EDITORIAL HIGHLIGHTS

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GS 3: SCIENCE AND TECHNOLOGY
THE HINDU PAGE: 07

Your DNA says less about your personality than a short online quiz

The findings of new research reinforce a long-standing idea in genetics that there is no single 'personality gene'; the dataset the researchers used also directly challenged older theories that attempted to link traits to particular brain chemicals

Anirban Mukhopadhyay
NEW DELHI

Decades of psychology have categorised human personality into five broad buckets: openness to experience (curiosity and imagination), conscientiousness (organisation and responsibility), extraversion (sociability), agreeableness (compassion), and neuroticism (a tendency towards anxiety and volatility).

In new findings published in *Nature*, scientists have completed one of the largest-ever genetic analyses of these 'big five' traits, offering a more detailed picture of the genetic architecture of personality.

"The finding that genetic signals were broadly consistent across different contexts... supports the view that personality traits such as extraversion and neuroticism have a biological basis," Veena Kumari, professor of Experimental Psychology at Brunel University London, said. "However, like most psychological constructs, personality is a complex phenotype." She noted that human behaviour remains deeply tethered to its environment and "may not be similarly expressed, or even measured with the same precision" across different walks of life.

Inside the genome

The global team of researchers analysed data from up to 1.14 million participants across 46 study cohorts. Participants first completed validated personality questionnaires, which allowed the researchers to assign each person a score for the five traits.

The researchers then analysed the participants' DNA using a genome-wide association study (GWAS). That is, they looked across the genome for tiny genetic differences that tended to occur more often in people with higher or lower scores on each personality trait.

"The study identified some 1,250 DNA [variations] that are associated with personality traits," Mani Ramaswami, professor of neurogenetics at Trinity College Dublin, said. "It is important to note that these are tiny changes in the DNA and not the genes as a whole. Each one on its own has a minuscule effect" on human behaviour.

The goal of this exercise was not to find a single piece of DNA that determines whether someone is outgoing or anxious but to spot patterns spread across the genome in the form of genetic variants that, taken together, could be associated with small differences in personality across a large number of people.

Genes and life

The findings reinforced a long-standing idea in genetics that there is no single 'personality gene'. The dataset also directly challenged older theories that attempted to link traits to particular brain chemicals. The team found several gene variants scattered across the DNA, and tallied them up into a single number called a polygenic index – a score that combines the effects of the variants, each associated with specific traits.



The study found that genetic correlations extend beyond health into social behaviour and residential choices as well. GETTY IMAGES

The researchers then used these scores to test whether the genetic patterns associated with personality turned up in other parts of the people's lives. Specifically, by comparing these indices with large publicly available datasets on health, behaviour, and social outcomes, they found a range of genetic connections. For example, genetic patterns associated with higher conscientiousness were linked to a lower body mass index, fewer hospital visits, and lower substance use. Genetic patterns associated with neuroticism, on the other hand, showed strong associations with anxiety, depression, and other psychiatric disorders.

Seeing DNA linked to such serious health outcomes might make the index sound like a genetic crystal ball. Michel Nivard, professor of genetic epidemiology at the University of Bristol, is quick to burst that bubble.

"Look, if you want to know more about your personality, you can take a 3-5 minute online test. It will be highly predictive," Dr. Nivard said. For an individual, he said, the genetic effect "is weak, and adds no information over a 3-5 minute test at all."

Instead, the breakthrough's true value is at the macroscopic level. The genetic data is "strong enough to do new kinds of psych-, bio-, and social science of personality in larger groups," Dr. Nivard said, "where we work with averages across many individuals."

Beyond correlations

Hemant Tiwari, professor of Biostatistics at the University of Alabama at Birmingham, warned against jumping to conclusions like having a neurotic personality could cause someone to become depressed.

He noted that human biology is messy, and "shared genetic influences can affect personality, psychopathology, cognition, self-regulation, and health simultaneously."

In other words, the same genes that shape our temperament may also trigger certain health issues, rather than one causing the other. Because the data cannot reliably separate the two, Dr. Tiwari said, "whether personality itself causally drives downstream outcomes remains unresolved."

The genetic correlations extend beyond health into social behaviour and residential choices as well. The study found that by middle age, people with genetic profiles associated with higher openness to experience were more likely to have moved into cosmopolitan professional areas. Meanwhile, those with genetic profiles associated with higher conscientiousness were more likely to have moved away from cosmopolitan areas and toward affluent suburban communities.

The researchers also tried untangling nature from nurture by looking at siblings in their data. Siblings share the same upbringing but inherit slightly different combinations of DNA. By comparing them, the researchers could strip away the effects of the childhood environment and isolate the direct impact of genetics.

While parents still shape their children in complex ways, the data show the environmental transfer of personality is neither strong nor straightforward. As Dr. Nivard noted, the findings largely exclude "the possibility that extraverted parents environmentally cause their kids to be more extraverted".

Sequencing within families

Translating these insights into global clinical practice, however, faces a severe bottleneck. The genomic databases powering this research are dominated by individuals with European-like genomes. When a polygenic index built on such data is applied to populations with different genetic ancestries, prediction generally becomes less reliable.

Moving forward, Dr. Ramaswami said DNA sequencing within families exhibiting extreme behavioural variants will be far more useful than broad population studies.

An approach along these lines, he noted, is already being pioneered in India for psychiatric conditions through a joint effort by the National Centre for Biological Sciences (NCBS) and the National Institute of Mental Health and Neurosciences (NIMHANS), both in Bengaluru.

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THE GIST

- A recent study has offered a more detailed picture of the genetic architecture of personality
- The global team of researchers analysed data from up to 1.14 million participants across 46 study cohorts
- Participants first completed validated personality questionnaires, which allowed the researchers to assign scores to each person
- The researchers then looked across the genome for tiny genetic differences that tended to occur more often in people with higher or lower scores on each personality trait
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GS 2: INTERNATIONAL RELATIONS
THE HINDU PAGE: 08

New Delhi's 'balancing act' risks eroding Russia's trust



Muqtedar Khan

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The Shanghai Cooperation Organisation (SCO) summit in Bishkek, Kyrgyzstan, on August 31-September 1, 2026, and the BRICS summit in New Delhi on September 12-13, 2026, were remarkable. Iran received considerably more attention and support from members of both the groups, far more than anticipated. More consequential, however, was the shift in India's stance on the United States-Israel war against Iran and Russia's war in Ukraine.

Traditionally, the SCO and BRICS summits have offered the three major powers – Russia, India and China – an opportunity to demonstrate their mutual solidarity. For Russia, it is a platform from which it can signal to the West that it is not isolated and still has powerful allies. The expansion of the SCO and BRICS under China's leadership showcases its growing power to the West. For India, the SCO and BRICS have been useful for demonstrating its strategic autonomy. India has sought to remain welcome in both western and non-western forums, from the G-7 to the SCO and BRICS.

A surprise pivot

At Bishkek, however, India sprang two surprises. First, it endorsed the Bishkek Declaration, which condemned the attacks on Iran as violations of international law, reaffirmed Iran's sovereignty and territorial integrity, and mourned the killing of its Supreme Leader, Ayatollah Ali Khamenei, in U.S.-Israeli air strikes on February 28, 2026.

Although the declaration did not name the U.S. or Israel, its meaning was unmistakable. India reaffirmed its opposition to military strikes on Iran by endorsing the Bishkek Declaration, which condemned the attacks and reiterated support for Iran's sovereignty and territorial integrity.

Second, Prime Minister Narendra Modi made an unusually blunt appeal to Russian President Vladimir Putin to bring Russia's seemingly endless war in Ukraine to an end.

India has generally sought to avoid directly condemning the U.S. or Israel for their military actions against Iran, even though Iran, like India, is a member of both the SCO and BRICS. India had previously avoided explicitly accusing Israel of genocide in Gaza, although it had supported UN resolutions calling for a ceasefire and reaffirmed its commitment to Palestinian statehood. Indeed, New Delhi had emphatically declared that it stands with Israel, while often working in multilateral forums to soften language that is critical of Washington and Tel Aviv. But in both the Bishkek and Delhi Declarations, India signed on to very strong criticism of Israel as well as very strong affirmation of Palestinian rights and the two-state solution.

