



CURRENT AFFAIRS FOR UPSC

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DREAMIAS





INTERNATIONAL

EXPRESS VIEW: FACING OFF WITH TRUMP

The psychological battle that was Tuesday night's US presidential debate between Donald Trump and Kamala Harris began the day before. The former mocked his Democratic opponent's height on his social media platform, saying that "cheating" tactics like standing on boxes or using artificial lifts won't be allowed at the event. At 6 foot 3 inches, the former president and Republican nominee has used his imposing figure in the past, most notably when he stalked his then-opponent Hillary Clinton on stage during a 2016 face-off. At the end of Tuesday's debate, however, it was the more diminutive Harris who emerged the taller figure, confidently cementing her position as a strong, credible candidate in the White House race. She expertly parried blows over her role in the current unpopular administration while landing more than a few jabs about her increasingly irate opponent's positions on some of the most important issues in the US today, such as abortion rights.

This was no easy task, considering her late entry into the race, in July, following Joe Biden's disastrous debate with Trump the previous month. Harris carried the double burden of having to underline her difference not only from the man she was running against, but also the one who is currently her boss. She left the job of distinguishing her candidature from Trump's mostly to him — goading him into incoherence, conspiracy theories and lies by bringing up his legal troubles, friendships with "dictators who would eat you for lunch" like Russian President Vladimir Putin, and the size of the crowd at his rallies. On Biden, Harris had trickier terrain to navigate. Despite his brief, ill-fated candidature this year, the US president remains a respected figure among Democrats. Without quite criticising his policies, and his handling of the economy in particular, Harris emphasised her plan for an "opportunity economy" and spoke of representing a new generation of leadership that would "turn the page" on the past. She deflected or maintained a strategic silence on issues, like climate policy, that could cause unease among some voters. It was a balancing act that would reassure existing Democratic voters, while opening up space for the undecided.

Harris's assured performance has turned what was a one-horse race six weeks ago into a more equal contest. For voters who might have hoped to glean more about each nominee's policies, the debate had little to offer. Harris promised to be tougher on immigration than in 2020, but that was in keeping with the present administration's stand. Trump vowed to continue pursuing an isolationist foreign policy and dismantling the Affordable Care Act. In a debate that was more about projection than plans, voters are likely to be persuaded by the personality of the nominees. After Tuesday, Harris cuts a compelling figure.

STOLEN VOTE

Emmanuel Macron, France's centrist President, called a snap parliamentary election in June after the country's far-right National Rally (RN) finished first in the European elections. Mr. Macron wanted a fresh national mandate against the far right. But in the elections, held in two rounds in June and July, no party won a majority (289 seats) with the leftist New Popular Front (NFP) emerging as the biggest bloc, with 182 seats. Mr. Macron's Ensemble won 168 seats and the RN finished third with 143 seats. The NFP immediately staked claim to form the next government and even picked a prime ministerial candidate. But after two months of a political deadlock, Mr. Macron, last week, picked Michel Barnier, a veteran from the conservative Republican party,

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



which finished fourth in the election with 46 seats, as the new Prime Minister. In effect, Mr. Macron called the snap election to defeat the far right, saw the victory of the left-wing bloc, but appointed a conservative as the Prime Minister. His decision has angered many French voters, with tens of thousands of them pouring into the streets on Saturday to protest against the “stolen vote”. The NFP, especially its leader Jean-Luc Mélenchon, has slammed Mr. Macron’s “betrayal” of the public mandate.

Mr. Macron’s rationale was that he chose “institutional stability” as most other political blocs were opposed to a leftist forming the government. In the current arrangement, Mr. Barnier would seek to form a minority government with support from Mr. Macron’s party and indirect support (through abstention) from the RN. So, if Mr. Macron called the snap elections to defeat the far-right RN, his pick for the post of the Prime Minister would be dependent on the far right’s mercy to stay in power and push legislation through Parliament. Mr. Macron wants a leader who can form “a unity government to serve the French people”, and Marine Le Pen, the far-right leader, wants a Prime Minister “who works for RN voters”. Mr. Barnier, 73, has served in several conservative cabinets and was the EU’s main Brexit negotiator from 2016-21. His job is to form a government that would take Mr. Macron’s agenda forward without irking the far right. Whether he would succeed or not, Mr. Macron’s move itself is a sledgehammer blow to democracy in France. His impulsive decisions to push the country into elections and then ignore the spirit of the people’s mandate are not typical of leaders of mature democracies. By rejecting the winner of the election and picking a Prime Minister who is acceptable for the far right, Mr. Macron is making a mockery of the people’s choice and also mainstreaming the far right with neo-Nazi roots. He has made a big mistake.

