

CURRENT AFFAIRS for UPSC

3RD TO 9TH NOVEMBER 2024

DreamIAS

**INTERNATIONAL****REIN IN THE DARKNESS**

Republican and former U.S. President Donald Trump is set to win a second term in office after a strong showing in the 2024 election, a race that saw Democrat and current Vice-President Kamala Harris go down fighting after she entered the fray at a late stage and faced tough odds all the way. His likely win represents many firsts: at 78, he will be the second oldest person ever thus elected; he will be the first Republican to win the popular vote in 20 years; he may be only the second President to serve non-consecutive terms in 132 years; and he would certainly be the first two-time President to also have been impeached twice by Congress. Despite these facts, Mr. Trump prevailed by winning in swing States and achieving a small swing across almost all States in favour of the Republican Party — thus gaining the keys to the electoral college and the popular vote, even if final counting and the formal call for each State is yet to be completed. While Democrats unsurprisingly held on to their stronghold States, most of which are situated on either coast, there appeared to be a “red shift” underway across the political system. This was seen in Republicans succeeding in seizing control of the Senate — especially through critical seats won in Ohio and West Virginia — and likely retaining the chair in the House of Representatives. If this pans out, the second Trump administration will benefit from a trifecta of the executive and two branches of the legislature and potentially have far-reaching political power that could dramatically shape domestic and foreign policy in line with the 47th President’s vision.

There could not have been more at stake in this consequential election — for the two major parties, for the American people, and for the world. Domestically, voters appeared to lash out against Ms. Harris for her association with an administration that did some serious policy heavy lifting towards the U.S.’s post-pandemic economic renaissance, yet apparently failed to bring price levels of everyday goods down sufficiently. In parallel, Mr. Trump has continued, ever since demitting office under the cloud of inciting insurrection in January 2021, to issue dire statements about migrants and asylum seekers stealing U.S. jobs, once again appealing to the financial heartstrings of the blue-collar workers, as he did in his 2016 election campaign. This polarising tactic of whipping up fear of the “other” in a society that, in its ideal form as envisioned by its forefathers, would welcome and harness the power of immigrant workers of all hues, appears to have combined with disenchantment over stubbornly high price levels to end Ms. Harris’s presidential run. Beyond the bread-and-butter issues, though, lies a deeper churning in the collective psyche of the American voter, one that has bestowed Mr. Trump with a profound second victory — the potentially irreversible death of not just of political correctness but also of fundamental political principles. Mr. Trump faces four criminal indictments, the most serious of which relate to his role in spurring a violent mob attack on the Capitol buildings in early 2021, the culmination of his democracy-threatening strategy of denying the 2020 election results. How did his supporters find it so easy to look past that? Is there not irrefutable evidence in the Georgia case against him of his attempts to tamper with official proceedings and lean on State election officials to misrepresent the outcome of the election? Does not the fact that he is a convicted felon awaiting sentencing in the Stormy Daniels case link him to criminal acts under law, rather than represent a “witch hunt” by dispirited liberals?

If the electorate has answered these questions with its vote, then that can only mean one thing — that his supporters explicitly condone their leader’s chosen courses of action and that may include — however grey the legal logic might be for it — his eventual issue of a self-pardon or assumption of immunity from prosecution for all culpable acts, official or otherwise. He will also likely

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continue the trend of his first term in office of pardoning his close allies accused of a variety of crimes and use the punitive power of the state's machinery to go after the media and individual journalists who might irk him — as indeed his campaign team has already revoked the credentials of a senior political correspondent who apparently commented on internal anxiety over early voting numbers in Pennsylvania.

America will have no choice but to deal with the consequences of its voting decisions in 2024, but what might it mean for the world? In the economic sphere, tariffs are likely to be back in play, not only the 50%-60% rates that Mr. Trump has promised on goods from China but also a tariff of close to 20% on all U.S. imports, which could again risk triggering an all-out global trade war. For India it might raise the spectre of his labels of New Delhi as a “tariff king” and “trade abuser” including in the context of the controversy over Harley-Davidson motorcycles. In the strategic space, Ukraine may be forced to accept unpalatable concessions towards finding a truce with Russia, and in Gaza and with Iran, Israel's Benjamin Netanyahu may relish the prospect of a laissez-faire attitude by the State Department. Under Trump 2.0, the Hindu nationalist project in India might continue apace with the confidence that no blowback would emanate from Washington on human rights and minority rights concerns.

While the “MAGA movement” has most certainly seen a powerful revival in the outcome of the 2024 election, the rules-based international order founded on the bedrock of universal rights and liberal values is far from dead. When the personality cult of Mr. Trump ebbs in 2028, there will have to be a reckoning.

EXPRESS VIEW DONALD TRUMP VS KAMALA HARRIS: THE WORLD – INCLUDING AND ESPECIALLY INDIA – IS WAITING

An American election is never just about America. Governments and people around the world do not, of course, get a vote in who becomes the next US President — the former, especially, will have to navigate the currents that emanate from the White House, no matter the occupant. The US remains the world's largest economy and arguably the most significant actor on the geopolitical stage. The election result will have a deep impact, then, at a particularly volatile global moment. Questions around trade and protectionism, conflicts and interventionism, and the mobility of labour and capital will be determined, not wholly perhaps, but in good measure by whether Donald Trump or Kamala Harris wins this week. And the world — including and especially India — is waiting and hoping for the results of the collective wisdom of the American people.

It is disturbing to see the anti-migrant rhetoric on the campaign trail. Unlike Europe, the US is a country founded and enriched by migrants. Insular protectionism — in terms of capital and labour — goes against basic economic principles and could end up with the US squandering its comparative advantage. The US is India's largest trading partner — in the first seven months of 2024 alone, bilateral trade stood at \$72 billion. The US remains the top choice for Indian students studying abroad, and Indian labour, in crucial sectors such as medicine and technology, has a significant stake in the US. India is also home to the largest number of Global Capability Centres (1,700), which employ nearly 20 lakh people. Trump's threats of protectionism and weaponising tariffs could negatively impact each of these sectors. The GCCs, for example, are the sort of high-value labour outsourcing that the Republican candidate has targeted. Talk of punitive taxation on companies exporting labour defies economic rationality and could squander the gains in controlling inflation. It is important to keep in mind, however, that campaign rhetoric does not translate into policy, especially vis-a-vis Delhi. On the geopolitical front, too, there are major



stakes. Trump, as President, gave a major push to the Quad and backed the concept of the Indo-Pacific — Joe Biden doubled down on that legacy. This strategic convergence in Asia is good for both countries. The US-India relationship has enjoyed broad bipartisan support for some time now. Washington has also been cognisant of India's development and energy needs vis-a-vis Russia and Iran. Hopefully, these pragmatic policies will be maintained, whoever the victor.

The world is currently in the grip of two major wars, both with expanding theatres. The consensus on globalisation and free trade has eroded, and the rise of China has added to the uncertainty. Ideas of bodily autonomy, women's rights and identity can and do travel across borders. The turn America takes after November 5 — internally, towards diversity and externally, in how it sees its role in the world — will reverberate beyond its borders.

A SETBACK

The results of the October 27 general election in Japan have thrown all calculations within the G-7 country and one of the most powerful economies into disarray. The ruling Liberal Democratic Party (LDP) dropped from 256 seats to 191 seats in the 465-seat House of Representatives, and its partner Komeito, from 32 to 24, putting the coalition short of a majority. The LDP, in power for much of the past six decades, has been bleeding public support, particularly after Shinzo Abe stepped down in 2020 and was assassinated in 2022. Despite garnering sympathy, his successor Fumio Kishida faced questions over the LDP's links with the Korean Unification Church and a scandal over fundraising by LDP lawmakers, which forced him out earlier this year. This paved the way for a party election that veteran leader and former Defence Minister Shigeru Ishiba won. The larger reason for the loss is sluggish economic growth amidst an ageing population, which has no easy fix. As Mr. Ishiba, who took charge on October 1, tries to cobble together the numbers ahead of the opening of the Diet (parliament) session next Monday, it is by no means certain that he will succeed: the main opposition left-of-centre Constitutional Democratic Party (CDP), which increased its seats from 98 to 148, plans to win over coalition partners and independent lawmakers to form the next government. The process has also weakened the LDP, with factions blaming each other for the loss, for the campaign slush-fund "Uragane" scandal, and Mr. Ishiba's decision to have a snap poll.

No matter what the outcome of the Diet session is, it is clear that the government will be shaky, affecting Japan's global imprint at a time when it is much needed. Japan's moderating influence on the U.S., where the presidential elections could throw up a rocky result, may also be missed. Japan's regional rivals, Russia, China and North Korea, will be watching for signs of weakness in Japan's defence posture, given their concerns over Mr. Ishiba's proposal of an "Asian NATO". For India, the bilateral relationship with Japan is among the most steadfast pillars of foreign policy. Prime Minister Narendra Modi is to visit Japan next month for the annual summit, but given the political developments, it might have to be postponed. This could put many important negotiations, including the one over the troubled Bullet Train-Shinkansen project on hold. Plans for India-Japan joint projects across the Indo-Pacific and South Asian countries (Bangladesh, Sri Lanka and Africa), as a part of the Asia-Africa Growth Corridor, will be delayed further. This would, however, be only a matter of time rather than policy thrust, as like in India, there is bipartisan support in Japan for the importance of ties between the two countries.



WHY IS BRAZIL WEIGHING OPTIONS ON BRI?

The story so far:

The Brazilian government indicated this week that it may not want to join China's Belt and Road Initiative (BRI), which would make it the second member of the BRICS grouping (Brazil, Russia, India, China, South Africa) after India to decline joining the trillion-dollar Chinese global infrastructure project that was started in 2013.

What may have prompted the decision?

The decision was conveyed in an interview to a Brazilian newspaper by Celso Amorim, Chief Adviser on Foreign Policy to Brazilian President Luiz Inacio Lula Da Silva. The interview has raised questions about Brazil-China ties, as well as about the BRI, which was launched as a modern-day version of the ancient Silk Road.

In the interview to O Globo, Mr. Amorim said that rather than sign an "accession contract" with China, Brazil would prefer to explore "synergy" in various nationally determined infrastructure projects. "The key word is synergy. It's not about signing something like an insurance policy. We're not entering into an accession treaty. It's a negotiation of synergies," Mr. Amorim said, adding that while China could give the relationship any name, for Brazil any partnership would involve projects defined and decided by Brazil.

He did not, however, reject the BRI outright or forswear Chinese funding for a number of projects, mainly on infrastructure, but also in other areas, ranging from solar energy to hybrid or electric cars. Mr. Amorim also suggested that such projects would engage not only Brazil but also other South American countries. Finally, Mr. Amorim pointed to more geopolitical collaborations that Brazil and China can further, such as the six-point peace plan for Ukraine.

Why is the timing important?

Unlike most of its neighbours, Brazil is one of only four South American countries not to join the Chinese initiative. Mr. Lula's predecessors Jair Bolsonaro and Michel Temer had been positive on Chinese investments but demurred at Beijing's multiple attempts at getting Brazil to sign an MoU on the BRI. As of December 2023, about 150 countries worldwide have done so, with India and Brazil being notable exceptions in the developing world, especially given their common membership of the BRICS. Russia also has some BRI projects under development for energy and roads, but it has not signed the MoU, only inking a China-Eurasian Economic Union MoU on the BRI.

In July, however, Mr. Lula had told a news conference that Brazil was studying the benefits of joining the BRI. "As China wants to discuss this Silk Road, we will have to prepare a proposal to assess 'What do we gain? What's in it for Brazil if we participate in this thing?'," he said. However, the decision conveyed in the O Globo interview, which comes after the BRICS summit in Russia and a visit to China by Mr. Amorim, appears to indicate that Brazil has concluded that the gains do not outweigh the risks of such a move.

What were India's reasons to stay out of BRI?

In its decision announced in May 2017 to stay out of the BRI, India was more forthright, and had outlined three issues: the corridor disregards sovereignty and territorial integrity of nations,



particularly referring to projects in Pakistan-occupied Kashmir; it would push smaller economies into debt traps and environmental hazards; and there was a lack of transparency, indicating India was wary of the BRI's larger geopolitical aims. In Brazil, officials say that there is an underlying concern about growing dependence in the CELAC (Community of Latin American and Caribbean States) region on Chinese investment, although Brazil-China trade has reached robust levels of \$180 billion and Chinese investment of \$3 billion a year in Brazil is the highest in the continent. With all that is at stake, all eyes are on what President Lula says later this month, when he hosts the G-20 in Rio De Janeiro (November 18-19), followed by a state visit by Chinese President Xi Jinping to Brasilia on November 20.

Has the BRI lost its sheen?

More than a decade after it was launched by Mr. Xi, the Belt and Road Initiative is no longer the "project of the century" it was once touted as. Of the 150 countries that have either signed an MoU or contracted for BRI projects, 44 are in Sub-saharan Africa, 17 in the European Union, 17 others in Europe and Central Asia, 31 in East Asia and South East Asia, 22 in South America and 19 in West Asia-North Africa.

One of the reasons the BRI's charms have dimmed is China's own slowing economy and Beijing's unwillingness to be as generous with its loans in the second half of the decade, especially after the COVID-19 pandemic. Another is the discomfort in many countries over the terms for the loans, which involve hiring Chinese companies and engaging Chinese workers, while often demanding heavy collateral, as Sri Lanka found out after losing control of the Hambantota port. The U.S.'s heavy lobbying against the BRI has also had some effect: Italy's Giorgia Melloni announced in December 2023 that it would not renew the BRI MoU. The Brazilian Foreign Adviser's statement follows a visit by U.S. Trade Representative Katherine Tai who asked Brazil to think carefully through an "objective lens" before signing on to the BRI. The remarks raised a protest from the Chinese Embassy in Brasilia which called them "disrespectful" of Brazil's sovereign right to choose its partners. With some ambiguity still apparent in Brazil's stand, some have suggested that President Lula may be keeping his options open, at least until the outcome of the U.S. elections on November 5.

DreamIAS



NATION

SHARING RESOURCES

India rightly used the sixth meeting of the India-Sri Lanka Joint Working Group on Fisheries, in Colombo on October 29, as an opportunity to again call for a meeting between fishermen of both countries to resolve the vexed problem of fishing in the Palk Bay. In a meeting in Colombo between India's High Commissioner Santosh Jha and Sri Lankan President Anura Kumara Dissanayake, stress was laid on the "importance of a long-term resolution that respects the needs of fishermen ... and promotes cooperation". Mr. Dissanayake affirmed his commitment to protecting Sri Lanka's interests. Weeks earlier, when India's External Affairs Minister S. Jaishankar met the President, the subject had come up for discussion. The idea of talks between fishermen seems to have takers. On October 25, fishermen staged a demonstration in Rameswaram wanting talks. Nearly eight months ago, representatives of the fisherfolk from the Northern Province had appealed for negotiations with their Tamil Nadu counterparts, despite their complaints about 'destructive bottom trawling' by the other side. It is up to Sri Lanka to respond.

What is well known is the frequent arrest of Tamil Nadu's fishermen, especially from Ramanathapuram, on charges of transgressing the International Maritime Boundary Line. Many are released after India's intervention. According to Tamil Nadu Chief Minister M.K. Stalin, as on October 27, there were 30 incidents of arrests this year; 140 fishermen and 200 boats are with Sri Lanka. There were casualties on both sides, in June and August, in operations by Sri Lanka to nab Tamil Nadu's fishermen. However, what appears to be a new trend is the increasing detention of Indian fishermen and their boats, with lengthy sentences and fines on repeat offenders. This is why India's long-standing position, that the issue has humanitarian and livelihood angles, assumes significance. At the same time, marine ecosystem conservation is important. Once Sri Lanka's parliamentary poll is over in mid-November, Mr. Dissanayake should enable a conducive environment for the northern fishermen to arrive at an agreement — this would need political support. Likewise, India should again push for the deep-sea fishing project, launched in 2017, for Tamil Nadu's fishermen, apart from promoting alternative forms of fishing. New Delhi should also come up with suitable schemes to help fishermen in the Northern Province, who have still to recover from the civil war. Fishermen from both countries should explore the relevance of the broad contours of an understanding reached between them in 2010. The northern fishermen should also understand the need to give Tamil Nadu's fishermen a reasonable period of transition. A combination of measures by all stakeholders is what can resolve the Palk Bay dispute.

IN BREAK FROM 'TRADITION', NEPAL PM OLI PICKS CHINA FOR 1ST BILATERAL VISIT

Nepal Prime Minister K P Sharma Oli is likely to undertake an official visit to China next month, his first bilateral, four months after he took over as head of the new government replacing the Left coalition government led by Pushpa Kamal Dahal (Prachanda).

- Official sources said the Prime Minister will visit Beijing most likely between December 2 and December 5. Oli's China visit is seen as a visible break from the 'tradition' of the new Nepali PM undertaking his first trip to India.
- India normally extends an invitation to Nepal's new prime minister. Prime Minister Narendra Modi is believed to have told Oli in New York when they met in September that he would soon be visiting Nepal.



- Oli's visit to China is scheduled at a time when the two biggest coalition partners in the government — Nepali Congress and Oli-led Communist Party of Nepal-Unified Marxist Leninist— are at odds over the conditions of executing projects under China's Belt and Road Initiative (BRI). While the Nepali Congress is firm that BRI projects should be accepted only under grants, the CPN-UML supports projects with loans from China's Exim bank.

Do You Know:

- Nepal and India have a unique relationship. The open border, shared culture, economic interdependence and deep-rooted people-to-people relationship make bilateral ties special.
- India is Nepal's largest trading partner, the top-source country for tourists, the only supplier of petroleum products and the largest source of total foreign investment. India also provides transit for almost all of Nepal's third-country trade and accounts for a significant share of inward remittances from pensioners, professionals and labourers working in India. It has always been the first responder during disasters and emergencies in Nepal.

CHALO INDIA DRIVE: FREE VISA FOR FRIENDS OF DIASPORA AT WORLD TRAVEL MART IN UK

The Ministry of Tourism will launch its Chalo India campaign on the sidelines of the ongoing World Travel Mart in London.

- The Ministry of Tourism is participating at WTM London, being held from November 5 to 7, with a delegation of 50 stakeholders including state governments, inbound tour operators, airlines and hoteliers to showcase India's vibrant cultural diversity and the vast range of tourism products and immersive experiences.
- As the special portal goes live, the OCI cardholders will need to register on the same and key in the details of their nominated friends; they will be assigned a unique code after due verification. The designated friends can then use the special code to avail of a free visa.
- The focus of this year's India pavilion is MICE, Mahakhumbh and wedding tourism, said the statement. A special mock Mandapam in the Pavilion has been created to give the look and feel of an Indian wedding. The India pavilion was inaugurated by High Commissioner Vikram Doraiswami and Director General, Ministry of Tourism, Mugdha Sinha, in the presence of Tourism Ministers of Telangana, Goa and Uttarakhand.
- Officials with the Tourism Ministry said the campaign is a formalisation of Prime Minister Narendra Modi's invite to NRIs and overseas Indians to bring their friends and associates to visit India and contribute to building brand India as a tourism destination.

Do You Know:

- Chalo India is a first-of-its-kind initiative to bring more foreign tourists to India, wherein the government will allow "friends" of diaspora members to get free visas. Five foreign nationals nominated by each Overseas Citizen of India (OCI) cardholder on a special portal will be eligible for a gratis e-visa (visa granted without fees).
- There are about five million OCI card holders, as per government records. While each OCI holder can nominate up to five people, the total number of free e-visas to be granted under the said initiative is one lakh, officials said.

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- The UK is the third largest source market for inbound tourists to India. At almost 1.9 million, it also has one of the biggest Indian diaspora.
- The foreign tourist footfall to India has been severely hit in the wake of the pandemic and numbers haven't returned to pre-pandemic levels. Around 6.19 million and 1.52 million foreign tourists arrived in India in 2022 and 2021 respectively, compared to 10.93 million in 2019.
- A total of 9.5 million foreign tourists visited India during 2023 out of which 0.92 million visits were from the UK, making it the third largest source market for inbound tourists to India, as per statistics by the Tourism Ministry.

TOURISTS TO THE FRONTIERS

Last week, India and China completed disengagement at Depsang and Demchok, the last two remaining friction points from the 2020 stand-off, in eastern Ladakh.

A broad framework agreement was reached first at the diplomatic level before a detailed technical agreement for ground implementation was concluded between the Corps Commanders of the two countries.

The stand-off that began between India and China in May 2020 has changed the situation on the ground along the Line of Actual Control. To counter the Chinese People's Liberation Army's ingress into Indian territory and military build-up, Indian armed forces undertook a major force accretion and deployment.

The Army has deployed a range of its heavy firepower, including tanks, armoured vehicles, and artillery guns while the Air Force moved its air assets, air defences, and radars forward.

Maintaining equipment in the extreme climate and high altitude is a herculean task. Along with it, a major infrastructure augmentation was also undertaken which serves a dual purpose — military movements as well as benefits for the civilian population in the remote areas.

The government is also promoting tourism in the forward areas in addition to developing border villages. This is a significant departure from the earlier policy of keeping forward areas, especially those contested, off limits. Allowing tourists, in addition to providing livelihood to locals, also strengthens the country's claim to these areas in the political talks for boundary resolution at the level of Special Representatives.

ON INDIA-CANADA DIPLOMATIC RELATIONS

The story so far:

Recently, Canada and India each expelled their top diplomats due to the fallout from Canadian Prime Minister Justin Trudeau's allegation last year that there were possible links of Indian intelligence with the killing of a Canadian citizen, Hardeep Singh Nijjar, in Canada. India had categorised Nijjar as a Khalistani terrorist (he had faced no criminal charges in Canada, but was put on a no-fly list and his bank accounts were frozen). The row seems to be escalating Canadian Hindu-Sikh tensions.



Is there a historical context?

India's long-held complaint has been that Canada acts as a safe haven for Khalistani separatists/extremists. Its biggest grouse has been Canada's failure in preventing the 1985 Air India bombing (perpetrated by Canada-based Khalistani extremists) and the lack of support in subsequent investigations.

The bombing killed 329 people (including children), the biggest airline terrorist act before 9/11.

Is there a Sikh 'vote bank' in Canada?

Vote bank is an Indian terminology unfamiliar to Canadians. Sikhs constitute only 2% of Canada's population but their political clout is far disproportionate because of geographic concentration. At one point, there were four Sikh ministers in the Trudeau cabinet. Most of the Sikh MPs are from Trudeau's Liberal Party. However, there is no public evidence to state that the only motive for the Trudeau government to lay these accusations against India is to pander to Sikh voters (of whom Khalistanis are only a minority).

What we have as 'evidence' is the Trudeau government dropping the words Sikh and Khalistani from a government report which identified, for the first time, Khalistani extremism amongst the top five terrorism threats in Canada; the Canadian parliament marking Nijjar's killing by holding a moment of silence; Mr. Trudeau and other party leaders attending Sikh community festivals which featured Khalistan flags and the glorification of Talwinder Parmar, the Air India bombing mastermind; and also drawing support from known Khalistani sympathisers. But all parties, not just the Liberal Party, have indulged in these kinds of acts. While Mr. Trudeau and his government have affirmed the territorial integrity of India, they have not explicitly condemned Khalistani extremism. But this 'vote bank' is not as India perceives it. In surveys, 54% of Sikhs in Canada intend to vote for the Conservative Party and 21% for Trudeau's party in the next elections.

The Trudeau government has already been pilloried about its failures in countering Chinese interference in Canadian elections. A public inquiry into foreign interference has currently been instituted by the Canadian government. Therefore, an accusation such as this could bolster its weak image.

But the Canadian newspaper, The Globe and Mail, which exposed Chinese interference and was about to publish the allegations regarding India last year (before Mr. Trudeau went public with it), and other news outlets, have criticised Mr. Trudeau only for using a serious national security issue for political grandstanding, rather than manufacturing the case to pander to Sikh voters as India alleges.

Are there political and cultural misunderstandings?

There are misunderstandings on both sides. Canadian scholars have argued that despite the fact that a vast majority of the victims of the Air India bombing were Canadian citizens (of Indian descent), the Canadian government, for a long time, had seen it as a "foreign tragedy" and the victims as not "real Canadians", clearly betraying systemic racism. Both Conservative and Liberal governments treated the victims shoddily until an official apology was issued by Conservative Prime Minister Stephen Harper in 2010. This racial prejudice is also emphasised by the fact that despite it being Canada's worst terrorist act, 90% Canadians had little or no knowledge of it, and more than 50% under the age of 35 had never even heard of it. Further, as no Khalistani terrorist



act has been perpetrated in Canada since then, the public is unaffected, and ignorant of Khalistani activism.

The Indian public, conversely, assumes that institutions work the same as in India. The rule of law is enforced in a more systematic manner in Canada than in India. Canadian police independence is guarded, and whenever there were attempts by politicians to interfere illegally, there has been a huge public outcry. Ujjal Dosanjh, a former Liberal cabinet minister, who himself was subject to life-threatening attacks by Khalistani extremists, has argued that while Canadian politicians have allowed Khalistani ideas to flourish, the law enforcement has not been soft on Khalistani terrorism. While the Air India investigations failed to a large extent, the evidence on hand does not suggest, as believed in India, that they were politically motivated to support the Khalistani extremists. The public inquiry that went into the Air India bombing, instead, was scathing about the security and investigation failures and termed them: “inconceivable, incomprehensible, indefensible, incompetence.”

Additionally, India is angry that Khalistan referendums are held in Canada and that Khalistani parades glorify the assassination of Indira Gandhi. However, freedom of speech and expression is a much guarded value in Canada and there is a high threshold on what constitutes as hate speech that can be prosecuted. Referendums and non-violent separatism advocacy are legal in Canada, and referendums have been held to seek the separation of Quebec from Canada. Burning the Canadian flag or the Bible in themselves are not criminal.

However, Canadian critics have argued for stronger legal vigilance around Khalistani hate speech especially when threats are issued.

What are the legal complexities?

India’s extradition requests, for those who it terms as Khalistani terrorists, are very often denied not due to political reasons but because they do not meet Canadian legal standards. Western democracies are wary of extraditions to countries with much poorer human rights records, where political dissenters and opponents are jailed for prolonged periods without criminal culpability, and without trial and bail, especially under anti-terror laws such as the Unlawful Activities (Prevention) Act (UAPA). Other reasons include the weakness of evidence solely relying on statements from the accused in custody, and (as journalist Praveen Swami has noted) the inadmissibility of Indian intelligence evidence in courts abroad as it is not gathered under the Indian Telegraph Act and the Information Technology Act. Only six wanted individuals have been extradited to India from Canada from 2002-2020 (this number is 10 for the U.S, and just one for the U.K.).

Notably, India has not managed to secure the extraditions of Mehul Choksi, Nirav Modi, Lalit Modi and Vijay Mallya (the last three from the U.K. with which India has friendly relations).

What role has the media played?

The Canadian media has asked some tough questions of the government and presented India’s version about the dangers of Khalistani diaspora politics. Conversely, the TV media in India, while rightly questioning Western hypocrisy on some matters, has substituted journalism with jingoism, and uncritically pushed the government’s narrative. It has spread disinformation that nobody was convicted for the Air India bombings (Inderjit Singh Reyat, the bomb-maker, spent nearly 30 years in jail); that Mr. Trudeau “admitted” that there was no evidence for his accusations, etc.



Parallely, the Globe and Mail (and other newspapers) which had asked Mr. Trudeau to provide more facts on his allegations last year, is presently attacking him for being soft on the “overtly hostile” actions of the Indian government, and for “curiously unwilling to acknowledge that India is, if not an enemy quite yet, certainly an adversary.” The reason is that this time around, the revelations are from the Canadian police and are not just “credible allegations” but “strong evidence.” It remains to be seen if it passes muster in the courts.

WHY DID SC UPHOLD U.P. MADRASA ACT?

The story so far:

The Supreme Court on November 5, 2024, upheld the constitutional validity of the Uttar Pradesh Board of Madarsa Education Act, 2004, with exceptions. The top court set aside the Allahabad High Court’s decision, which had deemed the 2004 Act to be in breach of the principles of secularism. However, in its ruling, a three-judge Bench headed by Chief Justice of India D.Y. Chandrachud, contended that provisions allowing the madrasa board to award higher degrees such as Kamil (undergraduate studies) and Fazil (postgraduate studies) contravened the University Grants Commission (UGC) Act, 1956. rendering it unconstitutional.

How do madrasas operate?