India's performative diplomacy could undermine its longstanding friendship with Moscow

One interpretation of this pivot in policy is that India may have signed on to the declaration to avoid alienating Mr. Putin and Chinese President Xi Jinping, and thereby jeopardising their attendance at India's BRICS summit. Without the two leaders, India's presidency of BRICS this year would have been a complete failure. Since Operation Sindoor (2025), India has faced a growing perception of diplomatic marginalisation. Meanwhile, Pakistan has gained diplomatic prominence through Washington's selection of Islamabad as a mediator in the conflict with Iran, while several Gulf nations have sought defence agreements with Pakistan. Consequently, India needed a successful and high-profile BRICS summit, which it got.

Contradictory shifts

While there is a shift in India's policy, New Delhi has not abandoned Washington entirely. Mr. Modi's public appeal to Mr. Putin to end the endless war in Ukraine can therefore be read as a counter-signal to Washington. Had the message been intended only for Moscow, it could have been conveyed privately. Delivering it publicly suggested that Mr. Modi was also reassuring the West. India may have joined the SCO and BRICS consensus on Iran to secure a successful BRICS summit, but it was now leaning more toward the western position on Ukraine than before.

These apparently contradictory shifts reveal the strain on India's foreign policy. New Delhi wants to support Israel while condemning attacks on Iran; buy Russian oil while aligning more closely with the West on Ukraine; and remain central to BRICS and the SCO while assuring Washington that it is not part of an anti-American bloc. Multi-alignment is becoming an increasingly difficult exercise in this era of change and turbulence. India's balancing act is unlikely to sit comfortably with either Moscow or Beijing.

Although Mr. Modi and Mr. Xi did not meet bilaterally at the SCO summit in Bishkek, they held talks on the sidelines of the BRICS summit in New Delhi. The meeting preceded Mr. Xi's high-profile G2 summit with U.S. President Donald Trump in Washington, which was held in September 2026. Neither summit declaration mentioned the war in Ukraine, avoiding criticism of Moscow even as Mr. Modi publicly urged Mr. Putin to end the conflict. India thus endorsed two declarations accommodating Russia's position without fully embracing it.

From Mr. Putin's perspective, this was the second time that Mr. Modi had used what might be called *'jumla'* (performative) diplomacy at Russia's expense. At Samarkand on September 16, 2022, Mr. Modi told Mr. Putin that "today's era is not an era of war". External Affairs Minister S. Jaishankar subsequently repeated that phrase in western capitals to demonstrate that India's purchase of discounted Russian oil did not signify political support for Russia's invasion.

The selectivity of these admonitions is difficult to ignore. Mr. Modi has not used comparable language toward Mr. Netanyahu, even as Israel has attacked several countries and territories across West Asia, many on multiple occasions, and has committed genocide in Gaza. Nor has Mr. Modi publicly directed the same admonition at Mr. Trump following American attacks on Iran. India itself attacked Pakistan during Operation Sindoor. Mr. Putin may therefore conclude that Mr. Modi's declaration that this is "not an era of war" reflects neither a consistent principle nor a universal opposition to war, but diplomatic messaging designed to reassure the West at Russia's expense.

Mr. Modi's latest appeal – that "endless war" must give way to an "end of war" – may reinforce that perception. Would Mr. Modi deliver the same message to Mr. Trump about the increasingly prolonged war with Iran – or to Mr. Netanyahu about his unending campaign of revenge in Gaza? How is Moscow interpreting this double standard?

Where ties with Russia stand

Russia, nevertheless, still needs India, at least for now, as a major purchaser of its oil and military equipment. At the same time, Moscow can see that New Delhi has steadily reduced its dependence on Russian arms by turning increasingly to France, Israel, and the U.S. The relationship remains important to both countries, but it is becoming increasingly transactional – and vulnerable to their diverging strategic priorities.

Russia is now leaning ever more toward its "trusted partner" – China, while Mr. Modi's performative diplomacy designed to stay in the good books of Washington risks undermining the long enduring Russia-India friendship.

GS 3: ENVIRONMENT
THE HINDU PAGE: 08

India's next investment cycle will shape its carbon future



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The United Nations Environment Programme's (UNEP) recent warning that the world could cross the 1.5°C warming threshold within the next few years is likely to renew calls for faster decarbonisation. India, too, will face this pressure, but its choices are still open. Much of the housing, industrial infrastructure, power networks and urban development needed for its next phase of growth is yet to be built.

NITI Aayog estimates that 86% of the building stock that India will have in 2070 is yet to be built. Total floor space will more than double, from about 18 billion square metres in 2020 to 42 billion by 2070. India's crude-steel capacity, at about 200 million tonnes in 2024-25, is targeted to reach 300 million tonnes by 2030-31. Cement output is projected to rise from about 427 million tonnes in 2024 to 660 million tonnes by 2030.

The advantage of choice

The usual reading of these numbers is that India's infrastructure deficit makes decarbonisation harder. Demand for steel, cement and electricity will continue to rise even as India tries to reduce emissions. True, but only partly. The other side of the development deficit is that much of India's future capital stock remains a choice rather than an inheritance. Its future emissions will depend on what it chooses to build now and the technologies and standards that are embedded in that investment.

Mature economies face the opposite problem. The International Energy Agency (IEA) estimates that around 80% of the building stock that advanced economies will use in 2050 already exists. In the European Union, 85% of buildings predate 2000, around three-quarters perform poorly in terms of energy efficiency, and only about 1% are renovated each year. India has legacy problems too, but has more room to avoid creating them. It can build in efficiency from the outset and reduce the risks of stranded assets, premature retirements, or expensive retrofits later. In buildings, India need not wait for technology to catch up. The know-how is there, and so is the regulatory framework. The gap is in implementation.

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The Bureau of Energy Efficiency (BEE)'s State Energy Efficiency Index reports that the Energy Conservation Building Code (ECBC) 2017 has been notified by 27 States, but legally incorporated in only 21. BEE has since issued the Energy Conservation and Sustainable Building Code (ECSBC) 2024 for commercial and office buildings and the Eco-Niwas Samhita (ENS) 2024 for residential buildings. States should embed these standards in building permits, occupancy certificates, and grid connections, where non-compliance can carry a cost.

The issue in the power sector

Power presents a different problem. India has added renewable generation quickly, but the network to move it has not kept pace. The IEA estimates that transmission bottlenecks have held back around 60 GW of renewable capacity. The Ministry of Power's plan envisages roughly 590 GW of generation additions between 2023 and 2032. So, an unresolved transmission gap will become more serious as generation expands. As transport, cooling and parts of industry electrify, the gains from cleaner generation will depend on whether that power can be reliably moved to where it is needed. Transmission and storage, therefore, must be planned alongside, and in some cases ahead of, new generation and demand.

In steel and cement, the low-carbon transition is harder. The Ministry of Steel acknowledges that hydrogen-based green steel is not yet viable in India, while NITI Aayog places large-scale carbon capture in cement further down the transition path. Mandating technologies could raise costs and, worse, lock firms into processes that later prove uneconomic.

Public procurement could be a better instrument. The Union and State governments, Indian Railways, the National Highways Authority of India, and other public agencies buy large quantities of steel and cement and can help create an early market for lower-emission materials.

India already has a green-steel taxonomy, and the Ministry of Steel has proposed aggregated procurement through competitive bidding. Tenders could set emissions-intensity thresholds without prescribing the production route. Competitive bidding would then reveal the green premium while rewarding producers who find the most efficient ways to meet the thresholds. As the premium narrows with economies of scale and technological advances, the thresholds could be tightened. They could also be aligned with the emissions-intensity targets under the Carbon Credit Trading Scheme (CCTS), ensuring consistent policy signals.

Costs and risks

Finance can also skew these choices. The IEA estimates that India's cost of capital for grid-scale renewables is about 80% higher than in advanced economies. Since clean infrastructure is front-loaded in cost, that gap can make an otherwise viable project uneconomic. Targeted instruments such as payment-security mechanisms, partial credit guarantees, or concessional debt can ease financing or off-taker risk. But where the technology is still unproven, cheaper public finance will simply shift more risk onto the public balance sheet.

India cannot avoid the investment required to build the economy it still needs. What matters is what kind of capital the investment leaves behind. Where technology is mature, there is little reason to build inefficiency into assets that will last for decades. Where it is still evolving, preserving flexibility has value. Getting those choices right now can spare the country costlier corrections later.

The views expressed are personal

GS 2: SOCIAL JUSTICE (HEALTH)
THE HINDU PAGE: 09

Are coronary stents necessary?