TACKLING RIGHT-WING RESURGENCE IN GERMANY

The far-right Alternative for Germany (AfD) and the far-left Sahra Wagenknecht Alliance (BSW) have massively upended mainstream politics in two German regional elections on September 1. The AfD’s victory in the stronghold state of Thuringia marks the first time in the country’s post-war history that a radical right-wing party has come within touching distance of forming a government in a region. Similarly, in the regional polls in neighbouring Saxony, the AfD, sections of which Germany’s domestic intelligence agency has designated as extremist, stood a close second behind the centre-right Christian Democratic Union (CDU).

The recent surge follows a watershed moment last year, when it registered a significant presence in western Germany in the legislative elections in Bavaria and Hesse, as the three parties in the German chancellor Olaf Scholz’s ruling coalition suffered a drubbing. Additionally, the BSW, launched in January, overtook all the constituents in the federal coalition in both regions. The AfD and BSW’s inroads has come just a year before Germany’s autumn 2025 elections.

Right-wing resurgence and response

Bjorn Hocke is the AfD’s polarising ethno-nationalist leader from Thuringia who almost single-handedly moulded the AfD to an irretrievably ultra-nationalist hard-right movement. The former school teacher earned notoriety for his infamous denunciation in 2017 of Berlin’s Holocaust Memorial to the Jews as a “monument of shame,” calling for a “180 degree turnaround” in the country’s attitude to its Nazi past. Undeterred by fines imposed by two courts, Mr. Hocke continues to spout banned Nazi era slogans in his speeches. He has drawn fresh ammunition from the refugee influx from Russia’s invasion of Ukraine, which was well in excess of the one million inflows from the Syrian conflict in 2015. Mr. Hocke is one of the architects of the party’s aggressive



push for the repatriation of migrants, a euphemism for the mass deportation of German nationals with immigrant roots.

WHY VENEZUELA'S OPPOSITION PRESIDENTIAL CANDIDATE FLED TO SPAIN, A MONTH AFTER THE ELECTIONS

Edmundo González Urrutia, the opposition candidate in the disputed Venezuelan Presidential elections, fled the country on Saturday (September 7) amidst the political turmoil that has gripped Venezuela for over a month.

This development came a day after security forces surrounded the Argentine embassy in Venezuela's capital Caracas, where six opposition leaders had sought asylum. President Nicolás Maduro has claimed that they were conspiring to carry out "terrorist attacks", and his government suspended diplomatic with Argentina a month ago. What led to these events? We explain.

What was the outcome of the July elections?

The Venezuelan government under President Maduro has cracked down on opposition leaders and members of the public, as well as criticised foreign countries, following the results of recent presidential elections.

In July 2023, Maduro banned opposition leader María Corina Machado from holding public office for 15 years. The country's apex court upheld the ban, related to corruption charges. González was thus chosen as the opposition presidential candidate.

Despite overwhelming support for González in exit polls and independent surveys conducted on July 28, incumbent President Nicolas Maduro was declared re-elected on the same day. The National Electoral Council announced the next day that Maduro had secured 51% of the vote, and his opponent 44%.

Opposition leaders alleged electoral fraud; a view also held by the US, the EU, the UK and nine Latin American countries – including Argentina and Brazil. This led to violent protests countrywide decrying the "stolen election."

The government then deployed its forces, detaining people at will and deploying Operation 'Tun Tun' (Knock Knock) wherein loyalists were encouraged to turn in acquaintances and relatives who had questioned the results or participated in protests. Human Rights Watch reported that at least 23 protesters had been killed in the immediate aftermath of the elections, while over 2,400 were detained, including 114 children.

What powers does the Venezuelan President hold?

Under the 1999 constitution of Venezuela, all executive power is centred in the hands of the directly elected President, who is both the Head of State and Government.

An amendment in 2009 removed the President's six-year term limit and allowed the incumbent to remain in power in perpetuity. Elections are periodically held for the post of President and the National Assembly and regional governments, but the Socialist Party has a stranglehold on power at all levels.



Over the years, there have been allegations of government interference in Venezuela's courts and the National Electoral Council. The media is tightly controlled, and journalists who are critical of the government face harassment or legal action.