The Arabic word “madrasah” denotes an educational institution. The madrasa system has been in existence since the era of the Delhi Sultanate, receiving patronage from the Khilji and Tughlaq dynasties. Over time, it evolved into a distinct education system providing religious and secular learning. Notable figures such as Raja Ram Mohan Roy, Rajendra Prasad, and Premchand are believed to have gained their foundational knowledge from madrasas and their teachers, known as maulvis.

The bulk of the funding for madrasas comes from the respective State governments. In 1993, the P.V. Narasimha Rao government recognised the necessity of integrating modern education into madrasas, resulting in the 2009 Scheme for Providing Quality Education in Madrasas (SPQEM).

According to data presented by the Union government in Parliament on February 3, 2020, India has 24,010 madrasas, with around 60% — approximately 14,400 — located in Uttar Pradesh. These include 11,621 recognised and 2,907 unrecognised madrasas. The 2004 Act was enacted to regulate these madrasas with respect to curriculum, standard of education, conduct of examinations, and qualifications for teaching. It also established the Uttar Pradesh Board of Madarsa Education, predominantly comprising members from the Muslim community. Under Section 9 of the Act, the Board is responsible for preparing course material, granting degrees, and conducting examinations.

What was the case?

A single judge of the Allahabad High Court on October 23, 2019, while hearing a petition filed by Mohammed Javed, expressed doubt regarding the validity of the 2004 Act.

Mr. Javed was appointed as a part-time assistant teacher in 2011 for the primary section of Madarsa Nisarul Uloom Shahzadpur, Akbarpur Post Office, District Ambedkar Nagar on a fixed salary of ₹4,000 per month, subject to an 8% annual increment. He approached the High Court, arguing that he should receive a salary equivalent to that of regular teachers.



He also contended that appointments to madrasas should be regulated by the State government, the Madarsa Shiksha Parishad, and the district minority welfare officer.

While referring the matter to a larger Bench, the judge observed, “With a secular Constitution in India, can persons of a particular religion be appointed or nominated in a board for education purposes or should it be persons belonging to any religion, who are exponent in the fields for the purposes of which the board is constituted...?”

Meanwhile, lawyer Anshuman Singh Rathore filed a public interest Litigation (PIL) petition in the High Court challenging the validity of the 2004 Act on the ground that it violated secularism as well as Articles 14 (equality before law), 15 (which forbids discrimination) and 21A (right to education) of the Constitution. The larger Bench accordingly framed the question of law for adjudication as — “Whether the provisions of the Madarsa Act stand the test of secularism, which forms a part of the basic structure of the Constitution of India?” The impugned verdict was jointly pronounced on all such pleas.

Why did the High Court strike down the law?

After examining the curriculum taught in the madrasas, a Bench comprising Justices Subhash Vidyarthi and Vivek Chaudhary observed that the education imparted in these institutions is “neither quality nor universal in nature” and that “the State has no power to create a Board for religious education or to establish a Board for school education only for a particular religion and philosophy associated with it.”

It thus concluded that the 2004 Act violated secularism and that the government could not “discriminate” by imparting education based on religious affiliation.

The judges further noted that while “Islamic studies” is mandatory in all madrasas, essential modern subjects such as English, Mathematics, Science, and Social Sciences are either excluded or made optional. This, they reasoned, undermines the State’s constitutional obligation under Article 21A to ensure “quality” education for all children aged six to fourteen.

Highlighting that “higher education” is a field reserved under Entry 66 of the Union List of the Seventh Schedule of the Constitution, the High Court further asserted that the State government lacks the competence to legislate on such matters. It accordingly ordered that students enrolled in madrasas be promptly accommodated in regular schools recognised by the State government.

What was NCPCR’s response?

The National Commission for Protection of Child Rights (NCPCR), the top child rights protection body in the country, told the top court that madrasas are “unsuitable or unfit” places for children to receive “proper education”. It also flagged concerns related to the curriculum, teachers’ eligibility, opaque funding, and violation of land laws to assert that such institutions fail to provide a “holistic environment” to children.

In June, the child rights body issued a series of directives urging the Chief Secretaries of all States and Union Territories to withdraw recognition of government-aided madrasas that do not comply with the Right to Education Act, 2005. Subsequently, the Chief Secretary of Uttar Pradesh directed District Collectors to examine madrasas that had enrolled non-Muslim students and ensure their immediate transfer to recognised schools. On August 28, the Tripura government issued a similar directive.



The Jamiat Ulema-e-Hind, an organisation of Muslim clerics, consequently challenged these directives in the Supreme Court contending that such measures encroached upon the rights of religious minorities to establish and manage their educational institutions under Article 30 of the Constitution. Accordingly, the court directed the concerned authorities to refrain from implementing these directives until the matter was conclusively adjudicated.

What did the Supreme Court finally decide?

Dismissing the High Court's finding that the 2004 Act violated secularism, the Chief Justice underscored that any such purported infraction should be traced to an express provision of the Constitution and cannot simply be invalidated by making a blanket statement that it contravened the Basic Structure. "The reason is that concepts such as democracy, federalism, and secularism are undefined concepts. Allowing courts to strike down legislation for the violation of such concepts will introduce an element of uncertainty in our constitutional adjudication," he reasoned.

The court further opined that the State must strike a delicate balance between maintaining quality education and respecting the autonomy of minority education institutions. It underscored that the 2004 Act ought to be construed to be in consonance with Article 21A "to ensure that religious minority institutions impart secular education of a requisite standard without destroying the minority character". However, the Chief Justice cautioned that in accordance with Article 28(3) of the Constitution, a student attending a minority institution recognised by the State or receiving aid out of public funds should not be compelled to take part in religious instruction or forced to attend religious worship.

The unanimous verdict further noted that while madrasas offer religious instruction, their primary objective is to impart education, thereby bringing them within the fold of Entry 25 of the Concurrent List.

"The mere fact that the education sought to be regulated includes some religious teaching or instruction does not push a legislation outside the legislative competence of a State," the judges asserted.

However, the court invalidated provisions of the 2024 Act that allowed the issuance of higher educational degrees, emphasising that such degrees are exclusively regulated by the UGC Act and thus lie beyond the legislative competence of the State legislature. Nonetheless, it clarified that this does not necessitate the annulment of the entire statute, as doing so would be akin to "throwing the baby out with the bathwater."

What are the implications?

The verdict sets an important precedent for balancing essential state oversight with the protection of minority rights. By affirming the 2024 Act's primary aim of imparting quality education, the court reinforces a nuanced approach to secularism that embraces diversity within India's education system. Iftikhar Ahmed Javed, Chairman of the Uttar Pradesh Board of Madrasa Education, earlier told Reuters that dismantling madrasas would adversely impact 2.7 million students and 10,000 teachers in Uttar Pradesh alone. Additionally, the ruling may prompt the Centre to reconsider its substantial budget cuts for madrasa funding, which dropped from ₹10 crore in 2023-24 to ₹2 crore in 2024-25.



'LAW VALIDITY CAN'T BE CHALLENGED FOR BASIC STRUCTURE'S VIOLATION'

The Supreme Court on Tuesday held that the validity of a law cannot be challenged for violating the Basic Structure of the Constitution.

A three-judge Bench headed by Chief Justice of India, while upholding the State's power to legislate to regulate madrasas, was responding to whether the Basic Structure doctrine can be applied to invalidate an ordinary legislation.

Authoring the judgment, Chief Justice Chandrachud said the Basic Structure doctrine was made up of "undefined concepts" such as democracy, federalism and secularism. "Allowing courts to strike down legislation for violation of such concepts will introduce an element of uncertainty in our constitutional adjudication," the Chief Justice reasoned.

The Allahabad High Court finding that the Uttar Pradesh Madrasa Education Board Act, 2004 had disregarded secularism must be traced to specific constitutional provisions dealing with the Basic Structure concept.

"In a challenge to the validity of a Statute for violation of the principle of secularism, it must be shown that the statute violates provisions of the Constitution pertaining to secularism," he wrote.

Raj Narain case

Chief Justice Chandrachud quoted the various judges on the Bench in the Indira Nehru Gandhi versus Raj Narain case, widely considered as the case which led to the National Emergency in 1975. The top court had used the Basic Structure doctrine, evolved in the 1973 Kesavananda Bharati case, for the first time in the Raj Narain case to strike down a Constitutional amendment.

The judges on the Raj Narain Bench had differentiated between an ordinary Statute and a Constitutional Amendment.

He referred to the observation made by former Chief Justice A.N. Ray that applying the Basic Structure doctrine to test the validity of a Statute would amount to "rewriting the Constitution".

FAIZAN MUSTAFA ON SUPREME COURT'S AMU VERDICT: MINORITY INSTITUTIONS ARE NOT JUST FOR MINORITIES

Protection of minorities is the hallmark of a civilisation. Franklin Roosevelt rightly reminded us that "no democracy can long survive which does not accept as fundamental to its very existence the recognition of the rights of minorities". The Supreme Court's jurisprudence on minority rights, starting from the Kerala Education Bill case (1957), has been one that any constitutional court can be proud of. S Azeez Basha (1967) was a rare exception that was widely criticised, with India's greatest constitutional law expert H M Seervai terming it as "productive of great public mischief". On Friday, a seven-judge bench, by majority of 4:3, overruled a 56-year-old judgment and laid down the indicia to determine the minority character of an institution that had been left unanswered even by the 11-judge bench in TMA Pai Foundation (2002). In Anjuman-e-Rehmania (1981), a two-judge bench noted these criticisms and referred the matter to the Chief Justice of India to constitute a seven-judge bench. In December 1981, Parliament amended the Aligarh Muslim University Act of 1920 and clarified the doubts about the word "establish" in the long title and preamble of the original Act by deleting it. It explicitly declared in Section 2 (L) that Aligarh



Muslim University (AMU) was established by the Muslims of India as an institution of their choice, which had originated as MAO College and was subsequently incorporated.

Chief Justice S R Das in the Kerala Education Bill case had said that minority institutions are primarily for the minority that has established the institution, and there shall be only a “sprinkling of outsiders” in such institutions. However, clarity on this issue came as late as the St Stephen’s (1992) and TMA Pai Foundation judgments. AMU did not have Muslim reservations till 2004-05 — the subject of reservation in aided minority institutions was clarified only in 2005 when the 93rd constitutional amendment inserted clause five in Article 15 and exempted minority institutions from SC, ST and OBC reservations.

In 2005, AMU first sought the approval of the central government on its new reservation policy, which was confined to MD/MS courses. The central government issued a notification on February 25, 2005, accepting AMU as a minority institution and permitting 50 per cent reservation for Muslims. This was challenged in the Allahabad High Court, which declared a few provisions of the 1981 amendment as unconstitutional due to what the court termed as “brazen overruling” of the Supreme Court’s 1967 judgment.

In 2019, a three-judge bench headed by Chief Justice Ranjan Gogoi referred the matter to the seven-judge bench. It delivered its landmark verdict on the last working day of CJI D Y Chandrachud. The dissenting judges found fault with the 1981 reference, as ordinarily two judges cannot directly refer a matter to a seven-judge bench if the CJI is not on it. The Court rejected the argument that Muslims were not a minority in 1920 or did not think of themselves as a minority. It said the group must be a minority on the commencement of the Constitution and pre-Constitution institutions are also entitled to protection under Article 30, even when founding a university.

The 1967 judgment by then Chief Justice K N Wanchoo took a formalistic and narrow view of the term “establish” in Article 30 and attached undue importance to the long title, preamble and other provisions of the AMU Act, 1920, to return the finding that the university was neither established nor administered by the Muslim community. This excessive reliance on the 1920 Act did not find favour with the seven-judge bench, which has observed that courts must pierce the legislative veil to find the genesis — who conceived the original idea, who collected funds and who took necessary steps to get governmental approval. Mere statutory incorporation cannot ipso facto lead to a loss of the minority character of an institution. The courts interpret the statute holistically to find out if AMU relinquished its minority character on incorporation. The Court also held that Basha, after recognising the efforts by the Muslims between 1877 and 1920 to establish the institution, was wrong in ignoring history.

The majority of judges rejected the argument against AMU’s minority character because it was mentioned as an institution of national importance in the Constitution. The Court said Entry 63 of the Union List empowers Parliament to enact regulations in respect of AMU and does not amount to the surrender of its minority character. The CJI observed that the terms “national” and “minority” are not at odds with each other. A minority institution can also be one of national importance. The dissenting judges, on the other hand, considered this an important facet of the university’s non-minority status. Relying on earlier judgments, the CJI held that the admission of non-minority students, financial contribution by non-minorities, governmental grant of land or aid, degree recognition, and non-minorities’ presence in the administration does not change the character of a minority institution.



In the most liberal interpretation of Article 30, the CJI observed that to determine minority character, it is not necessary that the administration must be vested in the minority itself. The right to administer is the consequence of the establishment of the institution. "To do otherwise, would amount to converting a consequence to a pre-condition," the CJI opined. Widening the ambit of Article 30, the Court also refused to attach much significance to either the provision of religious instruction or the centrality of religious buildings, like the St Stephen's College church or AMU mosque. The only flip side of the majority opinion is that like in Basha, it has accepted the possibility of minorities giving up or surrendering their right to administer. Constitutionally, fundamental rights cannot be waived. In Ahmedabad St Xaviers (1975), the Court held that rights of future generations cannot be surrendered.

A three-judge bench, which will now determine the minority character of AMU, will no longer be constrained by Basha. It will be bound to apply the indicia laid down by the majority on November 8. Since the Allahabad HC's judgments of 2005 were also based on the apex court's 1967 judgment, they no longer have much significance, though appeals against them are pending with the Supreme Court.

CAN THE STATE ACQUIRE ALL PRIVATE PROPERTY?

The story so far:

A nine-judge Constitution Bench of the Supreme Court, in a majority judgment (8:1), held that not every private resource can be considered a 'material resource of the community' to be used by the government to serve the 'common good.' This overturns the earlier interpretation formed in 1977 that has been followed by the Supreme Court till 1997.

What are constitutional provisions?

Part IV of the Constitution contains the Directive Principles of State Policy (DPSP). These are principles that the government should follow to achieve social and economic justice in our society. Article 39(b) in Part IV provides that 'ownership and control of material resources of the community are so distributed as best to subserve the common good.'

The Constitution originally guaranteed right to property and compensation for acquisition as a Fundamental Right under Articles 19(1)(f) and 31 respectively. Article 31C was added through the 25th amendment in 1971. It provided an exception that laws made to fulfil the principles under Articles 39(b) and (c) shall not be void on the ground that it violated Fundamental Rights including right to property. In the Kesavananda Bharati case (1973), a 13-judge Bench of the Supreme Court upheld the validity of Article 31C but made it subject to judicial review. In 1978, the right to property was omitted from Fundamental Rights and made a constitutional right under Article 300A. Any law to acquire private property by the government should only be for a public purpose with adequate compensation meted out.

What were earlier judgments?

In State of Karnataka versus Ranganatha Reddy (1977), a seven-judge Bench of the Supreme Court upheld a Karnataka State law that nationalised private bus transport services. Justice V.R. Krishna Iyer wrote a separate 'afterword' interpreting the phrase 'material resource of the community' contained in Article 39(b). He held that it embraces all national wealth, not merely natural resources, and all the private and public sources of meeting material needs. This minority judgment formed the basis of the Sanjeev Coke Manufacturing Company versus Bharat Coking



Coal Limited (1982) case, that upheld the nationalisation of coke oven plants. It was again relied on in Mafatlal Industries Limited versus Union of India (1996).

What is the current ruling?

In Property owners' association versus State of Maharashtra, a seven-judge Bench referred the issue of interpretation of Article 39(b) to a nine-judge Bench. The current majority opinion (for seven judges including the CJI) held the interpretation of V.R. Krishna Iyer, that every privately-owned property could be used by the state as a 'material resource' to 'subserve the common good', as a rigid economic ideology that advocates greater governmental control over private resources. Therefore, it was rejected by the majority opinion which said that India has moved on from a socialistic model to a market-based liberalised economic model.

It held that to qualify as a 'material resource of the community,' a resource must be 'material' and 'of the community.' The 'public trust doctrine' and context-specific key factors that would determine this are the inherent characteristics of the resource; its impact on community well-being; its scarcity; and the impact due to its concentration in private hands. Hence, certain resources like forests, ponds, spectrum, mines and minerals may fall within the scope of Article 39(b) even if they are privately held. However, not every private resource automatically qualifies just because it meets material needs. The term 'distribute' in Article 39(b) also carries a wide meaning that can include both government acquisition and redistribution to private players, as long as it serves the common good. Justice Nagarathna concurred partially with the seven-judge majority while opining that all private resources except 'personal effects' like apparel, jewellery etc., can be transformed into a 'material resource of the community' through nationalisation, acquisition etc. Justice Sudhanshu Dhulia wrote the sole dissenting opinion where he upheld the interpretation of V.R. Krishna Iyer in the Ranganatha Reddy case. Highlighting the continuing inequality in society, he has questioned the majority for seeking to limit the scope of the "material resources", when the better approach would have been to leave it to the wisdom of the legislature.

What is the way forward?

Our economy has changed from a socialistic pattern to a liberalised, market-oriented model. The ensuing growth has uplifted vast majority of people from abject poverty. However, there is also a growing inequality that needs to be addressed. This judgment should protect the small farm and forest lands of marginalised sections from forceful acquisitions by the government. Equally important is the sustainable exploitation and distribution of material public resources within the domain of the government.

We must bear in mind that we have not inherited the earth and its resources from our ancestors but have borrowed it from our future generations.

2 JUDGES DISAGREE WITH CJI'S REMARK ON 'IYER DOCTRINE'

Two Supreme Court judges on the nine-member Bench headed by Chief Justice of India D.Y. Chandrachud, which held that not all private property is material resources of the community, quoted a "harsh" observation made by the Chief Justice about Justice V.R. Krishna Iyer in a "proposed judgment".

Justice Iyer was a former top court judge whose humanism and reforms in criminal justice are considered legendary. His coinage "bail is the rule, jail is the exception" is still assiduously quoted in Supreme Court judgments.



Justices B.V. Nagarathna and Sudhanshu Dhulia, in separate opinions, referred to a “proposed judgment” of the Chief Justice’s which, according to them, had observed that “the Krishna Iyer doctrine does a disservice to the broad and flexible spirit of the Constitution”.

Majority judgment

The majority judgment pronounced by the Chief Justice, for himself and seven other members of the Bench and published on the Supreme Court website on Tuesday, does not contain the “disservice” remark. The published judgment authored by the Chief Justice, however, referred to “the Krishna Iyer Doctrine” with regard to laying down “a preference of economic and social policy”. The Chief Justice, in his final opinion, said the court must not tread into the domain of economic policy.

Usually, draft opinions are circulated among the members of a Bench. It is rare for judges to quote from a “proposed” judgment.

Justice Nagarathna’s opinion said judges of posterity must not lose sight of the times in which past judges like Justice Iyer discharged their duties and the socio-economic policies that were pursued by the state in their time.

“Merely because of the paradigm shift in the economic policies of the state to globalisation, liberalisation and privatisation, compendiously called the ‘Reforms of 1991’, which continue to do so till date, cannot result in branding the judges of this court of the yesteryear ‘as doing a disservice to the Constitution’,” Justice Nagarathna wrote.

She said judges should not follow this practice of decrying past judges. The answer lay in meeting modern challenges by choosing only that part of the past wisdom apposite for the present without decrying those who served before them.

“The institution of the Supreme Court of India is greater than individual judges, who are only a part of it at different stages of history of this great Country! Therefore, I do not concur with the observations of the Chief Justice in the proposed judgment,” Justice Nagarathna categorically said.

‘Fairness, equity’

Justice Dhulia, who authored the lone dissent on the Bench, referred to the criticism in the proposed judgment as “harsh, and could have been avoided”.

“The Krishna Iyer Doctrine, or for that matter the O. Chinnappa Reddy Doctrine, is familiar to all who have anything to do with law or life. It is based on strong humanist principles of fairness and equity. It is a doctrine which has illuminated our path in dark times,” Justice Dhulia reflected.

Justice Dhulia said judges like Justice Iyer were not only known for their intellect but, more importantly, for their empathy for the people, “as the human being was at the centre of their judicial philosophy”.

“In the words of Justice Krishna Iyer himself: ‘The courts too have a constituency — the nation — and a manifesto — the Constitution’,” Justice Dhulia reminded.



SEXUAL HARASSMENT CASE CANNOT BE CLOSED ON BASIS OF COMPROMISE: SUPREME COURT

The Supreme Court Thursday said a sexual harassment case cannot be closed after a compromise is reached between the rival parties as such offences have serious impact on the society.

- The apex court made the observation while setting aside the Rajasthan High Court's decision to quash a POCSO case against a school teacher following a compromise reached between him and the father of the minor victim.
- The HC had quashed the case exercising its inherent powers under Section 482 CrPC "to make such orders as may be necessary to give effect to any order under this Code, or to prevent abuse of the process of any Court or otherwise to secure the ends of justice."
- A bench of Justices C T Ravikumar and Sanjay Kumar referred to the SC's 2012 decision in Gian Singh v. State of Punjab, which it said had laid down in unambiguous terms...that "before exercising the power under Section 482, CrPC, the High Court must have due regard to the nature and gravity of the crime" and held that "heinous and serious offences could not be quashed even though a victim or victim's family and the offender had settled the dispute".
- Justice Ravikumar reported that "this court held that such offences are not private in nature and have a serious impact on the society", and since "it is the bounden duty of the court concerned to consider whether the compromise is just and fair besides being free from undue pressure we will proceed to consider the matter further".
- According to the court, "the objects and reasons for the enactment of the POCSO Act... would undoubtedly show that quashing of proceedings initiated under POCSO Act abruptly... would go against the very intention of the legislature behind the enactment."

Do You Know:

- The Supreme Court has ruled that in cases of "bodily injuries such as sexual assault, particularly on minor children and women," Sessions Courts must order compensation be provided to the victim while convicting or acquitting the accused.
- A bench of Justices B V Nagarathna and Pankaj Mithal further ruled that the instruction must be carried out by the District Legal Services Authority or the State Legal Services Authority.
- The court further noted that the appellant had already served slightly more than half of the sentence imposed by the Sessions Court, and that the sentence was unlikely to be expanded as such by the high court. "In the circumstances, we find that the appellant is entitled to suspension of sentence and release on bail".

CLICKING PHOTO OF A WOMAN IN PUBLIC IS NOT VOYEURISM: HC

The Kerala High Court on Monday ruled that seeing a woman or capturing her photo while she appears in a public or private space where she normally expects others to see her and take photo will not attract voyeurism charges. In its judgment, the court clarified that such scenarios would not attract any offence under Section 354C (voyeurism) of the IPC.



The ruling of Justice A. Badharudeen came while quashing the charges made under Section 354 C of the IPC against Ajith Pillai, 56, an Ernakulam resident.

According to the prosecution, on May 3, 2022 when the woman was in front of her house, the first and second accused reached there in a car and took photographs of her and the house. She restrained their car and questioned the photography. Then, both the accused showed gestures with sexual overtones, the prosecution alleged.

“If a woman normally appears in a public place or private place not in circumstances where she would usually expect any other person who either sees or captures her image, the same, in no way, affects her privacy, no offence under 354 C (voyeurism) would attract,” said the court.

LMV LICENCE HOLDERS CAN DRIVE TRANSPORT VEHICLES WEIGHING LESS THAN 7,500 KG: SC

A Constitution Bench of the Supreme Court headed by Chief Justice of India D.Y. Chandrachud held in a judgment on Wednesday that a person holding a driving licence for a light motor vehicle (LMV) is also entitled to drive a transport vehicle with unladen weight not exceeding 7,500 kg.

The judgment, authored by Justice Hrishikesh Roy, brought relief to lakhs of commercial drivers and spelt a blow to insurance firms denying accident claims on the ground that these drivers were not authorised to drive transport vehicles.

“A driver holding a licence for Light Motor Vehicle class for vehicles with a gross vehicle weight under 7,500 kg, is permitted to operate a ‘transport vehicle’ without needing additional authorisation under Section 10(2)(e) of the Motor Vehicle (MV) Act specifically for the ‘transport vehicle’ class,” Justice Roy held.

The five-judge Bench dismissed insurance companies’ contention that such “unauthorised” drivers of transport vehicles were a major cause for road accidents. “Driving a motor vehicle is a complex task requiring both practical skills and theoretical knowledge... The core skills expected of all drivers apply universally, regardless of whether the vehicle falls into transport or non-transport categories,” Justice Roy reasoned.

‘RULES CANNOT CHANGE MIDWAY OF PUBLIC SERVICES RECRUITMENT’

A five-judge Constitution Bench led by Chief Justice of India D.Y. Chandrachud held on Thursday that the eligibility criteria, or the “rules of the game”, for selection of candidates to public services could not be changed midway once the recruitment commenced.

“Eligibility criteria for being placed in the select list, notified at the commencement of the recruitment process, cannot be changed midway through the recruitment process unless the extant rules so permit, or the advertisement, which is not contrary to the extant rules, so permits,” Justice Manoj Misra, who authored the judgment, concluded.

The Constitution Bench, in the unanimous 44-page judgment, held that the laws, rules and procedure governing recruitments to public services, both of the Union and the States, must be governed by the overarching principles of the fundamental rights of equality and non-discrimination.



Even if the criteria has to be altered, the change will have to meet the requirements of Articles 14 (right to equality) and 16 (equal opportunity in public employment and non-discrimination) of the Constitution and satisfy the test of non-arbitrariness, the court underscored.

However, the judgment said a spot on the select list would not guarantee a candidate the indefeasible right to be appointed even if vacancies were available. However, on the other hand, the state or any of its instrumentalities could not arbitrarily deny appointment to a selected candidate.

Therefore, Justice Misra said, it would be the state's burden to justify the denial of appointment to a selected candidate.

Justice Misra explained what "the rules of the game" meant.

"The 'game' is the process of selection and appointment. Courts have consistently frowned upon tinkering with the rules of the game once the recruitment process commences. This has crystallised into an oft-quoted legal phrase that 'the rules of the game must not be changed midway, or after the game has been played,'" the judge said.

Two categories

The "rules" roughly fell into two categories — one which prescribes the eligibility criteria or the essential qualifications of the candidates seeking employment; and the other which stipulates the method and manner of making the selection from amongst the eligible candidates.

The court explained that a "recruitment process" began with the issuance of the advertisement calling for applications and ended with filling of the vacancies. The recruitment must follow the extant rules and adopt a procedure which was transparent, non-discriminatory, and non-arbitrary and had a rational nexus to the object sought to be achieved. The rules concerned were binding on the recruiting body both in terms of procedure and eligibility criteria.

DOES DATA JUSTIFY SUBDIVISION OF QUOTAS?

India's reservation system has long been a tool for uplifting historically marginalised communities, particularly the Scheduled Castes (SCs) and Scheduled Tribes (STs). Born out of the need to correct centuries of social and economic exclusion, reservations have opened the doors of higher education, government employment, and public offices for groups once condemned to the periphery of society. Yet, over 75 years since independence, questions are being raised about whether the system is serving its intended purpose — especially when some subgroups within the SCs appear to be benefiting more than others.

Recent debates, spurred by a Supreme Court ruling, have questioned whether a 'quota-within-quota' system is needed to ensure that affirmative action policies are more equitable across SC subgroups. The idea is to subdivide the SC quota to provide targeted assistance to the most disadvantaged communities within the broader SC category. While some States, like Punjab, have experimented with such policies, the effectiveness of subdividing quotas is still a matter of contention.

The question at the heart of this debate is: do all SCs benefit equally from reservations? And if not, should the system be redesigned to ensure a more balanced distribution of opportunities?



A deep dive into caste quotas

Dr. B.R. Ambedkar, the principal architect of the Indian Constitution, believed that formal legal equality (one person, one vote) would not be enough to dismantle the deeply entrenched inequalities of caste. Thus, reservations were mandated to become a mechanism to move from legal equality to substantive equality by creating opportunities for SCs and STs in higher education, public sector jobs, and government institutions.

The argument underlying the Supreme Court verdict is that despite its progressive aims, India's reservation system is plagued by uneven outcomes. Some SC groups seem to have progressed more than others over the decades. This has led to calls for a more nuanced approach to affirmative action — one that recognises the heterogeneity within the SC category itself.

Here, we use data from six major States — Andhra Pradesh, Bihar, Punjab, Tamil Nadu, Uttar Pradesh, and West Bengal — and explore whether some SC castes have disproportionately benefited from reservations, leaving others behind.