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Dr. Basil Varkey

Professor Emeritus of medicine

Keralam Chief Minister V. D. Satheesan's recent remarks questioning "unnecessary" angioplasty procedures have drawn objections from medical organisations concerned that it could undermine public confidence in doctors. But the Chief Minister's remarks demand more than a reflex response; it requires a thoughtful, honest response built on up-to-date evidence based on clinical and research studies.

Percutaneous Coronary Intervention (PCI), by balloon angioplasty and stent placement, has transformed cardiovascular care. During an acute heart attack caused by a suddenly blocked coronary artery, prompt angioplasty and stents can restore blood flow, save heart muscle and improve survival. There is no debate about this approach and second opinions are unnecessary as time is of essence in such an emergency. Stents also offer substantial relief to selected patients with persistent activity-limiting angina (chest pain caused by lack of oxygen-rich blood).

There is a crucial distinction between stenting as a life-saving measure in the above situations to medical treatment via stenting because a narrowing of blood vessels is seen on an angiogram. A coronary angiogram shows the anatomy of the arteries; it does not, by itself, establish that a narrowing requires intervention. The decision to intervene and how to intervene must take account of the patient's symptoms, the severity of the blockage, its effect on blood flow, the overall pattern of coronary disease and the expected benefit of intervention.

There is a crucial distinction between stenting as a life-saving measure to medical treatment via stenting because a narrowing of blood vessels is seen on an angiogram

The landmark ISCHEMIA trial, published in *The New England Journal of Medicine* in 2020, enrolled 5,179 patients at 320 sites in 37 countries with stable coronary artery disease and moderate to severe ischemia (restricted blood flow to the heart). The patients were assigned either to an initial invasive strategy – angiography followed by angioplasty or coronary bypass surgery – or to a conservative strategy of optimal medical treatment, with revascularisation reserved for those who had an acute event or angina. After a median follow-up of 3.2 years, there was no significant difference between the two groups in composite outcomes (cardiac arrests, hospitalisation for unstable angina or heart failure) and all-cause and cardiovascular mortality were similar. After a follow-up of 5 years, there was still no significant difference between the two groups in composite outcome or mortality. The core lesson is that most patients with stable coronary artery disease with ischemia on optimal medical treatment would do as well as those who undergo stenting or bypass surgery.

Concerning scale

The growing scale of PCI in India deserves careful examination. National Interventional Council figures show that annual PCI procedures rose from approximately 1,13,000 in 2008 to more than 7,26,000 in 2024 – an increase of more than six-fold. In contrast, PCI procedures in the U.S. fell by about 40% between 2003 and 2016, reflecting progress in prevention and treatment.

These figures do not by themselves prove that stents are overused in India considering its large population, the substantial burden of premature coronary disease, the socio-economic progress in the past decades and the improved access to cardiac care centres. Nevertheless, the divergence in trends between the two countries raises an important question: how much of the increase in PCI is a reflection of fulfilling a genuine clinical need, and how much of it is a reflection of differences in practice patterns, financial incentives and gaps in knowledge on the efficacy of optimal medical treatment?

Optimal medical therapy, based on evidence-based guidelines, is the foundation of care for all coronary artery disease patients. The elements of optimal therapy include LDL-cholesterol lowering, appropriate anti-platelet treatment, blood-pressure control, evidence-based diabetes management and lifestyle changes. A coronary stent treats a specific narrowing; it does not cure the underlying disease of atherosclerosis or eliminate the risk of future heart attacks. Patients remain vulnerable to disease elsewhere in the coronary arteries and must continue preventive treatment.

The way forward is neither condemnation of cardiologists nor unquestioning acceptance of every recommendation for angioplasty. Most doctors strive to act in their patients' best interests, but no profession is immune to inappropriate practice. The ultimate test of healthcare is not how many procedures are performed, but how many lives are saved and whether patients receive the right treatment at the right time at an affordable cost.

GS 3: ECONOMY (PUBLIC FINANCE)

THE HINDU PAGE: 10

On the question of KIIFB's future

An expert panel constituted by Keralam's UDF government to review the functioning of KIIFB has recommended winding it up and absorbing its functions into the State government, prompting a closer look at the merits of off-budget borrowings by States and the need to boost public investment in Keralam

ECONOMIC NOTES

R. Nagaraj

In July, Keralam's newly elected UDF government set up an expert panel to review the functioning of Kerala Infrastructure Investment Fund Board (KIIFB). The panel, headed by a former civil servant, was tasked with recommending measures to restructure KIIFB and strengthen the government's institutional capabilities, among other things. The committee has recently submitted its report, which has been tabled in the State Assembly.

Apparently critical of KIIFB's functioning, the committee has recommended winding it up; absorbing its functions and capabilities into the State government, news reports say. The principal reason for the panel's recommendation is that with the clubbing of KIIFB's borrowing function with the State budget, the special purpose vehicle (SPV) has lost its primary purpose.



KIIFB reportedly boosted the State's infrastructure investment by raising extra-budgetary resources, including securing soft loans known as "Masala Bonds" from international agencies. FILE PHOTO

A disputed investment model

KIIFB, restructured by the LDF government, reportedly boosted the State's infrastructure investment by raising extra-budgetary resources, including securing soft loans known as "Masala Bonds" from international agencies after the disastrous floods of 2019. However, the SPV's functioning and financial performance have remained contentious. The comptroller and auditor general's (CAG) strictures against KIIFB have become a convenient beating stick for the Centre and the Opposition parties in the State. In the fog of the debate, KIIFB's original purpose and economic principles underlying it seem to have been lost sight of.

Though Keralam has sound traditional transport infrastructure such as road network and rail connectivity, it lags behind in modern facilities, such as high-speed railways or highways, especially when compared to the neighbouring States. Keralam reportedly spends a mere 1.5 per cent of the Gross State Domestic Product (GSDP) on infrastructure. This was so in spite of Keralam's own-tax revenue to GSDP ratio being among the highest among major States, as per the RBI data.

KIIFB was set up in 1999 and underwent a major restructuring in 2016; the institution's record in expanding public goods is apparently well acknowledged. However, its functioning raised many queries. The CAG found that the SPV's finances flouted its procedural audits, which became a sticking point between the Centre and the State. Moreover, as KIIFB functioned outside the purview of the State budget, without generating financial profits from its lending, its borrowings being serviced out of the State's revenue became the heart of the contention.

Rationale for off-budget borrowing

In the good/bad old days of "planning", State finances broadly followed the "gap-filling" approach; meaning the Centre made up the difference between a State's projected revenue growth and its "developmental needs" as per the State plans. It was a negotiated process, part financial and part political. Evidence shows that richer and politically influential States got the lion's share of the divisible pool of the plan resources.

The Fiscal Responsibility and Budget Management Act (FRBM) 2003 changed that by seemingly imposing a "hard budget constraint", with the fiscal deficit capped at 3 per cent of GSDP. The RBI now monitors the size of the State debt. The coupon (interest) rate of the State loans depends on the State's debt sustainability measures. The hard budget constraint has reportedly improved State finances, or at a minimum, made them transparent.

However, most States have devised a variety of means for securing extra-budgetary resources, or off-budget borrowings (OBBs) - as evident from the RBI's compilation of State finances. The CAG, tracking OBBs, finds that there is a bewildering variety of them. And the actual OBBs are far higher than what it is able to count, as per its own findings. Incidentally, Keralam is not among the worst offenders.

Globally, a variety of financial institutions and fiscal arrangements have existed outside of the budgetary process. Numerous kinds of para-statal organisations are a feature - not a bug - of the fiscal landscape, especially among fast-growing Asian economies. China, for instance, has a bewildering variety of financial arrangements that enable provinces to draw resources from the national development banks to sustain employment at the local level, augment production and exports and ensure political stability.

Then, realistically, what should be the rules for managing extra-budgetary resources and institutions for Keralam? Simply speaking, if extra-budgetary resources are productively used and they comply with the government expenditure principles, having such off-budget institutions/borrowings may not be undesirable. This follows the Domar rule: so long as the output growth rate exceeds the interest rate on such loans, they are being used productively. Since such investments have a public good character, individual projects may not be yielding adequate revenue or covering the full costs. However, if in the aggregate they contribute to growth in state output (GSDP) and follow the Domar rule, then such investments are in principle viable.

