "either peace or tragedy" lies ahead. Secretary of State Marco Rubio ruled out "regime change", expressing the US's willingness to negotiate, and affirming that it will not take any military action unless Iran escalates.

The strikes came shortly after a diplomatic window had seemingly opened. British Foreign Secretary David Lammy had met Rubio and Middle East Special Envoy Steve Witkoff in Washington, after which Trump's press secretary announced a two-week window for diplomacy. This followed Turkish President Recep Tayyip Erdogan's outreach, suggesting that Iran was open to indirect talks. Trump walked out of the G7 summit to prioritise these developments. However, Vice President J D Vance and Witkoff's visit to Turkey fell through as Iran decided not to go ahead with talks without Israel halting its attacks. The last straw, reportedly, was the E3-Iran foreign ministerial meeting in Geneva, which failed to shift Tehran's position on enrichment. The US strikes were launched within 48 hours.

Iran's initial reaction was somewhat fiery. Foreign Minister Abbas Araghchi condemned the US action as "extremely dangerous, lawless, and criminal behavior," warning of "everlasting consequences" and declaring that "all options are open". Iran also accused the International Atomic Energy Agency (IAEA) of indirectly enabling the strikes.

Despite fears of radiological fallout, both Iran's Regulatory Authority and the IAEA confirmed that no off-site radiation spike has been detected so far. Still, Isfahan remains a concern as it is a uranium conversion facility, with gaseous uranium compounds that are both chemically toxic and radiologically active. The IAEA also convened an emergency meeting of the Board of Governors in Vienna on Monday for further assessments.

Iran has retaliated by firing a number of missiles at Tel Aviv, Haifa, and other locations in Israel. The decision of the Supreme Leader Ayatollah Khamenei on further retaliation is awaited. Will Iran escalate further or respond in a calibrated manner, as it did after the assassination of Qassem Soleimani in 2020? Over 4,00,000 US troops are stationed in the region, and the risk of broader conflict is immense. There is also uncertainty about the domestic political implications inside Iran: Will the public rally around the flag, or will frustration turn inwards? Will Iran activate its regional proxies to strike US bases or will it attempt to close the Strait of Hormuz? And can it do so effectively, given that its own missile capabilities have been reduced because of the strikes by Israel and the US?

A non-binding Iranian parliamentary resolution adopted on Sunday calls for the closure of the Strait of Hormuz, but most analysts view this as rhetoric aimed at placating hardliners. However, two empty supertankers after entering the waterway did a U-turn yesterday, indicating first signs of diversion.

Russia and China have condemned the strikes. Beijing called them a "serious violation of international law" and pushed for a UNSC reaffirmation of the Joint Comprehensive Plan of Action. Yet, neither power appears willing to get involved and have limited themselves to statements supporting Iran. Foreign Minister Araghchi travelled to Moscow for political and diplomatic support and to explore the role of Russia as a mediator, potentially involving China or multilateral mechanisms.

India has remained cautious and balanced. Operation Sindhu was launched on June 18 to evacuate Indian nationals. Iran made a special gesture of opening its airspace for the evacuation of Indian nationals. Over 1,100 have already been brought home via special charter flights from Mashhad, Yerevan, and Ashgabat. Prime Minister Modi spoke to the Iranian President and emphasised de-escalation, dialogue and diplomacy, reiterated by External Affairs Minister S Jaishankar.

For India, these developments cannot be viewed from a distance. The wider regional and global implications are grave. A broader conflict may ignite multi-front warfare involving the Houthis and Iran-backed militias in Iraq. US troops in the region face increased risk. Oil prices have increased amid disruption fears. The Strait of Hormuz, a narrow channel through which nearly 20 per cent of the world's oil and significant quantities of gas flow, is a critical lifeline. Its disruption would have immediate consequences for India's economy and its diaspora in the Gulf. Although India has built strategic reserves and diversified supply lines, a sudden spike in energy prices could accelerate inflation and deepen global market instability.

Beyond energy, India must also recalibrate its strategic posture. We have close ties with Iran (particularly under the Chabahar framework), deep strategic relations with Israel, and increasing defence interoperability with the United States. In this moment of potential rupture, we must continue to avoid taking sides while using our influence to support de-escalation and a return to the negotiating table.

What lies ahead is uncertain. Much depends on whether Ayatollah Khamenei, like in 1988, chooses to "drink the chalice of poison" and accept a deal to avoid existential collapse. At that time, Ayatollah Khamenei ended the war with Iraq, recognising the cost of indefinite conflict. Today, the circumstances are different but the logic of strategic retreat may still apply. Khamenei's silence — over 24 hours now — has led many to believe Iran may opt for a face-saving de-escalation.

India, which has always emphasised dialogue, multilateralism, and restraint, must be prepared to play a constructive role. It must also prepare economically and diplomatically for the turbulence that may follow. What remains unknown is the fate of Iran's residual nuclear expertise. Enrichment facilities can be rebuilt, and knowledge cannot be bombed. As the IAEA and others have observed, Iran's technical capacity — rooted in decades of experience — still matters. Which is why negotiations remain essential.

The writer is former governor of India to IAEA, Vienna

From farm to shelf

Food processing is now a force for grassroots transformation

Chirag Paswan

IN THE MAKHANA belts of Madhubani, Bihar, a quiet revolution is underway. Gyanish Kumar Mishra, a young entrepreneur, has transformed a traditional crop — foxnut, or makhana — into a nationally recognised brand of flavoured snacks. With support from the Pradhan Mantri Formalisation of Micro Food Processing Enterprises (PMFME) scheme, he has built a thriving food venture that now exports to the United States and Canada. His story reflects the broader vision of India's food processing mission: To turn local strengths into global opportunities.

From Kashmir to the Andaman and Nicobar Islands, micro-entrepreneurs are embracing formalisation and entering new markets. There is a structural transformation underway, aligning the strength of rural India with the momentum of national growth.

Over the past 11 years, under the leadership of Prime Minister Narendra Modi, India has traversed a remarkable arc of change. With reforms to enhance Ease of Doing Business, industries today are empowered with greater autonomy and policy support. Amidst this broader transformation, the food processing sector has emerged as one of the most potent instruments of inclusive growth, agri-industrial integration, and global engagement.

A few years ago, the food processing landscape was fragmented, with rampant post-harvest losses and unrealised value from agricultural produce. In 2014, the gross value crore. Today, following sustained policy focus and institutional drive, that figure has risen to Rs 2.24 lakh crore.

At the forefront of this transformation stands the Ministry of Food Processing Industries, whose flagship schemes have created a supportive environment across the entire spectrum of the food processing sector. Under the Pradhan Mantri Kisan SAMPADA Yojana, 1,604 projects have been sanctioned, leading to the creation of over 250 lakh metric tonnes of annual processing and preservation capacity and more than Rs 22,000 crore in private investment. It has directly benefited over 53 lakh farmers and more than 7.6 lakh employment opportunities have been created.

Complementing this, the PMFME scheme was launched under the Atmanirbhar Bharat Abhiyan with an outlay of Rs 10,000 crore to empower unorganised micro food enterprises through formalisation, capacity building, and access to credit. Over 1.41 lakh loans amounting to Rs 11,205 crore have been sanctioned to micro-enterprises and seed capital has been extended to support more than 3.3 lakh members of self-help groups (SHGs).

A robust foundation for skill development and entrepreneurship has been laid under the scheme, with over one lakh individuals trained across the country. To foster innovation and support early-stage enterprises, 75 incubation centres have been approved. The scheme has also launched 17 distinctive re-

Further along the value chain, the Production Linked Incentive Scheme for Food Processing Industries is catalysing industrial capacity and formal job creation. With committed investments of Rs 8,900 crore, the scheme has led to the creation of over 3.3 lakh jobs and added more than 67 lakh metric tonnes of processing capacity.

Recognising the critical role of infrastructure in ensuring food safety and export readiness, the Union Budget 2024–25 announced the establishment of 50 multi-product irradiation units to reduce post-harvest losses and enhance shelf life, alongside 100 NABL-accredited food testing laboratories to strengthen quality assurance across the value chain. Further, in a landmark step to promote regional specialties, the government has also announced the establishment of a National Makhana Board, aimed at boosting value addition, branding, and global positioning of this unique superfood from India.

The sector's industrial growth is a testament to a rapidly evolving institutional and innovation ecosystem. NIFTEM-Kundli and NIFTEM-Thanjavur, Institutes of National Importance, functioning under the aegis of the Ministry of Food Processing Industries are shaping the next generation of food technologists and entrepreneurs. A third NIFTEM is coming up in Bihar to harness the talent pool of eastern India. India's food-tech startup ecosystem is thriving as well, with over 5,000 AI-enabled traceability, functional foods, and sustainable packaging.

India's growing leadership in the global food economy finds powerful expression through World Food India — the Ministry's flagship international platform for investment, innovation, and collaboration. Designed to showcase India's strengths across the food processing value chain, the event has evolved into a trusted forum for global stakeholders to engage with India's agri-food ecosystem.

Yet, the most profound impact of this decade remains rooted in rural India. Food processing has become a force for grassroots transformation. In Chhattisgarh, a humble tribal kitchen in Bastar, supported under the PMFME scheme, has transformed into a thriving enterprise by reimagining the use of Mahua flowers into value-added products like chocolates, energy bars, and tea. The firm has not only preserved indigenous heritage but carried it to national shelves and international markets.

As we mark 11 years of the NDA Government's commitment to good governance and inclusive growth, we look ahead with renewed resolve. Our goal is unambiguous: To ensure that every shelf in the world carries a product that proudly bears the name of India — and behind every such product stands a story of collective prosperity and national pride.

The writer is Minister of Food Processing

LETTER TO THE EDITOR

US adventurism

THIS REFERS TO the editorial, 'Defining, dangerous' (*IE*, June 23). It rightly warns of the volatile consequences following the US's strikes on Iran's nuclear facilities. America's militaristic overreach, often aimed at domestic posturing, risks plunging the world into a wider, perhaps uncontrollable conflict — especially if nations like Russia and China are drawn in. History has shown that military adventurism, as seen in Iraq and Libya, rarely yields lasting peace. India, traditionally non-aligned and pragmatic, should have responded with greater empathy towards Iran.

Nilesh Dubey, *Ahmedabad*

THIS REFERS TO the editorial, Defining, dangerous' (*IE*, June 23). By attacking Iran's nuclear sites, the US has formally joined Israel in the war. Iran can retaliate by attacking US bases in the Middle East. Undoubtedly, Iran has been raising slogans like "death to Israel" and "death to America" for a long time. But we should be wary of the consequences of the US's bombing campaign: An unstable West Asia and a spike in oil prices would cause misery to people across the world.

Bal Govind, *Noida*

Regime change

THIS REFERS TO the article, 'The bog of war' (*IE*, June 23). The American airstrikes on Iran's nuclear sites using B-2 bombers and Donald Trump's calls for "regime change" signal a dangerous déjà vu. Haven't we seen this movie before — in Baghdad and Tripoli? Once again, the world watches a superpower play God, deciding which governments deserve to exist. But bombs don't bring democracy — they breed chaos, fuel extremism, and kill civilians who never voted for war. The Middle East deserves healing, not another round of fireworks.

Zaheeri Hasnain, *Patnavi*

Congress and EC

THIS REFERS TO the article, 'When trust is shaken' (*IE*, June 23). It is intriguing to observe that the Congress party remains more obsessed with fault-finding than fact-finding. What else could explain the author trying to "re-connect" the loose ends by questioning the credentials of the Election Commission? Sadly, Congress wishes to keep the pot boiling even after the Supreme Court has cleared the air about the EC's role in both the Haryana and Maharashtra elections.

Kumar Gupt, *via email*

Inflation falls but not unemployment

Pulapre Balakrishnan
is a Honorary Visiting Professor at the Centre for Development Studies, Thiruvananthapuram

M. Parameswaran
is Professor at the Centre for Development Studies, Thiruvananthapuram

At less than 3%, the inflation figure for May is well within the target set by the government of India. This has led to a celebration in the media of the Reserve Bank of India's prowess in macroeconomic management. What has received next to no acknowledgement, though, is that in the same month, unemployment had risen. Thus, while year-on-year inflation fell from 3.2% in April to 2.8% in May, the latest Periodic Labour Force Survey shows that the unemployment rate rose from 5.1% in April to 5.8% in May.

For those employed, as most commentators on the economy are likely to be, a reduction in inflation is good news, to the extent that their purchasing power is being eroded at a lower rate. But for those seeking employment, it makes no difference. They remain unemployed. A branch of economic theory dominant in the U.S. asserts that the unemployed have chosen not to work, as the market mechanism enables everyone who wishes to work to find employment. One needs only to visit the town centre in semi-urban areas to find migrant labourers milling around at midday to conclude that this would be a preposterous claim to make for India.

So, the first thing to note is that to monitor inflation while neglecting unemployment, as the pundits do, is not a credible way of assessing the state of an economy. While missing the higher unemployment rate in May may be overlooked, as it is not part of the discourse on India's economy today, it is surprising that the considerable reduction in growth has not received as much attention, when growth has been the centrepiece of the government's pronouncements on the economy this past decade. The figures are as follows. GDP growth slid from 9.2% during 2023-24 to 6.5% in 2024-25. The observed rise in unemployment is consistent with this decline in growth.

Monitoring inflation while ignoring unemployment is not a credible way of assessing economic performance

The provisional estimates of GDP show the decline in growth to be spread across three quarters of the economy. Apart from Public Administration, for which the growth rate held, every other sector slowed in 2024-25. Agriculture alone grew faster, and much faster too. This development provides the clue to the decline in inflation. In 2024-25, the relative rates of growth of the agricultural and non-agricultural sectors would have led to a reduction of the supply-demand gap for agricultural goods, particularly food, in turn contributing to a lowering of the inflation rate. This is evident in the sharp deceleration in food-price inflation from the peak of close to 11% in October 2024 to less than 1% in May 2025.

Monetary policy, which is the RBI's means for inflation control, could not have achieved the observed configuration of events. It would be difficult to maintain that an increase in the repo rate of just over 10% in June 2022, which has not been exceeded since, could have triggered so great a reduction in food inflation from late 2024. It is equally difficult to imagine that it could have brought about so widespread a slowing of the economy in 2024-25, especially of services, a large segment of which is unlikely to be dependent upon formal credit. On the other hand, the impact of a narrowing difference in the rates of growth of the agricultural and non-agricultural sectors of the economy, as witnessed, can have a direct impact on the inflation rate. The reduction in food-price inflation impacts inflation directly, as food prices are part of the consumer price index, and indirectly via rising wages, which feed into the price of non-agricultural goods.

Econometric evidence

We have so far evaluated the role of monetary policy in relation to events. The economics profession usually settles empirical issues via econometrics–the application of statistical methods to economic models. This leaves little in doubt as to the inefficacy of monetary policy for inflation management. In our article "Inflation in India: Dynamics, distributional impact and policy implication" ('Structural change and Economic Dynamics', June 2025), we demonstrate that there is no conclusive evidence of the role of the interest rate in controlling inflation in India.

On the other hand, there is conclusive econometric evidence of the overwhelming role of the price of agricultural goods, driven by the relative rates of growth of the agricultural and non-agricultural sectors. Inflationary pressure generated by such a mechanism requires augmenting supply to be controlled. Inflation targeting, which works via contraction of demand, is not a solution. If, in the face of a persistent excess demand for agricultural goods, inflation is lowered by hiking the interest rate in order to restrain demand, other things remaining the same, inflation will rise when next the interest rate is lowered and growth revives.

Two final observations should seal the debate on RBI's role in lowering inflation rate. First, an allegedly sophisticated view of RBI's 'inflation targeting' holds that a central bank can control inflation by influencing expectations of economic agents. When we study the RBI's own data on the expectation of inflation by households, we find that it has remained almost unchanged from March 2024 to May 2025, and has been far higher than the RBI's target of 4%. Hence, the recent decline could not have been engineered by inflation targeting.

Secondly, after the last Monetary Policy Committee meeting, RBI Governor expressed willingness to lower repo rate again if inflation continues to decline. Such a stance would imply that India's monetary policy merely follows inflation rather than directing its course.

A Silicon Valley dream for Amaravati

CM Chandrababu Naidu's plans for a Quantum Valley could redefine the State

STATE OF PLAY

V. Raghavendra
raghavendra.v@thehindu.co.in

More than 25 years ago, N. Chandrababu Naidu, the Chief Minister of the unified State of Andhra Pradesh, had a dream to transform Hyderabad into a global city. He managed to do that by establishing the landmark HITEC City, which made the city famous. Cyberabad, the bustling township which the HITEC city evolved into over the years, is today home to many IT and IT-Enabled Services (ITES) companies.

He spearheaded the IT revolution with some valuable contributions from a host of luminaries, notably Bill Gates, under whose stewardship the Microsoft India Development Centre (MSIDC) was set up in Hyderabad. MSIDC was Microsoft's largest software development centre outside its headquarters in Redmond, Washington.

As the Chief Minister of the successor State of Andhra Pradesh now, Mr. Naidu plans to develop a Quantum Valley (QV) in Amaravati, on the lines of Silicon Valley, aimed at leading the State in quantum technologies and Artificial Intelligence (AI).

Going by its name, the QV will have physical and digital infrastructure of the highest order, for which the spadework has begun. The QV project is in alignment with the National Quantum Mission (NQM) that was approved by the Union Cabinet in April 2023. The objective of the NQM is to "seed, nurture and scale up scientific and industrial R&D and create a vibrant & innovative ecosystem in Quantum Technology (QT) and accelerate QT-led economic growth, nurture the ecosystem in the country and make India one of the leading nations in the development of Quantum Technologies & Applications (QTA)".