What data from different States tell us

In Andhra Pradesh, our estimates reveal that while there are slight differences between the two major SC groups — Malas and Madigas — the disparities are not significant enough to warrant subdivision of the quota. By 2019, both groups had seen improvements in education and employment, and both were equally likely to benefit from white-collar jobs. A similar story emerges in Tamil Nadu, where the two largest SC groups — Adi Dravida and Pallan — were almost indistinguishable in terms of socio-economic outcomes by 2019. But other States paint a more complicated picture.

In Punjab, where the SC quota has been subdivided since 1975, the data suggests that this policy has led to better outcomes for more disadvantaged SC groups, such as the Mazhabi Sikhs and Balmikis. These groups, once marginalised even within the SC category, have begun to catch up to more advanced groups such as the Ad Dharmis and Ravidasis.

On the other hand, Bihar's experiment with subdividing the SC quota into a "Mahadalit" category in 2007 is a cautionary tale. Initially designed to target the most marginalised SC groups, the policy eventually faltered as political pressure led to the inclusion of all SC groups in the Mahadalit category, effectively nullifying the purpose of the subdivision. The broader takeaway from these findings is that while there is some heterogeneity within the SC category, the disparities between SC groups and upper-caste groups (general category) remain far more pronounced. In other words, the gap between SCs and the privileged castes is still much larger than the gap between different SC subgroups.

Are reservations accessible?

We need good jati-wise data on actual use of reserved category positions. The closest we can get is based on a question from the India Human Development Survey (IHDS) that asks potential beneficiaries if they have a caste certificate — a prerequisite for accessing reserved positions in education and employment. These numbers can be seen as proxy for actual access in the absence of authoritative official data.

In States like Uttar Pradesh and Bihar, less than 50% of SC households report having these certificates, meaning that a large portion of SCs are excluded from the benefits that are supposed



to uplift them. Tamil Nadu and Andhra Pradesh fare better, with over 60-70% of SC households holding caste certificates, but these States are the exception rather than the rule.

This highlights a fundamental problem with the current system — access. Without ensuring that all eligible SCs can actually benefit from reservations, subdividing the quota becomes a secondary concern. The focus should first be on improving access to reservations across the board, ensuring that those who are entitled to these benefits can avail them.

Is quota-within-quota the solution?

The idea of a 'quota-within-quota' is not without merit. In States like Punjab, where there is a clear disparity between SC subgroups, subdividing the quota has helped bring more disadvantaged groups into the fold. But this is not the case everywhere. In many States, like Andhra Pradesh and Tamil Nadu, the data suggests that there is little need for further subdivision, as the benefits of reservations are already being distributed fairly evenly across SC groups.

Moreover, the political motivations behind quota subdivision, as seen in Bihar, can often undermine the policy's effectiveness. Decisions about who gets to be included in the most disadvantaged category are often driven by political expediency rather than empirical evidence. This dilutes the impact of affirmative action and risks turning the reservation system into a political tool rather than a genuine instrument for social justice.

Furthermore, the Supreme Court's suggestion of introducing a "creamy layer" exclusion for SCs — similar to what is in place for Other Backward Classes — needs a stronger evidentiary basis.

The affirmative action policy consists of quotas as well as monetary benefits (scholarships or freeships, lower fees). The income criterion can be used to decide on eligibility for the monetary component to keep the monetary benefits for those who genuinely need it. However, there is no evidence that for historically stigmatised groups, improvement in class status necessarily reduces discrimination, whether it be in jobs or housing. Despite untouchability being abolished, covert and overt instances of untouchability persist. As elsewhere in the world, the stamp of a stigmatised social identity doesn't disappear easily with economic mobility. Reservations have helped in creating a Dalit middle class, which over time can reduce stigma and gradually set the stage for creamy layer exclusion in the future. However, we are not there yet.

Finally, the urgent need for updated data cannot be overstated. India's national Census, delayed for years, is the only source that can provide comprehensive data on caste-based disparities. Without this information, any attempt to reform the system will be based on incomplete/outdated evidence.

India's reservation system has undeniably helped lift millions out of poverty and into the middle class, but it is far from perfect. As debates around 'quota-within-quota' policies continue, the focus should remain on improving access to affirmative action for all SCs and addressing the larger disparities between SCs and upper-caste groups. If carefully implemented, reservations can continue to be a powerful tool for social justice — but only if the system is based on robust data and genuine need, rather than political calculations.

MULTI-MEMBER SEATS: A SHORT-LIVED EXPERIMENT

-“The Centre has indicated that the much-delayed Census could start as early as next year. A key event that could follow is the delimitation of constituencies, a move that's the subject of debate



with the southern states saying they have much to lose in terms of their representation in Parliament.”

- “In this context, a short-lived experiment with multi-member constituencies is a sign of how far India has travelled in terms of parliamentary representation in less than eight decades. The idea behind multi-member constituencies — seats where more than one member would be elected — was to give representation to persons belonging to the Scheduled Castes and the Scheduled Tribes.”

- “Therefore, depending on their population, it was decided that certain seats would be reserved for them. But unlike now, they would not be the only candidates on that seat. Take for instance, a constituency that we hypothetically name ‘X’. If X has a high population of SCs, it will be declared a two-member constituency and each party can field a general candidate and an SC candidate. Each voter in this constituency then has two votes. At the end of the electoral process, this seat would send two members to the Lok Sabha or the Assembly, as the case may be. In line with the first-past-the-post system, the two candidates with the maximum votes would be declared the winner.

- “But the concept of multi-member constituencies lasted only two elections in Independent India — 1952 and 1957.”

- “For the **first general elections** of 1951-52, 72 of the 489 seats in the Lok Sabha were reserved for Scheduled Castes and 26 for the Scheduled Tribes. Of these 72 seats reserved for SCs, 71 were two-member seats. North Bengal was the only three-member Lok Sabha constituency, where there was a general candidate and two reserved category candidates — one SC and the other ST.”

- “Each voter in a multi-member constituency would have as many votes as there are seats in that constituency, but his votes are cumulative. To prevent cumulative voting in multi-member constituencies, for two-member constituencies, the Election Commission would print two ballot papers, each bearing the same serial number but with one bearing the suffix “A”.

- “Ahead of the 1957 general elections, states were reorganised based on the recommendations of the Justice Fazl Ali Commission and constituencies were redrawn by the Delimitation Commission based on the 1951 Census.”

- “Consequently, the Lok Sabha seats went up to 494 (of the 403 constituencies, 91 had two members each) and the count of the state Assemblies went up to 3,102 seats (2,518 constituencies: 584 of them double-member). There were no three-member seats in 1957.”

- “On May 20, 1959, a bench of five judges upheld the High Court’s decision, saying that in a two-member constituency, ST candidates (in this case) were free to contest not only the reserved seat but also the general seat. Following the verdict, the government decided to amend the Constitution to do away with the system of two-member constituencies.”

Do You Know:

- The Election Commission defines delimitation as the process of drawing boundaries of constituencies for elected bodies based on the population in the most recent Census. Article 82 of the Constitution states that after every Census is completed, the allocation of Lok Sabha seats to each state must be adjusted based on population changes.



- Article 81 states there can be no more than 550 members in the Lok Sabha – 530 from states and 20 from Union Territories. It also says that “the ratio between (the number of seats) and the population of the state is, so far as practicable, the same for all states”. So, each constituency across the country should ideally have the same population.
- Under these provisions, an independent Delimitation Commission is to be set up once every decade to reapportion seats among states. The Commission is appointed by the President of India and comprises a retired judge of the Supreme Court or a high court, the Chief Election Commissioner and the State Election Commissioner.
- In Independent India’s history, delimitation has taken place four times – 1952, 1963, 1973 and 2002. A look at how they changed the political landscape.

SOLEMN PROMISE

The call by the Jammu and Kashmir (J&K) Lieutenant Governor (LG), Manoj Sinha, for restoration of Statehood to the Union Territory must be seen as both a demand from the newly elected regime and a reiteration of the promise made by the Centre. Being part of the LG’s customary address to the Assembly, it obviously reflects the demand of the new dispensation headed by the National Conference, and is in accordance with a recent Cabinet resolution. At the same time, the LG also represents the President, who administers all Union Territories. One cannot forget that the Union government had given a solemn promise to the Supreme Court that J&K, which was downgraded and divided into two Union Territories (UT) in August 2019, will get back its Statehood. Although no timeline was given, the promise holds good with greater force now, as Assembly elections have been held and a representative government installed. The assurance had been given during the course of the hearing on the validity of the Presidential notifications abrogating the State’s special status under Article 370 and the adoption of the Jammu and Kashmir Reorganisation Act by Parliament. It was on the basis of this assurance that the Constitution Bench decided that it would not decide the question whether the State’s reorganisation into two UTs was permissible under the Constitution.

The reasonably high turnout in the Assembly elections had demonstrated the faith reposed by the people of J&K in democratic institutions, and their desire for a return to popular rule. While the removal of the State’s special status may continue to rankle for many, few would disagree that the restoration of Statehood is a matter of priority for the people. The election of a new regime has strengthened democratic processes, and there is really no reason or excuse for any further delay in conferring Statehood. There is some cause for concern over the security situation, as evidenced by a spurt in militant attacks. Both civilians and soldiers have been killed, and many of the victims were non-local workers in the Valley. The most likely explanation for the escalation is that militant groups want to create a sense of fear among non-local workers and provoke a backlash from the security forces. However, neither any spike in terror attacks nor the fact that the ruling Bharatiya Janata Party at the Centre could not realise its hope of being in power in J&K should be seen as a possible reason to delay a positive decision on its Statehood. The need for the elected regime to have its governance space expanded by the benefits of full Statehood brooks no delay.

RENEWED TERROR

In an escalation of terrorist violence towards the end of October, 10 civilians and two soldiers were killed in a series of attacks across Kashmir. Many of the civilians killed were non-local workers in the Valley. Clearly, these attacks were aimed at creating a sense of fear among the non-



local worker population in the Union Territory and to provoke a disproportionate response from the security forces — oft-used tactics by militants in the conflict-prone province. The administration, which includes the office of the Lieutenant-Governor and the newly elected National Conference-led government, must ensure that security forces do not fall prey to this ploy by militants to invite the “state repression” of local communities in order to target militants. The entire cross-section of the Kashmiri polity, including separatist figures such as Mirwaiz Umar Farooq, have condemned the attacks on civilians and this should send a message to those harbouring militants. While it is quite clear that there is still disenchantment and despondency with the Union government’s moves in Jammu and Kashmir, this has, thus far, not descended into a repeat of the chaos of the 1990s when militancy and terrorism were rampant. With a new government in place, the administration is even better placed to isolate militants and all efforts must be taken to do so. Ensuring a safe environment for non-local workers in the Valley by conducting thorough security audits would be one such worthwhile effort, even as persuading civilians to isolate the militants and bring them to justice would be another.

Insurgency in Kashmir was largely restricted to attacks on the security forces and armed forces’ establishments. But it is only in the last few years that civilians, who include non-local labour and Kashmiri Pandits, have been chosen as targets by terrorists. This shift in the terror strategy indicates a desperate attempt to polarise Kashmiri society on communal lines and to use the dismay with the Union Government’s measures to garner recruits for the militant cause. There is no doubt that the dismay and the anger against high-handedness by the security forces, in what are admittedly difficult operations for them, have provided a rationale for the militancy to go on, also sustained by cross-border support. But it is to the credit of the Kashmiris’ forbearance that this has not resulted in a full-blown insurgency as past experiences of militancy have made them wary of extremism. This was evident in the recent Assembly elections where candidates favouring extremist or hardline views or were proxies for forces fostering them, were rejected by the electorate. Ultimately, the sure shot way of ending militancy is to find a way to address the grievances of the people and to win their confidence.

NSCN-IM THREATENS ARMED VIOLENCE FOR FIRST TIME SINCE 2015 FRAMEWORK AGREEMENT

For the first time since signing a framework agreement in the presence of Prime Minister Narendra Modi in 2015, the Isak-Muivah faction of the National Socialist Council of Nagaland (NSCN-IM) has issued a statement threatening to “resume violent armed resistance against India”.

The NSCN-IM warned it would resume the struggle if the Centre does not agree to third-party intervention to address its demands, which include a separate flag and constitution for the Nagas. It said “the violent confrontation shall be purely on account of the deliberate betrayal and breach of commitment by India and its leadership to respect and honour the letter and spirit of the framework agreement of August 3, 2015”.

Signed by T. Muivah, general secretary, NSCN, and “chief political negotiator”, the statement released on Thursday said NSCN shall protect the unique history, sovereignty, freedom, territory, flag and constitution for the Nagas “come what may”.

A government source said the statement was drafted in the name of Mr. Muivah by his two China-based aides Phunthing Shimray and Pamshin Muivah. The 90-year-old is not keeping well, the source added. On September 20, Mr. Pamshin Muivah was appointed as national security adviser of NSCN. It had signed a ceasefire pact with the Centre in 1997.



NSCN-IM accused the “authorities and the leadership in the GoI” of deliberately betraying the letter and spirit of the 2015 agreement by refusing to recognise and acknowledge the Naga flag and constitution. “The GoI will attempt to impose conditions and terms of surrender on the NSCN,” the statement said. The agreement was signed by Naga peace talks interlocutor R.N. Ravi in 2015. The NSCN demands the creation of ‘Greater Nagaland’ or Nagalim by integrating Naga-dominated areas in neighbouring Assam, Manipur and Arunachal Pradesh to unite 1.2 million Nagas.

BIHAR GOVT. MULLS TAKING OVER BETTIAH RAJ ESTATE WORTH CRORES

The Bihar government is exploring on taking over the erstwhile estate of the Bettiah Raj which has land worth over about ₹8,000 crore comprising over 15,000 acres spread in East and West Champaran and other districts of Bihar, besides 143.26 acres in neighbouring Uttar Pradesh. Most of the lands of the Bettiah Raj, which was once one of the largest estates of the State, has now been encroached upon and the Bihar government has decided to remove the encroachment and to take possession.

The estate is being managed by the Board of Revenue of the Bihar government with an additional District Magistrate-level officer and two clerks. According to officials about 50% of the estate land has been encroached upon and the department has now initiated an anti-encroachment drive. As per data with the Board of Revenue till mid-December, around 66% of the total 6,505 acres in West Champaran district alone has been encroached upon and around 60% of 3,219 acres in East Champaran district is with encroachers. Besides, Champaran districts, the Bettiah raj has also lands in Saran, Gopalganj, Patna, and Siwan, among other districts.

“The State government is contemplating the vesting of entire Bettiah Raj estate in itself and a Bill (in this regard) is likely to be placed in the next session of the legislature in November-December 2024,” chairman-cum-member of the Bihar government Board of Revenue, Mr. K.K. Pathak, said in an October order pertaining to a case related to a plot in West Champaran. A department official seeking anonymity, however, added, “once the Bill is passed, the entire property will come under the state’s Revenue and Land Reforms department.”

Harendra Kishor Singh was the last zamindar of Bettiah Raj who died heirless in March 1893 leaving behind two widows — Maharani Sheo Ratna Kunwar and Maharani Janki Kunwar. Three years later, his first wife Sheo Ratna Kunwar died in 1896 while Janki Kunwar died in 1954.

POLL-BOUND JHARKHAND RANKS POORLY IN MANY SOCIO-ECONOMIC INDICATORS

The Jharkhand Assembly elections are scheduled to take place in two phases on November 13 and 20. An analysis shows that the State featured at the bottom of the list in many economic, social, and environmental indicators. Among most social indicators, the State was among the three poorest performers.

Among indicators measuring educational standards, while Jharkhand performed relatively better in indicators measuring secondary and primary level education, it had poorer rankings in the higher secondary and college-level parameters. Jharkhand was also placed close to the bottom of the list in economic indicators. In contrast, it performed well in environmental measures.

Jharkhand had 39.6% stunted children (low height-for-age) in 2019-21, and ranked 27 out of 30 States. The three best-performing States that year were Kerala (23.4%), Punjab (24.5%), and



Tamil Nadu (25%). In this indicator, Jharkhand's ranking improved by just one spot in 2019-21 from 2015-16, the year when it was placed 28 out of the 30 States.

The share of women aged 20-24 years who married before turning 18 was 37.9% in 2015-16 (the State ranked 28 of 30), which marginally decreased to 32.2% in 2019-21 (the State ranked 27 of 30).

On the infant mortality rate, the State ranked 25 of 30 States in 2015-16 as well as in 2019-21. In fact, on the majority of the social indicators analysed, the State's ranking remained the same or only marginally improved in the 2015-16 to 2019-21 period. A similar stagnation in ranking was seen in the 2005-06 to 2019-21 period as well.

The only indicator where there was substantial improvement was households with insurance — from 13.3% in 2015-16 to 50.3% in 2019-21 (rank improved from 23 to 11).

Of the 21 major States with data, Jharkhand was placed 20 on the Human Development Index in 2022.

Per capita income level is a percentage of per capita Net State Domestic Product of a State to the all-India per capita Net National Product or per capita Net National Income. Of the 18 major States with data, Jharkhand's rank improved from 17 to 16.

Jharkhand does not feature in the top three States in terms of the manufacturing sector's contribution to its total.

Jharkhand ranked much better in some environment-related indicators. It generated the least amount of plastic waste per 1,000 population in tonnes in 2023-24 and ranked first of the 21 major States analysed. It was also placed third in terms of States that consumed the least amount of per capita fossil fuel.

Jharkhand's rank in indicators related to education. The State showed mixed progress. In two measures — Adjusted Net Enrolment Ratio in elementary education (Class 1-8) and Average annual dropout rate at the secondary level (Class 9-10) — the State ranked in the top half of 21 States. In two other measures — Gross Enrolment Ratio (GER) in higher secondary (Class 11-12) and Gross Enrolment Ratio (GER) in higher education (18-23 years) — it featured in the bottom half.

WHY UP INTRODUCED NEW RULES FOR APPOINTING ITS POLICE CHIEF

The Uttar Pradesh government has framed new rules for appointing the state's Director General of Police (DGP). This comes in the wake of the Supreme Court (SC) issuing notices to eight states, including UP, for appointing temporary DGPs in response to multiple petitions filed on the issue.

These petitions have particularly flagged the case of UP where, for the past two plus years, there have been four temporary DGPs. The incumbent, 1991 batch IPS officer Prashant Kumar, was appointed acting DGP in January this year. The petitions have argued this is in violation of the apex court's judgement in the 2006 Prakash Singh case, also known as the police reforms case.

What are the new rules?



The 'Director General of Police, Uttar Pradesh Selection and Appointment Rules, 2024' was cleared by the state Cabinet on Monday. According to these rules, UP's DGP would be appointed by a selection committee based on their remaining tenure, service record, and experience.

Only officers with a minimum remaining tenure (before retirement) of six months from the date of creation of the vacancy would be eligible for the appointment as the state's senior most police officer. Once appointed, the DGP would have a minimum tenure of two years.

The selection committee will be headed by a retired judge of the High Court, and will include the UP Chief Secretary, a nominee of the Union Public Service Commission (UPSC), the chairperson or nominee of the Uttar Pradesh Public Service Commission, the Additional Chief Secretary/Principal Secretary, a representative of the Home Department, and a retired DGP.

What is the existing practice?

UP's new rules essentially reduce the role of the Centre in the DGP's appointment in the state by eliminating the process of sending a list of officers to the UPSC.

DGPs are currently appointed based on the directions of the SC in the Prakash Singh case.

According to these directions, the state government is supposed to prepare and send to the UPSC a list of senior most eligible officers in the state, three months before retirement of the incumbent DGP. The UPSC vets the list based on the officer's seniority, service record, integrity, and field experience, and sends the state a shortlist of three officers, one of whom the state is expected to appoint as the new DGP.

The apex court's directions also said that the DGP so appointed should have a tenure of at least two years, and should have at least six months of service left at the time of selection.

What prompted UP to introduce new rules?

The move appears to be in reaction to a contempt notice from the SC to the state following multiple petitions challenging the appointment of temporary police chiefs.

These petitions argue that states are violating the SC's directions in the Prakash Singh case, which were meant to free the police leadership from political interference. While issuing these directions, however, the SC had said that these would only be applicable until states enacted their own relevant Act.

Since then, as many as 17 states have enacted their own Police Act, but UP had not done so till now.

Is UP complying with the Supreme Court's directions?

Yes and no. The rules conform to SC directions on two-year tenure of the DGP and minimum remaining service of six months before appointment. However, these were to be done through enactment of a Police Act. What UP has done is framed rules on the Indian Police Act of 1861.

"The Supreme Court had said its (2006) directions will hold good till states enact their own laws. Many states have passed police Acts. But UP has only framed rules. It has also very smartly picked up paras from the SC judgement giving a sense it is in conformation of the directions. The committee has representation from the UPSC but does not have a home ministry representative.



If it is regarded as law, then it goes out of the purview of the SC,” former UP DGP Prakash Singh, on whose petition the SC directions had come, told The Indian Express.

The new rules could also fall foul of judgements by the SC from 2018 and 2019. Both the judgements — one by Justices AM Khanwilkar and DY Chandrachud, and another by then CJI Ranjan Gogoi and Justices L Nageswara Rao and Sanjiv Khanna — had said states would not enact laws or frame rules contrary to SC directions.

What did the 2018, 2019 judgements say?

In 2018, following an intervention application by Prakash Singh, the SC issued directions that states would not appoint temporary or Acting DGPs. It had also said that states, as far as practicable, should not appoint an IPS officer as DGP unless they had two clear years of service. This was modified and restricted to “at least six months” of service by Gogoi’s 2019 judgement.

Moreover, the 2018 judgement while spelling out its directions had said, “Any legislation/rule framed by any of the States or the Central Government running counter to the direction shall remain in abeyance to the aforesaid extent.” This direction had come in the backdrop of many states enacting laws that were said to have either circumvented SC directions on police reforms or violated its spirit.

The judgement also said, “If any State Government/Union Territory has a grievance with regard to these directions, liberty is granted to them to approach this Court for modification of the instant order.”

Gogoi’s judgement in 2019 too suggested that the apex court would examine the validity of state Acts. “The above direction, naturally, will hold the field until the validity of the Police Acts in force which provides to the contrary are examined and dealt with by this Court...,” the judgement had said.

How does UP compare to other states in this regard?

States which have enacted their own Police Acts have either provided for appointment of DGP according to UPSC guidelines, or formed committees for the same. These committees are expected to choose a DGP from a list of five senior most eligible officers. This is also in conformation with the Model Police Act prepared by the Bureau of Police Research and Development (BPR&D) under the union Ministry of Home Affairs. Current UP DGP Prashant Kumar is 13th in the seniority list in the state.

Sources in many state governments, however, argue that seniority and service record alone should not be determinant of the suitability of an officer for the DGP’s post. “A sycophant may have a great service record because it is written by his seniors. That is why the Centre has brought in the system of 360 degree evaluation. States should also get that freedom,” a senior official of a state government said.

INFORMATION AND BROADCASTING MINISTRY MULLS OVER TREATING WIKIPEDIA AS CONTENT PUBLISHER

Even as Asian News International (ANI) sues the Wikimedia Foundation over the Wikipedia entry on the news agency, the Ministry of Information and Broadcasting has sent a missive to the online encyclopaedia’s parent, asking why it should not be treated as a publisher, and therefore directly



liable for legal challenges against its content. The letter has not been released, and was announced by government sources.

The letter marks a significant step in the government's growing assertiveness over international websites and platforms. It pointed to "many complain[t]s of bias and inaccuracies" on Wikipedia and concerns over "a small group having editorial control". It asked "why Wikipedia shouldn't be treated as a publisher instead of [an] intermediary," according to the communique.

A Wikimedia Foundation spokesperson did not confirm receipt of the letter, and had no immediate comment.

The letter comes shortly after the Delhi High Court ordered the Wikimedia Foundation to unmask the identities of the individual people who made edits to ANI's Wikipedia page. The news agency sued after being described on its Wikipedia page as close to government interests. According to the latest version of the page over which ANI has approached the High Court, the agency has been "accused of amplifying a vast network of fake news websites spreading pro-government and anti-Pakistan propaganda". The Foundation has agreed to provide details of the individuals who added the first versions of these descriptions under sealed cover to the High Court.

While many social media and content platforms have acceded to the Indian government's stringent new rules, Wikipedia's unique position complicates the possible outcomes of the lawsuit and the I&B Ministry's letter. Unlike other large platforms, the Wikimedia Foundation is a non-profit which has never interfered in users' editing decisions, aside from nudges in ongoing debates.

HOW CYBER SCAMS USE SOCIAL ENGINEERING AND MALICIOUS APKs TO SWINDLE USERS

The story so far:

In mid-October, traveller Bhargavi Mani claimed that she lost close to ₹1 lakh while trying to book lounge access at the Bengaluru airport. The scam was allegedly executed after Ms. Mani was asked to download an APK (Android Package format) file that looked like a regular app, shared via a WhatsApp chat originating from an international number.

What happened?

The malicious APK was able to function after she clicked on the link which granted screen mirroring access to a supposed customer care adviser during a video call. When checking her credit card statement later, Ms. Mani noticed an unauthorised transaction of ₹87,125 to a PhonePe account. Additional transactions were also attempted but were denied due to the card reaching its spending limit. Ms. Mani also claimed her contacts were unable to reach her, and that a man was answering her calls. This could have been due to malicious call forwarding.

How do cybercriminals use Big Tech platforms?

Ms. Mani said she was asked to download the malicious app from a fake website, which no longer exists. The URL presented to her was "Loungepass.in," the link to which was shared through a WhatsApp business account. The phone registered to the account had an international number. Ms. Mani claimed this fake website was one of the top results on Google, pointing to gaps in the verification process when big businesses are listed in search results.



Loungepass.com is a genuine website that allows users to pre-book airport lounge access at major airports. In Ms. Mani's case, social engineering tactics were employed to lure her to the fake site; a method commonly used by threat actors. However, it is important to note that Apple's iOS is designed to prevent apps from being downloaded or installed directly from a link that bypasses the official Apple App Store, which enforces strict security protocols. This is where the prowess of the scam comes into play.

How did the malicious APK work?

The only way to download an app on an iOS device is through the official Apple App Store.

Apps in the store are verified by Apple and regularly checked for malicious code to ensure user security. However, users can download and test unreleased apps on their devices by enabling a hidden setting within iOS. This feature allows users to test beta or unreleased versions of apps from developers. "Apple's Swift SDK also allows screen sharing (both in-app and in the background)", explained cybersecurity researcher Vishesh Kochher.

Scammers can use social engineering techniques to enable this setting and allow people to download malicious apps that appear to be legitimate.

In Ms. Mani's case, once the malicious APK accessed her device, scammers likely enabled call forwarding. For example, this can be done on Airtel's network by dialling a code, followed by the phone number to which calls should be forwarded, Mr. Kochher explained. With call forwarding enabled, scammers can easily receive OTPs for transactions via phone banking.

Mr. Kochher further says that an app could be used on iOS to initiate phone calls. With calls forwarded to the scammers' number and outgoing calls controlled by the app, scammers could complete transactions without the user's knowledge.

"The technical sophistication of the app used in this scam appears similar to those used by online loan sharks, which access messages, photos, and stored information," Mr. Kochher explained.

Who was behind the scam?

The website used to lure Mani into downloading the malicious app has been taken down. A simple search for the registered domain name shows the website, hosted by Hostinger, was registered in Gujarat, India.

However, further details about the individuals behind the website — such as their phone number, address, and organisation — were redacted from the registry. Investigators can request this information.

How bad is the cybercrime situation in India?

In 2023, Indian citizens lost ₹66.66 crore in 4,850 reported cases of online scams. A report by the Indian Cybercrime Coordination Centre (I4C) revealed that digital financial frauds amounted to a staggering ₹1.25 lakh crore over the last three years.

According to the National Cybercrime Reporting Portal (NCRP), at least ₹10,319 crore was reported lost by victims of digital financial fraud in 2023. Additionally, 5,252 suspect URLs have been reported so far.



The Parliamentary Standing Committee on Finance's report on 'Cybersecurity and Rising Incidents of Cyber/White Collar Crimes' noted that domestic fraud reported by Supervising Entities (SE) in FY23 totalled ₹2,537.35 crore. The use of sophisticated technical knowledge, coupled with social engineering techniques and a rise in data leaks, exacerbates the problem. India ranked fifth globally in the number of breached accounts in 2023, with 5.3 million leaked accounts. Scams enabled by social engineering and technical expertise are unlikely to disappear anytime soon. Users are advised to tread with caution when clicking on unverified links, downloading new apps, and scanning QR codes. They should periodically check for compromised passwords across all online accounts, and regularly review their card records for unknown transactions.