However, if the State-level SPVs borrow from external sources for social purposes or green financing, which usually have lower interest rates for longer maturities, they need to be assessed differently, as they involve exchange rate risk. Given Keralam's fragile ecology and need for substantial low-cost resources for protecting it, external borrowing for such purposes by creating SPVs may be desirable, as KIIFB reportedly proved to be after the floods in 2019. The expert committee's recommendation to dissolve KIIFB is the easier part. In the present political milieu, efforts to boost public investments to catch up with the neighbouring States are a harder job - with the Centre strictly monitoring Keralam. The State will have to devise newer and administratively innovative means to tap OBBs, as most States do. The task is primarily a political one.

(R. Nagaraj is an economist.)

THE GIST

- An expert panel constituted by Keralam's UDF government to review KIIFB's functioning has recommended winding it up, primarily on the grounds that the integration of KIIFB's borrowing function with the State budget has deprived the special purpose vehicle of its primary purpose
- However, if extra-budgetary resources are used productively and in compliance with the principles governing government expenditure, such off-budget institutions and borrowings may not be undesirable

GS 3: INTERNAL SECURITY (CYBER SECURITY)
THE HINDU PAGE: 10

What was leaked in the Censor Board data breach?

What impact could the leak have? When was the leaked data taken down? What is the status of the probe?

Aroon Deep

The story so far:

A data breach at the Central Board of Film Certification (CBFC) left hundreds of applications' data exposed online, *The Hindu* found. The data comes from over 500 titles, of which dozens are feature films. The leak comes from the censor board's e-Cinepramaan portal, used by filmmakers to submit their applications. The records ranged from December 2025 to August 2026.

What were the leaked documents?

The leaked documents included shooting scripts, with detailed shot-by-shot translations and other annotations. These scripts appear to have been specifically prepared for the censor board's review of these films – one script even included labels on swear words used over the course of the film and other clarifications on dialogue.

The breached data also included a summary of cuts that were ordered by the CBFC. This is supposed to be public information anyway under Section 5A(2) of the Cinematograph Act, 1952, but the censor board put this data behind an "under maintenance" message on its website.

In what could be the most sensitive of the exposed documents, film distribution agreements – both from international filmmakers distributing into India and Indian filmmakers authorising dubbed versions in a different part of the country – were exposed. At least three such agreements had unredacted or improperly redacted information on what fees were paid to license a film for distribution in India. *The Hindu* is withholding specifics here.

"Commercial agreements in the film industry often contain carefully negotiated provisions governing creative control, casting, remuneration, profit-sharing, intellectual property rights, promotional obligations, and even specific conditions concerning a film's storyline, portrayal or production," Vasundhara S., managing partner at Verum Legal told *The Hindu*.

"When commercially sensitive or specially negotiated creative terms enter the public domain, the confidentiality underpinning these agreements is compromised," Ms. Vasundhara said. "Such disclosures can weaken negotiating positions, reveal commercially valuable information, influence future contractual negotiations and potentially expose parties to disputes arising from confidentiality obligations."

"If I am a competing party or a counterparty, I'd be in a much better position to negotiate now that I have confirmation as to what terms these guys would agree to for certain types of works, beyond what is generally known in the market," Abhinav Hansaraman, a commercial lawyer in Delhi said.

Where was the data posted?

The documents were posted as dockets that contained practically everything but a copy of the film itself, and posted on the site of the non-profit Internet Archive portal. The data dump, most of it was posted on a single day, lay on the site for days, open to anyone to review and download. It is unclear if the data dump's existence was known to anyone.

The majority of the documents were posted earlier this month, but were all taken down on October 12. The user, whose display ID was former CBFC chairman Prasoon Joshi's name in Russian, also deleted their account. *The Hindu* was unable to contact them.

How did CBFC respond to the breach?

Last week, *The Hindu* contacted the CBFC for comment on the breach. The censor board did not appear to have immediate information on the breach. A week after being provided granular details of what documents were leaked from which film application, CBFC chairperson Shashi Shekhar Vempati said in a statement that it was looking into the breach. "CBFC has reviewed the information shared regarding alleged unauthorised access to CBFC's e-Cinepramaan Portal," the CBFC said. "However, based on the information examined so far, no trace has been found of the certification-related documents that were claimed to have been accessed."

The Internet Archive told *The Hindu* in a statement that the account in question was taken down by the user themselves. "As a matter of caution, a complaint has been filed with Cybercrime, and CERT-In has also been notified of the allegations and provided with the information shared," the CBFC added in its statement to *The Hindu*. CERT-In is India's computer emergency response team, which is tasked with handling data breach and hacking incidents.

"The technical team has also conducted a thorough analysis of the servers and databases to assess whether any external attacks may have compromised their security," CBFC added. "The findings of this analysis are being considered alongside the ongoing forensic examination."

On October 4, the e-Cinepramaan portal was unavailable for hours. The user stopped uploading any further documents shortly thereafter. No individual filmmaker's account seems to have been compromised, the CBFC said in its statement, and committed to a "thorough security audit" of the e-Cinepramaan portal.

GS 2: INTERNATIONAL RELATIONS

INDIAN EXPRESS PAGE: 10

A visit to Baku, a gateway to a changing Eurasia



RAJA MANDALA

BY C RAJA MOHAN

EXTERNAL AFFAIRS Minister S Jaishankar's visit to Baku last week pointed to a reset in relations with Azerbaijan that had soured in the last few years. Like the dramatic turnaround in ties with Canada over the past year and a half, the opening in Baku reminds us that productive diplomacy is possible even with countries dismissed as hostile by public opinion.

Even more interesting, the positive results from the engagement with Azerbaijan underline the enduring power of nationalism and self-interest over political affiliations based on religion and ethnicity. Indian perceptions of Turkey, Azerbaijan and Pakistan as a strategic bloc hardened during Op Sindoor in May 2025. Going back a little further, Delhi flagged the 2021 Islamabad Declaration by the three countries, which backed Pakistan's position on Kashmir. Their "Three Brothers" military exercise in Azerbaijan that year gave the partnership a memorable label. During Op Sindoor, calls to boycott Turkey and Azerbaijan spread through television and social media into travel and trade.

Obscured by the media outrage was the reality that Baku's ties with Islamabad were thinner than the language of brotherhood suggested. Baku's engagement with Islamabad was a consequence of Azerbaijan's close ties to Turkey. But Baku's apparent solidarity with Ankara is now showing strains. As Azerbaijan prepares to hand the chair of the Organisation of Turkic States (OTS) to Turkey this week, their emerging differences offer a reminder of the gap between rhetoric on trans-national solidarity and national interests.

Pan-Arabism and pan-Islamism have struggled to overcome divisions in the Middle East. Pan-Turkism, promoted by Turkey's leader Recep Tayyip Erdoğan, also faces limits in Eurasia. Shared religious and ethnic identities can facilitate practical cooperation, but they do not automatically produce a unified strategic bloc.

The idea of Turkic unity gained ground in the late Ottoman era amid imperial decline and European expansion. The Soviet collapse in 1991 opened an opportunity for Ankara to reconnect with the former Soviet republics of the Caucasus and Central Asia. But the new republics valued their sovereignty. They were not interested in trading one hegemon for another. The Turkic Council, established in 2009, became the Organisation of Turkic States in 2021. Its agenda spans trade, transport, technology and culture. Common security commitments are more difficult to develop. The OTS brings together Turkey, Azerbaijan, Kazakhstan, Kyrgyzstan and Uzbekistan. Turkmenistan, although Turkic-speaking, remains an observer.

Recent political friction between Ankara and Baku illuminates the problem. Azerbaijan's restrictions on Islamic headscarves in schools drew sharp criticism from conservative Turkish voices. Baku defended its secular order and rejected outside interference. Azerbaijani authorities also issued arrest warrants for Turkish nationals accused of incitement. Behind the dispute lie different political orientations. External solidarity does not translate into a common position on the relationship between state and religion.

> Azerbaijan's energy resources and transport links give it influence across the Caucasus, inner Asia and the Greater Middle East. Closer engagement can help Delhi expand its access to these regions

Foreign policy adds another divide. Azerbaijan values its strategic relationship with Israel, including defence cooperation. Turkey, the first Muslim-majority country to recognise Israel in 1949, is now sharply at odds with it. Baku sees no reason to abandon a partnership important to its security. To be sure, the Turkish-Azerbaijani partnership has strong roots. That does not mean they will take unified positions on all issues.