According to the concept paper, it is modelled as India's first dedicated quantum computing and deep tech ecosystem and is set to be inaugurated by January 1, 2026; specific timelines have been fixed to facilitate this goal.

The QV project has three key components, namely Quantum Valley Tech Park, academic integration, and public sector applications. It will focus on quantum computing, quantum communication, quantum sensing and metrology, and quantum materials and devices.

The government will soon appoint a Director for the Quantum Mission, which is going to be anchored by IBM. The Quantum Valley Tech Park is proposed to be developed in collaboration with IBM, Tata Consultancy Services (TCS), and Larsen & Toubro (L&T).

As on date, the plan is to rope in IBM to install a 156-qubit Quantum System Two, touted to be the largest quantum computer in India, L&T to handle infrastructure development, and TCS to provide quantum computing services and hybrid computing solutions, and integrating quantum capabilities into sectors such as healthcare, finance and manufacturing. To start with, the Andhra government allocated 50 acres for the establishment of a state-of-the-art quantum computing centre envisioned to be the largest of its kind in India, and is expected to receive a substantial portion of the funding under the NQM. Since quantum computing hardware relies heavily on advances in cryogenics, nanofabrication, and semiconductor technologies, the QV is likely to include startups and research labs working on next-gen chipsets, quantum dot arrays and cryo-electronics.

The QV's infrastructure is being designed to integrate quantum systems with classical supercomputers to enable hybrid computing architectures intended to be used for climate modelling, genomics and encryption, among other things.

The DeepTech Park within the QV is meant for the establishment of space and defence institutions; discussions are under way with the Indian Space Research Organisation (ISRO) to set up a testing lab, and the DRDO to form a Centre of Excellence.

A sum of ₹4,000 crore has been allocated for the QV project to be rolled out in two phases, the first one of which will be focused on infrastructure development, education and research, and pilot programmes and the second on propelling Andhra Pradesh towards global leadership and boosting commercialisation and export capabilities.

The QV is a daunting task that the government has taken; given that it is to be built from scratch in Amaravati, which itself is in a state of flux for multiple reasons, makes it even more daunting. Hence, from starting off in an iconic building proposed to be built by L&T to reaching completion, QV has a long way to go.

Gaza to Iran: Israel's illegal wars grow with U.S. support

What began as a response to the Hamas attack is quickly spiralling into an all-out regional conflict in West Asia

DATA POINT

Sambavi Parthasarathy

The United States' involvement in the Israel-Iran conflict has sparked concerns of an escalating regional conflict in West Asia. However, the U.S.'s stance isn't new. Data shows that it has supported Israel's offensive acts steadfastly amid calls for ceasefires and even when the latter was accused of war crimes.

Only last year, the International Criminal Court (ICC) issued arrest warrants for Israeli Prime Minister Benjamin Netanyahu and former Defence Minister Yoav Gallant, citing allegations of crimes against humanity and war crimes, including starvation as a method of warfare. The then U.S. President Joe Biden had defended Israel and "rejected the ICC's application for arrest warrants". News reports show that the people of Gaza continue to starve as Israel still restricts food trucks and aid from entering the region.

Chart 1 shows that fewer than a thousand food trucks entered Gaza in the past two months – the lowest in at least a year. The food aid provided also drastically decreased from 2 lakh tonnes in February this year to less than 20 thousand tonnes in June this year.

But the war is not just confined to Gaza now. Israel has intensified its attacks on other countries in the region as well. What began as a response to the October 7 Hamas attack in 2023 is quickly spiralling into an all-out regional conflict in West Asia. Armed Conflict Location & Event Data (ACLED) data shows that Israel alone has launched over 42,000 attacks in the region, with almost 25,000 on Palestine alone (**Chart 2**).

Close to 60,000 people have been killed in the attacks carried out by Israel in the 615 days between October 7, 2023 and June 13, 2025. More than 55,000 people were from Palestine, with more than 17,000 victims being children. Apart from Gaza, people have been killed in attacks launched by Israel in Yemen, Lebanon, Iran and Syria in the period.

While many countries have repeatedly expressed concerns about the grave humanitarian crisis unfolding in Gaza, the UN has been urging through resolutions demanding an immediate ceasefire. Data shows that the U.S., despite international concerns, has diplomatically shielded Israel in the international arena (**Table 4**). It has been against all resolutions concerning Palestine and ceasefire, except for Security Council resolution 2735 (2024).

Israel has refused all resolutions brought to the table. India, which had voted "yes" in several resolutions demanding a ceasefire or humanitarian aid in the region, has abstained in the latest resolution passed on June 12 which had demanded a ceasefire again. This is the fourth time India has abstained from voting in a resolution asking for a ceasefire in Gaza in the past three years.

The U.S. continues to back Israel militarily and with foreign aid. According to a press release from March this year, the Trump administration has approved nearly $12 billion in major foreign military sales to Israel.

The United States on Sunday struck three prominent nuclear sites in Iran: Natanz, Fordo and Isfahan. While President Donald Trump congratulated the American warriors on their successful mission in Iran, data from YouGov, an international online research data and analytics technology group, shows most Americans are wary of the U.S.'s entanglement in a conflict. Most Americans thought the U.S. military should not get involved in the conflict between Israel and Iran (**Chart 5**). The figure was higher across Democrats and Republicans alike. Only 16% of all U.S. citizens felt that their country should even get involved in Israel's latest conflict.

Pursuing death and destruction

The data for the charts were sourced from ACLED, WHO, COGAT, UN Voting library and YouGov

Chart 1: The number of food trucks and food aid (in tonnes) allowed into Gaza in the last one year

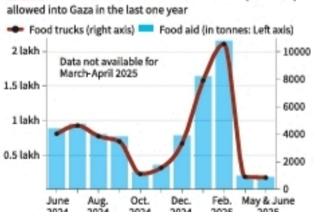


Chart 2: The number of attacks carried out by Israel in West Asia from October 7, 2023 to June 13, 2025

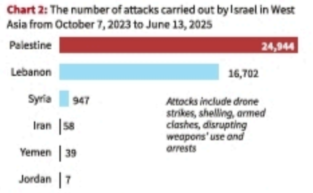


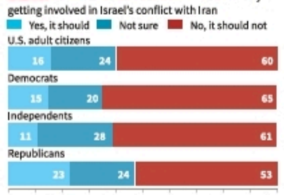
Chart 3: The chart shows the number of persons killed due to Israeli attacks in West Asia since October 7, 2023

Table 4: How U.S., Israel and India voted on key resolutions concerning Palestine since October 7, 2023

	U.S.	Israel	India
Resolution 1	No	No	Abstained
Resolution 2	No	No	Yes
Resolution 3	No	No	Abstained
Resolution 4	No	No	Yes
Resolution 5	No	No	Yes
Resolution 6	No	No	Yes
Resolution 7	No	No	Yes
Resolution 8	No	No	Abstained
Resolution 9	No	No	Yes
Resolution 10	No	No	Yes
Resolution 11	No	No	Yes
Resolution 12	No	No	Abstained
Resolution 13	No	No	Yes
Resolution 14	No	No	Yes
Resolution 15	No	No	Yes
Resolution 16	No	No	Abstained

Note: Not all resolutions were about ceasefire

Chart 5: What U.S. citizens think about their country getting involved in Israel's conflict with Iran



FROM THE ARCHIVES

The Hindu.

FIFTY YEARS AGO JUNE 24, 1975

Two-hour TV programmes in Madras from Aug. 15

MADRAS. June 23.

The Madras Television Centre will start transmitting two-hour programmes daily from August 15, it was officially announced to-day.

Sixty per cent of the transmission time from 7 to 9 p.m. will be devoted to educational and informative programmes, and the rest to entertainment such as films, music and dance. There will be two news bulletins daily, one in English and the other in Tamil. Tamil gets 80 per cent of the time, English 12 per cent and other languages eight per cent. Apart from the evening transmission, there will be programmes for primary and pre-school children twice a week in the mornings.

The Centre, which will initially use a one-kilowatt transmitter and a 36 metre high temporary antenna, will cover an area of 19 kilometre radius. It will start full-scale operation from mid-January 1976 using a 10 kw transmitter and a 175 metre high transmission tower now under erection. It will then have a range of 90 k.m., upto Tirupati, and the duration of the programmes will be increased to four hours.

Mr. T. R. Muralidharan, who has taken over as Director of the Madras Centre, told newsmen to-day that a task force was working hard to begin transmission on the target date.

A HUNDRED YEARS AGO JUNE 24, 1925

Teaching of agriculture in Bengal

(Associated Press of India)

CALCUTTA, June 23.

A scheme for the teaching of agriculture in Bengal has been submitted by a special committee, consisting of Mr. H. E. Stapleton, officiating Principal of the Presidency College, Mr. K. Maclean, officiating Fibre Expert, and Rai Manmathananth Rai Bahadur of Burdwan.

The Committee suggests the teaching of agriculture for a period of four years in the fifth and sixth classes of the Middle English Schools and in the fifth, sixth, seventh and eighth classes in the High English Schools. Until the experiment is proved to be successful, the number of schools opening agricultural classes should be supervised by the Agricultural Department so far as agriculture is concerned.

ABSTRACT

Hot and humid: Harvesting wheat in Kremlin, Oklahoma, U.S., on June 12. REUTERS

Rising evaporative demand spotlights India's data and research gap

Evaporative demand is a measure of how thirsty the atmosphere is. Evaporative demand determines the near-maximum of how much water will evaporate from a given piece of land if sufficient water is available

G.B.S.N.P. Varma

M. S. Kukal, M. Hobbins,"Thirstwaves: prolonged periods of agricultural exposure to extreme atmospheric evaporative demand for water", *Earth's Future*, March 20, 2025. doi.org/10.1029/2024EF004870

The air itself has become more thirsty due to global warming. Quenching this thirst has meant more water is coming off the land, including from plants and trees, leaving them drier.

Evaporative demand is a measure of how thirsty the atmosphere is. Meetpal Kukal of the University of Idaho and Mike Hobbins of the University of Colorado and the U.S. National Oceanic and Atmospheric Administration coined the term "thirstwave" to denote three or more contiguous days of intense evaporative demand – which they recently found to be increasing over the U.S.

Their research was published in *Earth's Future*, where they wrote: "Not only have thirstwaves increased in severity, but the likelihood of no thirstwaves occurring during the growing season has significantly decreased."

More water leaving

While heat waves are caused by particular temperature and wind patterns, a thirstwave is the product of temperature, humidity, solar radiation, and wind speed.

When temperatures rise, the consequences include more heat as well as the mechanics of water exchange between land and atmosphere, which in turn alters humidity, wind, and solar radiation.

"If you are a farmer growing rice or wheat, and your crop is irrigated sufficiently, its water use on any given day will be dictated by what the atmospheric evaporative demand is on that day," said Mr. Kukal, assistant professor of hydrologic science and water management at the University of Idaho. Evaporative demand determines the near-maximum of how much water will evaporate from a given piece of land if sufficient water is available.

In a warming world, the researchers found that thirstwaves have grown more intense, are more frequent, and are lasting longer, especially in seasons when crops are grown. While previous studies examined the mean or total evaporative demand, the new one focused on extremes.

A simplified measure

Mr. Kukal said evaporative demand is measured using standardised short-crop evapotranspiration – defined as the amount of water a grass surface 12 cm high and which has continuous access to sufficient water and is free of any stress will use (evapotranspiration itself refers to the two processes by which water moves from land to the atmosphere: evaporation from surfaces and transpiration from plant leaves.)

Mr. Kukal called standardised short-crop evapotranspiration "a core concept that is recommended to be used in deciding how much and when to irrigate a crop", adding that it is "a simplification of [an] otherwise very complicated process, where we are assuming the vegetation properties to be constant, so water use is only a function of weather."

An increasing standardised short-crop evapotranspiration means the ambient temperature is increasing, the humidity dropping, wind speeds picking up, and the amount of solar radiation picking up as well.

Effect of humidity

In a paper published in *Agricultural and Forest Meteorology* in 1997, Nabansu Chattopadhyay and M. Hulme had suggested that both evaporation and potential evapotranspiration – the maximum amount of water that can be evaporated from any surface – decreased in India during the 30 years before the publication of their paper. However, they added, future warming was likely to lead to more potential evapotranspiration over the country, with regional and seasonal disparities.

Chattopadhyay, who worked in the agricultural meteorology division of the India Meteorological Department (IMD), Pune, before his retirement, said that he and his co0author had analysed 30 years' worth of data from the IMD's network of evaporation stations and estimated potential evapotranspiration. But while warming over India should have increased evaporation, he added, their analysis found the opposite.

When they rechecked the data, he said humidity had nullified the effect of rise in temperature. Using global circulation models, they also found that future temperature increases would supersede the effect of humidity and increasing evaporative demand.

'Great direction'

In 2022, researchers from IIT-Roorkee, the National Institute of Hydrology (Roorkee) and institutes in France and The Netherlands, reported recent changes in evaporative demand across 100 river sub-basins in India. Their paper, published in the *Journal of Cleaner Production*, stated that "the largest increase in actual evapotranspiration is found in Northern India, Western Himalayas, and several areas in Eastern Himalayas, which could be a sign of either increased vegetation or agricultural expansion."

This said, according to experts, there is essentially no data about extreme thirstwaves over India.

"The sensitivity of different crops, ecosystems, and regions to evaporative demand will likely be different, but this has not been investigated much yet. This is a great direction for future research," Mr. Kukal said.

A familiar pattern

While Mr. Kukal's and Mr. Hobbins's study was the first to characterise thirstwaves in the U.S., Mr. Kukal said there is considerable scope to investigate this phenomenon in the Global South, where societies are generally more vulnerable to the consequences of climate change.

As a step in this direction, Mr. Kukal is currently hosting Shailza Sharma, a PhD scholar from the National Institute of Technology, Jalandhar, to investigate thirstwave behaviour over South Asia with financial help from the Water Advanced Research and Innovation Program. They hope to publish their findings about thirstwaves in climate-vulnerable countries – with important implications for global food and water security – soon.

One particularly intriguing aspect of their research is that they found that "the worst thirstwaves happened in places that do not experience the highest [evaporative] demand." This means there may be a need to reevaluate how governments prioritise different regions of their countries for climate change preparedness and climate mitigation, using the lens of thirstwaves.

As the world warms further, tracking, measuring and reporting and sensitising farmers and water managers is of paramount importance, experts added.

G.B.S.N.P. Varma is a freelance science journalist.

THE DAILY QUIZ

Please send in your answers to dailyquiz@thehindu.co.in

U.S. has entered the conflict between Iran and Israel by hitting three nuclear sites in Iran. A quiz on some of the military interventions by the U.S. in other countries

Vighnesh P. Venkitesh

QUESTION 1

"The world would be an unbalanced place if it allowed the United States of America to rule alone over our canal..." Name the Nicaraguan leader who wrote this in his manifesto extolling continued resistance against U.S. intervention in his country.

QUESTION 2

Which country did the U.S. invade under 'Operation Just Cause'?

QUESTION 3

The Gulf of Tonkin resolution laid the groundwork for U.S. intervention in this Asian country. Name the country.

QUESTION 4

"Richard Nixon and _________ allowed the Khmer Rouge to grasp golden opportunities", a Khmer Rouge official had told a tribunal set up to prosecute those deemed responsible for the regime's atrocities in Cambodia. Name the former U.S. NSA who was mentioned along with the former President.

QUESTION 5

Name the U.S. Navy vessel that sank in Havana harbour in Cuba leading to the escalation of the U.S.-Spain conflict and the eventual U.S. intervention in Cuba.

Visual question:
This fictional movie character, in the third installment of the movie franchise, fought Soviet forces alongside armed rebels in this country. While the regime of the country was overthrown by U.S. forces, it returned to power after the U.S. withdrew its troops in 2021. Name the character and the country. AP

Questions and Answers to the yesterday's daily quiz: 1. The reason June 23 is celebrated as Olympic Day. **Ans: To commemorate the founding of the modern Olympic Games in 1894**

2. The first Olympic Day was celebrated on this day. **Ans: June 23, 1948**

3. The meaning of 'Move, learn, discover – Together for a better world' in the context of the Olympic Day. **Ans: They are the three pillars based on which the Olympic Day annually promotes a healthy and active lifestyle**

4. This has been added to the "Let's Move" theme. **Ans: '+1'**

5. The Olympic Day Run was organised for the first time this year. **Ans: 1987**

6. Thomas Bach was IOC president for these many years. **Ans: 12 years**

Visual: Kirsty Coventry won seven Olympic medals in this sport. **Ans: Swimming**

Early Birds: Piyali Tuli| Erfanally Oosmany| Suchit Narottam| Arjun Debnath| Akshay Kumar Khanna

FROM THE ARCHIVES

Know your English

K. Subrahmanian
S. Upendran

"Rajesh's school bus stops right in front of his house now."

"That's good. At least his mother doesn't have to walk him all the way."

"But she does have to help him cross the street."

"What for?"

"What do you mean, what for? To help him catch the bus, of course."

"But you said, the bus stop was in front of the house..."

"... Yes, but he has to cross the street because...."

.... Well, if he has to cross the street, then the bus stop is not in front of the house. It's opposite the house."

"What! Don't 'opposite' and 'in front of' mean the same?"

"No, they don't. When you say, the bus stop is in front of the house, it means that the bus stop is on the same side of the street that your house is on. You don't have to cross the street."

"So what you are saying is 'in front of' is the opposite of 'behind'."

"Exactly!"

"But if I say the bus stop is opposite the house, it means..."

"... that you have to walk across the street to get to the bus stop."

"So there would be difference in meaning between, 'There's a hotel in front of the station' and 'There's a hotel opposite the station'?"