AUTONOMOUS SURFACE VESSEL COMPLETES 1,500-KM VOYAGE

An autonomous surface vessel built by Sagar Defence Engineering has completed a 1,500-km voyage from Mumbai to Thoothukudi without human intervention, in an endeavour supported by the Indian Navy.

"This first-of-its-kind journey highlights India's growing expertise in autonomous maritime technology and establishes a significant milestone in developing cutting-edge, unmanned systems for national security," the company said in a statement on Wednesday. It is supported by the Indian Navy's Naval Innovation and Indigenisation Organisation (NIIO), the Technology Development Acceleration Cell (TDAC), and the Innovations for Defence Excellence (iDEX) initiative under the Defence Innovation Organisation (DIO).

The Sagarmala Parikrama journey was virtually flagged off by Defence Minister Rajnath Singh on October 29 during Swavlamban, the annual event of NIIO.

The project's success was made possible by the guidance and expertise provided by the Indian Navy, including access to testing facilities and operational feedback, the company said. "The Sagarmala Parikrama's success demonstrates India's ability to build autonomous maritime systems indigenously, which is critical to our national security. This journey is a testament to the power of innovation, partnership, and our vision for Aatmanirbharta in defence technology," stated Captain Nikunj Parashar, CEO of Sagar Defence Engineering.

The Sagarmala Parikrama aligns with global advancements in autonomous surface and underwater systems, the company stated.

This historic milestone paves the way for future deployment of autonomous vessels in critical sea lanes, coastal surveillance, and anti-piracy operations.

'SEPARATE LCA LINE FOR PVT. FIRMS ECONOMICALLY UNVIABLE'

A separate manufacturing line for the indigenous Light Combat Aircraft (LCA) by the private sector is economically unviable, sources said ruling out any such possibility while stating Hindustan Aeronautics Ltd. (HAL) will have the capability to produce 24 jets next year with the private industry involved in a big way. This was one of the suggestions from various quarters to hasten delayed LCA production.

"A single type of aircraft is not produced by two different companies anywhere in the world. It will be too much duplication, will increase costs and is economically unviable. Private sector will be involved more and more in the current programme with HAL being the lead integrator," an informed source said.

3RD FLOOR AND 4TH FLOOR SHATABDI TOWER, SAKCHI, JAMSHEDPUR



For instance, in addition to the big companies, there are also 270 micro, small, and medium enterprises (MSME) working with HAL.

Now, the LCA orders are for 180 aircraft beyond the earlier 40, which is a sizeable number. So, HAL has gone for a third line. Next year, the production rate of the LCA will reach 24 aircraft per year, the source noted. Deliveries of the LCA-Mk1A by HAL to the Indian Air Force (IAF) have been delayed, in a major part due to non-delivery of F-404 engines by General Electric. The engine manufacturer has only two engines with which HAL will be able to handover two jets to the IAF this fiscal, sources said.

On the LCA-Mk1A, integration of the Israeli radar has been completed while weapon integration is on, the sources said, which includes air-to-air and air-to-ground weapons. The aircraft will be delivered while the integration will take sometime, they said.

In 2021, the Defence Ministry had signed a ₹48,000 crore deal with Hindustan Aeronautics Limited (HAL) to supply 83 LCA-Mk1A, a more capable fighter than the current LCA-MK1 in service. As per contract, three jets were scheduled to be delivered to the IAF in February 2024 and 16 aircraft per year for subsequent five years. An order for 97 additional LCA-Mk1A is under process.

Nod for Mk2

In September 2022, the Cabinet Committee on Security gave sanction for the development of the LCA-Mk2 at a total cost of ₹9,000 crore, a bigger and more capable fighter than the present LCA, and currently under development.

The LCA-Mk2 will be powered by the GE F-414 engine which produces 98kN thrust compared with 84kN thrust of the GE-404 engine powering the LCA Mk1 and MK1A.

Discussions are in advanced stages for licence-manufacturing the engine in India. "Commercial terms of the agreement are being negotiated between HAL and GE. It is expected to be concluded this financial year," the sources said.

On the LCA-Mk2, IAF Chief Air Chief Marshal A. P. Singh said last month it was supposed to do its first flight by October 2025 and by December 2027 is supposed to be end of the Research & Development phase. Officials had stated the deliveries of the LCA-MK2 are expected to commence from 2032 by which time the deliveries of all 180 LCA-MK1A are expected to be completed.

As of now, the IAF has committed to procuring about 120 LCA-Mk2.

In September, the then IAF Chief ACM V.R. Chaudhari, while stating HAL remain the lead company, suggested more public-private partnerships or joint ventures with private partners to ramp up the production of the LCA.

'Diversify production'

"Our present orders of 83 LCA-Mk1As, which will be followed up with 97 more, will definitely take a few years to fructify. The way forward is to diversify production lines, have more public-private partnerships or joint ventures with private partners to have multiple weaponry lines as well as multiple production lines," he had said.



“That is the way we can catch up with our requirements and be able to export to other nations as well,” Mr. Chaudhari added, while stressing that HAL should take the lead in any model evolved.

DRONES TO EMERGE AS A GAME CHANGER IN THE FISHERIES SECTOR, SAYS UNION MINISTER

Drones will emerge as a game changer in the fisheries sector, addressing several critical challenges with precision and efficiency, Union Minister of State for Fisheries and Minority Affairs George Kurian said here on Friday.

He was inaugurating an awareness workshop and demonstration of drone applications in the fisheries sector at the ICAR-Central Marine Fisheries Research Institute.

“Drones play a pivotal role in managing aquaculture farms, monitoring fish markets, and assessing damage to fisheries infrastructure, particularly during natural disasters, when rescue operations are essential. On their part, underwater drones help closely monitor fish behaviour in natural habitats, to detect signs of distress like erratic swimming patterns and also provide real-time data that strengthen sustainable fisheries management,” he said.

The event saw live demonstration of drone applications in fisheries, including transportation of fish from the farm, dispensing aquafeeds and rescue operation.

Succour for fishers

The Minister said the Centre would develop 100 climate-resilient coastal fishermen villages across the country, to help fisher communities who encounter climate-change challenges, by allocating ₹2 crore per village under the Pradhan Mantri Matsya Sampada Yojana. This would help ready common facilities like fish-drying yards, processing centres, fish markets, and emergency rescue facilities, while promoting climate-resilient practices like seaweed cultivation, artificial reefs, and green fuel initiatives.

The Union Department of Fisheries would install transponders in about one lakh marine fishing vessels this year at an estimate of ₹364 crore. This would provide a two-way communication system enabling real-time tracking of fishing vessels and help fishermen to send short messages using Android mobile phones while fishing up to 200 nautical miles from the coast.

The system would also provide weather alerts to the fishermen, including cyclone warning. The Indian Space Research Organisation developed this technology indigenously using the GSAT 6 satellite.

Information related to potential fishing zones too would be made available to the fisherfolk on their cell phones in regional languages, he said.

TELCOS CAST SATELLITE INTERNET AS A THREAT TO TERRESTRIAL NETWORKS

Telecom operators and satellite Internet operators on Friday engaged in an occasionally contentious discussion on regulating services like SpaceX’s Starlink and Amazon’s Kuiper satellite Internet, as part of an open house discussion by the Telecom Regulatory Authority of India.

Telecom operators cast doubt on the wisdom of freely allowing satellite Internet services to operate in India, and the latter defended their operations.



“It is not an open and shut case of administrative assignment,” said Ravi Gandhi, a regulatory executive with Reliance Jio Infocomm Ltd., advancing a legal argument that the Telecommunications law does not automatically exempt satellite internet services players like Starlink from participating in a spectrum auction.

Parnil Urdhwareshe, a SpaceX executive, flagged “frankly unfortunate and entirely false allegations of possible predatory pricing” leveled against satellite internet operators.

“We maintain absolute transparency on Starlink pricing and performance around the world, selling prices for any country are readily available on our website for anyone to check,” he said.

Concern over capacity

Mr. Gandhi expressed concerns on the growing capacity satellite services like Starlink would consume. “The public numbers which Starlink tells would mean around 35,000 satellites,” Mr. Gandhi said.

“If we take India’s portion, there would be around 500 to 600 satellites always over India, and up to 3,000, if multiple satellite constellations served the country, leading to more ground stations,” the Reliance Jio Infocomm representative said.

Mr. Urdhwareshe, from SpaceX rebutted: “I worry about where Mr. Gandhi is getting his numbers on Starlink. India accounts for 0.6% of the world’s surface area, which is an important factor in Non-Geostationary Orbit (NGO) systems which are global.” Determining satellite systems’ capacity in any one region is akin to saying that the majority of Jio, Bharti Airtel and Vodafone’s lakhs of mobile towers are located in an area similar to the size of Nagaland, he pointed out firmly.

THE MUSI’S CLEAN-UP

Soon after winning the 2023 Assembly elections and becoming the first Congress Chief Minister of Telangana, A. Revanth Reddy proposed an ambitious plan to redevelop Hyderabad’s Musi riverfront, with high rises, promenades, shopping complexes, and multiple bridges, in an attempt to replicate London’s Thames riverfront. But much like Chennai’s Coom, Kolkata’s Hooghly and Delhi’s Yamuna, the Musi meanders through what was once the heart of Hyderabad; the ugly centre of an urban sprawl. Like most rivers in India’s urban agglomerations, and indeed globally, the Musi has for long been the city’s cesspool, carrying about 2,000 million litres of sewage a day, over 60% of which is untreated. There is also a large volume of industrial effluents flowing into the Musi, mainly from the city’s bustling generic drug industry, making the river toxic. Yet, about one lakh people live along the riverbanks, some of them on parts of a dry riverbed and others on the flood plains, called the buffer zone that stretches about 50 metres on either side of the river. They have lived there for generations. And many more downstream depend on the river for farming.

Therefore, it was unsurprising that Mr. Reddy would face stiff resistance from the evictees when the government began demolishing 15,000-odd structures, mostly houses, on October 1, along what is colloquially called the Old City — the part of Hyderabad where the iconic Charminar is located. This area is home to many of the city’s blue-collar workforce — ragpickers, and conservancy and construction workers, several of whom have long held land titles, power connections and have even been paying taxes. The government had proposed a rehabilitation plan of high-rises for the evictees, but these were in far flung places, affecting livelihoods. This is not a new phenomenon in India. This was seen in Chennai following the tsunami in 2004, when the

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government sought to rehabilitate several fishermen communities who have lived for generations along the coast. But even before this, there have been attempts to evict those living along the Adyar river that runs through Chennai. However, the problem with such beautification plans, including the Musi's, is that they are executed without consulting those who would be most affected. While Mr. Reddy's government says it was done, the evictees disagree. Moreover, the 'revitalisation plan', as the government likes to call it, is a cosmetic change — the eyesore disappears in the hope that it is replaced with a romanticised riverfront bustling with commercial activity. But it has not addressed the elephant in the room: permanently fixing the Musi's sources of pollution from chemical effluents and untreated sewage.

CLEAN AIR PROGRAMME: DELHI IN BOTTOM 5, USED ONLY 32% OF FUNDS

Delhi is among the bottom five cities in terms of fund expenditure under the National Clean Air Programme (NCAP) — 68% of its funds are unutilised. Among NCR cities, Faridabad lagged with an expenditure of 39%, Ghaziabad utilised 89%, and Noida recorded the least utilisation at 11%.

- The NCAP's target is to cut particulate matter pollution (PM 10) by 40% by 2025-26 or meet National Ambient Air Quality standards. However, a recent submission by the Environment Ministry to the National Green Tribunal revealed gaps in the implementation of the programme which include under-utilisation of NCAP funds, lack of completion of source apportionment studies, and poor performance in meeting NCAP targets.
- Out of the 19 cities covered under the NCAP, only five cities have so far met annual air pollution reduction targets. With the air quality deteriorating this time of the year, the performance of various cities under the programme becomes crucial.
- The top five cities in terms of utilisation were Amritsar at 99%, Jhansi at 98%, Pune at 96%, Jharkhand at 94% and Navi Mumbai at 92%. Amritsar has shown a 38% improvement in PM 10 levels compared to the base year (2017). In Navi Mumbai, however, PM 10 levels have worsened by 11%.
- The 19 cities identified are non-attainment cities (NACs), selected upon failure to meet national air quality standards consecutively for five years between 2011 and 2015.

Do You Know:

- Ministry of Environment, Forest and Climate Change (MoEFCC) launched National Clean Air Programme (NCAP) in January, 2019 with an aim to improve air quality in 131 cities (non-attainment cities and Million Plus Cities) in 24 States/UTs by engaging all stakeholders. —The programme envisages to achieve reductions up to 40% or achievement of National Ambient Air Quality Standards for Particulate Matter₁₀ (PM 10) concentrations by 2025-26. —82 cities under NCAP have been provided annual target of 3-15% reduction of PM₁₀ levels to achieve overall reduction of air quality up to 40% PM₁₀ levels, and 49 cities under XVth Finance Commission air quality grant, have been given an annual target of 15% reduction in annual average Particulate Matter₁₀ (PM₁₀) concentrations and improvement of good air quality days (Air Quality Index less than 200).

DAYS AFTER DIWALI, AQI HOVERS NEAR 'SEVERE' CATEGORY

Ending the brief respite after Diwali, Delhi saw its 24-hour average air quality index (AQI) hover around the 'severe' category Sunday after plummeting to 382 from 316 recorded a day before.

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- The Capital recorded the worst air quality in the country, according to the Central Pollution Control Board (CPCB). Several places in Delhi reported air quality in the 'severe' category. An AQI between 301-400 signifies 'very poor' air quality, while that in the 401-500 range marks 'severe' degradation.
- October saw the highest average temperature of 73 years with the monthly maximum at 35.1 degrees Celsius and minimum at 21.2 degrees Celsius, as per the India Meteorological Department (IMD).
- Amid a steady drop in air quality, the Commission for Air Quality Management (CAQM) in NCR and Adjoining Areas had implemented the Graded Response Action Plan (GRAP) Stage 2 on October 22 with a GRAP Monitoring Control Room set up on October 15.
- Other actions undertaken as part of GRAP include the deployment of Mechanical Road Sweeping Machines (MRSM), Water Sprinklers (WS) and Anti-Smog Guns (ASGs).
- Vehicular emissions turned out to be the major contributing factor to Delhi's pollution woes.
- Measures to manage municipal solid wastes have been ensured through regular inspections at illegal dumping sites. Enforcement actions have been undertaken in the industries sector, too, with around 1,300 diesel generator sets inspected and action taken against non-complying units, the sub-committee further stated. Around 1,400 industries in total have been inspected by NCR state agencies.

Do You Know:

- The Air Quality Index (AQI) in India is a standardized system that measures and reports air quality based on the concentration of major air pollutants, including PM10, PM2.5, nitrogen dioxide (NO₂), sulfur dioxide (SO₂), ozone (O₃), carbon monoxide (CO), and ammonia (NH₃). The AQI is categorized into six levels: Good, Satisfactory, Moderately Polluted, Poor, Very Poor, and Severe, with associated health advisories. This system helps inform the public about local air quality and its potential health effects.
- Among the more harmful pollutants are those of a smaller size, such as particulate matter (PM) 2.5, which is an atmospheric particulate matter of a diameter smaller than 2.5 micrometres (or around 3 per cent of the diameter of a human hair). It causes respiratory problems and reduces visibility. The particles can only be detected with the help of an electron microscope because they are so small.
- Due to their size, the PM 2.5 particles can easily bypass the nose and throat and can easily enter the circulatory system. The particles can also lead to chronic diseases such as asthma, heart attack, bronchitis and other respiratory problems.

'CONSIDER PERPETUAL CRACKER BAN IN DELHI'

Proposing a permanent prohibition on firecrackers in the national capital, the Supreme Court Monday said the restrictions were "hardly implemented" this Diwali and asked the Delhi government and police to explain what measures were taken to ensure enforcement of the ban.

- Referring to submissions made by amicus curiae Aparajitha Singh, who cited a report of the Centre for Science and Environment (CSE), a bench of Justices A S Oka and Augustine George Masih said it showed an increase in pollution levels in Delhi as well as a spike in farm fires during Diwali.

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—“There cannot be any dispute that the ban was hardly implemented. Moreover, the effect of the non-implementation of the ban is very apparent from the report of CSE, which shows that the pollution level in Delhi on Diwali in 2024 was at an all-time high. It was much higher than Diwali of 2022 and 2023. Moreover, the report indicates that even farm fires were on the rise during Diwali days,” the court observed, while also referring to media reports.

- The bench directed the government to file “a detailed affidavit placing on record the orders banning the use of firecrackers and the steps taken... to implement the same”. It also issued a notice to the Delhi Police Commissioner asking him “to file an affidavit indicating the steps taken by the police to enforce the complete ban on the use of firecrackers in Delhi”.
- The court further asked them to state “what effective steps they propose to take next year to ensure that the ban... is fully implemented” including measures to be taken to raise public awareness.
- The court also asked authorities to consider a perpetual ban on firecrackers in Delhi.

Do You Know:

- In October 2018, the apex court had banned the production and sale of all crackers except ‘green crackers’ and those with reduced emissions (improved crackers). It also banned the manufacture and sale of ‘joined crackers’, prohibited the use of barium salts in fireworks and said their noise levels should be within permissible limits.

—The court also banned their online sales and directed that they can be sold only through licensed traders and laid down the time schedule for bursting on various occasions. The court reiterated this in its October 29, 2021 order.

—The court also made it “clear that there is no total ban on use of firecrackers” and that “only those firecrackers are banned, as directed... which are found to be injurious to health.

- In 2020, the National Green Tribunal had banned the sale and use of all kinds of firecrackers in NCR, and said that green crackers would be permitted only in cities and towns where air quality was moderate or poor.

- Firecrackers typically consist of four primary ingredients — oxidiser, fuel, colouring agents, and binder. An oxidiser is required for the cracker to catch fire, the fuel sustains the fire, colouring agents give it the colours and sparkles, while the binder holds this mixture in place till the cracker has spent itself.

—Chemicals like barium are colouring agents, and were banned because of their harmful impact on human health, such as irritation in the respiratory tract, skin allergies, breathing difficulties, and even cancer.

—The white colour in a cracker is emitted through aluminium, magnesium and titanium, while the orange colour is carbon or iron.

—Similarly, yellow agents are sodium compounds while blue and red are copper compounds and strontium carbonates.

—The green agent is barium mono chloride salts or barium nitrate or barium chlorate.



WHO REPORTS SHOWS INDIA HAS PLUGGED GAPS IN TB CARE. FUNDING DEFICITS COULD DELAY ERADICATION

The World Health Organisation's (WHO) latest report on the global tuberculosis burden lists positives for India. The report acknowledges the progress made by the country in closing the gap between detected and undiagnosed cases in the past eight years. In 2023, India was estimated to have had 27 lakh TB cases, of which 25.1 lakh patients were receiving medication. The fact that more than 85 per cent of those suspected to have contracted the bacterial infection were under treatment is significant given the disease's virulence — more than 50 per cent of those who don't fall under the medical system's radar succumb to the infection. The report also lists successes in containing multi-drug resistant TB, signaling the efficacy of some of the recent interventions of the government — shortening the treatment period, for instance.

WHO data shows that India registered an 18 per cent decline in TB incidence in the past eight years. This is more than double the pace of decline compared to the global decline of 8 per cent, the premier health agency suggests. However, at this pace, the country will find it difficult to realise its target of eradicating the disease by 2025. Despite the government's commitment, challenges such as insufficient awareness, inadequate medical facilities and under-nutrition continue to dog the TB elimination programme. Last year, a Lancet report pointed out that poor diet in adults contributes to 35 to 45 per cent of all new cases annually, while undernutrition in patients with TB is a major risk factor for mortality. The government does have a scheme for nutritional support for patients of the bacterial disease. Though the percentage of TB patients covered under the programme has increased appreciably in the past six decades, experts say that the amount is too less to adequately benefit the economically disadvantaged. Government data also shows that support continues to elude more than a fifth of the TB infected.

A study published in PLOS Global Health last year noted that the families of a significant section of the TB-affected in India faced catastrophic costs. WHO estimates this figure to be as high as 20 per cent. The global agency flags a significant fall in funding to eradicate the disease in India — from \$ 432.6 million in 2019 to \$ 302.8 million in 2023. The government has been open to course correct its TB elimination programme. Given its reach, the government's health insurance programme could be opened to TB patients, especially those with the more virulent form of the infection. That could go a long way in eradicating TB in India.

HOW IS TAMIL NADU BRACING FOR HEATWAVES?

The story so far:

The Tamil Nadu government, last week, notified a heatwave as a State-specific disaster. This would entail providing relief to people affected by heatwaves, solatium for the family of those who have died of heat-related causes, and to launch interim measures to help manage the heat. Expenditure for this will be incurred from the State Disaster Response Fund.

Is heat a crisis now?

The World Meteorological Organization declared that 2023 was the hottest year on record. The frequency of heatwaves has increased in recent years, consistent with anthropogenic climate change, as per the Sixth Assessment Report of the Intergovernmental Panel on Climate Change, 2023. Closer home, in India, people are already reeling under the impact of intense heatwaves. In a paper in the journal Environment International, titled 'Impact of heatwaves on all-cause



mortality in India: A comprehensive multi-city study', the authors Jeroen de Bont et al record India's heatwaves that have been occurring with increased frequency during the last decades. In May 1998, India experienced a severe heatwave over a two-week period considered to be the worst in the preceding 50 years. During the summer of 1999, India experienced unprecedented heat in April, with maximum temperatures of 40°C or above for more than 14 days.

Another heatwave in 2003 was estimated to have caused more than 3,000 deaths in Andhra Pradesh, the paper recounts. In May 2010, a heatwave in Ahmedabad led to approximately 1,300 deaths. In 2016, 2018, 2019 and 2023 extreme heatwaves have been observed across India. In the summer of 2024, a severe and long heatwave impacted India, blistering plains and hills, causing deaths and heat strokes. May 2024 was the worst, with Churu in Rajasthan recording a maximum of 50.5°C, recorded as the highest temperature in India in eight years. As per records, there were 219 deaths, including election officials on duty in the districts; over 25,000 people suffered from heatstroke.

How is a heatwave defined?

A heatwave is defined generally as a prolonged period of unusually and excessively hot weather, which may also be accompanied by high humidity, but is primarily determined by regions for themselves. The India Meteorological Department (IMD), which determines heatwave conditions, has specified the following criteria: a heatwave need not be considered till maximum temperature of a station reaches at least 40°C for plains and at least 30°C for hilly regions. In the regional context, heatwave management has already emerged as a problem requiring focused attention. During April, May 2024, many parts of Tamil Nadu recorded temperatures above 40°C.

Eun-Soon Im et al, in a paper on 'Deadly heatwaves projected in the densely populated agricultural regions of South Asia' featured in Science Advances, stated that the crisis is all the more significant in South Asia, a region inhabited by about one-fifth of the global human population, where there exists an unprecedented combination of severe natural hazards and acute vulnerability. "The most intense hazard from extreme future heatwaves is concentrated around densely populated agricultural regions of the Ganges and Indus river basins," the paper forecasts.

How does heat impact health?

Extreme heat conditions have a definite deleterious impact on human health, life and productivity. In their paper, Jeroen de Bont et al say they found strong evidence of the impact of heatwaves on daily mortality. Longer and more intense heatwaves were linked to an increased mortality risk. This makes it a public health problem that governments must tend to. They further add that heat-related morbidity and mortality can be caused by the direct effects of exposure to extreme heat, including a spectrum of heat-related illnesses from heat exhaustion to heat stroke. "Equally challenging from a public health perspective are the indirect effects of extreme heat exposure, occurring when heat exposure stresses underlying physiological systems and results in other specific manifestations such as renal insufficiency, acute cerebrovascular and cardiovascular disease, and exacerbations of pulmonary disease," the paper notes. Further, existing vulnerabilities such as poverty, lack of access to shelter and health care, unplanned cities and working out in the open, add to the burden in mid and low middle income communities. Children, senior citizens, pregnant women, those with pre-existing co morbidities, and people forced to work in the open, as in construction and agriculture industries, are more vulnerable to the impact of heat. According to the WHO, heat-related mortality for people over 65 years of age increased by approximately 85% between 2000-2004 and 2017-2021.



A working paper from the Early Childhood Scientific Council on Equity and the Environment, Harvard University, (Extreme Heat Affects Early Childhood Development and Health: Working Paper No. 1., 2023) details the effect extreme temperatures can have during pregnancy and early childhood, including on learning, sleep quality, and mental and behavioural health.

What is wet bulb temperature?

Wet bulb temperature is the lowest temperature to which a surface can be cooled by water evaporating from it, or the lowest temperature to which the surface of the skin can be cooled by sweating. Beyond this threshold, the human body can no longer cool itself, leading to heat stroke or even death. This temperature accounts for not only the degrees but also helps measure humidity and understand how much evaporation can occur.

This is particularly significant to India, which has a vast coastline in the east and west, and where rising humidity levels are of concern. Steven C. Sherwood et al in the paper 'An adaptability limit to climate change due to heat stress' point out that peak heat stress, quantified by the wet-bulb temperature, is surprisingly similar across diverse climates today. Exceeding a wet bulb temperature of 35°C for extended periods would induce hyperthermia in humans, as dissipation of heat becomes impossible.

What should governments do?

The long-term goal is addressing the anthropogenic causes for climate change, and at the same time, tackling systemic shortfalls like poverty, unplanned cities, access to health care and nutrition. However, there is much that governments can do even in the interim, during periods of intense heat, as indicated by the Tamil Nadu government. These include keeping in readiness health centres, maternity and children hospitals to provide treatment for citizens, stockpiling adequate quantities of ORS and medicines that will be useful at hospitals, providing water and shelter to those who have to brave the elements and rescheduling work hours to protect outdoor workers.

REMOVING BRAN ON MILLETS REDUCES THE BENEFITS OF EATING THEM: STUDY

Removing the bran from millets results in decreasing the protein, dietary fibre, fat, mineral and phytate content in them while increasing the carbohydrates and amylose content, a recent paper in the peer-reviewed journal Nature Springer has shown. This could squander away the benefits of eating millets.

The article, Impact of debranning on the nutritional, cooking, microstructural characteristics of five Indian small millets, by Shanmugam Shobana et al makes a case for consuming millets as whole grain without de-branning. "Dehusked millets are nutritious and should be promoted in Indian diets to improve diet quality, debranned millets are nutritionally inferior, can increase the glycemic load of Indian diets," the authors say.

The study was conducted by the Madras Diabetes Research Foundation (MDRF), Chennai, and the Indian Institute of Millet Research, Hyderabad.

High in minerals

Millets are high in minerals such as calcium, iron, phosphorus, and potassium, and they are an excellent source of phyto-chemicals such as phenolic compounds when compared with other



major cereals (rice, wheat, maize), conferring a range of health benefits such as anti-aging, anti-carcinogenic, anti-atherosclerogenic, antibacterial, and antioxidant effects.

The Food and Agriculture Organization recognised 2023 as the International Year of Millets and the Indian government went all out to celebrate it.

Ms. Shobana says: “We did a small market survey in 2018, and found that millets, polished like white rice, were being sold in stores. There are differences between polished millets and whole grains, in terms of colour and texture, but if you are buying packaged products, it is difficult to tell.” This particular study looked at the smaller millets — foxtail, little, kodo, barnyard, and proso.

But why are millets polished? Dr. Shobana explains that removing the bran and germ extends the shelf life of millets. Millet bran is rich in fats, and not removing it might reduce shelf life, as it could become rancid faster. De-branning will also reduce cooking time, make the grain softer and less chewy.

V. Mohan, president, Madras Diabetes Research Foundation, adds: “While millets have their advantages in terms of phytonutrients and protein intake, the type of millets available in the market are highly polished and consuming this results in a high glycemic index, which is not desirable. We should take efforts to make millets available as they originally were available in the country, so that they are of benefit to people with diabetes too.”