The Central Asian republics present a parallel challenge to ambitious visions of Turkic unity. They welcome Turkish investment, transport links and military technology. But they also pursue "multi-vector" partnerships , much like India's "multi-alignment". Their security circumstances differ from Turkey's. Ankara is a prominent member of NATO; and Central Asian states must carefully manage their relations with the big neighbours allergic to NATO — Russia and China.

Kazakh President Kassym-Jomart Tokayev made the Central Asian approach clear by rejecting the proposals to turn the OTS into a military alliance or geopolitical bloc. Kazakhstan and Kyrgyzstan also belong to the Russia-led Collective Security Treaty Organisation. Growing economic ties with China present additional constraints. Central Asian states seek partners to strengthen sovereignty and widen their choices while retaining freedom to engage other powers.

There is, nevertheless, much that Turkic cooperation can achieve. Better ports, railways and customs arrangements can bring material benefits to inner Eurasia. Such initiatives are reshaping its economic geography without requiring agreement on every security question. India must engage this changing Eurasian landscape. Russian power, China's growing presence and Turkish and Iranian ambitions are real. But the Caucasus and Central Asian states have agency of their own.

Jaishankar's visit recognises Azerbaijan's place in that strategy. It borders Russia and Iran, connects westwards through Georgia and Turkey, and looks across the Caspian towards Central Asia. Azerbaijan's energy resources and transport links give it influence across the Caucasus, inner Asia and the Greater Middle East. Closer engagement can help Delhi expand its access to these regions and strengthen its wider continental diplomatic presence. The Caucasus, nestling between the Caspian and Black Seas, has long drawn Russian, Ottoman and Persian ambitions. Its changing balance deserves sustained Indian attention.

India has energy interests in Azerbaijan and a stake in the International North-South Transport Corridor. Baku's ties with Israel and the United Arab Emirates offer further convergence. Delhi can explore these while preserving its partnership with Armenia, as Baku and Yerevan pursue normalisation.

India does not object to other countries having relations with Pakistan. But it does seek their neutrality in India-Pakistan disputes. Our intense social media debates can easily miss the fact that Pakistan's friends have interests of their own. Some of them overlap India's. Exploring that common ground is better than giving Islamabad a veto over Delhi's diplomatic choices. The opening in Baku should encourage Delhi's exploration of a reset with Ankara at an opportune moment.

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GS 2: SOCIAL JUSTICE (VULNERABLE SECTIONS)

INDIAN EXPRESS PAGE: 10

Not just welfare for elderly, Keralam needs silver economy



MUHAMMED RIYAS

KERALAM IS ageing faster than most Indian states. People aged 60 and above accounted for around 15 per cent of the population in 2021; this is projected to reach 30 per cent by 2051, according to the International Institute of Migration and Development. Longer life expectancy is an achievement, but it raises questions about pensions, care and public finances. The challenge is not simply to support more older people, but to enable them to age with dignity, financial security and meaningful participation.

The Keralam Senior Citizens' (Care and Protection of Rights) Bill, 2026, unanimously passed by the state Assembly on Monday, marks an important step towards strengthening the rights, care and protection of senior citizens. It proposes regulation of care centres and caregivers, protection against abuse and neglect, and measures concerning home-based care, accessible public spaces, digital inclusion, legal assistance and assistive products. Provisions concerning living wills and ageing at home seek to protect autonomy. Importantly, the Bill recognises income-generating opportunities and the sharing of older people's knowledge with younger generations. Its proposed State Reserve Fund could help finance care and welfare.

Keralam's approach to senior citizens must build on, rather than be confined to, the established framework of welfare and social protection. Pensions, healthcare, protection from abuse and affordable care remain non-negotiable. Nor should productive ageing become an obligation for people who have contributed throughout their working lives. It should be a choice, supported by opportunities for those who wish and are able to participate.

Kerala has many retired teachers, nurses, engineers, administrators, entrepreneurs, artisans and skilled workers. Their experience could support mentoring, vocational training, entrepreneurship and community development. Universities and local governments could connect this expertise to local needs.

The broader opportunity is to develop a silver economy, goods and services responding to an ageing population. Home healthcare, physiotherapy, assisted living, accessible housing, age-friendly transport, assistive technologies and lifelong learning can improve older people's lives while creating dignified jobs for younger workers. The Bill's caregiver certification framework should be accompanied by fair wages, social security, safe working conditions and career progression. Public provision and financial assistance are necessary to make care affordable for low-income households.

Local governments should anchor this transition. The state should consider a senior citizens' sub-plan, with predictable funding and clear responsibilities for panchayats and municipalities. It should identify needs, set spending priorities and assess outcomes. Local governments could assess care needs, mobility barriers, financial vulnerability and older people's skills and interests. They could coordinate home-based care, day-care services, public spaces and mentoring opportunities. The Department of Senior Citizens could set service standards, provide technical support and monitor implementation.

The state should provide earmarked transfers or a dedicated funding window while allowing local bodies flexibility. The proposed State Reserve Fund could complement predictable budgetary support, not replace it. Funding for essential care should be protected alongside investment in participation and livelihood opportunities.

Financial security remains the foundation. Employment cannot substitute for social protection, nor should the silver economy shift responsibility from the state to older people and their families. The Bill's success should be measured by more than registered care centres or resolved complaints. Keralam must also ask whether older people are secure, receive dignified care and can contribute on their own terms. Welfare and protection are indispensable; the next step is an economy of care, experience and intergenerational solidarity.

The writer is a faculty member at SIBM Bengaluru

Home healthcare, physiotherapy, assisted living, accessible housing, age-friendly transport, assistive technologies and lifelong learning can improve older people's lives while creating dignified jobs for younger workers

GS 1: ART AND CULTURE
INDIAN EXPRESS PAGE: 10

Sudhakar Nadkarni was key in the making of Indian design



ANIL ZANKAR

I HEARD of Professor Sudhakar Nadkarni in 2017, when he received a lifetime award from IISc. What little information came my way triggered my curiosity, leading me to his book *The Design Journey*. This professional autobiography of a designer made me marvel at his achievements, the longevity of his career and the energy with which he worked. Also striking was his tendency to acknowledge his colleagues' contributions. Most of his endeavours were collective efforts, with credits shared fairly. Subsequently, I decided to film him and obtained some marvellous footage from his interviews. It revealed to me the many finer and humane aspects of his work and personality.

Nadkarni breathed his last on October 20 in Mumbai at the age of 90. His seven-decade-long career began in 1958 when he joined an advertising agency in Mumbai as a commercial artist. There, a colleague, Yeshwant Chaudhury, advised him to join Ulm Design School in Germany, which was at the time reputed to be the best design school in the world. Nadkarni landed in Ulm in December 1962, dressed in summer clothes, with no knowledge of what design meant, nor of the German language.

This middle-class Marathi boy's journey would develop into a glorious chapter of design practice and education in India. In 1966, on returning to India, Nadkarni joined the small group of pioneering design teachers at NID. In 1969 at IIT Bombay, he set up the Industrial Design Centre (IDC) and raised it to global stature through a rigorous curriculum and international collaborations. He arranged for young teachers to get global exposure. After he stepped down in 1997, IIT Guwahati invited him to set up a design department. In 2004, when he returned to Mumbai, Welingkar Management Institute invited him to set up a customised design department. He was associated with the institute till 2020.

It was Nadkarni's belief that a designer must be informed by his own socio-cultural tradition on the one hand and emerging modernity on the other. Although trained in the best and the latest European tradition, he strongly believed in developing an Indian perspective. Nadkarni's final-year thesis at Ulm (in 1966) was called "Design as one of the factors in developmental planning, India as an example". His design for the final project was the iconic Aarey Milk Booth. He despised elitism in design practice.

Ever a disciplinarian, there was also something of the maverick about him. Students held him in awe, but they could also draw caricatures of their favourite "Nadu sir". In June, when his book *by design* was released, the function was attended by a few hundred people, mostly his students and colleagues. They put up skits that presented him as the absent-minded professor, but their reverence and warmth for him was unmistakable.

Besides IISc, Nadkarni was honoured with the Lifetime Achievement Award by the India Design Association (2015) for building institutions and his contribution to the field. The Bauhaus Manifesto defined an artist as "an exalted artisan". Professor Nadkarni was the perfect example of this. When the Ulm school closed down, its tradition found a new life in India thanks to him.