"Yes, there would."

"Interesting! Well, I saw Rajesh and his friends yesterday. They were sitting in front of the bus."

"What were they protesting about?"

"Protesting?"

"Well, if they were sitting in front of the bus, they obviously didn't want the bus to leave and..."

"... What's got into you today? I'm telling you these students were sitting in the front seats and you..."

"... oh, they were sitting in front seats! Well, in that case, you should have said, they were sitting 'in the front of the bus.'"

"But that's what I said."

"No, you didn't. You said, Rajesh and his friends sat in front of the bus. There's difference between 'in front of' and 'in the front of.' When you say, Rajesh and his friends sat in front of the bus, it means they were not inside the bus."

"What?"

"They were sitting outside..."

"... and the bus was behind them! 'In front of' is the opposite of 'behind,' right?"

"That's right. So, when I sit in front of the bus, the bus is behind me. I'm not inside it."

"I see. So, if I say, the man was shot in front of the house, it means he was shot outside the house. Is that correct?"

"It certainly is. And if you want to say that he was inside the house when he was shot, then you would have to say, the man was shot in the front of the house."

"Rajesh and his friends sat in the front the bus. This would mean that they sat in the front portion of the bus?"

"Yes, it would."

Published in The Hindu on December 24, 1996.

Word of the day

Conflagration:
a very intense and uncontrolled fire

Synonym: inferno

Usage: *The conflagration destroyed the godowns.*

Pronunciation:
newsth.live/conflagrationpro

International Phonetic Alphabet: /ˌkɒnfləˈɡreɪʃən/

For feedback and suggestions for Text & Context, please write to **letters@thehindu.co.in** with the subject 'Text & Context'

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If there are questions of current or contemporary relevance that you would like explained, please write to explained@indianexpress.com

Challenges before IAEA after attacks on Iran's nuclear sites

AMITABH SINHA
NEW DELHI, JUNE 23

EXPLAINED GLOBAL

THE ATTACKS by the United States and Israel on Iran's nuclear sites mark the first time any country's operational nuclear facilities have been targeted to destroy them. As a result, numerous concerns have emerged in the aftermath of the attacks, including the risk of radiation leaks.

While Iran and the International Atomic Energy Agency (IAEA), the global nuclear watchdog, have reported no increase in radiation levels so far, other worries persist. These include concerns about the safety and whereabouts of nuclear material stored at the targeted facilities — Natanz, Isfahan and Fordow.

The attacks could also disrupt IAEA's access to these nuclear sites which has till now helped the organisation, and the rest of the world, gather information about the goings-on at the facilities.

Assessing risk of radiation

This is a relatively easy exercise. Every nuclear facility, anywhere in the world, is fitted with instruments that monitor radiation levels in real time. In most cases, the data are shared with the IAEA.

Iran is a signatory to the Nuclear Non-Proliferation Treaty (NPT) as a non-nuclear weapon state. In that capacity, it had to mandatorily enter into a comprehensive safeguards agreement with the IAEA, which allows the organisation to install its own equipment to monitor activities, including radiation levels.

Bigger radiation leaks can even be detected from far away. Nuclear radiation typically consists of alpha, beta, and gamma rays, and neutrons. Of these, gamma rays can travel long distances, and can potentially be detected by sensors in other countries. In certain cases, signatures of a leak can be captured by satellites as well, though not in real time.

Ascertaining a radiation leak is not very difficult. That is why the IAEA was able to put out a statement within a few hours of the attacks on Sunday, declaring that it had not noticed any increase in radiation levels around the facilities.

Assessing damage to facilities

The damage to Iran's nuclear sites is still being assessed as most of their crucial parts are underground. The Fordow facility, used for enriching uranium, is almost entirely underground; most of the Natanz facility, including the enrichment infrastructure, is underground; while some parts of Isfahan are also apparently underground.

While Iran has played down the impact of the attacks, saying no irreversible damage has taken place, IAEA's preliminary assessment presents a more serious picture. IAEA Director General Rafael Mariano Grossi, in his opening remarks at the emergency meeting of the IAEA Board of Governors, called to discuss the situation in Iran, said that the fuel enrichment plant at Natanz had been hit.

At Fordow, craters could be seen, but the damage underground could not be assessed. At the Isfahan site, buildings, including some related to the uranium conversion process, and entrances of the tunnels leading to halls meant for storing enriched uranium, appear to have been it, Grossi said.

Although the IAEA has its team deployed in Iran, the organisation does not currently have access to the attacked sites. The IAEA has said its staff is ready to carry out inspections of the sites to assess the damage, but their safety might be a concern in the current situation.

Accounting for n-material

This might be the biggest concern right now. The IAEA keeps track of all nuclear material around the world with the help of information provided by host countries. Every country using, storing, or handling nuclear material is supposed to report its status to the IAEA. This is particularly true of countries such as Iran, which, besides being an NPT signatory, is also under special watch due to its suspected attempts to build nuclear weapons.

According to the IAEA, Iran has 400 kg of uranium that is already enriched to 60%, just a few steps away from further enrichment to weapons-grade level of 90% or more. The total stockpile of uranium and other nuclear material would be much more. Much of these nuclear materials were believed to have been stored at the sites that have been attacked.

Iran has said that anticipating the attacks, it had already evacuated its sensitive nuclear materials from these facilities, and moved them to undisclosed safer locations.

There have been reports of a long line of vehicles seen in some pre-attack satellite images at the Fordow site, suggesting that nuclear material may indeed have been moved. The absence of any radiation leaks from the attacked sites could support this argument.

The attacks by Israel and the US could make it difficult for the IAEA to fully account for all the known nuclear material in subsequent inspections. This might lead to the unverified use of nuclear material or nuclear proliferation.

EXPLAINED TECH

HOW IS TESLA EXPECTED TO REMOTELY CONTROL ITS ROBOTAXIS?

A Tesla robotaxi moves through traffic in Austin, Texas, on Sunday. *AP*

TESLA DEPLOYED a small group of self-driving taxis on Sunday in Austin, Texas, with CEO Elon Musk announcing the "robotaxi launch" and social-media influencers posting videos of their first rides.

The event marked the first time Tesla cars without human drivers have carried paying riders. Musk has said the company is being "super paranoid" about safety and that humans will remotely monitor the fleet, which also has safety monitors in front passenger seats.

Remote access and control — known in the industry as "teleoperation" — is used in varying degrees by the handful of robotaxi startups operating around the globe.

How do robotaxi operators use teleoperation?

Teleoperation is the control of machines by humans in a different location, usually over a wireless network. It is used to train robots to operate autonomously, monitor their autonomous activity, and take over when required.

As the global robotaxi is still in test mode, companies often use teleoperation to intervene when a vehicle is unsure of what to do.

Alphabet's Waymo, for example, has a team of human "fleet response" agents who respond to questions from the Waymo Driver — its bot.

"Much like phone-a-friend, when the Waymo vehicle encounters a particular situation on the road, the autonomous driver can reach out to a human fleet response agent for additional information," Waymo said in a blog post last year.

Former Waymo CEO John Krafcik told *Reuters*, "the cars aren't being actively monitored," adding that the software is "the ultimate decision-maker".

A Waymo video shows a car asking a remote operator whether a street with emergency response vehicles is open to traffic. When the human says yes, the vehicle proceeds.

What are the limitations of teleoperation?

Driving vehicles remotely on public roads has a major potential problem: it relies on cellular data connections that can drop or operate with a lag, disconnecting the vehicle from the remote driver in dangerous situations.

Philip Koopman, a Carnegie Mellon University engineering professor and autonomous-vehicle safety expert, said that approach could work for a small test deployment of 10 vehicles, such as Tesla's initial effort in Austin, but he called teleoperation "inherently unreliable technology".

"Eventually you will lose connection at exactly the worst time," he said. "If they've done their homework, this won't ever happen for 10 cars. With a million cars, it's going to happen every day".

Allowing the vehicle to be the decision-maker is also risky as it does not guarantee the vehicle will make the right decision.

A group of Democratic Texas lawmakers had asked Tesla last week to delay its robotaxi launch until September, when a new autonomous-driving law is scheduled to take effect.

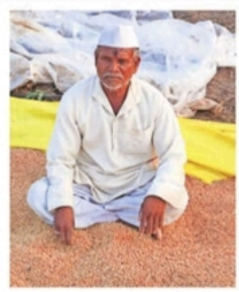
REUTERS

EXPLAINED ECONOMICS

Agri industry & India-US deal

At least two agriculture-based industries — sugar mills and soybean processors — are worried about removal of import restrictions and other concessions an India- US trade deal, currently in the works, might entail

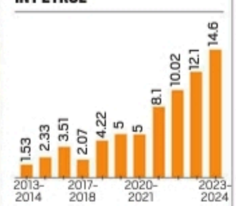
HARISH DAMODARAN



A soybean farmer at a village near Latur in Maharashtra. *Harish Damodaran*

CHART 1

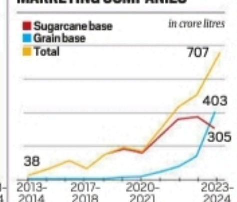
ETHANOL BLENDING % IN PETROL*



*All-India average blending percentage for petrol sold across states

CHART 2

ETHANOL SUPPLIED TO OIL MARKETING COMPANIES



Note: Data is for ethanol supply years: Dec-Nov till 2021-22, Dec-Oct in 2022-23 and Nov-Oct from 2023-24

EVEN AS INDIA and the United States work towards finalising a bilateral trade agreement — ahead of a looming July 9 deadline for the reimposition of President Donald Trump's so-called reciprocal tariffs — at least two major domestic agricultural-based industries are worried about the possible concessions that a deal might entail.

The sugar industry, for one, is against allowing imports of ethanol for use in blending with petrol. The mills are also not very keen on import of genetically modified (GM) maize/corn as a feedstock for fuel ethanol. The US is the world's top producer as well as exporter of both maize and fuel ethanol.

Then there is the soybean processing industry: the Indore-based Soybean Processors Association of India (SOPA) has vehemently opposed imports of soybean. The US is the second biggest producer and exporter of this leguminous oilseed after Brazil. Both countries mostly grow GM soybean.

Given the United States' high stakes in these commodities, and the geopolitical imperative to find a sizable alternative market to China, there is significant pressure on India to remove restrictions on their imports.

But any such opening up could encounter resistance from the two well-established agro-processing industries.

What sugar millers fear

The ethanol-blended petrol programme has been a success story of the Narendra Modi-led government.

CHART 1 shows that the average blending of ethanol in petrol sold by oil marketing companies (OMC) has risen from just 1.5% in 2013-14 to 14.6% in 2023-24. In the current supply year, from November 2024 till May 2025, the cumulative all-India average blending ratio was 18.8%, close to the target of 20% by 2025-26.

But the industry's concerns are over the feedstock used for ethanol production.

Till 2017-18, the entire ethanol for blending in petrol came from molasses, the leftover dark syrup after extraction of sugar crystals from cane juice. From 2018-19, the mills-cum-distilleries also began using cereal grains (mainly broken or old rice unfit for human consumption) as feedstock. Since 2023-24, the ethanol supplies from grain-based feedstock, particularly maize, has overtaken that from sugarcane molasses and whole juice (*CHART 2*).

For the 2024-25 supply year, a total 1,047.9 crore litres of ethanol have been contracted or made available to OMCs. Out of that, 710.4 crore litres (nearly 68%) is from grain-based feedstock, including 483.9 crore litres from maize, 119 crore litres from the Food Corporation of India's surplus rice and 107.5 crore litres from damaged/broken grains. Only 337.5 crore litres are from molasses (144.7 crore litres) and sugarcane juice (192.8 crore litres).

"As it is, sugarcane is being marginalised as a feedstock. It would be worse with imports of maize or even ethanol itself," says a miller from Uttar Pradesh.

According to him, the industry was already facing the prospect of stagnant, if not declining, domestic sugar consumption: "Our future isn't sugar, but energy. Today, it is 20% ethanol-blended petrol. Tomorrow, it may be 5% blending in diesel or ethanol being converted through additional processing into sustainable aviation fuel producing lower carbon emissions compared to petroleum jet fuel".

Ethanol from sugarcane, the miller claims, will not create any major "fuel versus food and feed" dilemma. "Sugar consumption won't increase much in India, unlike milk, egg and chicken that need maize as the key feed ingredient. The diversion of maize for biofuel will cause demand-supply imbalances and shortage of grain for livestock and poultry," he adds.

The US exported a record 1,914 million gallons (724.5 crore litres) of ethanol, valued at $4.3 billion, in 2024. India was its third largest market (after Canada and the UK), at 187 million gallons (70.8 crore litres) worth $441.3 million. India permits import of ethanol only under licence for industrial (non-fuel) purposes and restricted to "actual users": imports can be for manufacture of alcohol-based chemicals, but not for blending in petrol or diesel.

A recent NITI Aayog working paper has suggested that India import GM maize as a feedstock for ethanol production. The protein-rich byproduct from it — DDGS or distiller's dried grains with solubles — may entirely be exported without getting consumed as a GM feed ingredient within the country.

"US corn is cheaper and can be used to meet India's biofuel targets without disrupting local food and feed markets," the paper, authored by NITI Aayog member Ramesh Chand and senior adviser Raka Saxena, has stated.

Soybean industry's misgivings

The NITI Aayog paper has also called for exploring the option of importing soybean, with the oil extracted from it being sold in the domestic market and the residual de-oiled cake or meal (which contains GM protein matter) exported to other countries.

D N Pathak, SOPA's executive director, disagrees with this proposal.

"Most of our solvent extraction plants are in the interiors (especially Madhya Pradesh and Maharashtra) where the crop is grown. It's not feasible for them to bring imported soybean from the ports, process it and then take back the meal for exports. The freight cost economics will simply not work. And what will happen to the 7 million-odd farmers cultivating soybean here?" he asks.

Indian processors crush 11-12 million tonnes (mt) of soybean annually to produce 9-9.5 mt of meal. Out of that, 7-7.5 mt is domestically consumed as feed and food ingredients and the rest 2 mt or so is exported.

This is way below the 105-110 mt that China crushes every year, much of which is imported to meet the feed requirement of its humongous swine herd and poultry flock: China is home to roughly half of the world's pig population and a fifth of its chickens.

"We don't have this kind of domestic market for soybean meal. Also, if the GM meal cannot be sold within the country, the processing plants will have to be nearer to the ports for exports. The ones more likely to put up these are the international commodity trading giants such as AWL Agri Business (formerly Adani Wilmar), Archer Daniels Midland, Bunge, Cargill and Louis Dreyfus," explained Pathak.

SOPA has also voiced concern at the Centre's decision on May 30 to slash the effective import tariff on crude soybean, palm and sunflower oil from 27.5% to 16.5%. That will further squeeze the margins of domestic processors, "as they will have to compete with lower-priced imported oils, forcing them to operate below break-even capacity or shut down altogether".

Soybean is now trading in the *mandis* of MP and Maharashtra at Rs 4,300-4,350 per quintal, as against its official minimum support price of Rs 5,328. A surge in imports, whether of oil or seed, can lead to farmers switching acreage to other crops.

These worries may come to the fore, as the ongoing trade talks between India and US edge closer to fruition.

'Jaws' turns 50: How the film fuelled 'decimation of shark population'

ALIND CHAUHAN
NEW DELHI, JUNE 23

EXPLAINED WILDLIFE

"[A] TIGER SHARK'S like a garbage can, it'll eat anything."

"[T]he thing about a shark, he's got...lifeless eyes, black eyes, like a doll's eyes. When he comes at ya, doesn't seem to be livin'... until he bites ya… then you hear that terrible high-pitch screamin', the ocean turns red, and spite of all the poundin' and the hollerin', they all come in and they... rip you to pieces."

Descriptions such as these in Steven Spielberg's *Jaws*, which released on June 20, 1975, have had an enduring influence on the public perception of sharks, especially great whites.

Their portrayal as bloodthirsty, man-eating monsters have terrified audiences for decades, and ultimately contributed to the declining populations of these creatures.

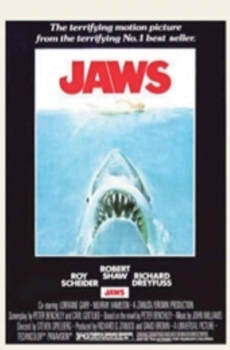
An unfounded paranoia

Jaws shows an epic battle between three men and a "rogue shark" who has developed a taste for human flesh. The animal attacks its victims with purpose, munches on a few body parts, and leaves behind an arm or a head in the water.

But this is not how real sharks behave. David Shiffman, an interdisciplinary marine conservation biologist, told the *BBC*, "They don't stalk humans, and the idea of 'rogue sharks' that develop a taste for humans is pseudoscientific nonsense."

Sharks have existed on Earth for at least 400 million years, predating dinosaurs by several hundred million years. They encountered humans only a few thousand years ago, and as such have not evolved to eat or kill people.

Many experts believe that most shark attacks are cases of mistaken identity — a shark confusing a human for prey. This is why these animals usually move on after taking a bite.



Movie poster of *Jaws*. *Wikimedia Commons*

And these attacks are rare. On average, 63 people are bitten by sharks around the world each year, of whom five or six die. "More people are bitten by other people in New York City each year than are bitten by sharks in the whole world...," Shiffman said.

Tragedy of perception

The perception created by *Jaws* fuelled shark-hunting, and spawned shark-killing tournaments on the east coast of the United States.

Jennifer Martin, an environmental historian at the University of California, told *CNN*, "I'm struggling to think of a parallel example of a film that so powerfully shaped our understanding of another creature... They were killing machines. They were not really creatures. They weren't playing an ecological role."

That said, humans were targeting these animals long before the movie.