ON THE NEW COASTAL ZONE PLAN OF KERALA

The story so far:

The Union Ministry of Environment, Forest and Climate Change has approved the Coastal Zone Management Plan (CZMPs) of 10 coastal districts of Kerala namely Kasaragod, Kannur, Kozhikode, Malappuram, Thrissur, Ernakulam, Kottayam, Alappuzha, Kollam and Thiruvananthapuram. The plan, prepared in tune with the provisions of the Coastal Regulation Zone Notification, 2019, permits the coastal districts to take advantage of the relaxed Coastal Regulation Zone (CRZ) rules and initiate development activities including construction of buildings towards the seaward side.

What is the process?

The Ministry has asked the State government to make available the signed copies of the approved CZMPs of all the 10 coastal districts in the public domain through the Kerala Coastal Zone Management Authority website within one month. The Ministry has clarified that all applications seeking CRZ clearance received after the approval of the CRZ 2019 shall be considered as per the CRZ Notification, 2019. The union government had initiated the process of declaring the designated areas as Coastal Regulation Zone (CRZ) to conserve and protect the “unique environment of coastal stretches and marine areas, besides providing livelihood security to the fisher communities and other local communities in the coastal areas and to promote sustainable development based on scientific principles taking into account the dangers of natural hazards, sea level rise due to global warming.”

What does it mean for Kerala?

Kerala has a coastline of around 590 km and nine of its 14 districts are located on the coast of the Arabian Sea. The 2011 Census put the population density of Kerala at 859 persons per square kilometre, which is more than double the national average of 382 people per square kilometre.



The coastal areas of the State are marked by a high density of population when compared to other parts of the State. It is estimated that five corporations, 36 municipalities and 245 grama panchayats will come under the CRZ regime in the State in the 10 districts.

The high demographic pressure on land had resulted in rampant violations of the CRZ rules along the coast. Thousands of land modifications, which include the illegal reclamation of wetlands and encroachments, have been reported along the Kerala coast. Hundreds of constructions have come up along the coast in blatant violation of the rules. The focus of the CRZ 2011 regime, which was in force till the approval of the CZMP, was on the conservation of the coastal ecosystem, which in turn protected the livelihood of millions of fishers and coastal communities.

What are the benefits?

The approval of the CZMP would directly benefit around 10 lakh people, according to an estimation of the State government as the earlier restrictions for the construction of new houses and repair of existing homes will be relaxed. The approval of the CZMP was made a pre-condition for the States to make the CRZ 2019 applicable and enjoy its benefits.

The new regime will see the No Development Zone (NDZ) — the area which has to be left untouched — around the tidal-influenced water bodies reduced to 50 metres from the earlier 100 metres from the High Tide Line in at least 122 local bodies in the State. The decision will see 37 village panchayats categorised as CRZ-III A, where the NDZ has been reduced to one-fourth of the earlier regime. The CRZ-III A are densely populated rural areas with a population density of 2,161 per square kilometre as per the 2011 Census. The NDZ in the category is 50 meters from the High Tide Line against 200 meters as specified by CRZ 2011 notification. The new regime will see 66 village panchayats being included in the CRZ-2 category paving way for the construction of both commercial and residential buildings along the building line of authorised structures.

The NDZ in the CRZ areas of Kerala will be reduced to half. It will be 108.397 sq. km against the earlier 239.431 sq. km, as fixed by the CRZ 2011 notification.

What about mangroves?

Vast tracts of mangrove vegetation, which has an important role in the coastal ecosystem and are also considered breeding grounds for a large number of fishes and other organisms, would be exposed to exploitation as the 2019 notification has limited the legal protection of government holdings of an extent over 1,000 sq. metre to 50-metre buffer zones. The changes in rules will see a reduction in the buffer zones of mangroves to 2,500 hectares from the earlier 4,300 hectares in the State.

The new regime has also taken away the mandatory buffer zone around mangrove vegetation located in private holdings. Though the owners of private holdings in which the mangrove patches have survived may rejoice at the decision, it could leave a disastrous impact on the fast-depleting mangrove vegetation. The decision could lead to the wiping out of large tracts of mangrove vegetation, it's feared.

COMMITTEE TO ASSESS GOA'S DEMANDS ON DEMARCATION OF ECO-SENSITIVE AREAS

The Union Environment Ministry-appointed expert committee, which is tasked with examining views and objections of state governments on eco-sensitive areas (ESA) in the Western Ghats, is likely to visit Goa soon to deliberate on the state's submissions.



- The Union Environment Ministry-appointed expert committee, which is tasked with examining views and objections of state governments on eco-sensitive areas (ESA) in the Western Ghats, is likely to visit Goa soon to deliberate on the state's submissions.

—The committee, which is headed by Sanjay Kumar, former director-general of forest, will verify along with the state government whether its demands to omit villages marked as ESA are justified.

- Early in August, the Centre had issued the sixth iteration of a draft notification declaring 56,825.7 sq. km of the Western Ghats as ecologically sensitive area, for protection of the contiguous, biodiverse hotspot spanning Gujarat, Maharashtra, Goa, Karnataka, Tamil Nadu and Kerala.

- The July 2024 draft notification on Western Ghats marked 108 villages as ESA in the verdant state that is home to rich riverine as well as coastal biodiversity. These villages are spread over an area of 1,461 sq. km, with 63 located in Sattari taluka alone and the rest are in Canacona, Dharbandora, Sanguem talukas in South Goa district.

- The demarcation of the nearly 60,000 sq. km ESA has been pending for 13 years since the United Progressive Alliance first tasked an expert panel led by senior ecologist Madhav Gadgil to study the issue of protecting Western Ghats.

- The Gadgil panel submitted a report recommending that the entire Ghats region be tagged as ecologically sensitive and creation of an overarching ecological authority to regulate development. However, that report was never adopted and a panel led by space scientist K Kasturirangan was later formed to demarcate ESA's using the Gadgil panel report as the foundation.

- The Kasturirangan committee report proposes 37 per cent of the total area of Western Ghats, which is roughly 60,000 square kilometres, to be declared as eco-sensitive area (ESA). —Out of this, 20,668 sq km of the area falls in Karnataka covering 1,576 villages. The report recommended a blanket ban on mining, quarrying, setting up of red category industries and thermal power projects.

—It also stated that the impact of infrastructural projects on the forest and wildlife should be studied before permission is given for these activities.

—It also stated that the UNESCO Heritage tag is an opportunity to build global and domestic recognition of the enormous natural wealth that exists in the Western Ghats.

—The 39 sites are located across the Western Ghats and distributed across the states (Kerala 19), Karnataka (10), Tamil Nadu (6) and Maharashtra (4).

—The boundary of the sites, are in most cases, boundaries of the legally demarcated national parks, wildlife sanctuaries, tiger reserves and forest divisions and therefore, already accorded with high level of protection.

—The Eco-Sensitive Area mapping and demarcation done by the committee also indicates that all sites are within this area.

—The state governments should view this development and build a plan to protect, conserve and value the resources and opportunities of the region.

—The state of Karnataka has the highest percentage of the ESA- 46.50 per cent.



MINISTRY ASKS MAHARASHTRA TO ADDRESS FORCED EVICTION CONCERNS OF 33 FAMILIES IN TADOBA-ANDHARI RESERVE

The Ministry of Tribal Affairs has directed the Maharashtra government to address complaints of “non-recognition of forest rights and forced eviction” raised by families living in Rantalodhi village inside the core area of Tadoba-Andhari Tiger Reserve.

- On October 21, the ministry wrote to the Tribal Development Department of the Maharashtra government, the National Tiger Conservation Authority (NTCA) and Chandrapur District Collector Vinay Gowda to address a petition sent to it.
- The petition by families living in Rantalodhi, Bhadravati tehsil in Chandrapur district, alleged that the forest department was forcing them to relocate in violation of the provisions of Forest Rights Act, Wildlife Protection Act and the Scheduled Castes and Scheduled Tribes (Prevention of Atrocities) Act.
- It sought action against the district administration and the forest department for the alleged violations. The petition stressed that even though claims under the Forest Rights Act were filed in 2010, they were still pending and, in some cases, rejected and appeals were also pending.
- Under the Wildlife Protection Act, tribal communities and forest dwellers living inside national parks and tiger reserves can be relocated only after obtaining informed consent from the Gram Sabha and after establishing that human presence will harm wildlife. Villages are relocated to create spaces free of human settlements and for movement of animals.

Do You Know:

- The Forest Rights Act of 2006 promises to give ownership rights to the forest dwellers who have been living on their land for at least three generations or 75 years. The law also offers community ownership rights over forest lands that these people are dependent upon for their livelihood.
- The FRA recognises both individual forest rights (IFRs) and community forest rights (CFRs), which are claimed by gram sabhas. Scrutiny takes place at four levels — gram sabha, sub-divisional level committee (SDLC), district-level committee (DLC), and state-level monitoring committee (SLMC).

‘ALARMING’: ODISHA ORDERS PROBE INTO 50 UNNATURAL DEATHS OF ELEPHANTS THIS YR

The Odisha government on Sunday ordered an investigation into the “unnatural deaths” of at least 50 elephants in the state this year. Instructions have been issued for the probe report to be submitted within a month.

- State Forest Minister Ganesh Ram Singhkhuntia said the matter was “alarming”, and questioned the sincerity of forest officials in ensuring a safe environment for elephants.
- Even though the All Odisha Elephant Census-2024, conducted by the state government, found a slight increase in the number of elephants in Odisha, their unnatural deaths – caused mostly by poachers – have been a cause for concern. The 2024 elephant census report, which was released in June, found that there were 2,098 elephants in Odisha’s 38 forest divisions, compared to 1,976 in the 2017 survey.



- The 2,098 elephants include 313 adult tuskers, 13 adult makhna (Asiatic male elephants without tusks), 748 adult females, 148 sub-adult males, 282 sub-adult females, 209 juvenile elephants and 385 calves.

Do You Know:

- elephants have defined social structures. Herds of elephants are matriarchies, with the oldest female leading the way. They consist of female family members of any age and male offspring. Pubescent male elephants leave their herds and generally operate in bachelor male herds. Older males are often solitary.

BEING OLYMPICS-READY

With great cultural diversity and projected economic might on its side, India will stake a formidable claim to hosting the 2036 Olympics. But the country will also need to convince the International Olympic Committee that it can deliver a seamless Games.

- The letter of intent submitted last month will be scrutinised not merely for the capacity to translate on the ground fancy stadium designs, but also on India's ability to wear the cosmopolitan garb with ease, making the country feel welcoming to athletes and spectators around the world. India has a magnificent opportunity to get its house in order, and make bold strides.
- India will need to acquire and hone the professional abilities to host the best levels of competition in various sports. The logistics of athlete accommodations, equipment quality controls, transport systems, upskilling of technical officials, besides raising athletes' performance in near-alien sports, will be a massive challenge.
- Every Games is judged on the ability of hosts to stay invisible and efficient, and India will need serious repairing of its poor reputation on punctuality and cleanliness. Its record in ensuring comfort for spectators has been suspect in cricket, and that aspect will need to be upgraded drastically.
- Climate change poses large challenges for any host, but more so for India where quality of roads and construction will need tighter quality checks, given how flooding lashed top cities and wreaked havoc earlier this year, for instance.
- India's leadership in promoting a multipolar world has been exemplary, and it holds a unique place as a big country not reviled by the under-developed world, or resented by the big powers. But ultimately, Olympics will be about that wooden floor board not coming undone and the roof not leaking onto the field of play, and athletes reaching the venues on time. India can pull off the fancy, but it will also need to ace the basics.

Do You Know:

- India is likely to face stiff competition to its bid as IOC president Thomas Bach has said that the number of countries interested in hosting the 2036 edition is in "double digits".
- Over the past year, the countries that have shown serious interest in hosting the 2036 Games have been Saudi Arabia, Qatar, Indonesia, Chile, and Turkey.
- India's main competitors are likely to be Saudi Arabia and Qatar as there is an unwritten rule of rotation of continents with the 2036 Games earmarked as Asia's turn after Paris 2024 (Europe),



Los Angeles 2028 (Americas) and Brisbane 2032 (Oceania). That being said, it's still an unwritten rule so no candidate can be discounted.

REMEMBERING NIGHTINGALE OF BIHAR, SHARDA SINHA

Just before the celebrated folk singer Sharda Sinha died on November 5, at 72, a day before Chhath puja, with which her music is synonymous, she sang a tranquil thumri. Wrapped in a white sheet, while on oxygen support at Delhi's AIIMS, Sinha sang Kabir's lament — Sayiyaan nikas gaye, main na ladi thi/ Na jaane kaunsi khidki khuli thi (My beloved left, and I didn't put up a fight/ One doesn't know which window was ajar), in Bhairavi — the raga of separation. In Kabir's world of nirgun bhakti, these words are not for the beloved but a reference to the soul leaving the body. It is as if Sinha, who had been battling cancer since 2017, was aware that the end was near. But what leaves one jolted is not just the remarkable quality of Sinha's voice in this video, but also the integrity in every note she sings, even as physical aches take over.

Even as music in Bihar took a bawdy direction in recent years, Sinha propped up the region's folk music on the national stage. Born in Hulas in Bihar, she was fond of singing since childhood. Her father, a State Education Department employee, decided to hone his daughter's singing skills and hired a music teacher. Sinha trained in classical music under the aegis of Pt Sitaram Hari Dandekar followed by training in thumri from Panna Devi. A meeting with Begum Akhtar, who complimented Sinha's voice, while she was auditioning for an HMV talent competition in Lucknow, changed the course of her career. Armed with confidence and her husband's support, Sinha recorded folk songs that are still sung at births and weddings.

Sinha had a stint in Bollywood with songs in Sooraj Barjatya's *Maine Pyar Kiya* (1989) and *Hum Aapke Hain Koun* (1994). But it was 'Taar bijli se patle hamare piya' — a satire on Bihar and its politics — in Anurag Kashyap's *Gangs of Wasseypur 2* (2012) that left an indelible mark. She was awarded the Padma Shri in 1991 and Padma Bhushan in 2018 for her extraordinary service to folk music.

FROM ELEPHANTS TO RAMAYANA AND THE 0 IN BETWEEN, THE MANY GIFTS INDIA GAVE THE WORLD

India has had relations with cultures around the subcontinent by both land and sea. By land, it was connected across the Hindu Kush to Persia (modern-day Iran) as well as Central Asia. By sea, it was connected to Persia, Arabia, and via the Red Sea to the Roman Empire. On the eastern coast, it had links with Sri Lanka, Thailand, Vietnam, Cambodia, and Burma.

There were also land routes connecting India through the mountains to Tibet. Indians took advantage of the monsoon winds which enabled ships to reach their destinations in six weeks, which over land would take six months.

Through these routes, India gave many things to the world. Trade with Mesopotamia can be traced back to Harappan times. Land routes opened up when **Alexander the Great invaded the northwest Indian subcontinent in 326 BCE**. Elephants were exported then in exchange for horses.

Later, during the Kushan period, links were established with Persia and Rome. After the Gupta period, significant connections developed with Southeast Asia, where India was referred to as 'Swarna Bhoomi' or Land of Gold.



India's exported goods

Exported goods included plant products (such as cotton and spices), animal products (such as ivory and birds), mineral products (such as gemstones and precious metals), manufactured goods (like cloth and stirrup) as well as intellectual, literary, mathematical and scientific ideas.

The most exported goods were cotton, spices, and sugar (including sugarcane). The large-scale production and the world-wide trade in crystallised sugar have some interesting facts too. For instance, the word "Chini" likely comes from China's association with crystallised sugar through trade, while "Misri" from its route to Egypt.

Indian fabrics were popular around the world, with multiple weaves, and vibrant colours as Indians knew the art of fixing dyes using various plant-based chemicals like indigo. Most Southeast Asian countries would give spices to merchants only if they received Indian textiles. So Indian clothes served as a form of currency too.

Animals, gems and mathematical ideas

Animals like elephants, peacocks, and monkeys were also traded. Persian kings loved Indian peacocks, dogs, buffaloes and elephants. Chicken was probably first domesticated in India, as were the humped bull and the water buffalo.

It exported coloured semi-precious stones like carnelian from Gujarat and lapis lazuli from Afghanistan. Later, India was the only source of diamonds for centuries. The Golconda mines in the Deccan Plateau produced some of the world's finest diamonds. In addition, steel from India was sent to West Asia as ingots, where it was turned into the famous Damascus steel.

India also gave the world the stirrup, which improved cavalry efficiency by giving riders more stability. The earliest images of stirrups came from Buddhist sites in India.

Mathematical ideas, especially numbers, also spread from India. The concept of zero as a placeholder and the decimal system of writing spread from India via Arabia to Europe. Ideas like calculus, algebra, and trigonometry have origins in India. Also from India spread bookkeeping and banking ideas such as promissory notes, popular in the Gujarat coasts and amongst Jain merchants.

Literary and cultural influence

The Indian script, in which vowels are arranged in a circular manner around consonants, spread to Southeast Asia. Sanskrit, written between 300 AD and 1300 AD, was the literary language used across regions from Afghanistan to Vietnam.

Many religious ideas spread from India as well. Buddhism, particularly Mahayana Buddhism, spread to north-east India, while Vajrayana Buddhism emerged in East India and spread to Tibet. Theravada Buddhism spread southwards, reaching Sri Lanka and from there, spreading to Southeast Asian countries.

Hinduism, and the worship of Shiva as Hara and Vishnu as Hari, reached as far as Vietnam. Chinese records mention that by 300 AD, people in Champa and Funan (present-day Vietnam and Cambodia) had Hindu dancers and Hindu scripts. Deities such as Ganesha, Saraswati, and Lakshmi have been found as far as China.



The concept of Raja-mandala (circle of kings) was an Indian idea mentioned in the Arthashastra of Chanakya, which appealed to southeast Asian kings of Cambodia. In addition, the Manusmriti, an ancient Indian law code, was popular among the kings of Thailand and Java.

The Ramayana and Mahabharata, along with the story of the Buddha, spread from India and were carved on the walls of places such as Borobudur and Prambanan in Indonesia. These stories can also be found at the My-Son temples in Vietnam, on the walls of Angkor Wat in Cambodia, in the pagoda cities of Bagan in Burma, and in Ayutthaya in Thailand. These were the gifts India gave to the world.

SHORT NEWS

ASIAN BUDDHIST SUMMIT

— The First Asian Buddhist Summit (ABS) is organised by the Ministry of Culture, Government of India, in collaboration with the International Buddhist Confederation (IBC) in **New Delhi** from 5th – 6th November, 2024.

— The summit theme is '*Role of Buddha Dhamma in Strengthening Asia*'.

ORPHAN DRUGS

— Last week, The Delhi High Court issued directions to improve the availability of so-called “orphan drugs”.

— Orphan Drugs are medications used to treat “**rare diseases**” – defined by the World Health Organization (WHO) as a debilitating, lifelong condition that affects 1 or fewer people in 1,000.

— In 2021, the National Policy for Rare Diseases (NPRD) was launched, under which financial assistance up to Rs 50 lakh is provided to patients receiving treatment at an identified Centres of Excellence (CoE).

— Currently, 63 rare diseases — like Gaucher’s disease, Lysosomal Storage Disorders (LSDs), and certain forms of muscular dystrophy— are included under the National Policy for Rare Diseases on the recommendation of the Central Technical Committee for Rare Diseases (CTCRD).

— In India, rare diseases are categorised into **three groups** based on the nature and complexity of available treatment options.

— Group 1 includes diseases that can be treated with a one-time curative procedure. Group 2 diseases require long-term or lifelong treatment which are relatively less costly and have shown documented benefits, but patients need regular check-ups. Group 3 diseases are those for which effective treatments are available, but they are expensive and must often continue lifelong.

— Import of rare disease medicines by patients does not attract customs duty, but companies that bring these drugs to India still pay 11% customs duty and 12% GST.

JAGANNATH TEMPLE

— Odisha’s law minister has clarified that there was no secret chamber inside the treasury of the Jagannath Temple in Puri.



- Puri's Jagannath temple is dedicated to the worship of Lord Jagannath, believed to be an incarnation of Vishnu, along with his older brother Balabhadra and sister Subhadra.
- It is one of the chardhams, four of the most sacred pilgrimage sites for Hindus.
- It is a UNESCO World Heritage Site.

LAHORE, PAKISTAN

- According to Swiss air quality rating agency IQAir, Lahore in Pakistan continued to be the most polluted city in the world, recording an air quality index (AQI) of above 1,000.
- The rising smog levels have led the Chief Minister of Punjab in Pakistan, Maryam Nawaz, to introduce a "smog diplomacy" initiative between India and Pakistan to address the dangerously high levels of air pollution, The Guardian reported.

CHINA OKAYS \$1.4-TRILLION STIMULUS, MAY AFFECT FPI INFLOWS INTO INDIA

The Chinese government Friday approved a 10-trillion yuan or US \$1.4 trillion (1 US\$ = 7.17 Chinese yuan) package aimed at giving a boost to a slowing domestic economy and bailing out local governments. The stimulus comes just two days after Donald Trump won the US Presidency following a campaign where he proposed tariffs as high as 60 per cent on goods imports from China.

PUTIN HEAPS PRAISE ON TRUMP, SAYS HE IS OPEN TO RESTORING RELATIONS WITH US

Russian President Vladimir Putin Thursday congratulated and lavished praise on Donald Trump in his first comments on the US election result, a sign that the Kremlin would move quickly to try to capitalise on the president-elect's apparent fondness for Russia and its ruler.

AFFECTING MENTAL, PHYSICAL HEALTH: AUSTRALIA TO BAN SOCIAL MEDIA FOR CHILDREN UNDER 16

- Australia's Prime Minister Anthony Albanese announced that the government would pass legislation prohibiting children under the age of 16 from using social media, claiming that this is a world-leading policy.
- Australia is testing an age-verification system to help prevent youngsters from accessing social media sites, as part of a ban that could go into effect as early as the end of next year.
- Albanese emphasised the hazards to children's physical and mental health posed by excessive social media use, particularly the risks to females from negative images of body image and misogynistic content aimed at boys.

INDIA OFFERS AFGHAN BUSINESS CHABAHAR PORT FOR TRADE, DISCUSSES HUMANITARIAN AID

- An Indian delegation headed by a senior Ministry of External Affairs (MEA) official met Afghanistan's interim Defence Minister Mullah Mohammad Yaqoob, offering the use of Chabahar



Port in Iran to business groups in Afghanistan, while also holding discussions on extending more humanitarian assistance to Kabul.

- They had discussions on India's humanitarian assistance, and how Chabahar Port can be utilised by the business community in Afghanistan for transactions and for export and import and any other thing that they would like to do.
- Providing humanitarian assistance to Afghanistan is an important part of our assistance programme and India have dispatched several shipments of humanitarian assistance. We have longstanding ties with the people of Afghanistan, and these ties will continue to guide our approach towards the country.

ROMILA THAPAR

— Historian Romila Thapar was honoured with PG National Award 2024 for her contribution to the field of ancient Indian history.

— The PG award is a tribute to Marxist philosopher and writer P Govinda Pillai who died in 2012. The award was presented by PG Sanskriti Kendra, which was established in 2019.

KEMI BADENOCH

— Kemi Badenoch became the new leader of Britain's Conservative Party. She is the first black politician — and black woman politician — to lead a major British party.

— Badenoch, 44, replaces former Prime Minister Rishi Sunak and has pledged to lead the party through a period of renewal.

— In 2023, writer and social activist Arundhati Roy was the recipient of the award for her contribution to the field of writing and advocacy.

ANIL PRADHAN

— Anil Pradhan, co-founder of Young Tinker Foundation, a non-profit organisation working on hands-on STEM (science, technology, engineering, and mathematics) education in underserved areas, was awarded the **third Rohini Nayyar Prize for Outstanding Contribution to Rural Development**.

— The prize has been instituted in the memory of **Rohini Nayyar** by her family. Nayyar, an economist, served as an IAS officer in the Uttar Pradesh cadre, and worked with the erstwhile Planning Commission of India from 1987 to 2005. She passed away in 2021.

— The prize, comprising a cash award of Rs. 10 lakh, a citation and trophy, is given annually by the Nayyar Foundation for Social and Economic Purpose, and is meant for individuals below 40 years in age.

— The inaugural award was won by Sethrichem Sangtam, who runs an NGO that works with farmers in eastern Nagaland.



BABU CHABILAL UPADHYAYA

- A statue of Babu Chabilal Upadhyaya, a leader of the Gorkha community of Assam, will be installed by the state government in Guwahati.
- Upadhyaya, hailing from present-day Sonitpur district, had founded the Assam Association, a pioneering political organisation.
- It later merged with the Indian National Congress and Upadhyaya was made the first president of the Assam Pradesh Congress Committee. He played a leading role in the country's freedom struggle.

PANDIT RAM NARAYAN

- Sarangi giant Pandit Ram Narayan, who gave the humble, demanding instrument a classical stature, passes away at 96.
- Born and raised in a small village named Amber near Udaipur, Narayan came from a family of court musicians, mostly vocalists in the Udaipur court.

DINANATH BATRA

- Educationist Dinanath Batra who served as the principal of the first school of the Vidya Bharati, an RSS-allied organisation dedicated to education, in Kurukshetra from 1965 to 1990 passed away at the age of 94.
- Batra wrote about 15 books on subjects ranging from the "Indianisation" of education and against painting nationalists as "terrorists", and on a curriculum for character building.

ANIL PRADHAN WINS ROHINI NAYYAR PRIZE

The prize has been instituted in the memory of Rohini Nayyar by her family. Nayyar, an economist, served as an IAS officer in the Uttar Pradesh cadre, and worked with the erstwhile Planning Commission of India from 1987 to 2005. She passed away in 2021.

SARANGI GIANT PANDIT RAM NARAYAN PASSES AWAY AT 96

Narayan, who single-handedly brought sarangi from the shadows of folk music and gave it the classical stature as a modern concert instrument, popularising it internationally by performing at the prestigious Royal Albert Hall and the BBC Prom concerts, passed away in Mumbai in the wee hours of Saturday due to age-related issues.



BUSINESS & ECONOMICS

US FED CUTS RATES AMID UNCLEAR OUTLOOK: IMPACT ON MARKETS, INCLUDING IN INDIA

The US Federal Reserve cut interest rates Thursday by 25 basis points (or one quarter of a percentage point), the second reduction of 2024, while continuing to signal that inflation is coming under control. The Fed's move comes less than 48-hours after America elected Donald Trump as its next president.

- Analysts have been predicting that borrowing costs in the US will fall further in the months ahead, but have warned that Trump's impending tax cuts plans, tariff hike proposals and immigration control measures could stoke inflation and drive up government borrowing, thereby potentially driving a conflict with the American central bank. Interest rates on US debt have already surged this week, reflecting those concerns.
- The Trump presidency is being viewed as being positive for American stocks, good for the dollar, but somewhat negative for treasuries with a risk of fiscal profligacy.
- For India, the Trump presidency could mean a challenge towards balancing its growth ambitions amid disruptions to supply chains, trade wars and tariff barriers and heightened forex volatility. Delayed cuts by the Fed would also impact the trajectory of the Indian monetary policy as the Reserve Bank of India may first try to resolve the uncertainties before undertaking any significant rate cut action.
- While Trump's promised tax cuts and tariff barriers could stimulate the American economy initially, analysts predict this could lead to higher inflation and could likely force the US Fed to end its rate-cutting cycle sooner than otherwise. That could have implications for the monetary easing plans of other countries, including India.

US OIL & GAS PRODUCERS LIKELY TO HAVE A BEARISH IMPACT ON PETROLEUM PRICES

As Republican presidential candidate Donald Trump wrested the White House from the Democrats, international oil prices declined Wednesday. Even as the fall in oil prices had more to do with the strengthening dollar—a stronger greenback makes dollar-denominated commodities like oil dearer in other currencies—and other oil market factors, the market reaction may be symbolic of the general sentiment around oil prices going forward.

- While it is too early to say how Trump's second term as president will affect global oil markets, industry watchers expect the Trump administration's economic and energy policies to put limited downward pressure on oil prices. If strictly implemented, his plans to impose high tariffs on imports—particularly on those from China—could negatively impact global oil demand as China is the world's top oil importer. Realistically though, the incoming dispensation in Washington is likely to push for a largely balanced global oil market to keep oil prices in check while avoiding a steep decline or crash, as that would make production unviable for American oil producers as well.
- For India, which is the world's third-largest consumer of crude oil and depends on imports to meet over 85 per cent of its requirement of the commodity, downward pressure on international oil prices would be generally beneficial.