Zankar is a writer and filmmaker

The Bauhaus Manifesto defined an artist as 'an exalted artisan'. Professor Nadkarni was the perfect example of this. When the Ulm school closed down, its tradition found a new life in India thanks to him

GS 3: INTERNAL SECURITY (DEFENCE)
INDIAN EXPRESS PAGE: 11

On theatre commands, let's finish arguing, reach a settlement, before next crisis comes



ARUN PRAKASH

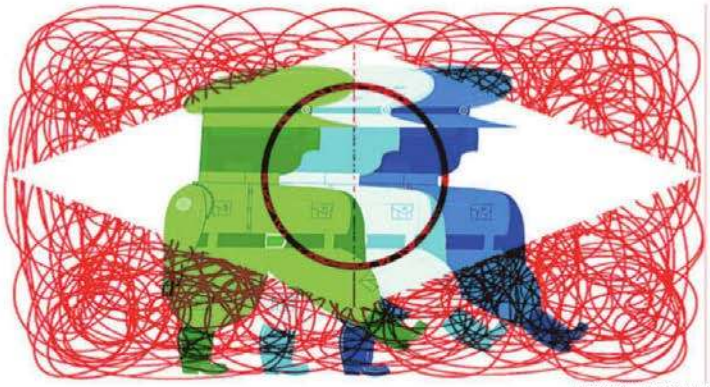


ILLUSTRATION: C R SASIKUMAR

SEVEN YEARS after the government directed the newly minted Chief of Defence Staff (CDS) to restructure military commands and bring about jointness through the establishment of theatre commands, the debate seems to have become a quarrel over turf garbed in the language of high principles. The Army worries about not getting air support when needed. The Air Force worries that its scarce squadrons will be divided and controlled by theatre commanders. The Navy worries that a continental mindset will starve it of resources.

These worries are legitimate. But their persistence shows that we have failed to learn what others have learned the hard way: That air power has been a bone of contention between the services ever since World War I, and that inter-service disputes are best settled by negotiations under the watchful eye of committed politicians who comprehend the gravity of the issues.

The status quo, however, is not an option. India's archaic structure of 17 geographically dispersed single-service military commands would be caught flat-footed in modern conflict. Each command answers to its own service headquarters and maintains an area of responsibility that does not align with those of the other services. A conflict on the western or northern fronts, or at sea, would span the boundaries of several commands simultaneously. Coordinating across these arbitrary lines would consume precious time that modern, fast-moving, AI-guided algorithmic warfare simply will not permit. Theatre commands would replace this cumbersome patchwork with a single commander equipped with the operational authority as well as necessary forces.

The most frequently heard objection concerning air power stems from the Air Force doctrine of "centralised control and decentralised execution". Critics argue that dividing scarce air assets among theatre commanders would disrupt this doctrine. Not true, because theatreisation does not violate this core principle. IAF squadrons and wings would remain in their current locations and need not be parcelled out. Air power would still be controlled centrally and tasked, as required, in a decentralised manner — as at present. The sole change is that control would shift from an IAF commander to the theatre commander. Objecting to theatreisation under the guise of this doctrine confuses the principle itself with the person wielding it. Furthermore, critics disregard the fact that theatre commanders would receive advice and guidance on air power employment from a three-star IAF Component Commander.

America's National Security Act of 1947 had carved an independent air force out of the US Army Air Forces, and created a unified defence establishment, but failed to address the question of "who does what". Open conflict broke out between the services. The US Navy wanted a role in nuclear deterrence and suspected the USAF of coveting naval aviation; the USAF believed that strategic bombing had rendered the navy fleet redundant; and the army did not want the Marine Corps trespassing on its ground role.

Defence Secretary (Minister) James Forrestal assembled the joint chiefs at Key West and insisted that they would not disperse till they came to an agreement on their respective roles and missions. The air force took primary responsibility for strategic air warfare. The navy kept carrier aviation and the Marine Corps. The army kept land combat. While the deal did not end inter-service acrimony, the Key West Agreement had established a principle: Service roles and missions would be allocated or re-allocated by mutual agreement, under civilian political authority.

Two decades later, the same principle resolved a different dispute. In Vietnam, the US Army, in addition to owning a fixed-wing tactical transport fleet, had built a large helicopter force and was arming it. The USAF held that fixed-wing aircraft supporting ground troops were its business. In 1966, the two services negotiated and agreed on a swap. The US Army agreed to give up its fixed-wing aircraft in exchange for combat helicopters, while the USAF relinquished its claim to most forms of rotary-wing aircraft.

> The status quo is not an option. India's archaic structure of 17 geographically dispersed single-service military commands would be caught flat-footed in modern conflict

It is obvious that Indian problems call for India-specific solutions, and it would be foolish to "cut and paste" foreign paradigms on ourselves. But does that mean that we should refuse to learn from others? Or close our eyes to ongoing conflicts, which demonstrate the dizzying transformation in the nature and grammar of war? Ukraine, despite lacking a traditional navy, has crippled Russia's Black Sea Fleet and sunk its flagship, the cruiser Moskva. Iran, with its air force decimated, has leveraged missiles and drones to attack 14 US military bases in West Asia and to contest control of the Persian Gulf. India, on the verge of major weapon acquisition commitments, must not shut its eyes to these momentous developments in warfare.

Britain offers lessons of a different kind. In 2023, Air Chief Marshal Sir Richard Knighton took charge of the Royal Air Force (RAF). An aeronautical engineer by training, he became the first non-pilot ever to head the service. In 2025, he went further still, becoming CDS and professional head of all three services. Earlier, the UK had broken another long-standing tradition by appointing General Sir Gwyn Jenkins, a Royal Marine, as First Sea Lord and head of the Royal Navy. The wisdom of such unconventional choices can be debated, but they reflect open-mindedness, a spirit of innovation and decisiveness on the part of the decision-makers. Contrast this with our own seven-year stasis on theatre commands.

It took the US nearly four decades, and several operational disasters, following the Key West Agreement to achieve true jointness through the Goldwater-Nichols Act of 1986. Given its fraught security environment, India cannot afford the luxury of further procrastination. The path forward requires bold service chiefs willing to break old shibboleths, a resolute CDS who can act as an honest broker-cum-persuader, and a government with a clear-eyed vision, anchored in a formal national security strategy.

The next security crisis will not wait for the services to finish arguing, and a settlement should be reached before it comes.

The writer is a former Indian Navy chief

GS 2: SOCIAL JUSTICE (HEALTH)
INDIAN EXPRESS PAGE: 15

● HEALTH

The risks of food colouring, as UP steps up scrutiny

Maulshree Seth
Lucknow, October 27

BRIGHT RED chutney served with samosas, pink cotton candy sold outside schools, vivid red tandoori chicken — food colourings have come under scrutiny in Uttar Pradesh after authorities found non-food grade industrial dyes in chutney. Amid the festive season, with Diwali approaching, the state's Food Safety and Drug Administration has issued detailed guidelines about where and how food colours can be used, which ones cannot be used, and how vendors must measure and account for the colours they buy.

What's under the scanner?

For street-food lovers, one of the most direct changes concerns the green and red chutneys served with *samosas*, *chaat*, *momos* and rolls. The guidelines prohibit adding colours to chutney and advise vendors to use ingredients such as tomatoes, beetroot, coriander and mint to achieve the desired colour and flavour.

Cotton candy and ice lollies have also been included. The use of non-food colours, particularly Rhodamine-B, is prohibited. This industrial dye is used in textile and paper colouring and cannot be used as a substitute for food-grade colour. The same restriction applies to the use of other industrial dyes to give a bright red appearance to chicken *tikka*, *kebabs*, *chaap* and fried fish. Vendors have been advised to use suitable food ingredients, including Kashmiri red chilli and degi mirch, for colour and flavour.

How widespread is use of Rhodamine-B?

A food safety officer had earlier told *The Indian Express* that Rhodamine B is usually reported from roadside vendors in small cities. "Small vendors are not aware that this dye can be harmful as effects might not always be felt immediately," the officer had said. "Although no colouring is allowed in cooked food, in the bigger cities usually edible food colours are used to give the red colour in butter chicken and tandoori chicken."

WHAT THE LAW SAYS

- The Food Safety and Standards Act of 2006 provides for punishment for sub-standard, misbranded and unsafe food.
- Depending on the violation, the penalty may range from a fine of Rs 3 lakh to imprisonment up to six months.