One of the primary reasons for declining shark populations is the rise of commercial overfishing. Sharks are hunted for their flesh and bone — items such as shark fin soup are delicacies in China, Taiwan, and parts of Southeast Asia.

Other factors driving the decline in their population include climate change, pollution, and habitat destruction.

A study published in the journal *Nature* in 2021 revealed that the global abundance of oceanic sharks and rays had declined by 71% since 1970. Currently, nearly a third of shark species are threatened with extinction, according to a 2021 analysis published in the journal *Current Biology*.

Why sharks matter

Sharks play a crucial role in maintaining the delicate balance of marine ecosystems.

As apex predators, they consume plant-eating fish which tend to excessively consume ocean vegetation such as seagrass meadows and kelp forests that absorb carbon through photosynthesis. This helps maintain the marine carbon cycle.

These animals also disperse grazing fish and curb their foraging behaviour, reducing the incidence of loss of stored carbon.

Sharks are known to shape the behaviour and distribution of marine animals throughout the ocean. By creating a "landscape of fear", these animals influence where their prey moves, ensuring no one species dominates an area and destroys the habitat.

As sharks swim throughout the different ocean layers, they mix nutrient- and oxygen-rich deep water with nutrient-poor surface waters, which ultimately benefits creatures living in the ocean's surface water, such as phytoplankton.

This is why experts and activists in recent years have been actively trying to conserve the population of sharks.

Even Spielberg and Peter Benchley, who wrote the book on which *Jaws* was based, have publicly acknowledged the role of their works in stoking fear and contributing to the decline of shark populations.

In 2022, Spielberg said, "I truly and to this day regret the decimation of the shark population because of the book and the film. I really, truly regret that."

Polls and processes

The ECI is taking some proactive steps towards transparency

The results of the by-elections in five Assembly constituencies – Kadi (SC) and Visavadar in Gujarat, Nilambur in Kerala, Ludhiana West in Punjab and Kaliganj in West Bengal – indicate the factors at play at the local and regional levels. The Congress-led United Democratic Front candidate Aryadan Shoukath won the Nilambur seat. P.V. Anvar, who had won in 2021 as a Left-backed independent, vacated the seat after a spat with the ruling coalition, contested as a Trinamool Congress (TMC) candidate (which was rejected) and then stood as an independent. The seat falls in the Wayanad Lok Sabha constituency represented by Congress leader Priyanka Gandhi. The Bharatiya Janata Party (BJP) candidate performed poorly. The outcome could impact the tone of the campaigning for the Kerala Assembly elections due next year. The alignment of communities and relative power of parties in both Fronts will be affected by the Nilambur result. In the Kaliganj constituency in Nadia district, the ruling TMC's candidate Alifa Ahmed won by a margin of over 50,000 votes. Her father's death had led to the by-poll. Counting day was marred by the death of a child in a crude bomb explosion, a sign of the continuing and disturbing role of violence in the State. Assembly elections in West Bengal will take place next year.

The Aam Aadmi Party (AAP)'s wins in Visavadar and Ludhiana West are significant for a party that lost power in Delhi, its original stronghold, in February. Its MLA in Visavadar had defected to the BJP, and the renewed mandate helps AAP retain its stake in State politics. Its former State president Gopal Italia is the winner. AAP's former Rajya Sabha Member of Parliament and industrialist Sanjeev Arora won the Ludhiana West seat in a State it rules. The BJP retained Kadi. The by-polls were also notable for the new initiatives by the Election Commission of India (ECI) to reinforce the integrity of the electoral process and make it more accessible. These include mobile deposit facility for the electors at all polling stations, upgraded voter turnout sharing process resulting in faster updating of the approximate polling trends, and most significantly, webcasting at 100% of polling stations. The issues of disputes over heavy polling in sensitive booths in the concluding hours of voting and transparency related to video records of booth activities remain, and the ECI must continue to take proactive measures to not only be fair but also to be seen so.

Many images

Governors should not play up divisive images in official functions

Kerala Governor Rajendra Vishwanath Arlekar's obstinate use of contentious political iconography has shattered the veneer of harmony with the State government that marked his early months in office. Over the last fortnight, two Kerala Ministers have protested and boycotted official events held at the Raj Bhavan, taking strong exception to a garlanded portrait of Bharat Mata – Mother India – in front of a lion and holding a saffron flag against what appears to be a map of Akhand Bharat (undivided India). Leaders of the ruling Left Democratic Front decried the imagery, condemning it as a ploy to inject a Hindu nationalist agenda into the constitutional office of the Governor. Mr. Arlekar nonchalantly ascribed the idea to the spirit of nationalism and patriotism. The rift has since spilled over into the streets, leading to confrontations between workers of the Communist Party of India (Marxist) and the Bharatiya Janata Party across the State. The Mother India motif traces its origins to the late 19th century work, *Anandamath*, by Bankim Chandra Chattopadhyay, which personified the country as an oppressed Hindu goddess with a glorious past aspiring to regain her enormous might. It featured 'Vande Mataram', which became hugely popular and accepted as India's national song. With the nationalist movement taking shape, the image found countless iterations across forms of cultural and political expression. In the early 20th century, artist Abanindranath Tagore depicted Bharat Mata as a four-armed goddess holding a piece of white cloth, sheaves of paddy, a book and a string of beads. While *Anandamath* came under criticism for its perceived communal undertones, with the image being appropriated by Hindu religious nationalists, Abanindranath's image was seen as a 'humanisation' of the divine mother. If painter Amrita Shergill poignantly pictured Mother India as a pining mother staring into an uncertain future, political and cultural portrayals of Mother India relied on the metaphor of a woman who was a divine, benevolent custodian of customs and traditions, with the imagery drawing heavily from Hindu iconography. Her flag changed between the tricolour and saffron, depending on who portrayed the image. Calendar art pinned up many iterations in drawing rooms. While films such as *Mother India* cemented the stereotype, Satyajit Ray's *Devi* called out the deification of women as a patriarchal tool of subjugation.

But religious nationalists continued to weaponise the symbolism, imaginatively blending the visual of a decked-up Hindu goddess with a united Hindu Rashtra. Secularists such as M.F. Husain, too, were drawn to the idea of the nation as a woman and it got deeply etched in the collective psyche of the people. Given the lack of a standard depiction of the metaphor of Mother India, the present controversy was avoidable. Governors would do well to desist from employing a Hindu majoritarian version of a multilayered iconic image for political expediency.

Iran's n-programme, the illusion of a surgical strike

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In renewed tensions in West Asia, Israel – and now the United States – struck Iran's nuclear infrastructure, targeting multiple nuclear facilities and its top nuclear scientists. Iran retaliated with drone and missile attacks, some of which have penetrated the Iron Dome defence system. Amid the escalating conflict between Israel and Iran, it is worth asking a basic but urgent question. Can Iran's nuclear programme actually be dismantled with military action? The short answer is no – or not easily. Despite decades of planning, rhetoric, and covert action, the military option against Iran's nuclear ambitions remains not only deeply complex but also operationally limited and strategically risky.

Inside Iran's nuclear programme

Iran has designed much of its nuclear infrastructure with a military strike in mind. Its key uranium enrichment facilities – most notably at Fordow and Natanz – are buried underground and reinforced with much steel and reinforced concrete. Fordow, for instance, is located in a mountain near the city of Qom, about 80 metres to 100 m beneath the surface, protected by layers of reinforced concrete and rock (RCC). These sites are not merely hardened; they are hardened with intent. Conventional air-dropped bombs or missiles are insufficient to destroy such facilities. Only the most powerful bunker-busting bombs could possibly damage these subterranean enrichment bunkers. While the U.S. possesses these bombs, Israel is not known to.

Underground nuclear bunkers could be penetrated through specialised bunker-busting munitions such as the U.S.-developed GBU-57 Massive Ordnance Penetrator (MOP). This 30,000 pound precision-guided bomb is designed to penetrate up to 60 m of earth or 18 m of reinforced concrete. But there is a catch. The MOP needs to hit its target precisely and repeatedly, often over several days, to be effective against the deepest military targets underground. Israel, for all its military prowess, does not currently possess the GBU-57. Nor does it have aircraft capable of carrying such an enormous bomb; the MOP requires a B-2 Spirit or B-52 Stratofortress bomber, both of which are exclusive to the U.S. Air Force. The U.S. Air Force caused an online stir after it announced having used B-2 Spirit bombers in 2024 on underground Houthi targets in northern Yemen.

Israel does have an array of air-to-ground munitions such as the GBU-28, which can penetrate reinforced bunkers, but its effectiveness is capped at about 5m to 6m of concrete or roughly 30 m of earth. However, this is simply not enough against a facility such as Fordow. Reports suggest that Israel has upgraded its F-35I stealth fighters for long-range missions and bunker-busting capabilities, but even these cannot guarantee success against the most fortified Iranian sites. While "Israel can damage key Iranian nuclear facilities", it "cannot destroy hardened sites like Fordow without U.S. military assistance". Even if Natanz and Fordow were destroyed, Iran could rebuild them – and possibly faster than in the past, having learned lessons from earlier disruptions. For instance, after the 2010 Stuxnet cyberattack, which disrupted nearly 1,000 centrifuges at Natanz, Iran not only repaired the damage but further expanded its capacity.

Israel has successfully executed preemptive strikes in the past – against Iraq's Osirak reactor in 1981 and Syria's Al-Kibar facility in 2007. But those targets were isolated, above ground, and in the early stages of development. Iran is a completely different case – its nuclear programme is decades old, technologically mature, and deeply embedded into its military and scientific infrastructure. Unlike Osirak or Al-Kibar, Iran's nuclear programme is spread out, duplicated, and heavily fortified, not to mention backed by a more robust and regionally connected military establishment. This is evident in the fact that recent Israeli strikes most likely failed to destroy the repository of Iran's near-bomb-grade nuclear fuel. The simple truth is that if Israel were to attempt a unilateral strike on Iran's nuclear programme, it would struggle to dismantle it fully. At best, it could delay it, and, that too, only temporarily.

Iran's nuclear programme is a vast and hardened system that cannot be undone with a few air strikes; instead, what would work is sustained diplomacy

Conflict escalation

This is the reason why Israeli leaders, both past and present, have often sought the U.S.'s backing for any significant military action against Iran. U.S. President Donald Trump, in his earlier previous tenure, hinted multiple times that Israel might be given access to advanced American technology including MOP-class weapons. In 2020, talks resurfaced around selling Israel bunker-buster bombs capable of penetrating heavily fortified underground facilities. According to open-source intelligence and defence analysts, no such transfer has occurred – at least not officially. Moreover, even if the U.S. was to provide operational assistance for Israel's military action in Iran, the logistical and political costs for both the U.S. and Israel would be monumental.

Launching such an operation would require access to regional airspace, potentially violating the sovereignty of nations such as Iraq or Saudi Arabia, and would very likely provoke a larger regional war. Iran could retaliate through its proxies – Hezbollah in Lebanon, militias in Iraq and Syria, or Houthi rebels in Yemen. It could also directly strike Israeli or American assets in the Gulf.

Tehran has already signalled that any military action against its nuclear facilities would be met with a "crushing" response. Given its ballistic missile capabilities and strategic alliances, this is not mere bluster. In April 2024, Iran showcased its ability to overwhelm Israeli air defences by launching over 300 drones and missiles in retaliation for an Israeli strike in Damascus, but most were intercepted. The message was clear: Iran would retaliate to any Israeli strike with equal fire.

Revisit diplomacy

A full-scale regional war would likely disrupt global oil supplies, destabilise already fragile states, and drag the U.S. and its allies into a protracted conflict – one that may not even achieve its primary objective. All of this brings us to the uncomfortable but necessary conclusion: diplomacy, however imperfect, remains the only viable long-term solution to curbing Iran's nuclear ambitions. The 2015 Joint Comprehensive Plan of Action (JCPOA) had, to some extent, restricted Iran's nuclear programme and subjected it to international inspections. Since the U.S.'s withdrawal from the deal in 2018, Iran has violated the terms of the JCPOA agreement by lifting the cap on its stockpile of uranium, which is now 30 times the level permitted. It has also steadily expanded its enrichment activities to 60% and reduced cooperation with the International Atomic Energy Agency (IAEA).

A new nuclear deal will undoubtedly be harder to negotiate, especially amid regional turmoil and deepening mistrust. However, it is still more feasible than launching a war that cannot guarantee a decisive outcome. The alternative – a "forever cycle" of attacks, retaliation, and escalation – is far costlier and could destabilise the region. Calls for "bombing Iran" often ignore the technical and tactical realities on the ground that Iran's nuclear programme is not a single facility waiting to be destroyed. It is a vast, hardened, and redundant system that cannot be undone with a few air strikes. For Israel, or even the U.S., the idea of a clean, surgical strike on Iran's nuclear programme is a dangerous illusion. What is needed is not military action but diplomatic strategy backed by multilateral pressure, careful verification, and robust deterrence.

Iran's nuclear programme is not just technically advanced. It is architecturally resilient, explicitly designed to withstand military strikes. If there is one lesson to be learned from the last two decades of the Middle East policy, it is this. Wars are easy to start but almost impossible to end. If the strikes now are to escalate to a full-fledged war, the cost of failure would be catastrophic.

The sorry state of South Asian economic integration

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In the year so far there were two major incidents that shook India's economic and national security landscape: the reciprocal tariffs imposed by the Trump administration and the terror attack in Pahalgam. While these events may seem unrelated, their underlying causes and consequences are deeply interlinked, highlighting the urgent need for a comprehensive regional approach to security and economic stability. Economic and national security are often discussed separately, but they are deeply intertwined.

Border disputes among South Asian nations significantly hamper trade and economic cooperation, preventing the region from achieving its full potential. Economic instability fuels unrest, while security threats disrupt trade and investment. No country can achieve lasting security without economic prosperity, and vice versa.

One of the least integrated

The South Asian region is one of the least economically integrated regions in the world. Intraregional trade of South Asia (South Asian Free Trade Area or SAFTA) accounts for barely 5% to 7% of its total international trade, which is the lowest when compared to other trading blocs. In contrast, intraregional trade accounts for approximately 45% of total international trade within the European Union (EU), 22% within the Association of Southeast Asian Nations (ASEAN), and around 25% within North American Free Trade Agreement (NAFTA).

Current trade among South Asian Association for Regional Cooperation (SAARC) countries is just around $23 billion, far below the estimated $67 billion. According to a United Nations Economic and Social Commission for Asia and the Pacific (UNESCAP) study, South Asia's potential trade could have reached $172 billion by 2020, which means over 86% of its capacity remains unexploited. Even if we consider this assessment to be optimistic, the immense potential for significantly increasing intra-SAARC trade can never be denied. South Asia, the most populous region of the world (25% of the world's population), represents a combined market of only $5 trillion in GDP. On the other side, the EU, with 5.8% of the world's population, accounts for $18 trillion in GDP, and NAFTA has a GDP of $24.8 trillion. This clearly shows the underexploited capacity of the South Asian region.

Trust deficits and regional conflicts are hindering the full implementation of key trade agreements

There is much potential

As estimated by the UNESCAP South Asia Gravity Model of intraregional trade, in spite of trade liberalisation under SAFTA, intraregional trade in South Asia is less than a third of its potential. Bangladesh has the highest unexploited proportion, at 93%, followed by the Maldives (88%), Pakistan (86%), Afghanistan (83%), and Nepal (76%). Because of terror insurgencies and border disputes, trade between India and Pakistan has seen a significant decline over the years. Bilateral trade between India and Pakistan fell from $2.41 billion in 2018 to $1.2 billion in 2024. Further, Pakistani exports to India fell from $547.5 million in 2019 to just $480,000 in 2024.

South Asia's trade-to-GDP ratio decreased from 47.30% in 2022 to 42.94% in 2024. Additionally, the World Bank reported a softened growth forecast of 5.8% for 2025, down from 6% in 2024. As imports have grown faster than exports for all South Asian countries, the trade deficit of the subregion has widened from $204.1 billion in 2015 to $339 billion in 2022. However, the value of overall trade, covering both exports and imports, increased significantly between 2015-22 to approximately $1,335 billion.

Despite SAFTA, trading with neighbours is not 'free'. The inefficient trade governing mechanism and an unpromising political environment increase the cost of intraregional trade, which is one of the major reasons for significantly smaller intra-regional trade. Costs of trading within South Asia remain high at 114% of the value of the goods being exported, making trading with neighbouring nations more expensive or less competitive, compared to trading with distant partners.

For instance, South Asia's bilateral trade cost with the U.S. is only 109% despite the vastly greater distance. It is about 20% more costly for a company in India to trade with Pakistan than with Brazil, which is 22 times farther away. This discourages the formation of regional value chains despite the geographic contiguity. In contrast, intraregional trade costs for ASEAN are some 40% lower than intra-SAARC trade costs, at 76%, creating high incentives for interdependence in that bloc.

The main hurdles

The low level of intraregional trade in South Asia demonstrates the absence of strategic policies. SAFTA and other regional agreements have the potential to create greater economic linkages. Besides, over two-thirds of the potential of intraregional trade in goods, the potential of trade in services, and investments in South Asia remain untapped. To this end, greater regional cooperation could facilitate the development of complementary and mutually beneficial export sectors by focusing on lowering trade barriers.

SAARC had the aim of ending distrust and tension, but trust deficits and regional conflicts hinder the full implementation of agreements such as SAFTA. Political diversity, regional disputes, minority issues and terrorism are major obstacles to regional cooperation. Most SAARC countries are in conflict with each other, preventing effective regional integration. Lesser trade opportunity means lesser capacity for innovation, production and investment in the people of the country. Therefore, to exploit the full potential of the South Asian region, members must work actively to enhance intra-regional trade, keeping aside their bilateral conflicts.