- Heavy dependence on imported crude oil makes the Indian economy vulnerable to global oil price volatility, apart from having a bearing on the country's trade deficit, foreign exchange reserves, rupee's exchange rate, and inflation.
- S&P Global Commodity Insights (SPGCI) expects Asian buyers—including India—to witness significantly more opportunities to import “attractively priced crude from the US” as its competition with the OPEC (Organization of the Petroleum Exporting Countries) suppliers intensifies
- Growing US crude production has posed a significant challenge for OPEC+ (OPEC and its other partner countries) in recent years, exerting downward pressure on prices, threatening the bloc's market share and prompting massive output cuts.

Do You Know:

- The US is India's fifth-largest source market for crude oil behind Russia, Iraq, Saudi Arabia, and the United Arab Emirates (UAE).

WHY IS RBI BRINGING GOLD RESERVES BACK TO THE COUNTRY

MUMBAI: The Reserve Bank has been on a localisation spree in recent years when it comes to storing 854.7 tonne of its gold assets/reserves. Of the total, 510.5 tonne are now stored in the different vaults of the central bank, mostly in the Mumbai vaults.

It has also been on a gold-buying spree since between April 2022 and September 2024, it has added close to 100 tonne to the reserves.

In just two years ending September 2024, the RBI has quietly brought back 214 tonnes of gold. In FY23, the monetary authority had brought in only 5.3 tonne back to the country, taking the domestic storage to 301.1 tonnes. In FY24, the number went up by 106.8 tonne, taking the local storage to 408.3 tonne. In the first six months of the current financial year, the central bank brought back 102.2 tonnes, taking the total to 510.5 tonne.

Of the rest of the reserves, 314 tonne are with the safe vaults of Bank of England, 10 tonne are with the Bank for International Settlement in Basel, Switzerland and the Federal Reserve Bank of New York and the reminder 20.3 tonnes are in gold deposits, according to the latest data released by the central bank late October.

Putting the 1991 clock back

This is a story of setting the January and July 1991 clock back when the nation was forced to airlift more than close to 87 tonne to raise emergency forex to prevent a sovereign default and to make enough for exim cover as the foreign exchange reserves were only \$600 million, which is now is close to \$700 billion.

Of the total pledge, the government pledged 67 tonne as collateral to secure a \$2.2 billion emergency loan from the International Monetary Fund, for this 47 tonne were airlifted to the Bank of England in May 1991 to secure a \$405 million loan; and 20 tonne were sent to the Union Bank of Switzerland in May 1991. Before that in January 1991, the State Bank of India was asked to lease some of its gold to bolster forex reserves and after government approval, 20 tonne of gold worth \$234 million was shipped abroad. Following improvement in the balance of payments position, the Reserve Bank had bought 18.36 tonne during November-December of 1991.

3RD FLOOR AND 4TH FLOOR SHATABDI TOWER, SAKCHI, JAMSHEDPUR



Though the loan was repaid by November 1991, the RBI chose to keep the gold in there for logistic reasons. Gold stored abroad can be easily used for trading, entering into swaps, and earning returns.

The RBI also buys gold from international markets, and storing it overseas facilitates these transactions. Additionally, gold held in the form of certificates can be used for trading, entering into currency swaps, and earning small returns. The Reserve Bank also accumulates gold from international markets, and keeping it in Bank of England vaults is logistically convenient.

So, what is driving the RBI to bring back gold to the country that too in special aircraft and in utter secrecy?

When asked about it during the post-monetary policy presser on June 7, 2024, governor Shaktikanta Das said the central bank moved gold reserves from England to the RBI vaults in Mumbai as “there is enough storage capacity and that there is nothing more should be read into it.” Before this transfer, the RBI had around 500 tonne of gold stored abroad.

Mint Road observers see many a reason

But many Mint Road watchers point to the need to safeguard holdings amid growing geopolitical uncertainties — after Russia invaded Ukraine in the last week of February 2022, Western nations froze the Russian assets parked in their countries.

The US went a step further by derecognising Russia’s foreign exchange reserves. Since October last Israel has been fighting three wars simultaneously and many within the government believe that housing gold in our own vaults is a safer approach during these uncertain times apart from saving on insurance cost and storage fees, which runs into tens of millions. Another reason is to diversify risks as sorting the high value asset in different locations minimizes risks apart from diversifying forex reserves.

Some even point to the worries about the health of the British economy has also likely increased the RBI’s worries about the safety of gold reserves overseas. An economist said this is a tool the RBI uses as part of hedging the inflation risks as gold can act as a hedge against inflation, retaining or increasing in value when currencies lose purchasing power. Another use is that gold reserves can safeguard against rupee devaluation, preserving national wealth amid economic uncertainties.

BANK DEPOSIT GROWTH OUTPACES CREDIT OFFTAKE FOR FIRST TIME IN 30 MONTHS

For the first time in 30 months, deposit growth in the banking system has outpaced credit growth after it registered a year-on-year growth of 11.8 per cent in the fortnight ended October 18, compared to a rise of 11.7 per cent in loan growth. The growth in deposits can be attributed to rising term deposit rates of scheduled commercial banks (SCBs). The slowdown in credit growth was due to a higher base effect because of the merger of HDFC Ltd with the HDFC Bank and the Reserve Bank of India’s (RBI) such as higher risk weights for unsecured loans and the proposed LCR (Liquidity Coverage Ratio) norms.

WHY HAVE TIMINGS FOR RELEASE OF CPI INFLATION AND IIP DATA BEEN ADVANCED, AND THE LIKELY PROBLEMS WITH THIS CHANGE

Back in 2013, there were some reports of data getting leaked before the official release time that had led to many representations to the Ministry to keep the timing of the data release, especially

3RD FLOOR AND 4TH FLOOR SHATABDI TOWER, SAKCHI, JAMSHEDPUR



retail inflation data, after the market hours. The retail inflation and IIP data used to be released around 11-11:30 am on the 12th of every month till June 2013.

Retail inflation data, which is a closely watched indicator for the Indian economy, would then become a crucial input for trading and taking positions in markets, especially in the forex and government bond markets.

After the representations were made about data leaks at that time, the Ministry then changed the release time for the retail inflation and IIP data to 5:30 pm from July 2013 onwards. The timing was changed keeping in mind that the forex and government bond markets close at 5 pm.

While retail inflation data has always been released on a monthly basis, the wholesale inflation data was released weekly till December 2012. Now, it's released on the 14th of every month around noon.

What is the new change in data release timing?

While announcing the change in data release timing for retail inflation and IIP on Tuesday, the Ministry said it will provide more time on the day of release to access data. "The CPI & Index of Industrial Production plays a critical role in economic policy and financial markets by reflecting inflationary trends across rural, urban, and combined sectors and industrial growth in the country," it said.

Currently, the CPI and IIP are released by the MoSPI on the 12th of each month at 5:30 pm. If 12th is a holiday, then CPI data is released on the next working day and IIP is released on the previous working day if 12th falls on a holiday. The data release in November for both CPI and IIP will be made at 4 pm.

The Ministry stated that the new release time aligns with the closing hours of major financial markets in India, "ensuring that CPI data dissemination does not interfere with active trading". "This adjustment also adheres to MoSPI's commitment to transparency and accessibility in data dissemination," it said. Analysts, however, point to the fact that while the stock markets may close by the 4pm release time, some financial markets such as the government bond and the foreign exchange markets, which are also sensitive to inflation data releases, remain open till 5 pm. The suggestion, therefore, is that the release time of 4 pm still does mean the data could be sensitive, given the extended timings of the bond market and the currency market.

What is the significance of CPI and IIP data?

Consumer Price Indices (CPI) measure changes over time in the general level of prices of goods and services that households purchase for consumption. CPI is widely used as a macroeconomic indicator of inflation and as a tool by governments and central banks for inflation targeting and for monitoring price stability, and as deflators in the national accounts.

Inflation is the rate at which prices for a basket of selected goods and services rise over a period of time and it is calculated by measuring year-on-year change in CPI, that is, current month CPI over CPI of same month of last year. At present, the CPI (combined), which is the most closely watched indicator for retail inflation, is linked to base year 2012 since the time of release in January 2015. Before that, it was linked to the base year 2010.

The IIP data measures the quantum of changes in the industrial production in an economy and captures the general level of industrial activity in the country. It is measured as an index number



to value the short term changes in the volume of production of a basket of industrial products during a given period with respect to the base period, which is 2011-12 at present. It covers industrial growth across three sectors – Mining, Manufacturing and Electricity – and different use-based categories, that is, basic goods, capital goods, intermediate goods, consumer durables and consumer non-durables. The IIP is watched as a short-term indicator for industrial growth till the release of the Annual Survey of Industries and National Accounts Statistics.

REVENUE REPERCUSSIONS

Goods and Services Tax (GST) revenue trends have been considerably wobbly this financial year, even as three of its seven months so far have recorded among the highest collections from the indirect tax. While the year started with a bang as April clocked the first ever instance of revenues of over ₹2 lakh crore, with gross and net receipts rising 12.4% and 15.5%, respectively, bolstered by year-end filings, July's gross receipts were the third highest (at the time) at over ₹1.82 lakh crore, up 10.3%. October's GST receipts prior to refunds, released on Friday, were the second highest in the seven-odd years of the tax. But these spikes have been punctuated by underwhelming numbers. Growth in gross revenues had hit a three-year low of 7.3% in June, and worsened to a 40-month low of 6.5% in September. October's revenues before adjusting refunds to taxpayers, break a two-month streak of sequential dips, with year-on-year growth recovering to 8.9%. Net revenues grew at a slower 7.9%, but doubled from September's 3.9% uptick. While this marks an improvement, the overall growth of net GST revenues this year has still declined to 9%, from about 10.2% as of August.

From the fiscal perspective, indirect taxes will have to grow faster in the months ahead to meet the Budget target, but that may not be a significant risk to the deficit yet, as direct taxes and non-tax revenues have been doing well. Revenue and capital spending have been on a tight leash too. Of course, a month's GST revenues are linked to transactions that take place in the preceding month, and GST is a tax on consumption. So, last month's revenues are the first signal of private consumption trends this festive season, although significant purchases may have slowed in the latter half of September amid the 16-day Pitru Paksha. The RBI, in its October bulletin, had termed recent months' GST trends to be a sign of slackening momentum in the economy, but pinned its hopes on improved festive demand and consumer sentiment. In that context, the latest GST receipts are a good omen but November's receipts for last month's activity will lend greater clarity on whether those hopes are well placed, with Dussehra and Deepavali falling in October unlike last year. Initial car sales data suggest a K-shaped situation with pricier SUVs growing fast while overall sales straddled the middle lane. However this plays out, the GST Council, that meets soon, must not be deterred from expediting the rate rationalisation exercise, including the lowering of taxes on items such as cement and insurance, which could spur higher sales volumes and compensate for any revenue losses.

EXPLAIN CONFLICT OF INTEREST CHARGES: LOKPAL TO SEBI CHIEF

Anti-corruption watchdog Lokpal on Friday sought an explanation from the chief of India's stock market regulator, Madhabi Puri Buch, on the conflict of interest charges levelled against her in three complaints that cited a report from the U.S.-based shortseller firm, Hindenburg Research.

The order, from a Bench led by Lokpal chief Justice A.M. Khanwilkar, stressed that this was only a procedural direction and does not explicitly name Ms. Buch.



However, it implies that Ms. Buch is required to file an affidavit within four weeks from the receipt of the order, and the Lokpal Bench will take up the matter for further consideration on December 19.

Alleged manipulation

Hindenburg Research, which had alleged malfeasance and stock price manipulation by the Adani group of companies in early 2023, published a report this August stating that the Securities and Exchange Board of India (SEBI) had drawn a blank in its probe into the Adani group due to a reluctance “to follow a trail that may have led to its own chairperson”, apart from regulatory “conflict or capture”.

Following the research firm’s report, SEBI, as well as Ms. Buch and her spouse Dhaval Buch, who was also named in the report, had issued separate statements in a bid to clarify those charges.

A complaint was filed in the matter with the Lokpal on August 13, 2024, naming the public servant [Ms. Buch] against whom action was sought under the Lokpal and Lokayuktas Act for allegedly having committed an offence punishable under the Prevention of Corruption Act. Another plaint was submitted with similar charges on September 11, followed by a third one on October 14.

Having gone through the complaints, the Lokpal issued an order on Friday, stating: “For the present, without expressing any opinion on the relevance and admissibility of the allegations/contents of the complaint(s) and the explanatory affidavit(s), including about the correctness of the plea taken therein by the respective complainant, we deem it appropriate to call upon the said RPS (respondent public servant) to offer explanation qua the allegations made against her in the respective complaint and elaborated in the concerned explanatory affidavit.”

UNSHACKLE THE RUPEE

Recently, there have been several reports about the stability of the rupee against the US dollar. This is typically described as a positive development. But the central bank’s decision to control the exchange rate is deeply problematic.

- “Admittedly, the Reserve Bank of India (RBI) has always intervened in the foreign exchange market to smooth out fluctuations of the rupee. However, since 1991, the intervention has never been as great as it is today. “
- “The rupee’s recent stability, however, has not been driven by market forces. It has come about due to an apparent change in the RBI’s currency policy. Since late 2022, the RBI has decided to actively intervene on both sides of the foreign exchange market, on some days buying dollars to prevent the rupee from appreciating and on other days selling dollars to prevent depreciation.”
- “There are several fundamental problems with this change in currency policy. It goes against basic economic principles.
- “The previous flexible exchange rate policy had two practical advantages. First, the exchange rate moved up or down over the business cycle which in turn helped smooth out output fluctuations.”
- Second, because these ups and downs balanced each other out, over long periods there was stability in the real exchange rate, that is the exchange rate adjusted for the difference in inflation between India and its trading partners.



- In contrast, the new inflexible system has already led to a significant real exchange rate appreciation, thereby making India's exports more costly to foreigners, and potentially undermining the Make in India drive.
- All these bring us to the final problem — the lack of transparency. The central bank seldom communicates about its currency policy. Consequently, private sector participants in the foreign exchange market are confused. They need to guess when they see imbalances in the market, such as capital flows exerting pressure on the exchange rate.
- The exchange rate is the most important price in a market economy. If India wants to become a high-income economy, the exchange rate needs to respond freely to market forces, sending appropriate signals to market participants. If, instead, the market gets distorted merely to stabilise the currency, this may prove costly in the long run.

Do You Know:

- The rupee's exchange rate vis-a-vis a particular currency, say the US dollar, tells us how many rupees are required to buy a US dollar. To buy (import) a US product or service, Indians need to first buy the dollars and then use those dollars to buy the product.
- In a free-market economy, the exchange rate is decided by the supply and demand for rupees and dollars.
- However, in India, the exchange rate is not fully determined by the market. From time to time, the RBI intervenes in the foreign exchange (forex) market to ensure that the rupee "price" does not fluctuate too much or that it doesn't rise or fall too much all at once.

DEBROY COMMITTEE CHARTED THE RAILWAYS' PATH TOWARDS VIABILITY & COMPETITIVENESS, BUT MOST RECOMMENDATION STILL WORK-IN-PROGRESS

The landmark report of the 2015 expert committee on Railway Reforms, headed by the late economist Bibek Debroy, did clear the decks for a complete overhaul of the national transporter to achieve economic viability in operational terms and recover its loss of competitiveness in the transportation market.

• Debroy committee was constituted on September 22, 2014, which submitted its final report in June 2015. The committee had made a total of 40 recommendations, out of which, 19 were fully accepted, 7 were partially accepted and 14 recommendations were rejected. The committee dealt with a range of issues related to the Indian Railways from decision-making structure, accounting system, human resource management & employee costs, multiplicity of different channels of entry into the IR, high revenue expenditure and low capital expenditure, financial status to setting up an Independent Regulator etc. Kavach, an indigenously developed, automatic train protection system, has been deployed on 1,465 route km and 139 locomotives on South Central Railway as on February 2024. Kavach tenders have also been awarded for several thousand route kilometers.

ZOMATO, SWIGGY BREACHED ANTITRUST LAWS: CCI PROBE

An investigation by India's antitrust body found food delivery giants Zomato and SoftBank-backed Swiggy breached competition laws, with business practices favouring select restaurants listed on the platforms, documents show.



Zomato entered into “exclusivity contracts” with partners in return for lower commissions, while Swiggy guaranteed business growth to certain players if they listed exclusively on its platform, according to non-public documents prepared by the Competition Commission of India (CCI).

Exclusivity arrangements between Swiggy, Zomato and their respective restaurant partners “prevent the market from becoming more competitive,” the competition watchdog’s investigation arm noted in its findings reviewed by Reuters.

The investigation began in 2022 after a complaint by National Restaurant Association of India about the impact on food outlets of the alleged anti-competitive practices of the platforms. The CCI documents are not public.

Zomato declined to comment, while Swiggy and the CCI did not respond to Reuters’ queries.

WHAT ARE MAJOR CHALLENGES FACED BY INDIAN CITIES?

The story so far:

October 31 is observed every year as World Cities Day. The world’s urban population has reached an estimated 4.7 billion, or 57.5% of the world’s total population, with projections to double by 2050. The theme for this year’s World Cities Day is ‘Youth Climate Changemakers: Catalysing Local Action for Urban Sustainability’.

What are challenges faced by cities?

The UN underscores that cities face unprecedented challenges, especially climate change. While strides have been made towards Sustainable Development Goals (SDGs), urban centres remain plagued by poverty, inequality, and environmental degradation. In the Global South, these challenges are intensified by rapid urbanisation, inadequate infrastructure, and limited resources. Cities here often suffer from housing shortages, poor access to clean water and sanitation, and increased vulnerability to climate-related events.

What about Indian urbanisation?

India’s urbanisation trajectory differs from the cities in the Global North. In Western countries, urbanisation followed industrialisation, which created jobs that absorbed rural labour. Their urbanisation was sustained also because of massive economic transfers from colonies. Economist Utsa Patnaik has highlighted that India alone contributed over \$45 trillion to England’s economy during colonial rule. In contrast, India’s urbanisation is largely driven by economic distress, resulting in “poverty-driven urbanisation,” with both rural-to-urban and urban-to-urban migration. During the COVID-19 pandemic, the strain on urban planning became apparent, as reverse migration trends highlighted gaps in infrastructure.

What are urban challenges in India?

Without a 2021 Census, India lacks precise data on its urban population. World Bank estimates suggest around 40% of India’s population live in urban areas, in around 9,000 statutory and census towns. The main challenges Indian cities face include inadequate spatial planning, climate change, massive migration, growing inequality and social segregation, and governance limitations.

Urban planning agencies have struggled due to two main issues. First, spatial and temporal plans are often outdated and fail to accommodate population growth. Since the 1980s,



deindustrialisation has led to job losses in cities like Ahmedabad, Delhi, Surat, and Mumbai. Many workers displaced by this trend moved to peri-urban areas, where they live in overcrowded conditions. Currently, 40% of India's urban population resides in slums. Second, plans often focus on capital growth rather than people's needs, leading to a lack of local ownership and engagement in the planning process. Additionally, inequality is widening, with exclusive developments catering to the wealthy while millions lack basic housing. Similarly, climate change severely impacts Indian cities. Cities face severe pollution and are increasingly subject to urban flooding and "heat island effects." Among the 10 most polluted cities in India, eight are in the NCR region around Delhi.

Despite the 74th Constitutional Amendment, most Indian cities remain controlled by undemocratic bodies. Though cities have elected representatives, they rarely control urban planning, which is often outsourced to parastatals and private entities. For example, less than three of the 18 functions outlined in the 12th Schedule have been universally transferred to urban governments, and cities receive a mere 0.5% of the GDP in intergovernmental transfers. As we observe World Cities Day, these challenges highlight the need for comprehensive national interventions.

ON THE GROWTH TRACK: HOW DEDICATED FREIGHT CORRIDORS ARE ADDING TO GDP, BOOSTING RAIL REVENUES

Dedicated Freight Corridors are improving India's GDP and adding significantly to the Indian Railways' revenue, a recent study by Australia's University of New South Wales has said.

The study said that reduction in freight cost and travel time due to the DFCs has helped reduce prices of commodities by up to 0.5%, and the corridors have contributed to 2.94% of the revenue growth realised by the Railways between FY 2022–23 and FY 2018–19.

The study was published in the journal Elsevier. It analysed the Western Dedicated Freight Corridor (WDFC) data for FY 2019–20, and came up with its findings by using a Computable General Equilibrium model initiated by the central government.

What are Dedicated Freight Corridors (DFCs)?

Dedicated Freight Corridors (DFCs) are specific routes for freight transportation, which offer higher transport capacity due to the faster transit of freight trains, running of double stack container trains, and heavy haul trains. This improves the supply chain for the industries/logistics players located at economic centres along the way, leading to growth of export-import traffic too.

The Ministry of Railways took up the construction of two DFCs — the 1,337-km Eastern Dedicated Freight Corridor (EDFC) from Sonnagar in Bihar to Sahnawal in Punjab; and the 1,506-km Western Dedicated Freight Corridor (WDFC) from Jawaharlal Nehru Port Terminal in Mumbai to Dadri in Uttar Pradesh — back in 2006.

The EDFC is complete and commissioned, with feeder routes to different coal mines and thermal power plants. The WDFC is 93% commissioned, with feeder routes serving various cement plants and the large ports of Mundra, Kandla, Pipavav, and Hazira in Gujarat. It is expected to be fully complete by December 2025.

As of March 31, 2024, Rs 94,091 crore had been spent on executing the DFC project, excluding land acquisition costs.



Why were DFCs needed?

The need for the Dedicated Freight Corridors was felt for two reasons. First was the over utilisation of the Railways' golden quadrilateral linking the four metropolitan cities of Delhi, Mumbai, Chennai and Howrah, and its two diagonals (Delhi-Chennai and Mumbai-Howrah). This stretch comprises only 16% of the route, but carried more than 52% of the passenger traffic and 58% of revenue-earning freight traffic for the Railways.

Another reason was the Railways' dipping share in total freight traffic. This data was compiled as part of the National Rail Plan, which envisaged that the share of freight traffic by rail should go up to 45% by 2030.

The creation of DFCs was announced in Parliament during the Railway Budget for FY 2005-06. In September 2006, Dr. Manmohan Singh, the then Prime Minister, laid the foundation stone of EDFC at Ludhiana, and in October 2006, the foundation stone of WDFC at Mumbai.

On October 30, 2006, Dedicated Freight Corridor Corporation of India Limited (DFCCIL) was incorporated as a Special Purpose Vehicle for the construction, operation, and maintenance of the corridors. On March 12, 2024, Prime Minister Narendra Modi inaugurated the three latest stretches of the DFC — 135-km Makarpura-Sachin section on the WDFC; and the 179-km Sahnewal-Pilkhani section & 222-km Pilkhani-Khurja section on the EDFC.

Currently, on an average, 325 trains are running per day, 60% more than last year. The freight trains on DFC are faster, heavier & safer. Since inception, the DFCs have carried over 232 billion Gross Tonne Kilometres (GTKMs) and 122 billion Net Ton Kilometers (NTKMs) payload.

According to the DFCCIL, more than 10% of freight running of Indian Railways is now handled by DFC. A DFCCIL official said that a comprehensive and holistic study of the impact of the DFCs on the Indian Economy is underway, and the results are expected soon.

There are four more such proposed corridors — the east coast corridor from Kharagpur to Vijayawada (1115 km); east-west sub-corridor-I from Palghar to Dankuni (2073 km); east-west Sub-corridor-II from Rajkharsawan to Andal (195 km); and the north-south sub corridor from Vijayawada to Itarsi (975 km).

Basis of the Australian university study

The research is based on different kinds of data including freight costs, industry inputs, and population data. It also factors in regions, industries, consumers and the overall improvements in the freight transport network. The DFCCIL said that the accuracy of the model has been calibrated and validated using economic data as well as data from the Ministry of Road Transport and Highways and the Railways.

The study found that the introduction of the DFCs provided great benefit in western regions due to significant reductions in freight costs. The findings also indicated a 'social-equalising effect', with states that have a lower per-capita GDP experiencing significant benefits.

'MORE THAN HALF OF INDIAN WOMEN REMAIN OUTSIDE LABOUR FORCE DUE TO CARE DUTIES'

India has 53 per cent of women outside the labour force due to care responsibilities and needs further investment in the care economy, the International Labour Organization (ILO) said in its

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latest report 'The impact of care responsibilities of women's labour participation' released last week.

- India would need further investment in the care economy, particularly in the early childhood care and education (ECCE) to support labour force participation of unpaid carers and gender equality in the workforce, the report said.
- In comparison, just around 1.1 per cent of men stay outside the labour force due to care responsibilities in India. The high proportion of women staying outside the labour force comes amid concerns over low female labour force participation rate in India, with most employed in unpaid household work.
- "Iran, Egypt, Jordan, Mali and India have more than 50 per cent of women **outside the labour force due to care responsibilities** and may need further investment in the care economy, particularly in ECCE. On the other hand, countries such as Belarus, Bulgaria, Latvia and Sweden have less than 10 per cent of women outside the labour force due to caregiving while investing around 1 per cent of GDP in ECCE," the ILO report said.
- The report also showed that 97.8 per cent women and 91.4 per cent men in India are outside the labour force due to personal or family reasons.
- According to the Periodic Labour Force Survey (PLFS) for 2023-24, 36.7 per cent of females and 19.4 per cent of the workforce in India is engaged in unpaid work in household enterprises as against 37.5 per cent females and 18.3 per cent of total workers in 2022-23.
- Care responsibilities present the main barrier to women entering and staying in the labour force, while men are more likely to cite other personal reasons for being outside the labour force, such as education and health issues.
- This shows the disproportionate role of women in child-rearing and care along with housekeeping and other care responsibilities. Women with lower education and those in rural areas face a higher barrier to workforce participation, it said.

Do You Know:

- Care refers to all activities and relations needed for the existence and well-being of societies. It includes both paid as well as unpaid care work, which are overlapping in nature. Unpaid care work is often direct, personal, and relational, and is provided without any monetary compensation. Examples include taking care of children, nursing an ill partner and cooking for the family. Paid care work, on the other hand, is performed in exchange for some remuneration or profit. It includes a wide range of personal service workers such as domestic workers, nurses, teachers, etc.
- The care economy is marked by low wages and informalities. Even when the care economy exists in formal markets (the health and education sectors), the remuneration is often low and the work is underestimated. For instance, ASHA workers in India are some of the least paid workers in the world.
- Another important characteristic of the care economy is that women are disproportionately represented here. According to the World Health Organisation, women form 70% of the total workers in health and social sectors with a gender pay gap of around 28% on average, making it one of the most biased sectors in terms of wage payments.



ANOMALIES IN MGNREGS LED TO RS 35 CR LOSS IN 3 DIST. OF TN, RAJASTHAN, MP: GOVT AUDIT

The Internal Audit Wing (IAW) of the Union Ministry of Rural Development (MoRD) has detected discrepancies leading to losses totalling Rs 35.37 crore in some districts of Tamil Nadu, Rajasthan and Madhya Pradesh under the Mahatma Gandhi National Rural Employment Guarantee Scheme (MG-NREGS) during 2023-24.

- According to sources, the IAW findings are part of the Annual Review of Performance Audit for 2023-24, a report prepared by the Office of Chief Controller of Accounts and shared with the MoRD. The IAW conducted an audit of 92 works of various rural development schemes, including MG-NREGS, across the country during 2023-24. The report also showed that a loss of Rs 5.20 lakh was detected in the implementation of Pradhan Mantri Gramin Awaas Yojana (PMAY-G) in Pherzawl district of Manipur.

- As per the report, the IAW also found cases of wasteful and infructuous and unauthorised expenditure on works under MG-NREGS, PMAY-G and Pradhan Mantri Gram Sadak Yojana (PMGSY) across Gujarat, Sikkim, Manipur, Odisha, Kerala, Himachal Pradesh, Mizoram, Andhra Pradesh, Assam, Madhya Pradesh, Rajasthan and Bihar. The total amount of wasteful and unauthorised expenditure across these states was reported at Rs 15.20 crore.

Do You Know:

- The Government of India passed the Mahatma Gandhi National Rural Employment Guarantee Act, 2005 in September, 2005. The Act gives legal guarantee of a hundred days of wage employment in a financial year to adult members of a rural household who demand employment and are willing to do unskilled manual work.

- Another aim of MGNREGA is to create durable assets (such as roads, canals, ponds, and wells). Employment is to be provided within 5 km of an applicant's residence, and minimum wages are to be paid. If work is not provided within 15 days of applying, applicants are entitled to an unemployment allowance. Thus, employment under MGNREGA is a legal entitlement. MGNREGA is implemented mainly by gram panchayats (GPs).