What risks do prohibited dyes in food pose?

The guidelines list several prohibited industrial dyes, including Rhodamine-B, Metanil Yellow, Butter Yellow, Malachite Green, Auramine, Orange II and Sudan dyes. Their suspected illegal uses range from giving a bright pink or red appearance to cotton candy, chutney and sweets to making turmeric, pulses, chilli powder and other spices appear more vibrant. Sudan dyes have also been associated with adulteration of edible oils and packaged sauces. Their consumption can pose several health risks, varying by substance and level of exposure.

The use of Rhodamine B in food for a long time, for instance, could lead to liver dysfunction or cancer. When exposed to large amounts over a short period, it results in acute poisoning. Tartrazine is a synthetic yellow food dye and has been indirectly linked to hives, food allergies like swelling of the lips, tongue, throat and neck. Carmoisine, a red dye, can trigger hypersensitivity reactions, including skin swelling, breathing difficulties and hives.

Can artificial colours be used in sweets and cakes?

Yes, under the Food Safety and Standards (Food Products Standards and Food Additives) Regulations, 2011, but only when the colour is permitted for the particular food category and the prescribed limit is followed.

Colour permitted in a cake cannot automatically be used in bread, chutney or another product. This is because colours serve different purposes in different foods. Their safety also depends on how much quantity is consumed and how the colour behaves during processing. For instance, the FSSAI says that assessing a colour's use in deep-fried snacks may require information on its heat stability and the formation of by-products.

Natural colours, too, are subject to category-specific conditions.

GS 3: ECONOMY (EMPLOYMENT)
INDIAN EXPRESS PAGE: 15

• TECHNOLOGY

The message in Microsoft exit offer for 60,000 staff

Microsoft has not linked the job cuts to AI, but they come amid growing concerns over AI-driven job losses, particularly in the technology sector



SOUMYARENDRA BARIK

MICROSOFT, WHICH employs around 23,000 people in India, has extended to the country a global voluntary exit programme covering approximately 60,000 employees.

People in India working in roles across Copilot, AI experiences, Windows and Devices, Xbox, finance and human resources could be affected by the move.

The development comes amid increasing concerns over AI-led disruptions to employment, particularly in the technology sector, where companies are deploying AI tools to automate tasks traditionally performed by human workers.

Several major technology firms have announced workforce reductions, hiring slowdowns and organisational restructuring in recent months, with some explicitly citing productivity gains from AI. While the technology is creating demand for new skills and specialised roles, its growing adoption has also raised questions about the future of conventional software development, customer support and other white-collar jobs. Microsoft, however, has not explicitly attributed its latest voluntary exit programme to AI replacing human workers.

Impact on Indian workers

Announcing the Voluntary Exit Offer (VEO) on Monday, Microsoft said the scheme would be available to eligible employees at level 70 and below across participating teams in India, the US, the UK and Canada. Level 70 is an internal hierarchical structuring within Microsoft, and could cover employees with vice-president titles. While the company has not disclosed how many of its India-based employees would be eligible for the scheme, it hires Indians across software engineering, research and development, artificial intelligence, cloud infrastructure, sales, customer support and corporate functions. The technology giant employs around 23,000 people in India.

It is understood that employees in divisions such as Copilot, AI experiences, Windows and Devices, Xbox, finance and human resources are among those eligible. This means that not all Microsoft employees in India will receive the offer, with eligibility depending on the business division to which they belong.

For Indian employees, the voluntary exit package is understood to be broadly similar to Microsoft's standard severance arrangements, including one month's base salary for every completed year of service, along with health insurance and career transition assistance. Eligible employees in India will have until December 11 to decide whether to accept the offer, with departures expected by the end of December.

The move comes as Microsoft seeks to reorganise its workforce while significantly increasing investments in artificial intelligence infrastructure, with the company stating that its India plans remain unchanged.

The programme could also have implications for Indians employed by Microsoft in the US, particularly those working on H-1B visas. While the company has not clarified how the scheme would apply to foreign workers on temporary visas, employees choosing to exit without securing alternative employment could face immigration-related challenges. Unlike US citizens, H-1B visa holders are generally required to find another sponsoring employer, change their immigration status or leave the country within an applicable grace period, typically up to 60 days following termination of employment. These concerns come amid greater US scrutiny of employment-based visa and permanent residency programmes.

AI-led job disruptions

Microsoft's move comes amid a broader restructuring of workforces across the global technology industry, with several companies either reducing their headcount or slowing hiring as AI tools take over tasks previously performed by employees. While some companies have explicitly linked job cuts to AI-driven productivity gains, others have cited the need to redirect resources towards AI investments and reorganise their operations.

One of the most prominent examples came in February 2026, when Block, the financial technology company founded by Twitter co-founder Jack Dorsey, announced plans to cut more than 4,000 jobs, nearly half its workforce. Dorsey directly attributed the decision to improvements in AI tools. In September 2025, enterprise software company Salesforce said it had reduced its customer support workforce from around 9,000 to 5,000 employees as AI agents increasingly handled customer queries. CEO Marc Benioff said the company needed fewer people for these functions.

In India, home interiors platform Livspace laid off around 1,000 employees, 12% of its workforce, in February 2026 as it shifted towards an AI-led operating model.

India's larger IT services industry has also faced pressure to reorganise its traditional labour-intensive business model. In July 2025, Tata Consultancy Services announced plans to reduce its workforce by around 12,000 employees, primarily in middle and senior management positions. While the company cited skill mismatches and changes in business requirements, the announcement came amid increasing adoption of generative AI in software development, testing and maintenance. TCS did not directly attribute the job cuts to AI.

There have also been instances of companies reversing or moderating their reliance on AI. Swedish fintech company Klarna, which had earlier said its AI assistant could handle work equivalent to 700 customer service agents, moved to recruit human support staff again after acknowledging that customers continued to require human assistance, particularly for complex problems.

• Microsoft's India footprint

- A significant part of Microsoft's India operations is its India Development Center, one of the company's largest research and development facilities outside its headquarters in Redmond, Washington.
- With operations in Hyderabad, Bengaluru and the National Capital Region, the centre develops technologies for Microsoft's global businesses, including Windows, Azure, Microsoft 365 and AI products.
- Its Indian teams also contribute to Copilot Studio, Azure AI Search, AI agents, speech and translation technologies and machine learning platforms.



AP FILE

Indian jobs that may be hit

Microsoft employs around 23,000 people in India.

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Employees in divisions such as Copilot, AI, Windows and Devices, Xbox, finance and HR are among those eligible for the voluntary exit package.

GS 2: POLITY (ELECTORAL SYSTEM)
INDIAN EXPRESS PAGE: 15



GLOBAL

Israel polls: How its electoral system works and government is formed

Moinuddin Ahmad
New Delhi, October 27

ABOUT 7.3 million Israelis were eligible to vote on Tuesday to elect the 26th Israeli Knesset (parliament). As many as 38 registered parties are competing for seats in the 120-member legislature, though only around 11 are projected to clear the strict 3.25% electoral threshold required for parliamentary representation.

This is the first Israeli parliament since 1988 to complete a full four-year mandate. The vote follows years of intense societal turmoil, including contentious judicial reform debates, the security crisis following October 7 and protracted wartime conditions. Beyond choosing a prime minister, this election is expected to be a referendum on Israel's governance, domestic civil cohesion, security architecture and long-term democratic character.

The electoral system

Being a democracy with a proportional representation system of elections, Israel has several lists and parties. The difference between parties and lists is that a party is an institution that seeks power within the established rules of elections, whereas a list is precisely what it says it is: a list of candidates prepared for the elections sponsored by a party or by a group of parties.

Any registered party or list may contest elections. Under Section 7A of Basic Law: The Knesset, the Central Elections Committee (CEC), or the Supreme Court may disqualify a political party list or an individual candidate if their platform or actions express denial of the existence of the State of Israel as a Jewish and democratic state, indulge in racism, or support armed struggle by an enemy state or terrorist organisation against Israel.

Parliamentary regime

Israel is a parliamentary democracy with three main branches of power: the legislative, executive, and judiciary.

The country has a unicameral (single-house) parliament, composed of 120 members. Members of the Knesset are elected nationally for four-year terms.