LETTERS TO THE EDITOR

The aggressor

America's bombing of Iran has simply proved that U.S. President Donald Trump cannot be trusted in negotiations. Mr. Trump is under the illusion that might is good enough to overcome established order and norms. A bombastic Mr. Trump's credibility as a leader is at a low ebb. A man who is craving for the Nobel Peace Prize has overnight become a "warmonger" and "globalist aggressor". New Delhi must be keenly observant of Pakistan trying to cosy up to Mr. Trump.

C.G. Kuriakose,
Kothamangalam, Kerala

Adivasi identity

The Census plays an extremely crucial role, through data collection, for policymaking and understanding population trends. The weak and the poor, the neglected and the voiceless have the first right on welfare measures, schemes and support ('Opinion' page, "Recognising Adivasi identity in the Census", June 23). There is already a very wide gap between the urban and rural regions. Development and progress would meet their objectives only if there is even growth. Economic growth, revenue realisation and trade would be meaningless if the voiceless are left out.

Balasubramaniam Pavani,
Secunderabad

ED notice to advocates

It is shocking that the Enforcement Directorate (ED) issued summons to senior advocates Arvind Datar and Pratap Venugopal for legal opinion. They were only exercising their professional right. The notices were withdrawn after strong protests by the Bar. Mr. Datar at one point was considered for direct elevation as a Supreme Court judge. He is a pre-eminent tax lawyer and has appeared in High Courts apart from the Supreme Court and argued matters of constitutional importance. He has written three volumes on the Constitution of India. This has to be mentioned in order to highlight how the ED has exceeded its power and authority. The entire Bar is aghast and slighted by the ED's actions. Its conduct undermines the dignity and the autonomy of the profession, thereby undermining the rule of law itself.

N.G.R. Prasad,
Chennai

Letters emailed to letters@thehindu.co.in must carry the postal address and the full name.

The Editorial Page

Wordly Wise

The real problem is not whether machines think but whether men do.

— B F Skinner

The Indian EXPRESS

Founded By

Ramnath Goenka

BECAUSE THE TRUTH INVOLVES US ALL

Critical blockage

China's restrictions on exports of rare earths can disrupt production processes, call for a plan to secure supplies

ON APRIL 2, US President Donald Trump unveiled his policy of reciprocal tariffs, targeting most of America's trading partners. Two days later, on April 4, China responded by announcing a 34 per cent tariff on all US imports, while also placing export restrictions on rare earths. Critical minerals and rare earth elements, which are used across several key sectors, ranging from electronics to renewables, automobiles and defence, are increasingly playing a vital role in the economy. For instance, lithium, nickel and cobalt are used in lithium-ion batteries. Dysprosium and neodymium, and tellurium, indium, and gallium are used in wind turbines and photovoltaic cells respectively. These minerals are central to the fourth industrial revolution. Restrictions over their supply, which can disrupt production processes across several sectors, have thus become central to the global trade war.

China holds a position of dominance. As per the International Energy Agency, the country accounts for a 35 per cent share in the refining of nickel, 50-70 per cent of lithium and cobalt and around 90 per cent for rare earth elements. China not only dominates the production of rare earths, but also has the most reserves. As per data from the US Geological Survey, the country's reserves have been estimated at 44 million metric tons. Brazil's reserves have been pegged at 21 million metric tons, India's at 6.9 million, Australia's at 5.7, Russia's at 3.8 million and Vietnam's at 3.5 million. Following the imposition of restrictions in April, China's exports of rare earth magnets fell sharply in May. The restrictions have led to panic across the world, with many staring at supply shortages in several sectors.

In India, for instance, auto majors have been vocal about their worries over supply being squeezed. As per reports, the domestic auto industry has asked the government to intervene in the matter. Other countries are also moving ahead to secure supplies. The framework agreed to by the US and China also involves the easing of rare earth supplies. Announcing the deal, Trump posted on a social media platform that "Full magnets, and any necessary rare earths, will be supplied, up front, by China." As per reports, EU leaders will also be pushing for supplies from China at a summit next month. Other countries such as Brazil, Saudi Arabia and Vietnam are said to be aggressively exploring this segment. In 2025, India launched a National Critical Mineral Mission to help achieve self-reliance in the critical mineral sector. Under this, the Geological Survey of India is expected to conduct 1,200 exploration projects by 2030-31. This issue needs to be tackled at multiple levels. The objective should be to secure supplies in the short term so as to prevent disruptions across industries, while also focusing on expanding domestic exploration, mining and processing and firming up alternative sources of supply.

Writing with machines

A new MIT study points to the adverse effects of writing with ChatGPT. The picture is more complicated

FROM AT LEAST the mid-15th century, with the invention of the printing press, a wave of anxiety has accompanied every new technology around the creation and dissemination of the written word. Pens, typewriters, computers, the internet and search engines and, most recently, large language models (LLMs) like ChatGPT — each technology was seen by its critics as somehow diluting the purity of the relationship between thought and word. This anxiety peaked with the sudden and widespread rise of LLMs and their ubiquity in knowledge production, especially by students and researchers. Unlike earlier technologies, which were tools that assisted either the physical act of writing or, as with search engines, made research and referencing easier, AI models can "think" for the user. According to a study conducted at the Massachusetts Institute of Technology (MIT), published earlier this month, the use of ChatGPT for writing incurs a considerable "cognitive debt".

Nataliya Kosmyna and other researchers divided test subjects — who had to write essays — into three groups: Those who used only their brains to write, those assisted by search engines, and those who used ChatGPT. Participants also switched roles to ensure more robust results. The neural activity of all three groups was monitored over four months. The group using LLMs showed considerably lower cognitive engagement with their writing, had less ownership over their work and remembered less than their counterparts. For many, these findings conform to the broader panic around AI. The fear that AI will replace intellectual labour like automation did in manufacturing is exacerbated by evangelists like OpenAI CEO Sam Altman. In a recent essay, Altman wrote, "ChatGPT is already more powerful than any human that has ever lived."

Both the MIT study and Altman might be overestimating the consequences of AI. While the cognitive effects of relying completely on an LLM might be adverse, there are ways to use it effectively. The act of writing — good writing, at least — is not about regurgitation of facts but rather about ways to collate, analyse and express. This training is important for intellectual development, but that does not mean it cannot incorporate new tools. The stage when AI is integrated into learning is also important. School students, for example, are still taught how to do long division even though they will likely use a calculator in adulthood. LLMs can be useful for "language" tasks — correcting grammar, summarising texts, helping with tone and tenor — without replacing or diminishing the author. The issue is not whether to use AI but how to. The rapid growth of AI means that research into its effects is still playing catch-up. The lessons from the social media boom, and the issues that appeared in its wake, highlight the importance of narrowing this gap.

Like you and me

Labubu dolls have become a phenomenon across the globe. Their relatability has much to do with it

WHAT CAN A plushie fetch you? If the plushie in question is Chinese company Pop Mart's Labubu doll, the answer is $22.7 billion dollars, soft power and explosive popularity. Based on a character from *The Monsters*, a toy series created by Hong Kong-born artist Kasing Lung, the dolls were launched in 2019. The stories are centred around Labubu, who is described by the creators as having a "cheerful grin" which "reminds us that no matter what challenges we face, a smile can lift our spirits and lead us towards happiness". Their popularity rose steadily, until it blew up this year after celebrities, including Rihanna, Dua Lipa and K-Pop star Lisa of Blackpink were spotted toting Labubu dolls.

This is not the first time a toy has caused a frenzy. In 1983, the craze for Cabbage Patch Kids dolls — which came with birth certificates — caused riots in several shops in the US, even landing customers in hospital. The 1990s saw a similar fad with Beanie Babies, which were marketed as limited edition collectibles amid a scenario of contrived scarcity.

What explains the dizzying interest shown in a doll, including by adults? Part of it may come down to the fuzzy cuteness of the design: With their big eyes and toothy smile, Labubus have a goofy appeal. In its home market of China, for example, the doll shot to popularity during the pandemic as a cuddly distraction from the gloom and doom. Its character description also says that the Labubu is "kind-hearted and always wants to help, but often accidentally achieves the opposite". Perhaps this is also key to the toy's popularity. After all, who hasn't felt a little bit useless or inept, despite the best intentions? It may be the Labubus' relatability that has made them one of the most viral toys of recent times.

Iran's limited options

After US attacks, Ali Khamenei has little room for manoeuvre

Sumit Ganguly

THE UNITED STATES has carried out three airstrikes against nuclear enrichment facilities in Iran. The sites were at Fordow, Natanz and Isfahan. The first was struck using the B-2 bombers, which dropped multiple 13,000-kilogramme Massive Ordnance Penetrator (MOP) bombs, popularly referred to as "bunker busters", on the facility. The other two locations were hit with two dozen Tomahawk missiles launched from US submarines operating from the Persian Gulf. Senior US military authorities have claimed that extensive damage has been done to all the sites that were attacked.

The International Atomic Energy Agency (IAEA), a UN organisation, has stated that while the bombing has done extensive damage to the facilities at Natanz and Isfahan, it was unable to provide a firm assessment of the harm that was inflicted on Fordow, the subterranean nuclear site. It has also called for restraint, underscoring the dangers of radioactive fallout from the strikes against nuclear facilities.

Quite predictably, Iranian Foreign Minister Abbas Araghchi has condemned these attacks in unequivocal terms, referring to them as "barbaric" and a violation of international law. Other high military officials in Iran have also promised to retaliate against the United States.

Back home in the United States, a handful of the members of the US Congress, both in the House and the Senate, have stated that President Donald Trump's decision to launch these attacks constitutes a violation of the War Powers Act. Most of the critics are Democrats, but a handful of Republicans have also expressed their misgivings about the use of force without appropriate Congressional authorisation. Trump, of course, has already threatened to run a candidate of his choice against Congressman Thomas Massie of Kentucky, who had criticised the President's unilateral actions.

What transpires next, especially in the region, remains an open question. In Israel, Prime Minister Benjamin Netanyahu is obviously pleased with Trump's decision to enter the fray. Even though Israel had quickly achieved air superiority over Iran's skies and had decimated its ground-to-air defence capabilities, it lacked the military wherewithal to launch an effective strike against the underground facility at Fordow. Trump's decision to attack Fordow has, at least at first blush, helped Israel achieve one of its military goals. With explicit American support for its stated military objectives, Israel is likely to feel even more emboldened. Consequently, it is likely to sustain its military campaign against Iran in the immediate future.

> Trump's decision to attack Fordow has, at least at first blush, helped Israel achieve one of its military goals. With explicit American support for its stated military objectives, Israel is likely to feel even more emboldened. Consequently, it is likely to sustain its military campaign against Iran in the immediate future. How might Iran, which now finds itself quite beleaguered, respond?

How might Iran, which now finds itself quite beleaguered, respond? Given the presence of American military personnel and a range of US military bases in its immediate vicinity, it may lash out at them, invoking the inherent right to self-defence. The Iranian regime may well deem these acts to be necessary for the purposes of bolstering popular support at home, which had been steadily sagging before the onset of this conflict with Israel and now the United States. In the wake of the attacks, especially those of the United States, press reports indicate that there is a "rally around the flag" syndrome within Iran. Even Iranians who have grave reservations about Ayatollah Khamenei's Islamic regime are of the view that they find the US and Israeli attacks on their homeland to be unacceptable.

The US attacks, then, may have provided the regime a temporary reprieve. However, it is unlikely to last very long as the day-to-day privations that ordinary Iranians face will soon come to the fore once again. In the meanwhile, the retaliatory options of the regime are limited. It will, no doubt, continue to utilise its drone and missile capabilities to attack Israel but at the same time, it is unclear how many of these munitions remain in its arsenal.

Also, unlike in the past, its client organisations, such as Hezbollah in Lebanon and Hamas in the Gaza Strip, have, for all practical purposes, been decimated in recent days. Only the Houthis in Yemen, who are quite hostile towards the United States, remain. Nevertheless, they can only inflict a finite amount of damage on US forces and commercial shipping in the region. Consequently, their actions, for the most part, are likely to be symbolic. The US, which had previously used force against the Houthis, will retaliate against them, and this time with greater fury.

If these assumptions are correct, the Islamic regime may find itself truly besieged. After the initial wave of support wanes, it will quickly discover that its military options are quite limited. Had the US not intervened in this conflict, despite the obvious weaknesses of its air defences, it could have continued to wreak some havoc on Israel through its reliance on drones and missiles. It may well continue down that path but is likely to discover that it is an increasingly unviable strategy.

Under these very trying and constrained circumstances, what else might Tehran do? It will, no doubt, seek the military and diplomatic assistance of its two key allies, the People's Republic of China (PRC) and Russia. Already, both states have diplomatically lined up with Iran, though the PRC's support for Iran has been less full-throated. The PRC, which has considerable investments in Iran, may nevertheless provide some military assistance. However, these are unlikely to turn the tide of the war and will only be of symbolic significance. Russia, which remains tied down in the Ukraine imbroglio, will find it difficult to provide any substantial military assistance to its West Asian ally. At best, it will sustain its diplomatic support for Iran. This, nevertheless, will amount to what scholars of international relations refer to as "cheap talk". Words that do not entail serious costs.

With the Iranian regime on the ropes, some within the Trump administration and most within Netanyahu's government are, no doubt, hoping that a collapse of the much-despised Khamenei regime is either imminent or, in any case, on the cards before too long. The end of the Islamic regime would bring much joy in those quarters. However, the adage "be careful about what you wish for" may well be an apt warning to both groups. Deposing Saddam Hussein in Iraq brought much initial glee to those who orchestrated his downfall. The aftermath, however, did not turn out well for the United States, or the region at large.

The writer is a senior fellow and directs the Huntington Program on Strengthening US-India Relations at the Hoover Institution, Stanford University

The Motherhood Test

On childbearing, as on other issues, women bear the burden, carry the guilt

Rinku Ghosh

AS THE UNITED Nations Population Fund's (UNFPA) State of World Population report for 2025 shows a significant decline in India's fertility rate — dropping to 1.9 births per woman — the guilt of a childless future has been quietly passed on to the woman. Most conversations ever since have centred on what's going wrong in the woman's body, her hormones, her eggs, her infertility or why she can't summon up enough resilience to ensure no societal expectation is unmet.

Look up any achiever's name and they all come with the suffix, "also a mother to so and so". As if every accomplishment falls short if one didn't pass the motherhood test. Great, if she did it despite it. Ambitious and careerist, if she did it without it. A childless woman is asked every day why she "couldn't have" a baby when it could well be that she "didn't want" one in the first place. This allusion to motherhood as a societal duty rather than individual choice is the reason successful women are queuing up at IVF clinics and egg freezing centres, taking loans to continue their treatments and trapping themselves in "IVF debt". Nobody even talks about the physical pain involved. In our cultural narrative, women, after all, are expected to be selfless and sacrificing when it comes to continuing the bloodline in a tactical transference of responsibility.

Here are some hard facts. Infertility isn't rising because women have poor health and hectic lifestyles; men are going through the same, minus the guilt. Men are always assumed to be virile, and women are automatically assumed to be infertile. Men are as enthusiastic about fatherhood as women are about motherhood. Yet there is no prejudice against a childless man.

> Infertility isn't rising because women have poor health and hectic lifestyles; men are going through the same, minus the guilt. Men are assumed to be virile, and women are automatically assumed to be infertile. Men are as enthusiastic about fatherhood as women are about motherhood. Yet there is no prejudice against a childless man.

Young women are far more informed and aware of the toll their work and home environment is taking on them, and are keen to freeze their eggs. But is it cost-effective enough at Rs 1,50,000 to Rs 2,50,000 per cycle and doctors telling them it's best to freeze their eggs by 29? Should she still gamble on natural conception, or should she, with no savings in a career that has just begun, borrow the money for the greater good? Assisted reproductive technologies may be changing the face of parenthood in cities but their accessibility is a challenge in the hinterland. There may be public schemes for women's health but scarce funding for crucial research on their reproductive health. Besides, women are rarely made part of clinical trials and research studies.

Economics layers every decision and agency to have a child. Do women have the right partner to build a safe environment for raising a family or have pockets deep enough to go it alone till the child's college years? Even if she uses donor sperm, will the single mother be spared societal judgment for attempting a family in isolation? Nobody even dares to discuss parental desires of non-binary people and facilitating their baby journeys. And for all the well-meaning advisories on adoption, women hoping to be a single parent have to navigate a dark maze of legalese, scrutiny and most importantly, finances.

As for healthy women of childbearing age, most delay births because they get offloaded mid-career the moment they seek work-life balance norms.

With societal complexities, the stigma of childlessness and their own performance anxiety weighing down on them, many women are developing mental health conditions, eventually slipping into a burnout. And as they wrestle with their private grief of childlessness, nothing prepares them for the public spectacle of their insufficiencies.

This imposed guilt is nothing but a new-age tool of gendered oppression, one that creates another hurdle for a woman to cross in her quest for equity. However, women must not slip into victimhood. Instead, one has to look at the many childless women who make excellent grandmas, aunts, and caregivers, caring for the young in their families. Childlessness doesn't automatically translate to a lack of maternal instincts. If anything, non-parenting women can raise the community's children with an all-new neutral perspective. As author Maya Angelou says, "If our children are to approve of themselves, they must see that we approve of ourselves."

rinku.ghosh@expressindia.com

June 24 1985, Forty Years Ago

Air India crash

ALL 329 PEOPLE aboard an Air India jumbo jet were killed in India's worst air disaster, apparently due to sabotage, about 180 km off the coast of Ireland. Twenty-two were crew members. Of the passengers, 77 were children and two infants. The plane's sudden disappearance without any distress signals has given rise to speculation that a mid-air explosion may have caused the crash. Experts said they would not be surprised if a bomb had been planted.