EXPLAINED: THE PARADOX OF STAGNANT RURAL WAGES

The Indian economy has grown at an average annual rate of 4.6% from 2019-20 to 2023-24, and 7.8% in the last three fiscal years (April-March) alone. The farm sector's growth has averaged 4.2% and 3.6% for these respective periods. However, these macro growth numbers are not reflected in rural wages.

- The Labour Bureau compiles daily wage rate data for 25 agricultural and non-agricultural occupations, collected every month from 600 sample villages spread over 20 states.

- The wage growth has been estimated in both nominal (current value) and real (after deducting annual inflation based on the consumer price index for rural India) terms, and for all rural as well as agricultural occupations.

—The latter includes ploughing/tilling, sowing, harvesting/threshing/winnowing, picking of commercial crops, horticulture, animal husbandry, watering/irrigation, and plant protection operations.



- While the rural female LFPR has soared between 2018-19 and 2023-24, so has agriculture's share in the employment of this workforce – from 71.1% to 76.9% over this period. Thus, although more women are entering the rural labour force, they are working in greater numbers on farms. The movement is from home to field, not to factory or office.

Do You Know:

- The average nominal year-on-year growth in rural wages during the five years ended 2023-24 worked out to 5.2%. It was higher, at 5.8%, for only agricultural wages. But in real inflation-adjusted terms, the average annual growth was -0.4% for rural and 0.2% for agricultural wages during this period.

- Even for the current fiscal (April-August), overall rural wages have risen only 5.4% year-on-year in nominal and 0.5% in real terms. The corresponding growth rates in agricultural wages have continued to be higher, at 5.7% and 0.7% respectively.

- LFPR is the percentage of the population aged 15 years and above that is working or seeking/willing to work for a relatively long part of a particular year. The all-India average female LFPR was only 24.5% in 2018-19. It rose to 30% in 2019-20, 32.5% in 2020-21, 32.8% in 2021-22, 37% in 2022-23 and 41.7% in the latest official Periodic Labour Force Survey for 2023-24 (July-June).

- The Finance Ministry's Economic Survey for 2023-24 has attributed the sharp jump in the rural female LFPR (21.2 percentage points since 2018-19) mainly to the government's schemes such as Ujjwala, Har Ghar Jal, Saubhagya, and Swachh Bharat.

—These flagship programmes, the survey claims, have not just substantially expanded household access to clean cooking fuel, electricity, piped drinking water, and toilets.

—They have also freed up rural women's time and effort that went into fetching water or collecting firewood and dung.

—Being able to cook faster using LPG cylinders or even electric mixer grinders has enabled them to deploy their energies towards more productive outside employment, instead of only mundane household tasks.

WHITHER FARMERS? 'KISAN MANIFESTO' SEEDS NEW THINKING

To address the concern about missing farmers' issues from the mainstream political parties' narratives in the upcoming Assembly election, farmers' organisations have now drawn up a "Kisan Manifesto". A special Assembly session on agrarian distress, setting up of an agrarian welfare commission, supplementing the MSP of cash crops with 20% bonus, waiving of the outstanding agricultural loan of farmers from suicide-affected families, remunerative prices for all crops, and equitable and just distribution of water are some of the demands put forth in the Kisan Manifesto.

The manifesto was drawn up after a two-day consultation with several agricultural bodies and experts representing the concerns of farmers from different parts of the State, including women farmers, tribal farmers, and farmers from Vidarbha. The Kisan Mazdoor Commission and Nation for Farmers have prepared the manifesto.

All the major parties are being approached with the manifesto and an appeal to include the demands in their agendas.

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“The Shetkari Kamgar Commission or Agrarian Welfare Commission will be a statutory body and will include not just government officials but also eminent independent experts on the agrarian sector. Any new, incoming government must commit to a special session of the Assembly on the agrarian crisis and related issues,” the manifesto said.

MSP concern

Through the consultation held in Mumbai over the last weekend, several farmers’ bodies expressed concern that the MSP for cash crops such as cotton, soya bean, and sugar cane was inadequate and needed to be supplemented. Accordingly, the second demand in the seven-page agenda is: “A new government must commit itself to supplementing the existing and totally inadequate Minimum Support Price for cash crops like cotton, soya bean and sugar cane in Maharashtra with a 20% bonus. Tamil Nadu and Kerala have long had this practice where the State adds a sum to the Central MSP for their own requirements.” The manifesto has also demanded the waiving of all outstanding agricultural loans of farmers from suicide-affected families and provide appropriate opportunities to children of all such families.

Hailing the loan waiver scheme rolled out by Uddhav Thackeray when he was the Chief Minister as part of the Maha Vikas Aghadi (MVA), the manifesto has demanded the process to be restarted. During the MVA government, a ₹36,000-crore loan waiver was given. “The positive process on loan waiver initiated by the Maharashtra government between 2019 and 2022 was subjected to much damage by the successor government. This must be set right. Agricultural loans must be a right for every farmer,” the manifesto stated.

Emphasising the need for remunerative prices for all the crops, the manifesto has demanded remunerative prices must be given to all crops including millets, pulses, vegetables, fruits, milk and other such identifiable produce so that farmers of Maharashtra can move to a “developed cropping system” while reducing the water footprint. The new government must speedily address land rights issues.

“For generations, thousands of farmers have been cultivating lands classified as Class 3 Devsthan and Inami lands. These lands are technically owned by the Temple Trusts and as a result, the farmers cannot access any benefits of government agriculture schemes, nor can they create assets such as wells, pipelines, etc. We demand that these land titles be transferred as Class 1 land with the names of the cultivators as owners,” the manifesto further stated.

On power supply

Farmers have complained of erratic power supply and irrigation problems. The manifesto seeks to streamline the supply of electricity and water, adding that water should not be privatised in any form. “All distribution of water will be equitable and just,” it has demanded. The farmers’ organisations have demanded that the government should stand against genetically modified crops till their safety has been completely established. It has also demanded complete subsidy for rural women who want to start cultivation in their home backyard or ‘parasbaug’.

ARE CSR CONTRIBUTIONS TO AGRICULTURE PROPERLY TRACKED?

The story so far:

A decade ago, India became the first country to legally mandate Corporate Social Responsibility (CSR). Section 135 of the Companies Act 2013 outlines the rules and regulations governing CSR.



According to the National CSR Portal, from 2014 to 2023, ₹1.84 lakh crore of CSR funds were disbursed. With the extent of contributions increasing, a question arises: how can CSR help agriculture?

CSR's contribution to agriculture

Nearly 47% of the population depends on agriculture for employment, and the fraction of India's labour force in agriculture is significantly higher than the global average of 25%. Economically, agriculture accounts for 16.73% of India's GDP. Now that India's food production is on a relatively stable footing, concerns focus on the degradation of the natural resource base, stagnant farmer incomes, and threats caused by climate change.

Lately, there have been clear signs from corporate entities that they wish to contribute to climate action and sustainability in the agricultural sector in India through their CSR budgets. According to an outlook report prepared by a CSR platform last year, 23% of companies surveyed had "environment and sustainability" as their CSR priority area. Capital requirements and infrastructural development are the most important needs of Indian agriculture today — and this is also where CSR activities have previously contributed and are expected to continue doing so. Some examples of such activities include establishing grain banks, farmer schools, livelihood projects based on agriculture and allied activities, water conservation projects, and energy-efficient irrigation. The recent paradigm shift in agriculture towards sustainability and modern agriculture makes a good case for CSR funds from the private sector.

The main obstacle

There is an important problem that hinders CSR's potential in agriculture: there is currently no way to fully determine the extent of funding going into these projects consistently and distinctively, and to categorise them based on targeted sectors of CSR activities. In other words, current reporting mechanisms have little to no emphasis on agriculture-related CSR initiatives. Under activities mentioned in Schedule VII of the Companies Act, activities targeting agricultural sustainability could fall under 11 of the 29 development sectors of CSR allocations. These are gender equality; agroforestry; poverty, eradicating hunger and malnutrition; technology incubators; animal welfare; environmental sustainability; livelihood enhancement projects; conservation of natural resources; rural development projects; socio-economic inequalities; and women's empowerment. But there's little chance of tracking the funds spent for agriculture-related initiatives alone because these 11 sectors encompass a great variety of activities, many of which are unrelated to agricultural sustainability, thus affecting reporting and limiting sectoral impact assessments.

Given the importance of agriculture for the Indian economy and its place in the country's plans and strategies to engender more sustainable growth and effect a just transition, specifying agriculture as a distinct sector in CSR activities is crucial. Transitioning the reporting framework based on sectors receiving funds would also help streamline and better target the available funds, add more meaning to the contributions, and ensure transparency. Likewise, identifying the prevailing sustainability issues vis-à-vis agroecosystems and directing funds according to requirements will help drive tractable changes.



LIFE & SCIENCE

RUSSIAN ROCKET LAUNCHES IRANIAN SATELLITES INTO ORBIT AS MOSCOW, TEHRAN EXPAND TIES

The Soyuz rocket lifted off as scheduled from Vostochny launchpad in far eastern Russia and put its payload into a designated orbit nine minutes after the launch. It was carrying two Russian Ionosphere-M Earth observation satellites and several dozen smaller satellites, including the two Iranian ones.

Iran's two satellites, named Kowsar and Hodhod, were the first launched on behalf of the country's private sector. In 2022, a Russian rocket launched an Iranian Earth observation satellite called Khayyam that was built in Russia on Tehran's order, and in February Russia put another Iranian satellite named Pars-1 into orbit.

Tuesday's launch comes as Russia and Iran have expanded ties in various spheres. Ukraine and the West have accused Tehran of providing Moscow with hundreds of exploding drones for use on the battlefield in Ukraine and helped launch their production in Russia. The Iranian drone deliveries, which Moscow and Tehran have denied, have allowed for a constant barrage of long-range drone strikes at Ukraine's infrastructure.

THE SUN'S IN A TIZZY

Q: Does the sun rotate?

A: Yes. the sun too rotates about its axis. But unlike the earth, which has a rotation period of one day, the sun has a differential rotation. That is, all parts of the sun do not have the same period of rotation.

The period of rotation near its equator is 26.5 days, at sun spot zone (16 degrees north) it is 27.3 days, and at the pole it is 31.1 days.

The sun's enormous core temperature of 15 million degrees K and a surface temperature of 6,000 degrees K leaves all its constituents in a high-pressure gaseous state called a plasma.

For the purpose of certain calculations, the top and the bottom ends of the visible sphere of the sun are designated as north and south poles respectively.

Photographs are taken daily and the movements of the spots, filaments, and plages are observed for various latitudes and longitudes, for a long period of time. From this, the sidereal rotation period is calculated.

The reason behind this phenomenon is still a puzzle to solar physicists.

ADAPTATION

Who do langurs drink salt water?

A new study shows the remarkable adaptability of the critically endangered Cat Ba langurs. Despite low genetic diversity, the langurs have retained key genetic traits that help them survive in their isolated environment on Cat Ba Island in Vietnam. One of the remarkable adaptations is



the ability to drink salt water. Due to the dramatic decline of its population, the species suffers from genetic impoverishment, high inbreeding, and a potentially increased susceptibility to disease. Analysis of their genetic information shows that genetic diversity has been maintained in functionally important areas of their genetic information. This enables the Cat Ba langurs (*Trachypithecus poliocephalus*) to continue to cope adequately with changing environmental conditions. The researchers show that changes in certain genes have probably increased tolerance to salt water. These genetic adaptations enable langurs to cope with the high sodium content of salt water and thus contribute to their survival in this unique environment.

DIFFRACTION LIMIT: WHAT LIGHT CAN'T SHOW

The resolution of an instrument that uses light to see things can't improve beyond a point. This is called the diffraction limit.

The resolving ability of, say, a telescope says how well it can distinguish between two distant objects that are close to each other. The higher the telescope's resolution, the better its resolving ability.

In the late 1870s and early 1880s, a German engineer and physicist named Ernst Karl Abbe found a formula that connected the maximum resolution to the wavelength of light and a number called the numerical aperture:

$$d = w/2N$$

where w is the wavelength, N is the numerical aperture, and d is the maximum resolvable distance.

Thanks to the diffraction limit, scientists could use the light microscope to see cells but not the proteins inside them or a virus attacking them.

But there are optical microscopes today that can see inside cells and even things as small as atoms. This is because, from the 1980s onwards, scientists developed a new technique called super-resolution microscopy, and it wasn't bound by the diffraction limit.

Instead of sending light through the microscope to illuminate the cells, it attached special molecules to the cells. These molecules -- called fluorophores -- glowed when hit with radiation, and when they did, the microscope could also understand their surroundings.

In 2014, the developers of super-resolution microscopy were awarded the chemistry Nobel Prize for their work.

IF TARDIGRADES CROWD-SOURCED THEIR REMARKABLE GENES, CAN HUMANS?

Tardigrades are one of the most resilient as well as enigmatic life forms on the earth. These organisms, also called water bears and moss piglets, are microscopic eight-legged creatures without a backbone.

They inspire awe with their remarkable ability to survive in extreme environments, including areas so very radioactive that they are easily lethal to humans. They can also survive starvation, lack of air and water, and subzero temperatures.



An ancient survivor

Belonging to a phylum of their own (Tardigrada), these remarkable creatures inhabit some of the more extreme ecosystems on the planet, from the frigid expanses of the Arctic and deep-sea floors to scorching deserts and even the vacuum of space. Researchers have identified more than 1,300 tardigrade species to date; each species is uniquely adapted to conditions that would be deadly to most other forms of life.

Evolutionarily, the tardigrades are an ancient species. The earliest known fossils date from around 90 million years ago, in the Cretaceous Period. Molecular dating suggests they originated at least 600 million years ago.

When facing hostile environments, tardigrades can enter a state called cryptobiosis, effectively pausing almost all their biological processes and lingering in a state of suspended animation. This peculiar state allows them to tolerate extreme dryness, intense radiation, and freezing. Tardigrades' ability to survive radiation is due to specialised mechanisms that can shield their genetic material from damage. In fact, they don't just survive otherwise hazardous radiation; they are able to recover and resume normal life.

Lessons of the tardigrade

Their features have rendered tardigrades a subject of intense scientific study. Researchers hope unlocking the secrets of their specialised survival mechanisms will pave the way to advances in human medicine, space exploration, and others.

Research has indicated the presence of many mechanisms that help tardigrades, and insights into them are expected to hold great biomedical and industrial value. For example, researchers have of late been discussing the role of a specific class of proteins: these proteins have flexible bodies and don't have an intrinsic structure. Thus they have been named intrinsically disordered proteins.

One subgroup of these is secretory-abundant heat-soluble proteins. Researchers recently attempted to synthesise these proteins in other microbes by cloning the underlying genes and transferring them to the latter. Their work suggested such a method is capable of enhancing the tolerance of the microbes against desiccation (completely drying up). This work was published in Nature Communications Biology in May.

Another paper published last year in the same journal explored molecules called small heat shock proteins and, in a similar approach, demonstrated that they could enhance microbes' ability to survive hot conditions as well as prevent proteins from clumping up when they dry out.

Survival begins in the cell

More recently, researchers from China reported a new tardigrade species, *Hypsibius henanensis*. Their findings, reported on October 25 in Science, included a chromosome-level genome assembly that revealed many details about the genes that give tardigrades the ability to withstand radiation. They exposed tardigrades to gamma rays at doses around 1,000 times greater than the lethal limit for humans and tracked which genes were expressed using genomic tools.

The researchers found thousands of genes upregulated when the tardigrades were exposed to extreme radiation. Further analysis suggested that the radiation resistance is likely modulated by genes that can be acquired by horizontal transfer, i.e., from other species in their environment.



The researchers also discovered some tardigrade-specific genes, as well as genes similar, yet not identical, to ones in other organisms.

In fact, horizontal gene transfer contributed more than 0.5% of the tardigrades' genes, which is a significant fraction that signals its significance to the tardigrades' survival and evolution. The DODA1 gene is of particular note: tardigrades need it to synthesise betalains, a type of antioxidant pigment that could be protecting the tardigrades' cells against radiation damage. The creatures probably acquired it from a bacterial species.

A second class of genes involved in radiation resistance are unique to the tardigrades themselves. One of them is TRID1, which plays a role in repairing damaged DNA mediated by phase separation. Another is NDUFB8, associated with mitochondrial function. The researchers identified them to be crucial to the species' ability to survive extreme conditions by (likely) helping maintain the stability of cells and sustaining energy production even under high radiation stress. Effectively, the tardigrades' survival advantages begin at the cellular level.

Applications on the horizon

Tardigrade biology may seem exotic at this time, and the research exploring it may seem esoteric. But a lot of biology makes sense in the light of evolution (to adapt the words of Theodosius Dobzhansky), and unlocking the mysteries of the tardigrade may quickly translate to breakthroughs in real-world challenges with far-reaching implications. Recall that scientists developed CRISPR-Cas9 based on a unique mechanism in a bacteria to repair its DNA.

Consider protein stability in tardigrades. We are using biological therapies such as protein vaccines, antibodies, and enzymes to treat a variety of diseases more often. If we can find a way to stabilise the proteins involved in these technologies, we can increase their biological efficacy as well.

As the field of cell therapies continues to grow, researchers are looking for technologies to protect these therapeutic products in harsh conditions they may encounter during storage, transport, and administration. Tardigrades possess unique adaptations to resist or even sidestep cellular damage, and researchers can learn from them to find ways to stabilise cells in research and biomedicine.

Taken together, tardigrades provide a unique blueprint for developing robust biological systems and materials. Their exceptional survival mechanisms could inspire new strategies in medicine, biotechnology, and beyond, leaving critical therapies and technologies more resilient, effective, and crucially, widely accessible.

GREENLAND SEEKS TO ATTRACT TOURISTS AMID MULTIPLE CHALLENGES

A frozen landscape with breathtaking views, Greenland wants to attract more tourists, but its remote location and fragile environment — which make it a unique destination — also pose challenges.

“The effects of global heating are at their most pronounced in the Arctic,” Michael Hall, a professor and tourism expert, said.

Global warming is accelerating “the loss of Arctic sea ice in summer, (as well as) the melting of permafrost, ice shelves and glaciers”, he said, referring to elements that contribute to the island’s



uniqueness. Across Greenland, locals are witnessing first-hand the effects of global warming. On the southwestern coast, in Maniitsoq, the sea ice has not been solid enough to walk on since 2018. Residents have also seen it shrink from year to year, in addition to less abundant snowfalls. Tourists are nonetheless awestruck by the vistas.

Tourism accounts for around 8% of global greenhouse gas emissions, according to the United Nations, most of which is attributed to transportation.

There is “a kind of ‘last-chance tourism’, where visiting these endangered sites is about wanting to see them before they disappear”, said Emmanuel Salim, a geography lecturer at the University of Toulouse in France.

Meanwhile, developing tourism in a fragile environment is a tricky balancing act.

GLACIAL LAKES RISE AS GLACIERS RETREAT

Glaciers are enormous bodies of dense ice on mountains. They move under the influence of gravity and their own weight, in the process eroding the land beneath. The grinding action pulverises the rock underneath, reducing it to a mixture called moraine: a material ranging in size from room-sized boulders to extremely fine ‘rock flour’. Moraine gets deposited on the sides and at the terminus of the glacier.

When the melting of ice causes a glacier to retreat, the cavernous hole left behind fills with water. The rocky material piled at the terminus of the glacier often serves as a natural dam for creating a lake. Glacial lakes are hydrological buffers—they check the natural flow of water from melting ice. This can cause occasional hardships to communities that live downstream of the lakes.

The blue colour of glacier lakes can be quite startling. A pale comparison is swimming pools with painted bottoms. The effect is due to the scattering of light by ultra-fine particles of rock flour that are suspended in lake water. Our Himalayas have some stunning examples of turquoise-coloured glacial lakes.

The Gurudongmar lake is located in Northern Sikkim, and at 5,430 msl is one of the highest lakes in the world. A moraine-dammed lake, the outlet stream of the lake feeds into water bodies that go on to form the river Teesta. The Pangong Tso, a 134-km chain of lakes, is part of the disputed buffer zone between Ladakh and China. The much-photographed Samiti Lake, at around 4,300 msl in Sikkim, lies en route to Kanchenjunga.

A consequence of global warming is the retreat of glaciers. This leads to an increase in the chances of the breaching of the moraine barriers that help create these lakes.

One of Sikkim’s glacial lakes, the moraine-dammed South Lhonak lake, has shown what the consequences of rising temperatures can be. Fed by three glaciers, the lake’s volume has risen at an unusually high rate. The lake is of very recent origin — it first appeared in satellite images in 1962. Covering a mere 17 hectares in 1977 and growing, the lake was regarded as a potential hazard. By 2017, three eight-inch diameter pipes were installed to continuously pump water out of the lake. They proved to be quite inadequate.

The lake had grown to 167 hectares by 2023. Rains last year caused the moraine dam to give way. The resulting glacial lake outburst caused water levels in the Teesta River to rise by six meters, leading to the collapse of the Teesta III dam, and widespread destruction.



Modeling of a future outburst from this lake, by scientists at IIT-Roorkee and others, has led to the prediction that a major breach could lead to a discharge of over 12,000 cubic meters of water per second — a very scary prospect for human settlements located downstream. Such monitoring will help in disaster mitigation and an understanding of these mystical blue wonders of nature.

AZERBAIJAN SAYS ‘GOD-GIVEN’ OIL AND GAS WILL HELP IT GO GREEN

Flames soar into the air from a sandstone outcrop on a hillside on the Absheron peninsula near Baku, the capital of Azerbaijan, as it prepares to host the COP29 climate conference next week.

The “burning mountain”—Yanardag in Azerbaijani—is fed by underground gas rising to the surface and igniting upon contact with oxygen.

The abundance of naturally occurring fires from the energy-rich nation’s huge gas deposits has earned it the nickname “The Land of Fire”.

Azerbaijan’s vast oil and gas resources “have shaped the history, culture, politics and the economy” of the Caspian nation, said energy expert Kamalya Mustafayeva.

Its oil deposits—seven billion barrels of proven reserves—were discovered in the mid-19th century, making what was then part of the Russian Empire one of the first places in the world to start commercial oil production.

“The world’s first industrial onshore oil well was drilled in Azerbaijan, and also the first offshore one,” Ashraf Shikhaliyev, the director of the energy ministry’s international cooperation department, said.

‘Born of an oil boom’

Since gaining independence from the Soviet Union in 1991, Azerbaijan has produced 1.05 billion tonnes of oil and is set to increase its natural gas production by more than a third in the next decade.

Revenues from oil and gas production make up about 35% of the country’s GDP and nearly half of the state budget.

“Azerbaijan’s oil revenues—up to \$200 billion to date since 1991—gave the country an opportunity to make a huge leap forward,” said Sabit Bagirov, who headed the State Oil Company of Azerbaijan (Socar) in the 1990s.

Energy expert Ilham Shaban said “Baku, once a small fishermen’s hamlet of some 4,000 people, was born of an oil boom,” which led to massive population growth.

Modern Baku is a bustling city with skyscrapers, seaside promenades and futuristic buildings.

About 75% of Azerbaijan’s energy exports go to European markets. In 2022, the European Commission—keen to reduce Europe’s dependence on Russian gas—signed a deal with Baku to double gas imports from the country.

But its fossil fuel reserves, which President Ilham Aliyev has called “a gift of God”, are expected to be exhausted within several decades.



“Azerbaijan’s oil wells will run dry within 20 years; the natural gas reserves will last for 50 years,” Mr. Bagirov said. “Economic dependence on hydrocarbons is a concern for the Azerbaijani government, which is making serious efforts to develop other sectors,” he said.

Mr. Shaban said “Azerbaijan’s goal is to get the maximum money from its hydrocarbon resources before Europe reaches its decarbonisation objective,” which will lead to a significant drop in the continent’s demand for fossil fuels.

This prospect has prompted criticism from environmentalists ahead of COP29. With all the exported gas and oil, the emissions are tallied in the CO₂ production of the countries that buy and burn it, and not in those of Azerbaijan.

Yet Azerbaijani officials said the country is making significant strides in setting its own green agenda on its land. The country aims to increase its renewable energy capacity to 30% by 2030 and reduce greenhouse gas emissions by 40% by 2050.

Mr. Shikhaliyev listed “clean energy mega projects” such as transforming Karabakh into a “green energy zone” fully reliant on solar, wind and hydro power. But experts are adamant that Azerbaijan does not have a climate plan. In September, the Climate Action Tracker group estimated that by 2030, Baku’s greenhouse gas emissions will have increased between 23 to 40% from 2020.

TIME FOR ACTION

Next week will be that time of the year when countries get into a huddle for the annual two-week climate conference, in Azerbaijan’s capital Baku, to fine-tune global action on human-caused global warming. To have any chance at keeping global temperatures from exceeding 1.5° C of pre-Industrial levels, multiple scientific assessments have said that greenhouse gas emissions must peak before 2025 at the latest and decline 43% by 2030. However, summing up all the collective commitments by countries to reduce their greenhouse gas emissions would lead to only a 2.6% decrease in global greenhouse gas emissions by 2030, compared to 2019 levels. Save for 2020, the year of the COVID-19 pandemic, global emissions have only increased every year, with 53 billion metric tonnes emitted in 2023.

Given that most rich countries are loathe to make compromises on their lifestyles and poorer, developing countries aspire to be rich, the only practical solution envisaged is that the developing countries grow rich while eschewing the proven fossil-fuel led trajectory. However, the costs that these entail — of shifting to cleaner but land-intensive and relatively expensive renewable sources — remain the proverbial bone of contention. In 2009, at the climate summit in Copenhagen, developed countries agreed to fund developing countries \$100 billion annually by 2020 as ‘climate finance’ to enable this transition. Though it is the United Nations that is supposed to ratify if these finance goals have been met, a lack of clarity on the definition of ‘climate finance’, and delays in the financial crediting system have led to considerable angst among developing countries that these goals have been far from met. The Paris Agreement of 2016 requires that countries decide on a new collective quantified goal (NCQG) before 2025, with the \$100 billion as a base value. Then there is also a quibble, from the developed world, that major emitters such as China and India, which are large economies and major polluters, must also contribute. It is widely expected that this NCQG will be a major point of discussion at Baku. Another issue of import is carbon markets, that have for long been touted as the solution to the problem of finance. Rich countries or companies finance counterparts in the developing world for renewable energy



generation and carbon-offsetting measures and gain tradeable credits. However, specifying the rules on how this is accounted for is a vexing problem. The hallmark of climate negotiations is that they are arenas of gladiatorial legalese where the stated goal of reducing emissions seems to stretch further beyond reach. It is time that concrete action takes centre stage.

WHAT ARE THE KEY TAKEAWAYS FROM COP-16?

The story so far:

The 16th edition of the Convention of Biological Diversity (CBD) in Cali, Colombia which was to have concluded on November 1 after two weeks of negotiations and involving about 190 countries, saw representatives of countries trying to iron out a conclusive deal well past the deadline.

What is the convention about?

This convention follows meetings in 2022 at Montreal, Canada. At that meet, countries agreed to protect 30% of land and water by 2030, known as the '30-by-30 agreement', at a time when less than 17% of land and 10% of marine areas were protected. In 2022, the Kunming-Montreal Global Biodiversity Framework (KMGBF), as it is formally known, set 23 action-oriented global targets for urgent action in the decade to 2030. The actions listed in each target needed to be initiated immediately and completed by 2030. Other than the 30-by-30 goals, targets include reducing the introduction of invasive alien species by 50% and minimising their impact by 2030. It also aimed to reduce pollution risks and the negative impact of pollution from all sources to tolerable levels by 2030; set up a mechanism for "benefit-sharing from the use of digital sequence information on genetic sources" and traditional knowledge, and integrating biodiversity into policies, regulations, planning and development processes. A key aim of the COP-16 was to agree on mechanisms to implement these targets as well as discuss ways to organise funding. While there were calculations that about \$200 billion would be required annually to achieve these targets, less than tenth of this money has actually been committed.

What are some decisions taken at COP-16?