The PM holds the executive power. The government depends directly on the confidence of the Knesset and must maintain a working majority (at least 61 seats) to govern. Headed by the Supreme Court, the judiciary acts independently to interpret basic laws and review legislation. National elections are administered and overseen by the CEC.

Electoral threshold

In Israel's party-list proportional representation system, the electoral threshold is the minimum percentage of the total nationwide vote a political party must receive to enter parliament. The threshold is currently set at 3.25% — a standard established by Knesset legislation in 2014. Crossing this hurdle grants a party a baseline of at least four out of the 120 total Knesset seats. If a party fails to reach the 3.25% mark, all votes cast for its slate are discarded, producing "wasted votes" that are reallocated among the parties that succeeded.

The main purpose of the threshold is to balance representation with political stability by preventing extreme parliamentary fragmentation. Historically, the threshold started at just 1% in 1951 before being gradually raised to 1.5% (1992), 2% (2003), and finally 3.25% (2014), notes Prof Ofer Kenig, a researcher at the Israeli Democracy Institute.

This high barrier incentivises smaller ideological factions to merge into joint slates before election day. This plays a decisive role in shaping coalition arithmetic, he adds.

Government formation

Since no single political party in Israel's history has ever won a 61-seat majority on its own, every Israeli government has been a coalition. In such a situation, the process of forming a government, with both old and new allies, takes time.

Following election day, the CEC certifies the final count and seat distribution. The President holds discussions with representatives of party lists that cleared the electoral threshold regarding the possible PM candidates. After discussions with party lists, the President grants the mandate to form a government to the party candidate who is most likely to ensure a 61-seat majority.

The President grants 28 days to the chosen candidate to form a coalition. A single 14-day extension, if required, can be given to the candidate. If one candidate fails to get the required support, the President can either transfer the mandate to a second candidate for a 28-day attempt.

But what if there is a gridlock between the top two lists? Though this situation comes with its own complexities, simply speaking, a caretaker government, under the current PM, steps in until the dates for the next elections are announced.

THE KEY 'LISTS' IN ISRAEL ELECTIONS

Government coalition & right-wing blocs

Likud: Led by PM Benjamin Netanyahu, running on a consolidated national-conservative list that merged with Gideon Sa'ar's New Hope.

Otzma Yehudit: A far-right party list headed by Itamar Ben-Gvir.

Religious Zionist Party – Zehut: A joint list led by Bezalel Smotrich (Religious Zionism) and Moshe Feiglin (Zehut).

Shas: Ultra-Orthodox Sephardic party list led by Aryeh Deri.

United Torah Judaism: Ultra-Orthodox Ashkenazi joint list between Degel HaTorah and Agudat Yisrael, led by Ya'akov Asher.

Amcha Yisrael: A new right-wing list formed by former Israel Defense Forces (IDF) general Ofer Winter and activist Yoseph Haddad.

Noam: A far-right, religiously conservative list headed by Avi Maoz.

Opposition and centre-left blocs

Together (Beyachad): A centre-right and centre joint list combining Naftali Bennett's new movement with Yair Lapid's Yesh Atid party.

Yashar!: A broad centrist list led by former IDF Chief of Staff Gadi Eisenkot and former Shin Bet chief Yoram Cohen.

The Democrats (HaDemokratim): A merger between the Labor Party and Meretz, headed by Yair Golan.

Yisrael Beitenu ("Israel [is] Our Home"): A secular right-wing party list led by Avigdor Liberman.

Blue and White (Kahol Lavan): A centrist list headed by Benny Gantz.

The Reservists & The Economic Party: A list formed by Yoaz Hendel (The Reservists) and economist Yaron Zelekha (New Economic Party).

Arab sector parties

The Joint List: A united electoral list bringing together the Hadash, Ta'al, and Balad factions, headed by Yousef Jabareen and Ahmad Tibi.

United Arab List (Ra'am): An Islamist Arab-Israeli party list headed by Mansour Abbas.

GS 2: POLITY (JUDICIARY)
INDIAN EXPRESS PAGE: 15

• LEGAL

Punishment and pendency : Need for, role of a sentencing council



EXPERTS EXPLAIN

SIDHARTH LUTHRA & RAGHAV SENGUPTA

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TWO PEOPLE convicted of the same crime in India can walk away with very different sentences, and the difference often has less to do with the law than with which judge or Bench heard the case.

Sentencing is the process where the State translates prescriptive ranges — for instance, 'up to ten years' imprisonment — into a specific prison term, fines, probation or community sanctions for the convict(s). In India, this decision is left almost entirely to an individual judge's or Bench's discretion.

Statutes set out the maximum, and sometimes the minimum sentences. There is no checklist of what should count as a serious aggravating factor, what counts as genuine mitigation, or how prior conduct and remorse should be weighed. Empirical research, such as Dr. Mrinal Satish's work on rape sentencing, shows that courts have reduced sentences based on legally irrelevant factors and retrograde concepts such as the complainant's supposed "chastity" or her subsequent marriage, while ignoring psychological harm or breach of trust.

Unequal justice

Articles 14 and 21 of the Indian Constitution prohibit arbitrary State action and require fair, just and reasonable procedures whenever liberty is restricted. If two similarly placed offenders receive very different sentences because one judge treats poverty or social standing as a mitigating factor while another does not, the resulting disparity is hard to reconcile when dealing with equality before the law.

The Supreme Court acknowledged this in *Sunita Devi vs State of Bihar* (2024), while observing that "sentencing shall not be a mere lottery" and directed the Centre to examine the feasibility of a comprehensive national sentencing policy, potentially via a Sentencing Commission. The Centre has tasked the Law Commission of India with examining the issue, and its recommendations are expected soon. Interestingly, the Law Commission of India raised the same concern more than 50 years ago in its 47th Report. Yet, Parliament has never taken up the task of designing a coherent framework.

Unguided discretion

Framing such a policy requires detailed empirical research into existing practices, impact on prison capacity, and the relationship between sentencing purposes (deterrence, rehabilitation and protection of the public) measured against actual outcomes.

The present mechanism often ignores salutary provisions of probation and other permissible factors.

Indian statutory provisions already provide alternatives to custody, in accordance with Sections 401 and 402 of the BNSS, along with Sections 3, 4 and 6 of the Probation of Offenders Act 1958 that require courts to consider probation for the offender in eligible cases.

However, there is no general framework explaining how courts may use these alternatives against competing aims of deterrence, reformation, and rehabilitation.

In the case of *Soman vs State Of Kerala* (2012), the Supreme Court recognised these competing principles, while also observing that sentencing remains one of the weakest parts of criminal justice administration.

So it is at the appellate stage that courts often get tasked with correcting harsh or unduly lenient sentences, on a case-by-case basis without a common yardstick to apply. As a result, valuable judicial time is spent by appellate courts undertaking this exercise. The primary responsibility for this lies with the convicting court empowered under Section 258(2) of the BNSS, which requires a Sessions Judge to hear the accused individual separately on sentence, once they have been convicted.

That particular hearing should allow the parties to gather relevant material to determine mitigating and aggravating circumstances for sentencing.

Lessons from the English model

- In England and Wales, Parliament created the Sentencing Council and backed it with a Sentencing Code.
- Guidelines follow a step-by-step method. Judges first classify the offence by culpability and harm caused. Each culpability-harm combination has a starting point and a category range.
- Judges then adjust this provisional sentence based on aggravating and mitigating factors, apply any reduction if the accused pleaded guilty, account for multiple offences, and make ancillary orders.

What such a council would do

A Council created by an Act of Parliament could be tasked with three core functions. First, develop offence-specific guidelines that require courts to pass through a three-stage framework: (1) determine seriousness by assessing culpability and harm using tailored factors (planning, violence, weapon use, victim vulnerability, demonstrable physical or psychological harm); (2) mark an indicative starting point and range within the statutory envelope for an ordinary case; and (3) individualise and justify the sentence by considering only those offender-related circumstances that are based on recognised purposes such as rehabilitation or the impact of punishment.

Secondly, the proposed Council should build a national sentencing database drawing on the National Judicial Data Grid's infrastructure, with anonymised information on offence type, harm and culpability factors, starting points, adjustments, and final sentences. This would allow Parliament, courts and the public to see where disparity lies and whether guidelines are working.

Thirdly, guidelines should be issued as delegated legislation, placed before Parliament for approval, and treated as advisory but strongly presumptive. Sentencing courts must consider them in every case and provide reasons when they depart. This preserves judicial independence while making discretion accountable.

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