Causes of crash

A SUDDEN MID-AIR explosion, caused possibly by a time bomb, is being regarded as the probable cause of the crash of the Air India jumbo jet Kanishka. While an airline spokesman initially chose to be guarded about the possible cause of what is considered the worst air disaster to hit Air India, the Minister of State for Tourism and Civil Aviation, later in statements, said an explosion might have caused the air crash.

Families inconsolable

SATYAWATI BAJAJ CAME to the Palam airport laden with garlands, fruits and other small gifts for her daughter Anju Bajaj, 21, one of the passengers of the ill-fated Air India plane which crashed off the Irish coast. She told newsmen that her daughter told her on the telephone that she had been fasting. She had, therefore, brought fruits. Anju Bajaj was to be married shortly.

Condolence messages

PAKISTAN'S PRESIDENT, ZIA-UL-HAQ, and Prime Minister Muhammad Junejo have expressed sympathies with President Zail Singh and Prime Minister Rajiv Gandhi with respect to the Air India crash. The Bangladesh President, Lt Gen Hussain Muhammad Ershad, in a message to Rajiv Gandhi, also expressed his deep sympathies.

Developed India: A Vision for a $35 Trillion Economy by 2047

India has emerged as the fastest-growing major economy in the world, powered by a bold vision of inclusive development and transformative reforms. It is now poised to join the club of developed nations as its GDP is fourth largest in the world

FIRST Column

India is emerging as an economic superpower. India's growth rate is the highest in the world. The Indian economy is the fourth largest economy in the world with $4.2 trillion. In the 11 years between 2014 and 2025, the country has registered remarkable economic and social progress. Many other countries have progressed during this period but India's progress, especially economic progress, is different. Transfer of political power has been happening and will continue to happen but in the context of India, the power change of 2014 will have to be seen from a different perspective. The historical mandate of 2014 was clear that India now wants to see itself as a developed India.

Due to the development-oriented decisions of the Narendra Modi Government, India is the fastest-growing economy in the world today. In the coming years, the GDP growth rate will remain between 6.5 to 9 per cent. The credit for this goes to the mantra of 'Sabka Saath, Sabka Vikas, Sabka Vishwas, Sabka Prayas' which binds 145 crore people of India together. Modi Government's emphasis is on inclusive development.

The goal of Developed India 2047 is to make India a fully developed nation on the eve of the 100th anniversary of independence. This ambitious mission focuses on establishing India as an economic, social and political world leader. Achieving the goal is difficult but not impossible. Indian economy will reach $4.5 trillion by the end of 2025. India's economy can reach $35 trillion by 2047.

For India to reach a developed economy of $35 trillion by 2047, GDP growth of 8 to 11 per cent for 20 years is mandatory for which a holistic and coordinated vision is required. India will become the third-largest economy in the world by 2028. The Indian economy is estimated to be $7 trillion by 2030, $19 trillion by 2040 and $35 trillion by 2047.

No vision can be achieved without a mission. The goal of achieving the vision of a $35 trillion dollar developed economy for India will be possible through MODI, Mission of Developed India.

VIVEK SINGH

Any country needs a large market to sell goods and services. Demand comes from the market itself. In order to fulfill goods and services are produced. India is the largest consumer market in the world today. Every country is looking at India as the world's largest market.

The country has to become self-reliant in every field. Programs, like Make in India, Startup India, and Digital India, are working as fuel in giving economic momentum to the country. India is a country of youth. More than 67 per cent of the country's population is young. Workforce participation, which is currently 56 per cent, needs to be taken to 70 per cent in the next 10 years. Creating extensive employment opportunities in manufacturing, MSME and service sectors should be the priority of the Government. India will remain the world's top global workforce contributor for many decades to come.

To make India a developed country, extensive structural and policy reforms will have to be done. Capex expenditure has been increased 6 times in the last 10 years, which needs to be increased to ₹15 lakh crore by 2030.

To promote the manufacturing sector, special attention needs to be given to Make in India, Startup India, 6.3 crores MSME units and capital expenditure. Our goal should be to increase Indigenous production in sectors like electronics, semiconductors, defence and renewable energy. The tax burden on citizens and corporations should be further reduced. Tax slabs should not be more than three.

> TO MAKE INDIA A DEVELOPED COUNTRY, EXTENSIVE STRUCTURAL AND POLICY REFORMS WILL HAVE TO BE DONE. CAPEX EXPENDITURE HAS BEEN INCREASED 6 TIMES IN THE LAST 10 YEARS, WHICH NEEDS TO BE INCREASED TO ₹15 LAKH CRORE BY 2030

Successful implementation of Make in India but Make for World can increase India's exports manifold. Our total exports are $825 billion which will soon become $1 trillion. By 2047, the country's exports can reach $10 trillion. There is a need to get rid of impractical and unnecessary rules and regulations which will increase ease of doing business and reduce compliance costs. This will also have a huge positive impact on foreign investment coming to India. In the last 10 years, FDI inflow has been $668 billion.

The most important thing for the digital revolution is the number of internet users. In 2010, the number of people using the internet was only 8 per cent, which reaching 55 per cent by 2025 is commendable. For digitisation, 6.92 lakh kilometres of optical fibre have been laid in the country. Today, there are 94 crore broadband subscribers in the country. 49 per cent of the world's digital transactions happen in India alone.

It is a matter of pride for India to have 172 billion digital transactions in 2024. After the Digital Revolution-1, now there is a need for Digital Revolution-2. There is a need to take internet penetration to 70 per cent by 2030.

Tourism contributes 5 per cent to India's GDP and 7.6 crore people get employment in the tourism sector. Tourism plays an important role in the economy of many countries of the world. There are endless possibilities for the tourism industry in India. Cultural tourism, religious tourism, village tourism, eco-tourism, medical tourism, heritage tourism etc. can be promoted. India's share in global tourism is 1.8 per cent, efforts should be made to bring it to 10 per cent by 2040. The rural economy should be linked to the tourism industry. The country will benefit by promoting village tourism.

There have been extensive changes in the higher education sector. Today, the country has 70,683 higher education institutions, 1,334 universities, 51,959 colleges, 23 IITs and AIIMS, and 2,045 medical colleges. There is a need to focus more on education and skill development. The extensive changes under the New Education Policy 2020 are not yet reflected at the ground level from school to university. Education has to be directly linked to Indian knowledge, Indian languages, employment, internship, skill development, entrepreneurship and research.

The economy of the states is directly linked to the economy of the country. There is a need for better coordination between the state and the central Government.

For this, if necessary, the Constitution should be amended. There is a need to focus more on Uttar Pradesh, Maharashtra, Gujarat, North Eastern States. To make the country's economy 35 trillion dollars by 2047, it is necessary for the economy of the state of Uttar Pradesh to be at least 5 trillion dollars.

More investment is required in artificial intelligence, green technology and quantum computing. Increasing research and investment in the green energy sector in the next five years will reduce the country's dependence on foreign countries for crude oil imports. In today's era, global uncertainty and geopolitical tension cannot be avoided.

Bilateral and multilateral agreements will have to be made continuously for economic and strategic partnerships with the world's powerful countries and trading blocks. The pace at which the country's economic development is taking place is the highest in the world. There is a need to further accelerate the pace of development. If we are able to maintain the economic growth rate of 8-11 per cent in the coming 20 years, the country will have a developed economy of $35 trillion in 2047.

(The writer is an economist, political analyst and professor at NMIMS University. Views are personal)

India's Diplomatic Renaissance: Modi's Strategic Trilateral Tour

Prime Minister Narendra Modi's whirlwind diplomatic journey across Cyprus, Canada, and Croatia from June 15 to 18, 2025, was more than a packed travel schedule — it was a calculated demonstration of India's evolving global role. Against the backdrop of a recent military confrontation with Pakistan and escalating tensions with Turkey, the trip signified a shift in India's diplomatic posture — from cautious balancing to confident engagement. This trilateral outreach served as a powerful articulation of New Delhi's strategic recalibration, issue-based partnerships, and foreign policy assertiveness.

Cyprus: Strategic Moves

Modi's first stop, Cyprus (June 15–16), marked the first visit by an Indian Prime Minister to the Mediterranean island in over 20 years. While the destination may have seemed peripheral to global power dynamics, the timing and optics were anything but incidental.

The visit came amid deepening strains with Turkey, exacerbated by Ankara's alleged indirect involvement in the April 2025 Pahalgam terror attack via Turkish-origin drones. India's Operation Sindoor, a swift military response, had already drawn Ankara's ire. Turkey's growing alignment with Pakistan — especially on Kashmir — and its continued recognition of the Turkish Republic of Northern Cyprus (TRNC), added fuel to the fire.

In this context, Modi's visit to Nicosia carried both symbolic weight and strategic clarity. It was a signal — subtle yet unmistakable — to Turkey that India was not above engaging with its adversaries' adversaries. Standing in solidarity with Cypriot sovereignty and the UN-led peace process, Modi's potential visit to the Green Line — the demilitarised buffer zone dividing Greek and Turkish Cypriots — underscored a nuanced rebuke of Turkey's regional ambitions.

Beyond symbolism, substance dominated the bilateral talks. Modi and President Nikos Christodoulides explored collaborations in maritime security, multilateralism, and digital connectivity. Cyprus reaffirmed its support for India's core international aspirations, including its bid for permanent membership in the UN Security Council and the Nuclear Suppliers Group.

It also reiterated its stance against cross-border terrorism, implicitly supporting India's position on Pakistan.Equally significant was Cyprus's role in the India-Middle East-Europe Economic Corridor (IMEC) — a visionary alternative to traditional trade routes compromised by Red Sea disruptions and geopolitical bottlenecks.

As Cyprus prepares to assume the rotating presidency of the EU Council in January 2026, the visit also reenergised momentum for the India-EU Free Trade Agreement, which both sides hope to conclude by the end of this year.

Canada and the G7

The second leg of the tour took Modi to Canada for the G7 Summit at Kananaskis (June 15–17), where speculation had been rife about India possibly being cold-shouldered due to recent diplomatic tensions with Ottawa. Instead, what unfolded was a reaffirmation of India's growing indispensability in global decision-making forums. This marked India's 11th appearance at a G7 summit and Modi's fifth consecutive attendance since 2019.

Far from a token presence, India played a pivotal role in critical discussions ranging from the Indo-Pacific and energy transition to digital governance and supply chain diversification. Modi's keynote address underscored India's foreign policy principle of strategic autonomy — a theme deeply woven into his administration's diplomatic fabric. He rejected any notion of external mediation in South Asian affairs, issuing an implicit rebuke to Western powers that have long sought to play arbiter in India-Pakistan disputes. The timing was telling. Just days before the summit, US President Donald Trump had claimed credit for the ceasefire that ended the recent India-Pakistan military exchange.

RAJIV MALHOTRA

In a firm rebuttal, Modi clarified in a 35-minute phone call with Trump that Pakistan had requested the ceasefire after India's forceful response — and that no third-party mediation was involved.

By publicly challenging the assertions of a former U.S. president, India demonstrated an uncommon diplomatic audacity — signaling its refusal to be patronised or misrepresented. Modi further declined Trump's invitation to visit Washington, citing a prior engagement in Croatia. While diplomatically courteous, the move clearly conveyed that India's international engagements are guided by interests, not flattery.

On the G7 floor, India's voice resonated in discussions on global digital architecture, AI ethics, climate finance, and democratised green transitions. India's Digital Public Infrastructure (DPI) model and its proposals for inclusive AI frameworks found favorable responses. Moreover, Modi's meetings with G7 leaders helped India secure additional support for IMEC and digital connectivity with Europe.

Croatia: A Strategic Gateway

Modi concluded his journey with a historic visit to Croatia (June 18) — the first by an Indian Prime Minister to the Balkan state. While Croatia may not command the diplomatic spotlight like Western European powers, its geographical positioning makes it a crucial strategic partner. Flanked by Central Europe, the Balkans, and the Adriatic Sea, Croatia holds promise as a key logistical node in the IMEC corridor. In Zagreb, Modi held talks with Prime Minister Andrej Plenkovic and President Zoran Milanovic.

The agenda spanned defense cooperation, space research, agriculture, cultural exchanges, and education. One of the key outcomes was a long-term defense collaboration framework involving maritime security, joint military training, and technology exchange. This aligns with Croatia's naval strengths and India's desire to deepen its European maritime engagement. On the space front, potential cooperation between ISRO and Croatian scientific institutions could bolster data-sharing, satellite innovation, and climate tracking. In agriculture, both countries agreed to promote tech-driven farming solutions, agri-startups, and sustainable processing systems. Croatia's ports, meanwhile, offer vital transshipment opportunities for Indian exports, especially in light of Europe's shifting logistics networks. Discussions focused on aligning customs standards, boosting Indian private investment in Croatian infrastructure, and enhancing air and sea connectivity to create seamless trade flows.

Diplomacy of Balance and Purpose

Modi's tri-nation tour wasn't just about optics — it reflected a strategic deepening of India's global engagements. Each leg of the journey served a layered purpose: Cyprus symbolised India's resolve to call out aggression and align with those who support its sovereignty. Canada and the G7 reflected India's elevated stature and its insistence on being treated as an equal stakeholder, not a junior partner.

Croatia highlighted New Delhi's evolving Europe strategy — expanding influence in regions often overlooked in traditional diplomacy. This trio of engagements exemplifies a new phase in India's foreign policy — one that is not defined by ideological camps or outdated alignments. Instead, it is driven by interest-based coalitions, flexible partnerships, and a strong commitment to national agency.India no longer seeks validation on the global stage — it seeks voice, influence, and agency.

Modi's tour marks a pivot from reactive diplomacy to agenda-setting leadership. From trade corridors to digital frameworks, defense cooperation to cultural diplomacy, India is charting a course defined by dialogue without dependency, ambition without aggression, and leadership without hegemony. As the global order fragments and reconfigures, India's non-aligned yet assertive diplomacy could emerge as a stabilising anchor — balancing power with principle, and pragmatism with with purpose.

(The writer is senior IPS officer of UP cadre. Views are personal)

The real backbone of modelling: A yoga mat

When people think of modelling, they imagine high heels, bright lights, and glamorous photo shoots.

They rarely picture the gruelling 14-hour days, the emotional toll of constant scrutiny, or the pressure to stay poised when everything inside you feels frayed.

As someone who has walked countless ramps from Delhi to Dubai, posed for luxury campaigns and worked with photographers across time zones, let me tell you a secret: the true backbone of a modelling career isn't found in stilettos. It's found on the yoga mat.

With International Yoga Day just around the corner, I find myself reflecting on how yoga hasn't just helped me survive this industry — it's helped me thrive in it.

The Body as a Tool

As models, our body is our instrument. It needs to be expressive, balanced, and aligned. But constant travel, late-night fittings, uncomfortable shoes, and physically demanding poses can throw the body into chaos. I've seen fellow models develop posture issues, chronic back pain, and repetitive strain injuries from years of ignoring body signals.

RACHNA TIWARI

Yoga — gentle yet strengthening — has been my antidote. My routine includes daily sun salutations and targeted asanas for hip and shoulder opening. Not only has this improved my flexibility and posture, but it has made a noticeable difference in the way I carry myself — on and off the runway. Photographers often comment on how "grounded" I seem in my frame. That's yoga.

It also helps with recovery. After a long day of back-to-back shoots, a 20-minute restorative session helps my muscles release tension, improves sleep, and gets me ready for the next day — something even the fanciest spas can't always guarantee.

Mental Resilience

Behind every beautiful campaign is a sea of self-doubt, rejection, and insecurity. Models live in a world where "not now" is more common than "yes," and where appearance is constantly under microscopic examination.

Yoga has been my therapist on the mat. Through practices like pranayama (breath control), dhyana (meditation), and simple mindfulness, I've learned to separate my self-worth from the fleeting nature of gigs and likes. I've learned to respond instead of react. That pause between a breath — that space of awareness — is everything when you're in a high-pressure green room or staring down the lens of a judgmental casting director.

Yoga has also helped manage performance anxiety. Before a major show, I do five minutes of deep belly breathing backstage.

It centres me, slows the mind, and replaces fear with focus. In an industry where you're constantly being compared and evaluated, that internal silence is gold.

A Global Career

One of the beautiful things about yoga is its portability. You don't need fancy equipment or a full studio. I've practised in airport lounges, on hotel balconies, and in between wardrobe changes. My yoga mat is the most important thing I pack — more important than makeup or heels.

It offers a sense of continuity in a life full of change. Wherever I go, my practice brings me back to myself. It's a daily ritual that reminds me that while my schedule, location, or agency may change, I remain constant.

Beyond the Self: A Bigger Purpose

This year, the theme for International Yoga Day — "Yoga for Self and Society" — couldn't be more fitting. In modelling, we're often encouraged to focus inward, to compete, to perfect. Yoga teaches the opposite: that true growth happens when you look beyond the mirror.

Over the last year, I've been running small yoga circles for newer models — short 30-minute sessions to help them ease into the chaos of their first fashion weeks. It's my way of giving back. Many of them have told me they sleep better, feel less anxious, and are better able to deal with industry pressures. That, to me, is the real power of yoga — it creates ripples far beyond the mat.

A Message to My Tribe

To every aspiring model reading this: please don't think of yoga as just another "fitness" routine. It's not about flat abs or graceful backbends. It's about reclaiming your mind, protecting your body, and nurturing your soul in an industry that often pulls you in the opposite direction.

And to everyone else — whether you're an accountant, an artist, or a teacher — yoga offers something for you, too. In a world spinning faster by the day, yoga invites you to slow down, breathe, and come home to yourself. This International Yoga Day, don't just celebrate yoga — practice it. You don't have to be perfect. You just have to begin.