Though a final approved text is still in the works, negotiators have decided on setting up a subsidiary body that will include indigenous groups and peoples in discussions around conservation and biodiversity, according to a report by the Associated Press on Saturday. In the run-up to COP-16, one of the most contentious issues was on the Digital Sequence Information (DSI) agreement. This deals with "benefit-sharing" or how, for example, medicines and drugs made from analysing the DNA of living organisms, stored in databases and which are used in commercial products, can be shared with the local communities where such organisms are housed. There were plans to create a 'multi-lateral mechanism', but no agreement was forthcoming on which countries or corporations ought to be contributing, and how. The major texts that have so far been formally adopted by the convention include agreements on biodiversity and climate change, mainstreaming biodiversity, putting a check on invasive species and the technical needs to support the implementation of the KMBGF.

What was India's contribution to COP-16?

India has been a consistent participant at the biodiversity COPs. This year too a delegation, led by the Minister of State for Environment Kirti Vardhan Singh, participated at the proceedings in Colombia. India presented an 'updated' biodiversity plan where it stated that it expects to spend

3RD FLOOR AND 4TH FLOOR SHATABDI TOWER, SAKCHI, JAMSHEDPUR



around ₹81,664 crore from 2025-30 (FY) on biodiversity and conservation. From 2018-22 (FY), India spent ₹32,207 crore on biodiversity and conservation, and to meet the higher financing requirements, it would require funds from sources beyond routine government expenditure, it said.

The expenditure from 2018-2022 was solely made by the Centre, through allocations to various Ministries or statutory bodies for conservation and biodiversity-linked programmes. Indian officials at the conference said international finance would be necessary to meet these goals. “I would like to mention that it is necessary to provide means of implementation including financial resources, as laid down in target 19 of the KMGBF as well as from DSI, for implementation of the NBSAP (National Biodiversity Strategy and Action Plan),” Mr. Singh said in a statement. Target 19 calls for mobilising \$200 billion per year for biodiversity from all sources, including \$30 billion through international finance. In the updated assessment, which is a 200- page document, India has cited the “significant step in global wildlife conservation” it has taken by establishing the International Big Cat Alliance which is aimed at protecting the world’s seven major big cat species, as their presence is indicative of a healthy ecosystem and rich biodiversity. India had raised its Ramsar sites, which are wetlands of ecological importance under the Ramsar Convention, from 26 to 85 since 2014. It is soon projected to reach 100.

HOW CLIMATE CHANGE IS BRINGING BACK THE IDEA OF AIRSHIPS

Airships were the first aircraft capable of controlled powered flight and were thought to be the future of travel for some years in the early 20th century. However, fundamental technological shortcomings and the rapid development of aeroplanes killed the idea of airship transport. They see limited use today as advertising platforms, for aerial observation by scientists and militaries, and in the tourism industry.

Of late, a few companies are attempting to control the buoyancy of airships — a longstanding challenge that has prevented their use for cargo transportation.

How airships work

Airships are lighter-than-air aircraft that are lifted by gas with a density lower than atmospheric gases. This principle also operates in helium balloons.

Early airships used hydrogen as the lifting gas since it was cheap, easy to produce, and the lightest existing gas. But hydrogen was also extremely flammable. A few high-profile accidents, including the infamous Hindenburg disaster of 1937, shattered public faith in airships.

Most modern airships use helium, which is non-combustible. However, it is scarce on Earth, and thus very expensive — 1 cubic metre, the amount of gas required to lift 1 kilogram of weight, costs roughly \$35.

Varying buoyancy challenge

While aeroplanes easily beat airships on speed, airships could in theory be ideal freight vehicles because of their exceptional “lift-to-drag ratio” — which means they expend far less fuel to move the same mass of material.

But to be practical cargo vehicles, they also needed to be capable of varying their buoyancy and compensating for weight changes as loads were picked up and dropped off. The simplest solution



would be to release and refill the lifting gas — but cost and scarcity of helium has made this a non-starter.

Promising solutions

A seemingly straightforward solution to the problem of variable buoyancy would be to use ballast or added weights to regulate stability. This is done in hot air balloons and submarines.

The French company Flying Whales has designed a 200-metre-long “flying crane” helium airship called LCA60T. The crane can pick up water ballast while airborne, without requiring specialised ground infrastructure. CEO Sébastien Bougon told The Economist that his airship would be “practical for moving rocket sections and powerline towers; transporting logs from forests to sawmills; and carrying heavy equipment like turbine blades and prefabricated hospitals to remote areas”.

Aeros, a Los Angeles-based company that makes advertising and surveillance airships, has developed a system that could allow it to operate floating warehouses as bases for drones used in e-commerce deliveries. However, some believe that such a compression system would be too heavy to be practical.

These technologies are still years away from being commercially viable, but companies are working to perfect them. As the world deals with the rapidly deepening climate crisis, the aviation industry has been under intense scrutiny due to its large carbon footprint. Airships are significantly less polluting than aeroplanes as they do not burn fossil fuels to achieve lift. They can also reach more places than ships or trucks.

EXPLAINED: TAKING STOCK OF THE INTERNATIONAL SOLAR ALLIANCE

At the 2015 climate conference in Paris, India in collaboration with a few other countries including conference host France, set up the International Solar Alliance (ISA) to accelerate the deployment and absorption of solar energy across the world, and mainly in the developing countries.

The ISA was a unique initiative in which India took the lead in establishing a global organisation. Over the years, the ISA has evolved into an intergovernmental organisation with more than 110 countries as members. However, its impact on expediting the deployment of solar energy in the developing world has been extremely modest until now.

ISA slow on delivery

The ISA was never meant to be a project developer. It did not have to install solar projects itself. It was envisaged as a facilitator, or a force multiplier, which would help countries overcome financial, technological, regulatory, or other barriers in harnessing solar energy.

The end result was supposed to be large-scale deployment of solar energy, especially in countries where energy access was very low. But nine years down the line, the ISA doesn't have much progress to show. An ISA-facilitated solar power project is yet to start operations.

The first such project is expected to be in Cuba where auctions have taken place and a developer has been selected to set up a 60 MW plant, which is supposed to be followed by several other similar-sized or bigger projects totalling about 1,250 MW.



Several other countries in Africa and Latin America are said to have completed the preparatory work, and are ready to follow Cuba's example.

China ahead of pack

The inability of ISA to facilitate many more projects is striking, considering the rapid growth in solar energy deployment. The global installed capacity of solar power has been increasing at over 20 per cent annually over the last five years. Last year, it grew by more than 30 per cent, according to World Solar Market Report 2024, a publication of the ISA.

But as Ajay Mathur, director general of ISA, pointed out, most of these installations are happening in a handful of countries, with China accounting for a lion's share. Of the 345 GW of solar capacity addition in 2023, more than 216 GW, or about 62 per cent, happened in China alone.

"More than 80 per cent of investments into solar energy are flowing in to developed countries, China, and large developing countries like India," Mathur said.

Barriers and solutions

"There are large entry barriers in smaller developing countries, particularly in Africa. This is what ISA has been engaged in ironing out," Mathur said.

Many of these countries do not have prior experience of executing large power projects, and certainly not solar projects, which is newer technology, he said. "There are no local developers, so the investment has to come from foreign companies. But foreign investors look for policy stability and sound regulatory environment."

The ISA has been working with governments and local institutions to create regulatory structures, draft power purchase agreements, and train human resources. "One of our important interventions has been the setting up of STAR (Solar Technology and Applications Resource) centres in partnership with local institutions. This has resulted in local expertise and capacity building," Mathur said.

Mathur said the results of these efforts would become visible soon.

"I think the heavy lifting has been done in the last few years. At least half a dozen countries are on the verge of floating tenders for power projects. We expect this to escalate quickly," he said.

ISA has been targeting deployment of 1,000 GW of solar energy, and unlocking a trillion dollars in solar investment by 2030.

Why solar matters

Solar is the most crucial element of the global energy transition that is critical to tackle the challenge of climate change. It is the fastest-growing renewable energy source, despite its inherent limitation of being intermittent. In most regions of the world, solar is now also the cheapest source of energy when sunshine is available. Solar energy installed capacity is projected to grow between 3 and 15 times in different scenarios for achieving global net zero by 2050.

But as Mathur pointed out, only a handful of countries have been deploying it on a large scale (see box). About 43 per cent of global solar PV capacity is installed in China alone. The top 10 markets account for more than 95 per cent of installed capacity. Less than 2 per cent of new additions are



happening in Africa, a region that houses about 80 per cent of the nearly 745 million people who still do not have access to electricity.

The solar manufacturing industry is even more imbalanced. Over 80 per cent of the manufacturing process is concentrated in China, which is seen as another barrier to quick spread of solar energy in smaller markets.

In fact, it is this lopsided nature of solar development that the ISA was meant to address and balance.

India's leadership role

Deployment of solar energy is only a vehicle. The ISA was created to serve a much larger strategic purpose for India. It is an important part of India's outreach to the Global South, particularly to countries in Africa.

Despite being an inter-governmental multilateral organisation, ISA is still largely viewed as an Indian initiative. This is not without reason — it is headquartered in New Delhi, it is almost entirely funded by India, and India has presided over its general assembly since its inception. It will continue to do so, at least until 2026.

ISA is thus intricately linked to India's diplomatic objectives. For this reason, the ISA's performance would reflect on India's capabilities to claim leadership of the Global South and speak on its behalf. Prime Minister Narendra Modi himself has been championing its cause, and has spoken about its crucial role at every relevant forum.

Unfortunately, the ISA's good offices have remained largely underutilised till now. It has been under-staffed and under-funded, and has had a troubled relationship with the Ministry of New and Renewable Energy, which is its liaison ministry with the Indian government.

But more importantly, it has failed to create excitement about solar energy in countries that are in desperate need of access to cheap and reliable energy source.

WHO'S DATABASE ON POLIO CASES HIDES MORE THAN IT REVEALS

On June 17, 2022, WHO published a report of a VDPV type-1 case that was detected from an environmental sewage sample in Kolkata on April 25, 2022. The report said that genetic sequencing “established that it was not related to any of the previously identified VDPV1 viruses and was likely to be iVDPV (excreted from an immune-deficient individual)”. But nearly three months after the results of the Meghalaya polio case were shared with the WHO on August 12, and more than one-a-half-months after the follow-up results confirmed that the immunological profile of the child was normal and that there was no evidence that the virus was circulating in the community, WHO is yet to publish the details.

If the failure or delay by WHO in publishing the case details is puzzling, it has now come to light that besides not reporting vaccine-associated paralytic polio (VAPP) cases, the WHO registry does not report all categories of vaccine-derived poliovirus (VDPV) cases either. WHO classifies VDPV cases into: 1) circulating vaccine-derived polioviruses (cVDPVs), 2) immune-deficiency associated VDPV (iVDPV), and 3) ambiguous vaccine-derived polioviruses (aVDPVs). However, besides wild poliovirus cases, the WHO registry has data on only the circulating VDPV cases and not the cases that belong to the other two categories — iVDPV and aVDPV. In fact, the registry does not even list



the other two VDPV categories, namely the iVDPV and ambiguous VDPV. Even in the case of the circulating VDPV cases, the WHO registry does not classify the cases based on poliovirus serotypes — type-1, type-2, or type-3.

Like the WHO registry, the registry maintained by the Global Polio Eradication Initiative (GPEI), which is a public-private partnership led by national governments with six partners, including the WHO, also has data on only the circulating VDPVs and not the other two VDPV categories—immune-deficiency associated VDPV and ambiguous VDPV.

In the case of the wild poliovirus, the GPEI registry has data on confirmed human cases and environmental samples. In the case of the circulating VDPV cases too, in addition to circulating VDPV cases, the GPEI registry has data of environmental samples and other human sources that include contacts, and healthy and community samples. Also, the GPEI database classifies the circulating VDPV cases as type-1, type-2, and type-3. However, while the WHO registry provides data on circulating VDPV cases globally and in individual countries starting from 2000, the GPEI database has data on circulating VDPV cases and environmental samples of individual countries only for the last four years—2021 to 2024. In the case of the wild poliovirus cases, the GPEI database has data only for the last seven years—2018 to 2024.

Registry of cases

As per a 2017 paper published in the journal *Vaccine*, the GPEI maintains a registry of iVDPV cases. However, the data of iVDPV cases in the GPEI registry is not made publicly available. Instead, the GPEI periodically publishes a list of iVDPV cases in the *World Epidemiological Record (WER)* and the U.S. CDC's *Morbidity and Mortality Weekly Report (MMWR)*. The last time GPEI shared the data of iVDPV cases was in July 2020 when 16 new iVDPV cases were reported from five countries — Argentina, Egypt, Iran, Philippines, and Tunisia —between July 2018 and December 2019.

If GPEI has the data of all iVDPV cases, the WHO too should have the same data as all the WHO-accredited polio laboratories, which confirm both wild poliovirus and VDPV cases and classify the VDPV cases into one of the three categories, report the results directly to the WHO. This raises important questions about WHO's intent and its unwillingness to be transparent by sharing the data of immune-deficiency associated VDPV (iVDPV), and ambiguous VDPV cases on a real-time basis.

Risks involved

Unlike in the case of the inactivated polio vaccine (IPV), the oral polio vaccine (OPV) can sometimes cause polio. Instead of protecting the vaccinated children, OPV can sometimes cause polio —vaccine-associated paralytic poliomyelitis (VAPP)— in children who are vaccinated. This occurs when the live, weakened poliovirus used in OPV turns virulent within the body of the recently vaccinated child and causes polio. The live, weakened poliovirus used in OPV can also sometimes turn neurovirulent and cause polio in children who are not fully protected, and in children who are not immunocompetent. In the case of iVDPV, poliovirus can continue to replicate in an immunodeficient child and the iVDPV strain can be excreted for several months to years. In one case, an immunodeficient child was found excreting type-2 VDPV for 28 years.

“The risks posed by iVDPV strains and the prevalence of such cases globally are unknown so their relevance in the context of the GPEI endgame is not easy to assess,” says the 2015 *PLOS Pathogens* paper.



WHO is well aware that iVDPV cases serve as potential reservoirs for neurovirulent VDPV strains and can pose a significant threat to the eradication campaign. This precisely is the reason why the WHO does not share the data on iVDPV cases.

MODEL BY CHENNAI, PUNE TEAM PREDICTS BIRTH WEIGHT FROM ROUTINE SCANS

Researchers from the Institute of Mathematical Sciences (IMSc) and Seethapathy Clinic and Hospital, both in Chennai, and the Indian Institute of Science Education and Research (IISER), Pune, have developed a model that can predict a newborn's birth weight using routine scans during pregnancy.

Accurate information about birth weight is crucial for maternal and foetal health. Low weight can cause complications like preterm birth, while heavier babies are harder to deliver safely. Knowing foetal birth weight can help healthcare providers identify possible risks and plan interventions.

How much a foetus weighs

There is no method to determine foetal weight during a pregnancy, so doctors assess a baby's growth by measuring parameters like head and abdominal circumference during routine ultrasounds. Some mathematical formulae allow birth weight predictions based on these measurements, but they require late-term ultrasounds within a week before delivery.

Their method was reported in the journal *European Journal of Obstetrics & Gynecology and Reproductive Biology: X* on October 3. It uses a mathematical model to calculate foetal growth parameters, allowing doctors to estimate birth weight without late-term ultrasounds.

The Gompertz model

The team's investigation of a mathematical model for growth led them to the Gompertz formula. First described in the 19th century by English mathematician Benjamin Gompertz, the equation has been used to model cell population and tumour growth in biology research. Researchers have also used it to model foetal growth volume in collective data but not to measure individual birth weight.

The Gompertz model, which uses the formula, was originally developed to predict population growth in a constrained setting, Siddharthan said. The team tested it to predict foetal measurements since the uterus is a constrained environment and the formula estimates the right shape of growth, he added.

The team used measurements of foetal parameters like head and abdominal circumference from at least three routine scans of more than 750 pregnant women. They incorporated these data into the Gompertz formula to estimate foetal measurements at the time of birth.

They used the actual and predicted foetal measurements to train a machine-learning model to predict birth weight.

To challenge their model, the researchers compared expected weights with birth weights reported in the records. They observed that their model predicted more than 70% of birth weights with an error margin of less than 10%.

Researchers from other countries have provided several other formulae to predict foetal weight at birth and during pregnancy based on ultrasound measurements. Despite not having late-term



ultrasound measurements, the current model was comparable to these previously described models, indicating this method outperforms older ones.

Gaps in the machine

But the study is not without limitations, according to Sethi and the researchers. The model still needs to incorporate the nutritional status of pregnant women, which may affect foetal growth, Sethi said. He also said the model must be validated in other populations across India, where the relationship between, say, a foetus's physical dimensions and weight might be different.

The researchers agreed testing the model with a more diverse cohort is important. Both groups they tested the model with were from South India. But change may be underway: the researchers are in the early stages of considering requests from independent researchers for access to their model.

IS YOUR BLOOD SUGAR MAKING YOU TIRED AND PULLING YOU DOWN?

People with Type 2 diabetes generally have a tendency to get more tired and fatigued. They also feel low compared to people without diabetes. Why is this so?

1. First, when blood sugar levels go high, sugar spills into the urine and depletes the body of water leading to dehydration. When one is dehydrated, naturally one feels very tired. Certain medicines like SGLT2 inhibitors, (e.g., Dapagliflozin, Empagliflozin) tend to produce excessive urination. If you are on one of these drugs and feel pulled down, you should tell your doctor about this.
2. The second reason for people to feel exhausted would be hypoglycemia or low sugar reactions. If the dosage of medicines (either tablets or insulin) is excessive and blood sugar levels go down as a result, you would see hunger, sweating and tiredness as the usual symptoms. If one feels unusually tired, one should check whether the sugar levels have gone very high or very low. Check blood glucose levels either with a hand-held glucose meter or even better, by wearing a continuous glucose monitoring (CGM) sensor for 14 days. This can identify whether the sugars are going very low or very high even during sleep.
3. Nutritional deficiencies, like those of vitamins and minerals, can also lead to decreased energy levels.
4. People with diabetes, who also have kidney complications, tend to lose albumin or protein in their urine. This can lead to low serum albumin levels and subsequent lack of energy. Moreover, when renal insufficiency or kidney failure sets in, haemoglobin levels tend to drop and one develops secondary anemia. This will obviously result in tiredness and fatigue.
5. People with diabetes are also more prone to developing certain forms of cancer. That's why excessive tiredness combined with loss of weight and loss of appetite should alert one to the possibility of co-existing cancer somewhere in the body. Similarly, diabetes related complications — painful neuropathy, eye problems, foot infection or heart problems — can weaken people with diabetes.



6. Other drugs taken for comorbidities which exist along with diabetes can sap one out. For example, diuretics taken for blood pressure or to reduce swelling of the feet can lead to loss of sodium or potassium in the body. Statins are also known to be draining.

How can you prevent these low phases in people with diabetes? First, keep sugar levels under tight control. That will automatically give you more energy. Sleeping well, about six to eight hours per day and on time can pump up your energy. Regular physical exercise adds to your strength, vigour, vitality and improved muscle strength. Making adjustments in your medications can prevent tiredness.

WHY ARE HEART ATTACKS HIGHER IN YOUNGER WOMEN THAN MEN? PGI STUDY HAS SOME ANSWERS

Women's heart health is now a matter of concern across India as the age of patients keeps getting younger. 44 per cent of women who suffered cardiovascular disease were obese with only one per cent of them having adequate fruits and vegetables in their daily diet. Higher body fat and lesser physical activity are red flags. High sugar, salty foods and an unhealthy diet can tip you over the edge.

Data from the last three years at PGIMER shows that 13-15 per cent of women who suffered from cardiovascular diseases (CVD) were under 50 years of age. Not only that, the study found risk factors of heart disease were much more common in women, who were likely to have worse outcomes than men in terms of mortality, by as much as 50 per cent. "Often women mistake their chores to be an indicator of physical activity. What they do not understand is that while they may tire you out, they are low-impact and do not burn calories," Dr Dahiya adds.

Heart attack is the leading cause of death in women, though it has a lower age-specific risk compared to men. Risk factors like diabetes and abnormal cholesterol are more strongly associated with heart disease in women in comparison to men. Diabetic men have a two to three-fold increased risk of heart disease, while diabetic women have a three to seven-fold increased risk. Diabetes eliminates a gender advantage for women at any age. Which means women's markers on hypertension, cholesterol and diabetes should preferably be on the lower side of the healthy range.

Your waist circumference should not be more than 85 cm, triglycerides should not be more than 150 mg/dL, HDL or good cholesterol should not dip below 50 mg/dL, blood pressure should not be more than 130/85 mmHg and fasting blood sugar should no way go higher than 110 mg/dL.

Smoking and birth control pills can increase the risk of heart attack in women because they both affect the blood in different ways. The first restricts blood vessels and leads to rapid clot formation. Nicotine in cigarettes also increases blood pressure and heart rate. Birth control pills can thicken the blood and increase blood pressure. Smoking has a greater influence on cardiovascular health in women compared to men, in whom it is one of the prime causes of high mortality and morbidity. Smoking erodes the cardio-protective effect of estrogen. The risk increases with the number of cigarettes smoked daily.

A lesser talked about risk factor is stress cardiomyopathy, commonly known as the broken heart syndrome, which occurs when a person experiences sudden acute emotional stress that can rapidly weaken the heart muscle. This manifests in middle-aged women faster than other age groups. A woman's risk of developing the condition increases five times after the age of 55.



Loss of oestrogen may also play a part in the higher risks of heart disease after menopause. The early onset of menopause and fast-dipping oestrogen levels, sometimes before the age of 40, is a key reason for the rising incidence of heart attacks. Emerging heart disease risks for women include pregnancy-related complications, autoimmune diseases, mental health factors, breast cancer treatments and sleep disorders, she adds.

Why symptoms are atypical?

Of course, the biggest disadvantage for women is that they have very atypical symptoms — usually severe fatigue, shortness of breath, chest discomfort (not typical angina), light-headedness, nausea and vomiting. They may have neck, back or jaw pain with more nausea and less perspiration. A higher incidence of atypical symptoms results in delays in seeking medical care. “The discomfort in the upper abdomen, pain in the shoulders or jaw, or a sensation that radiates through both arms are often brushed off as indigestion or stress,” says Dr Kochar.

In some cases, high uric acid can be a red flag. Difficulty getting to sleep or waking up unusually may be a sign of a heart attack. Watch out for the unexplained cough.

But there is hope

All these risk factors are modifiable and controllable if we discipline ourselves on diet, exercise, stress and adequate sleep. While everybody should screen their blood markers from their 20s, after 40, everyone should be evaluated for heart disease using ECG, echocardiogram and treadmill test (TMT) as per the advice of a physician. These should be repeated depending upon the underlying risks of every individual. “With checks and balances, we have even managed pregnancy in a few young women who had angioplasty in the past,” says Dr Dahiya.

Dr Vijayvergiya suggests a simple diet formula that can take care of all markers. “Increase vegetables (>200 gm), fruits (>200 gm), cereals, and fibre (> 20 gm/d) in your daily diet. Salt intake should be < 5 gm/d. Avoid foods with a high saturated fat content like red meat, dairy products, coconut and palm oils. Cut out high trans fats like deep-fried fast foods, bakery products, packaged snack foods and margarine. All healthy adults should do 30 to 45 minutes of moderate to vigorous exercise, five days a week. Maintain a blood pressure <140/90 mmHg and a fasting blood sugar <110 mg/dL. Give up smoking,” he advises.

HOW TO REMAIN HEALTHY AT 70? DON'T TREAT YOUR STOMACH LIKE A DUSTBIN, NOT EVERYTHING HAS TO BE PALATABLE

With Prime Minister Narendra Modi recently expanding the scope of the Ayushman Bharat Pradhan Mantri Jan Arogya Yojana (AB PM-JAY) for people over the age of 70 years, it is likely to help them access healthcare and hospitalisation.

Yet much of the disease burden is avoidable, if we are mindful about our lifestyle, says Dr Prasun Chatterjee, geriatrician from the All-India Institute of Medical Sciences (AIIMS). Excerpts:

What are the most common health complaints among the elderly?

For those between the ages of 65 and 75 years, the complaints are similar to those you would see in people in their 40s — diabetes, hypertension, coronary artery disease and stroke. Infection is also very common among the elderly, mostly pneumonia and urinary tract infections. This is



because the immune system is weakened with age — we call it immune senescence. Knee and joint pains are common in this age group.

Among 75-year-olds, we see multi-morbidities or multiple health issues. There is some forgetfulness or dementia, some gait and balance problems and Parkinson's, a brain disorder that causes a gradual decline in movement, balance and coordination. The risk of falls and fall-related injury also goes up in this age group. Cardiovascular problems get exacerbated, heart failure being very common.

There is a high prevalence of various cancers in this age group — bone, lung, stomach, or colon cancers are among the common ones.

One thing we often do not talk about is depression and social isolation that is also commonly experienced by people over the age of 75 years.

When it comes to the very old — people over the age of 80 or 85 years — sarcopenia or weakness of muscles happens in addition to other health issues. Nutritional problems are also common. We see something called anorexia of ageing, when a decreased appetite results in malnutrition. We also see anaemia because of poor food intake.

Being a tertiary care hospital, we do not see healthy people often. But there has definitely been a paradigm shift among the ageing population as we see more and more people living longer and healthier. We see 90-year-olds, who have been able to prevent forgetfulness and dementia by increasing their cognitive reserve, which is the ability of the brain to withstand age-related damage and ageing because of sharpening thinking abilities and resilience throughout their lives.

They have been able to retain their muscles with regular exercise and a high protein diet. An active body has meant that they have been able to maintain social connections and are less likely to have depression.

How can one age healthily?

Ageing actually starts from the womb of the mother, meaning healthy ageing should be practised throughout the life.

Exercise is the most important aspect — children should play regularly and not spend a lot of their time sitting in front of televisions, computers or phones. Adults also need to follow an exercise regimen at all ages. If you do not exercise in youth, your life later is likely to be more painful.

Your eating behaviour also has an impact. You cannot treat your stomach like a dustbin and not everything has to be palatable. You should eat home-cooked, simple meals as much as you can. If you see older people right now, you will see they have not developed the taste for fast food simply because they didn't grow up with it. But children these days are very fond of processed foods. We must restrict sweet and processed foods in their diet.

Having a purpose in life is equally important. Someone with a purpose is likely to be happy and likely to live longer.

What are the types of screening that one should undergo?

People over the age of 60 years — those who have just retired — should go to their doctor at least once to get their overall physical and mental health check-up. There are quick screening methods.



We do a comprehensive geriatric screening, which is a head-to-foot assessment where we check everything from hearing, vision, lower limb gait and speed, heart and lungs.

They should also screen for some cancers such as prostate cancer, which is very common in this age group. Colon cancer is something that people should keep an eye out for — a stool test can be indicative. Women should be screened for many gynaecological cancers, such as those of ovaries, cervix and breast.

Another important test is the one for haemoglobin. Silent blood loss from the food pipe is something that is common in this age group.

For bone health, I recommend the DEXA scan from the age of 60. Women must take this test at 55 because they start experiencing bone loss soon after menopause. If everything is normal, then the scan may be repeated after five years. Apart from physical tests, do not forget tests for mental health.

THE FRUGAL INNOVATION

Vikram Patel Writes: In 1978, 'The Lancet' called Oral Rehydration Therapy the most significant medical advance of the 20th century and, in 1987, UNICEF stated, 'No other single medical breakthrough of the 20th century has had the potential to prevent so many deaths in such a short time and at such low cost'

- Richard Cash, physician and global health scholar, died on October 22 at the age of 83 in his home in Cambridge, US.
- In 1978, The Lancet called ORT the most significant medical advance of the 20th century and, in 1987, UNICEF stated, "No other single medical breakthrough of the 20th century has had the potential to prevent so many deaths in such a short time and at such low cost."
- At a time when the world is seemingly entranced by commercially driven high-tech medicine, ORT is an exemplar of the idea of a frugal innovation, one which empowers ordinary people to take control of their well-being.

Do You Know:

- David Nalin, Richard conducted the first clinical trials of Oral Rehydration Therapy (ORT) in cholera patients in Bangladesh in the late 1960s, demonstrating that this low-cost intervention could effectively and safely reduce intravenous fluid needs. In the early 1970s, during a severe cholera epidemic among refugees from the Bangladesh Liberation War, Dilip Mahalanabis, an Indian paediatrician, demonstrated that ORT could reduce mortality from diarrhoea by up to 90 per cent in these vulnerable settings.
- The most important feature of this discovery was its simplicity: Boiled water, sugar and salt, a mixture which could be cooked up in any kitchen and was virtually free. According to one estimate, ORT saved more than 80 million lives, particularly children, since its inception.