(With her career spanning ten years, the writer has solidified her expertise in HR, entrepreneurship, and innovation ecosystem development. Views are personal)

THE ASIAN AGE
24 JUNE 2025

As Iran-Israel war rages, cost will be huge for all

The war is on and as deadly strikes and counter strikes by Israel and Iran continue to pour missiles and drones at each other, all talk is belligerent. The US, which came into the action in an avowedly one-off bombing operation, may have succeeded in slowing down Iran's enrichment of nuclear fuel to weapons grade, but the story is far from over as hardened Iranian political will drive a rebuilding of enrichment facilities.

A great deal of enriched fuel may have been safeguarded before the strike on three nuclear sites, and Iran's technical knowhow is advanced enough to make the nukes that comprised the principal reason why US stealth bombers flew 18 hours from Missouri to the target in Fordow and back. Militarily, the US action may have achieved its objective, but what has been blown up along with facilities was a political solution in a country with nuclear weapon ambitions.

It may be said that all's fair in love and war, but some Pakistani elements may be taking this too far in faking news about Indian airspace having been used by the US in bombing Iran.

This will seem risible for anyone who owns an atlas and can chart a flight course from the US to Iran. But a country that just proposed Donald Trump for the Nobel Peace prize must be considered too obtuse to understand the difference between behaviour and thought, fact and fiction, delusion and reality.

There is no such thing as a standalone war anymore in an interconnected world and the repercussions for the global economy are going to be serious considering how the oil prices are already on the boil.

There is no such thing as a standalone war anymore in an interconnected world and the repercussions for the global economy are going to be serious considering how the oil prices are already on the boil and may be headed upwards to record levels if Iran is able to carry out its threat of mining the Strait of Hormuz through which 20 per cent of global supply of oil and gas moves.

India, an interlocutor for peace through dialogue and diplomacy as symbolised by Prime Minister Narendra Modi's phone call to Iran's President Masoud Pezeshkian, will be one of the nations most affected if it cannot rework its oil supply and logistics quickly, as about $100 billion of imports from Iraq, Saudi Arabia and UAE last year came through the Strait of Hormuz. As a nation with a near 90 per cent dependence on oil imports, India must worry the most about rising prices.

India is ramping up oil imports from Russia and the US to beat the logistical challenges that may crop up with oil from the Middle East. And yet everything will come with added cost. The airlines will be operating under severely changed conditions with air routes subject to deviations to avoid the war zone.

Indians will not be the only ones facing such hardships but what will become apparent is the cost of war to the global population that leaders don't seem to factor in when they decide to let loose the dogs of war. The fact that inflation became a global concern soon after Russia invaded Ukraine is a pointer enough to how the world will suffer from the actions of warmongers.

Operation Sindhu has been helping a few thousand Indians who were resident in Israel, Iran and neighbouring countries like Jordan to get back home on chartered flights owing to fear of living in a war zone. And apart from those who might have considered themselves as too close to the heat of the war action, there are millions whose lives and livelihoods lie in the Middle East. The fear of the war spilling over into a wider regional war may have rendered, very nervous about their future.

Why delay in 'cash' judge issue?

It is given that there cannot be a question on the integrity of judicial officers but the inaction on the part of everyone concerned in the case of a judge of the Allahabad high court, from whose house in Delhi bundles of charred currency notes were found in March this year, defies logic and propriety.

Normally, such an incident would lead to the filing of a first information report and the initiation of criminal investigation, which would prove the innocence of the judge, as he claims, or otherwise.

Instead of initiating such an investigation, the Chief Justice of India formed an internal inquiry by a team of three high court judges, two of them being chief justices. The panel has reportedly come out with findings that point to wrongdoing by the judge, and hence the clamour for his impeachment.

The Judges (Inquiry) Act, 1968, which lays down the procedure for the investigation into the alleged misbehaviour or incapacity of a judge of the Supreme Court or of a high court, says the process of impeachment begins with at least 100 members of the Lok Sabha or 50 of the Rajya Sabha submitting a motion to the President. The Speaker or the Chairman of the Rajya Sabha, as the case may be, will then constitute an inquiry committee consisting of three persons, including a Supreme Court judge, the chief justice of a high court and a jurist. If the panel indicts the judge, then the motion will go back to the Houses of Parliament which need to pass it with a two-thirds majority.

The Union law minister has said he will seek the cooperation of all parties in moving such a motion.

It is sad that a judge whom the public has reason to believe is tainted continues to hold office while no legal and constitutional action is taken against him.

This is an unacceptable delay and the government must move with the alacrity the case demands.

THE ASIAN AGE

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Subhani

Why Indians seek work in war zones, despite danger

Patralekha Chatterjee

Dev 360

Most Indians who choose a life in conflict-prone terrain come from economically marginalised backgrounds, with little hope for high-paying jobs at home.

With an intensifying air war between sworn enemies Israel and Iran, and an American attack on three key nuclear sites in Iran on June 21, all governments are urgently evacuating thousands of their citizens caught in the crossfire. Israel's bombing of Iranian nuclear and military sites, and Tehran's counter-strikes, have closed Israeli airspace, forcing evacuation via neighbouring countries.

Now entering its second week, Israel's actions aimed at disrupting Iran's nuclear programme have drawn widespread international criticism and raised fears of regional instability. Asian countries, with large numbers of citizens working, studying or travelling in the area, face significant logistical and diplomatic challenges.

India's response — Operation Sindhu — has been launched to evacuate those who wish to leave either country via land borders and connecting flights. There are nearly 10,000 Indian nationals in Iran and over 30,000 in Israel. The government has already evacuated nearly 2,000 students and workers from Iran and is coordinating further repatriations, including for the nationals of Nepal and Sri Lanka.

The scale of this exodus underlines the turmoil engulfing the region. The rescue efforts have a familiar feel — this is not the first time Indians find themselves in a war zone overseas. Nor are rescue efforts novel. In April-May 2023, over 3,000 Indians were airlifted from Sudan under Operation Kaveri. Earlier missions include evacuations during the First Gulf War in the 1990s, Operation Rahat from Yemen in 2015, and assistance to citizens in Ukraine in 2022.

Yet, chilling images of war streamed into homes and onto smartphones do not dissuade those seeking a better life, even in high-risk environments.

Telephone conversations with several long-serving Indian caregivers in Israel over the past week revealed a deep reluctance to be evacuated. "No one wants to go back to India... At most, 10-11 per cent will return — and then come back," says 50-year-old Soma Ravi from Telangana, a caregiver in a Tel Aviv suburb, where air-raid sirens have become routine. Formerly a farmer, Ravi has spent two decades in Israel and now leads the Israel Telangana Association, representing over 1,000 Telugus.

His stance reflects the situation of India's estimated 15,000 caregivers in Israel, many from Telangana and Kerala, who prioritise opportunity over war's dangers. Ravi says most Indian caregivers in Israel earn the equivalent of at least Rs 150,000 per month, and are provided food and accommodation — conditions that are rare in India. "We are fine. I receive a good salary, and it is a good life," he explains. "Conflict is not new. We are used to Hamas, Hezbollah, Houthis — we know what they are capable of. We have the Iron Dome, and it protects us."

He has unwavering faith in Israel's defence systems, including mobile alerts and underground bunkers located in schools, hospitals, and other public venues and the "safe room" present in every apartment. "If there is an attack, we follow instructions. Restaurants and cinemas may be closed, but essential services continue. We are not overly worried." He regards Iran's missiles as "a slight concern", but insists: "We just need to be more careful."

What binds Ravi to Israel is not just the salary — which he says surpasses Gulf wages — but also working conditions. "I can eat whatever I like from the family fridge and dine with them at the table," he says. "Could you imagine that in India?" Arguably, a foreign caregiver living with an Israeli family is typically safer than many other migrant workers.

Jomy John, a 36-year-old nurse and caregiver from Kerala, working near Beersheba, shares Ravi's pragmatic outlook. Speaking from a secure, air-conditioned safe-room equipped with oxygen and a television set, he says calmly: "It's comfortable, and I'm watching TV." A member of the Israel Malayalee Association, John has lived through four or five conflicts. Previously employed at a hospital in Gurgaon, he felt undervalued; in Israel, he earns "several times more than India's best caregiver salaries" and is treated "like a family member". He describes Iran's missiles as "a bit scary", but not terrifying. Newcomers may panic, but they adapt quickly.

I spoke to other Indian caregivers in Israel. Through the conversations, their focus is on their chosen path: surviving well and thriving personally, amid turmoil and global uncertainty. They avoid references to the big geopolitical picture, the human toll of the conflict and the humanitarian catastrophe. They underplay dangers. Yet the risks are real. Indian caregiver Sheeja Anand from Kerala was injured in Ashkelon by a missile strike in 2023, after a video call with her husband.

It's not just caregivers or construction workers who are attracted to difficult terrain. Rising domestic education costs have driven students to Ukraine and Iran. In Iran alone, over 4,000 Indian students (half from Kashmir) are pursuing professional qualifications. Many found themselves stranded when conflict erupted; over 100 students, including 90 from Urmia Medical University, were evacuated through Armenia and Doha, arriving in Delhi on June 17. A MBBS degree from a private medical college in India costs about Rs 1 crore, while in Iran's government-subsidised universities, which have English-medium programmes, the entire course costs Rs 30 lakh.

Desperation drives this migration. After all, war does not deter the poor. Everywhere, the desperate vote with their feet.

A 2023 India-Israel agreement increased Indian labour quotas for construction and nursing. Salaries exceeding Rs 1 lakh per month plus medical insurance still dwarf earnings in India, even if safety remains an issue.

"Masons, painters, electricians, plumbers and some farmers said they were looking for jobs in Israel, with some willing to risk going into a conflict zone because they could make five times more money in a year than they would at home," said the *Times of Israel* in January 2024.

The caregivers I spoke to reject any sense of victimhood. Nonetheless, their agency, and that of the stranded students, illuminates the underlying reality: poverty and limited prospects at home drive many Indians into conflict zones.

Most Indians who choose a life in conflict-prone terrain come from economically marginalised backgrounds, with little hope for high-paying jobs at home. Confronted with rockets, drills, and alerts, they maintain a composed exterior – valuing financial security and family support over personal safety. Others may question their self-focus, amid horrors in Gaza, civilian deaths and devastation in the neighbourhood, but it is a poignant survival strategy.

While ensuring the safety of its citizens and assisting those who may want to leave, India, a $4 trillion economy and the world's fourth-largest, must confront a deeper question: why do war-torn lands remain such a compelling destination for so many of its people?

The writer focuses on development issues in India and emerging economies. She can be reached at patralekha.chatterjee@gmail.com

LETTERS

AFTER KHAMENEI

While Donald Trump has not given approval to Israel's plan to eliminate Iran's Supreme Leader Ayatollah Ali Khamenei, and is undecided about the identity of his likely successor, Iran's Opposition remains deeply fragmented. Among likely contenders, Reza Pahlavi, exiled son of the former Shah, lives in the US and lacks grassroots support within Iran, while MEK (People's Mujahedin of Iran), a controversial leftist-Muslim group led by Maryam Rajavi, has little legitimacy and is also closely tied to Washington. The reformists are disorganised and structurally weak. The absence of a cohesive alternative mirrors the post-regime chaos in Iraq, Libya and Lebanon, raising fears of extremist factions seizing power. This could also see Iran's nuclear assets fall into dangerous hands.

R.S. Narula
Patiala

INDIA ON MIDEAST

INDIA SHOULD approach the escalating Middle East conflict, after the United States joined in, with "extreme circumspection" and a "degree of exceptionalism", given that the rules-based order has collapsed. India must also tread carefully the new dynamic developing between the US, Pakistan and China. Unlike in the Cold War era, New Delhi doesn't have the Soviet Union to fall back upon. China's influence has grown over the past decades, especially since Xi Jinping took over. India should tackle its problems on its own and not try to play "Vishwa Guru".

Bhagwan Thadani
Mumbai

VIVA SAO JOAO

IT'S VIVA SAO Joao across Goa on Tuesday. The festival is one of the most vibrant and joyous celebrations in Goa, dedicated to St John the Baptist. Deeply rooted in Goa Christian traditions, it marks the monsoon's arrival and the beginning of the harvest season. The highlight of Sao Joao is the tradition of young men jumping into wells and streams to retrieve gifts and bottles of wine, symbolising the festival's connection to water and life. Jumping into wells or ponds symbolises the leap of the unborn St. John in his mother's womb and his baptism in the Jordan river. The men wear headgear made of flowers and other plant-based decorations, possibly in tribute to St John's natural attire. It also features lively music, dancing and parades.

Jubel D'Cruz
Mumbai

Aakar Patel

Why is the 'Voice of Global South' being silent on the Israel-Iran war?

India has taken it as its responsibility to bring the "Voice of the Global South" (henceforth VoGS) to the world stage, our government declared this month. As one newspaper headline put it: "Time to Make Presence Felt, India Voice for Global South: S. Jaishankar ahead of G-7".

Incidentally, for the last three years, India has been hosting the Voice of the Global South Summit, which the government has shortened to VOGSS. The immediate provocation for announcing our responsibility was linked to our arrival at the G-7, where India is not a member but designated, along with others like Mexico, Brazil, Comoros and the Cook Islands, as observers, meaning spectators. There is no real role, though sometimes hugging and giggling is apparently permitted.

The actual players in the Group of Seven — the United States, Britain, Canada, France, Germany, Italy and Japan — put out a statement condemning Iran for being attacked by Israel. Referring to the bombing campaign in Tehran and elsewhere in Iran, which led to the killing of civilians, including scientists, the G-7 "affirmed that Israel has a right to defend itself. We reiterate our support for the security of Israel" and that "Iran is the principal source of regional instability and terror".

VoGS had no opinion on this, though our Prime Minister was an observer at the summit and it was time to make our presence felt, because VoGS was kept on mute. It is unclear why we attend gatherings where we have no say, but the mighty have their reasons. It was time to make our presence felt elsewhere.

The Shanghai Cooperation Organisation, where the VoGS is a member and actually has a say, also put out a statement on the same subject. The SCO has nine players — China, India, Iran, Kazakhstan, Kyrgyzstan, Pakistan, Russia, Tajikistan and Uzbekistan. Their citizens represent some 42 per cent of all human beings, a majority of them from the Global South. The SCO's charter says its duty is "to promote a new democratic, fair and rational international political and economic international order". This means that it will stand for the rights of the weaker and poorer nations.

The SCO statement said they "strongly condemn the military strikes carried out by Israel" and that "such aggressive actions against civilian targets, including energy and transport infrastructure, which have resulted in civilian casualties, are a gross violation of international law and the United Nations Charter".

All of this is unquestionably true.

India put out a counter-statement the same day distancing itself from these words, and clarified that "India did not participate in the discussions on the above-mentioned SCO statement".

Why we run away from discussions which we can influence as participants and instead attend those where we are spectators was not made clear. VoGS works in mysterious ways its wonders to perform, as P.G. Wodehouse might have explained.

Another newspaper headline from that same day, June 14, reads: "India abstains, 149 nations back UN resolution for Gaza ceasefire". The resolution condemned "the use of starvation and the denial of aid as tactics of war" and demanded the lifting of the blockade by Israel. All South Asian nations voted for it except the Voice of the Global South.

In cricket, the gesture of making much of not doing anything is called "shouldering arms".

The reason given reads: "India's abstention was in the belief that there is no other way to resolve conflicts, but through dialogue and diplomacy"; and that "our joint effort should be directed towards bringing the two sides closer". Yes, we should bring those who are bombing and those being bombed closer.

The ministry of external affairs website tells us that on August 14, 2024, India hosted its 3rd Voice of Global South Summit. It says: "This unique initiative began as an extension of Prime Minister Narendra Modi's vision of 'Sabka Saath, Sabka Vikas, Sabka Vishwas aur Sabka Prayas', and is underpinned by India's philosophy of '*Vasudhaiva Kutumbakam*'. It envisages bringing together countries of the Global South to share their perspectives and priorities on a common platform across a whole range of issues."

On May 8, in a case relating to the living conditions and deportations of Rohingya refugees, the same Indian government told the Supreme Court that it neither recognises the UNHCR-issued refugee cards nor the Rohingyas as refugees since India is not a signatory to the 1951 UN Refugee Convention and therefore does not extend any refugee protections. Apparently, VoGS and its bombast about a global family comes with several hidden terms and conditions attached.

It need hardly be said that India's non-ratification of the UN Refugee Convention cannot be an excuse to force people to conditions of danger, persecution and statelessness.

And India is still required under the principle of "non-refoulement" in customary international law to refrain from forcing back people to places where they would be at real risk of being subjected to serious human rights violations and abuses. This is additionally a specific legal obligation under the International Covenant on Civil and Political Rights, to which India is a party. But what is stopping us from making grand speeches about the Global South and shared humanity while acting in obviously contrary ways? There is nothing, and so this charade will carry on.

The writer is the chair of Amnesty International India. Twitter: @aakar_patel

A thought for today

Those wars are unjust which are undertaken without provocation. For only a war waged for revenge or defence can be just

MARCUS TULLIUS CICERO

Mission Implausible?

Key questions about the success of Trump's Iran bombing and its objectives need answers

A huge bomb blew up a network of tunnels, and hours later Trump crowed: "very successful job". Only, it wasn't Fordow in Iran but Nangarhar, Afghanistan. The year was 2017, and the bomb, MOAB – mother of all bombs – not GBU-57. It was used for the first time, and billed as a game-changer, but four years later US beat a hasty retreat from Afghanistan. So, now that the dust and hype raised by GBU-57 'bunker busters' and Tomahawk cruise missiles have settled over Fordow, Isfahan and Natanz, it's time to ask – did they change America's game in Iran? Trump declared on Sunday that "Iran's key nuclear enrichment facilities have been *completely and totally obliterated*," but his deputies have been more circumspect. Defence secretary Hegseth has assessed "severe damage and destruction". Vance expects "conversations with the Iranians" about doing "something with that fuel".

There's a tacit acknowledgement among the Americans that at least 400kg of Iran's uranium, refined to 60% purity – not far from the 90% purity bombs need – was stashed away from the bombed sites. Israelis, who were goading Trump to bomb Fordow last week, are now painting bull's-eyes on other sites. It certainly suits them to make Trump play whack-a-mole in Iran, but before dispatching his B-2s again, Trump must weigh the evidence from Sunday's strikes.

So far, there's no spike in radioactivity, which may mean the contents of Fordow's tunnels – if not moved out – are safe. Satellite images of trucks at the site suggest nuclear fuel was removed in anticipation of US strikes. And while everybody's attention was fixed on Fordow, it turns out Isfahan, which has 60% of Iran's enriched uranium and *even deeper* tunnels, was not hit with GBU-57s at all. So, Iran possibly has plenty of uranium left over to keep its bomb hopes alive. Meanwhile Trump has run through 14 of his 20 GBU-57s in one raid. Should he go back with the last six, when it's not clear whether they made any difference at all?

On Sunday, Trump's staff described the strikes as a "limited" intervention, and White House labelled them a "display of peace through strength". Iran, for all its tough talk, might swallow the first provocation and return for talks, but a second strike would be impossible for it to ignore. So, Trump should plan his next move against Iran carefully. He has the means, of course, but does America need this fight?

No More Hot Air

DGCA waking up to aviation safety won't change much unless audit is unsparing & findings are made public

Nothing shows more starkly why nothing should be taken for granted than aviation regulator DGCA's 'comprehensive safety audit' – a 360-degree evaluation of the sector's safety, ops and regulatory compliance. Flyers assume such a periodic 360-degree audit and assessments are at the core of DGCA's raison d'etre. Apparently not. Airlines' and chopper operators' audits have been carried out in silos. And compliance with aviation safety rules has been hostage to airlines cutting corners to keep losses in check and profits intact, coupled with a crippling shortage of suitably trained inspectors at DGCA's multiple operations' wings. Plus, allround graft, including in the running of flying training schools.

Commercial flying is a multitude of operations demanding high skill, high training and plenty of rest – it is only when every small part works in unison can flight safety be guaranteed. Take something as routine as oxygen on board. A Lok Sabha response mentioned a Nov 2022 Air India B737 Bombay-Bengaluru-San Francisco flight that was fined ₹1.10cr for insufficient oxygen on board. The penalty order came a year later on Jan 24, 2024. On July 9, 2024, in a "serious scheduling incident" on a Delhi-Riyadh flight, a trainee first officer was paired with a non-trainer pilot, against basic norms – AI was fined ₹90L. It's not a moment too soon that three AI senior officials were removed from their posts for a series of lapses.

A constant stream of 'accidents' – from unlawful entry into the cockpit to under-trained and fatigued pilots, from poor maintenance to inspection staff shortage – has the aviation sector glitching. There have been calls that DGCA may want to bring in third party auditors since a key operational audit would be to identify the safety watchdog's own weaknesses and gaps in protocol, staffing and service. Finally, findings of the audit must be made public – to reassure those who actually buy air tickets and keep the business running.

Pinky's got Trumpache

His drama mixed with her fam drama is soo stressy

Himanjali Sankar

So much drama this Trump is doing. My best friend Pinky's mother-in-law's visa expired and Pinky's husband said fine, we'll fast track a new visa for Mummy but no. Now there is chaos and long long queues and poor Aunty is stuck in Delhi summer and can't see her newborn grandson – Pinky's sister-in-law's sweet sa fair baby in San Francisco. When will this Trump die, Aunty was shouting when I met her, will I not see my grandson till he becomes a teenager or something? Aunty does too much drama like Trump only but it is true. This Trump is stopping everyone doing everything.

Pinky and her husband have visas, till 2030, but her husband is now saying let it be, Mummy will feel bad if we go to America without her. Pinky is so angry but she can't say anything bad about her mother-in-law so she tells her husband we can go to only Manhattan and not to California, we don't have to see the baby.

Pinky is smart, and she's right – no one needs to see the baby, bas.

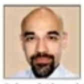
Pinky's husband says you are being selfish to Pinky as if he wants her to be Nirupa Roy or something, you know that mother in a white sari. And then if that isn't enough, Pinky's nephew who studies in Harvard is also in some trouble, some flag he was waving in America, stupid boy, so when Pinky goes crying to her own Mummy about her mother-in-law and husband she says keep quiet Pinky, Deepak bhaiya's son in Harvard loves Gaza or something and now what will happen?

Pinky's cousin sister Meenu is very political, she got excited and said forget about US, think of the state of education in our country, professors being jailed for social media posts. This Meenu talks too much but it was good only, everyone stopped saying mean things to Pinky and got angry with Meenu instead. What is this Meenu even saying? We give visas and say come come see the Taj Mahal to foreigners. The Mughals were killing the Hindus and all that, but we are forgiving, peace-loving, and we say it's fine only, Shah Jahan built the Taj Mahal, so good. Our country is not bad like America, she should go and stay there if she doesn't like India but hai ram how will she get a visa?

America's Persian Poser

Iran striking US bases is proof how flawed Trump's premise, batter Tehran into a n-deal, was. More chaos may follow. If Trump makes a bigger mistake of seeking regime change, Iran will not negotiate at all. It may see internal semi regime change if left to itself

Rouzbeh Parsi



Columnist based in Lund, Sweden

Trump is probably the most predictably unpredictable president US has ever had. His lack of foreign policy schooling means he can ignore conventional thinking and cut through the tried and tested, though often failed, ways of solving problems – and of conducting foreign policy. Now that Iran's fired missiles at American bases, it's hard to buy this consolation, that upending alliances and dispensing with institutionalised processes of patiently building policy, has positive outcomes.

With the ongoing disaster in Gaza as the pitch-black backdrop, the hope was that Trump, staying true to his promise of not getting into forever wars, would find a diplomatic way to break the impasse with Iran. His MAGA base responded very well to the promise of staying out of wars. Indeed, this was instrumental for both his 2016 and 2024 victories.

Ironically, the mess was of his own making. The reason there was a political and dangerous impasse with Iran was because Trump himself during his first term in office wrecked the nuclear agreement that Obama had signed with Tehran in 2015.

But neither did Biden learn from Obama what actually does work when negotiating with Tehran. As Trump 2.0 predecessor, Biden instead went back to the policies that had gotten America nowhere during the previous 40 years of enmity with Iran. Having unlearnt Obama's successful strategy Biden left office with two black marks to his name: Genocide in Gaza and failure to revive the nuclear agreement with Tehran.

In his second presidency, Trump wanted to avoid being hampered by the remnants of the old guard in his party. During his first term, these were the very people everyone else was hoping would act as adults in the room. These political and military veterans were supposed to restrain Trump from taking reckless steps, which could upend the international order his country had built since the end of World War II. In some ways they did deliver on this. While the confrontation with Iran became very dangerous, in the end both sides took a step back.

Today the situation is very different. After Hamas's Oct 7 terror attack, the Israeli political and military leadership decided to strike at all its enemies at once, with Iran being the main foe. When the Biden administration and EU supported Israel's increasingly brutal warfare in Gaza and subsequent conflict expansion into Lebanon and Syria, it indicated that further Israeli campaigns would not be criticised or hampered.

Then Trump returned to the White House. Even as he initiated negotiations with Tehran, the situation became more volatile. His administration is particularly weak on institutional processes, so the evolution of the negotiations was unpredictable. They revolved very much around…Trump. The parameters of the negotiating positions were difficult to discern. So much so that his special representative Steve Witkoff had to backtrack on statements – damaging US credibility.

But what really upended the US-Iran dialogue was that Netanyahu could not risk this leading to a breakthrough. He decided to attack Iran on Friday 13th, two days before the next round of US-Iran negotiations in Oman.

Since then, military exchanges have inflicted damage in both Iran and Israel. Netanyahu likely thought that his swift decapitation of part of the Iranian leadership would result in regime collapse. It didn't, which is not surprising. The Islamic Republic is an authoritarian oligarchy, not a one man show.

At this juncture, Trump seems to have decided that further negotiations would only yield preferred results if the Iranians were "softened up". This was especially necessary, from his point of view, since he needed to claim that his deal was better than Obama's.

So, the US position went from demanding a capping of enrichment in Iran to no enrichment at all and a dismantling of its whole nuclear programme. In Trump's own words: Unconditional surrender. This wasn't a realistic expectation. Trump's logic therefore demanded a big American blow to Iran's programme. It was meant to force Tehran into wide-ranging concessions at the table they had already sat at.

Will this gamble work? No, if history and American military adventures in the region are any guides. Not only will Iran not bend the knee, but most likely Trump's idea of a singular strike to change the trajectory of events will do just that – not in the way he expects.

It's likely that Iran's nuclear programme just can't be fully destroyed from the air. Indeed, the known scenario computations of an air war against it suggest that the programme would be rebuilt within 2-3 years. And with the singular objective of acquiring a nuclear weapon.

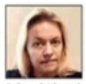
We are now on the slippery slope towards another full-blown US war in West Asia. Its next steps may be an attempt to topple the Iran regime or even US ground troops.

- In an optimistic scenario, Trump would have insisted that his strike had been "spectacular" and therefore needed no follow-up. Tehran, in turn, would have taken the hit and only retaliated symbolically. Then they would have both sat down and negotiated. This scenario assumed, one, that Trump could get Israel to hold back. Two, that he entered the subsequent negotiations without thinking that Iran had been defeated and therefore would surrender its nuclear and missile programmes.
- Iran has completely upended this scenario, with its attack on US bases. What Trump's actually accomplished is throwing his own presidency, international law, and the fate of West Asia up in the air – into chaos. We will all have to live with the consequences.

The writer is professor, Lund University

(A mural in TEHRAN)

Jane Kinninmont



Columnist based in London

Iran's targeting of US military bases in Qatar and Iraq in retaliation for American strikes on Tehran's nuclear programme may have drastic consequences. But there is huge uncertainty about which direction change will take.

US had been sending mixed messages. On Sunday key officials did the rounds of US TV shows saying they weren't seeking regime change. In the vice-president's words, US was at war with Iran's nuclear programme, not with Iran. But later the same day Trump issued a Truth Social post suggesting that maybe the regime should change – without necessarily saying he wanted to bring that about.

Meanwhile US and its allies have been calling for Iran to negotiate an agreement over its nuclear programme. But Iran was already engaged in talks when it was attacked. A general disempowerment of the US diplomatic service makes it even harder to ensure a reliable understanding of US objectives.

In this fog, it appears that US does want an agreement with Iran, but calculated that military action would force Iran to negotiate from a position of weakness. If Iranian govt does take this route, it would only do so if it calculated that this was the best way to preserve the survival of the Iranian political system. In that scenario Iran would have carefully limited the scope of any retaliation against the US attack. At the time of writing, we are still not sure how big the Iranian attacks on US bases are.

Conversely, if Iranian leaders judge that US is committed to regime change, they will have little to lose from widening the war and escalating attacks on US interests. Iran is probably finding this genuinely difficult to assess – as the US posture is genuinely confusing, especially coming from a president who ran on an anti-war platform and spent the first few months of the year talking up diplomacy with Iran.

Regime change appears deeply unpopular with Trump's base, triggering memories of Iraq and Afghanistan. But Trump's govt and the Republican party tend to fall quickly in line with what the unpredictable president wants.

US's European allies are well aware that it is illegal to start a war for regime change. They clearly have doubts about the US/Israeli attacks having any legal justification in the first place, since there were peaceful diplomatic options to deal with Iran's nuclear programme. But few dare to contradict Trump explicitly.

- One scenario is that US focuses on making a deal with Iran – most immediately to secure continued access for IAEA inspectors to verify the whereabouts of Iran's nuclear materials, some of which have been moved to new locations to protect them from airstrikes. This would likely also involve stopping Israel from continuing its attacks on Iran. In a nutshell the US offer would be 'No uranium enrichment, no regime change'. It's uncertain now if Washington will pursue this course after the Iranian strikes.
- Another scenario would be for US/Israel to press ahead with some effort to overthrow the regime. Advocates of regime change – this would probably be more of a 'regime collapse' – are making very similar arguments to those that were made for invading Iraq. It is also clear there is no longer an appetite in US to invest time and energy in efforts to remake another country's political system and economy in the way they did in Iraq or Afghanistan.
- Libya could be another comparison, where Nato implemented a no-fly zone that in effect gave aerial protection to an opposition uprising, but did not seek a 'nation-building' role afterwards. But in Libya, Nato gave a boost to a serious internal uprising against the govt.

By contrast, in Iran, although there is extensive opposition and a history of protests, there is no major uprising underway. Indeed, many opposition activists have indicated their clear opposition to the airstrikes against their country, even as they also object to the repressive policies of their govt. The former monarch's exiled son, Reza Pahlavi, has called for an uprising to overthrow the regime but thus far appears to have limited support on the ground.

- There might still be efforts by Israel/US to support ethnic separatist movements, for instance by Kurdish or Balochi groups. There will be staunch opposition to that from neighbouring states, including Türkiye.
- Israel/US might see the recent weakening of Hezbollah in Lebanon as a model for decapitating the Iranian govt: Although Hezbollah has not been destroyed, it has been so badly weakened that it has indicated it will not try to intervene to protect Iran in the current war. However, Hezbollah is quite a different thing. It is just one party within a wider Lebanese political structure.
- Some Iranian analysts argue – convincingly – that while there may not be regime change, the regime is bound to go through some sort of internal transformation.

There has been speculation that Israel/US might assassinate the supreme leader, 86-year-old Ayatollah Ali Khamenei, who is in hiding for just that reason. Whether or not he remains personally safe, the airstrikes on Iran will probably accelerate the process of identifying his successor and bringing a younger generation of decision-makers into power. This will intensify an existing internal debate about the country's direction of travel.

There will be calls inside the Iranian system for a deep strategic reassessment as the security posture that Iran believed would deter potential attackers (including its extensive missile programme and relations with non-state armed groups) has instead become a liability.

The world should try to persuade Iran to reset relations on a more peaceful basis and strike a new bargain with its population. This may head down a path that is perhaps less theocratic, but still highly authoritarian and disinclined to trust any other countries.

The writer is a West Asia analyst

Calvin & Hobbes

Sacred*space*

Don't look for peace. Don't look for any other state than the one you are in now; otherwise, you will set up inner conflict and unconscious resistance. Forgive yourself for not being at peace.

Eckhart Tolle

Yog Is The Union Underlying All Existence

Anandmurti Gurumaa

For countless ages, rishis have shared their profound experiences of higher planes of existence, elaborating on philosophies of yog for humanity's benefit. Yet, with time, these teachings were buried and forgotten. It is in such times of collective forgetfulness that a revival becomes necessary. Sage Patanjali's compilation of Vedic aphorisms into a structured, succinct text was one such renaissance, crafted for the welfare of spiritual aspirants. His work was not an invention but a reorganisation of scattered wisdom into an accessible form. Expounded by Sage Kapila, Sankhya philosophy originated as a discourse delivered to his mother, Devahuti. This exchange is unique – a son guiding his mother towards liberation.

The origins of yog, however, precede even Sankhya. They are said to lie in Hiranyagarbha, the golden womb from which the universe itself emerges. Just as a child is conceived in the union of sperm and ovum, creation stems from the alliance of Ishwar and Prakriti. Sankhya philosophy elucidates this process: from Prakriti arise ahankara, maha tattva, the panchtanmatra, and the panchbhuta. Through a divine engineering process, subtle elements multiply, transforming into the tangible world we perceive.

Prakriti, the master designer, orchestrates this flawless process. When anomalies occur, the fault lies not with Prakriti but with external factors like genetic defects or the mother's stress. Similarly, the universe's vastness, teeming with life and matter, arises from prakriti's transformation. From subatomic particles to galaxies, everything originates from this cosmic interplay. All forms return to their subtle states when destruction occurs, and the cycle begins anew. This creation, dissolution, and recreation are a continuous stream, a beginningless flow.

THE SPEAKING TREE

The lineage of knowledge, too, flows unbroken. Krishn speaks of passing wisdom to Surya, who transmitted it to Manu, ensuring the continuity of yogic knowledge. But who was the original teacher? It was Ishwar, the first expounder of yog, initiating a lineage that has endured through the ages. Sankhya, Vedanta, and Yog are deeply interconnected.

The tangible world comprises the five objects of senses – sound, touch, form, taste, and smell. These derive from the panchtanmatra, the subtle elements. From these emerge the panchbhuta, the five gross elements – earth, water, fire, air, and space. Our bodies, too, are formed from these elements, housing cognitive and motor senses to interact with the world. Yet the body, though a marvel of prakriti, is inert. The antahkaran – the mind, intellect, chitta, and ego – animates it.

Each unit of the antahkaran plays a role. The mind generates thoughts, intellect decides, chitt stores memories, and ego asserts individuality. However, when the ego dissolves and the sense of 'i' and 'mine' vanishes, true freedom from maya is attained. Prakriti operates through three gunas – sattva, rajas, and tamas. These qualities shape everything, from the body to the mind. This interplay of gunas sustains the cycle of creation and dissolution.

Yog, in essence, is the union underlying all existence. It is the alliance of Prakriti and Ishwar, the synthesis of the tangible and intangible, merging of individual self with the universal consciousness.