The President controls all major industries and economic resources. The military is a close ally of the President, and high-ranking military officials hold key positions in the government. This symbiotic relationship dates back to 1992 when tank commander Hugo Chavez, who would later become President, led an uprising against the deeply unpopular austerity government. The armed forces have since suppressed several popular protests.

And why is Venezuela important?

Venezuela has the world's largest share of proven oil reserves, at 303.3 billion barrels or 18% globally, as per the BP Statistical Review of World Energy, 2019. The state-owned oil company, Petróleos de Venezuela, S.A. (PdVSA) is directly controlled by the President.

After becoming President in 1998, Chavez rode on the oil boom of the early 2000s, which reportedly added a trillion dollars to the treasury. The government dramatically increased spending on social welfare, which shrank unemployment and poverty rates by half between 1999 and 2009, widened and improved education, and raised Chavez to legendary status among Venezuelans.

The concentration of power in the hands of the executive and the drastic curtailment of freedoms and democratic rights attracted American sanctions. Under President Donald Trump, the scope of the existing sanctions was widened.

In September last year, the Biden administration moved to ease some sanctions for six months in exchange for the Maduro government allowing a more democratic election, releasing political prisoners, and lifting restrictions on opposition politicians.

Indian oil imports from Venezuela had dropped off during 2020-23 following the US sanctions but picked up from the end of last year after some curbs were temporarily lifted. In December 2023 and January 2024, India became the world's top buyer of Venezuelan crude.

From Chavez to Maduro

Chavez handpicked Maduro to be his successor in 2011. Maduro inherited a government that had specialised in oil production without diversifying the economy, and was heavily reliant on imports for most basic goods and services, including food and medicine.

The crash in oil prices in 2014 sent the country's economy into deep crisis, marked by hyperinflation and shortages of essential goods. Between 2013 and 2016, food imports fell by 71% and medicines and medical equipment by 68%, while infant mortality increased by 44% according to data reported by the Centre for Strategic and International Studies (CSIS).

The rate of inflation shot up from 255% in 2016, the year before the US sanctions were imposed, to a million per cent in September 2019, the data show. Maduro has blamed the sanctions for the economic crisis in his country.

In 2022, the UN estimated that 7.1 million Venezuelans had fled the country since 2015, more than 80% of whom had migrated to other countries in South America and the Caribbean.



MEXICO BECOMES FIRST COUNTRY TO APPROVE POPULAR ELECTION OF JUDGES

MEXICO CITY: Mexico became the world's first country to allow voters to elect judges at all levels on Wednesday, after protesters invaded the upper house and suspended debate on the issue.

Outgoing President Andres Manuel Lopez Obrador had pushed hard for the reform and criticized the current judicial system for serving the interests of the political and economic elite.

The reform was approved with 86 votes in favour and 41 against, garnering the two-thirds majority needed to amend the constitution, in an upper chamber dominated by the ruling Morena party and its allies.

Debate on the reform had sparked mass demonstrations, diplomatic tensions and investor jitters.

Senate leader Gerardo Fernandez Norona declared a recess after demonstrators stormed the upper house and entered the chamber, chanting "The judiciary will not fall."

Lawmakers were forced to move to a former Senate building, where they resumed their debate as demonstrators outside shouted "Mr. Senator, stop the dictator!"

Obrador, who wanted the bill approved before he is replaced by close ally Claudia Sheinbaum on October 1, said that protesters were protecting the interests of the political elite.

"What most worries those who are against this reform is that they will lose their privileges, because the judiciary is at the service of the powerful, at the service of white-collar crime," the leftist leader said at a news conference.

'Demolition of the judiciary'

Opponents, including court employees and law students, have held a series of protests against the plan, under which even Supreme Court and other high-level judges, as well as those at the local level, would be chosen by popular vote.

Around 1,600 judges would have to stand for election in 2025 or 2027.

"This does not exist in any other country," said Margaret Satterthwaite, United Nations special rapporteur on the independence of judges and lawyers.

"In some countries, such as the US, some state judges are elected, and in others, such as in Bolivia, high-level judges are elected," she told AFP.

Mexico's overhaul puts it "in a unique position in terms of its method for judicial selection," Satterthwaite said ahead of the vote.

In an unusual public warning, Supreme Court chief justice Norma Pina said that elected judges could be more vulnerable to pressure from criminals, in a country where powerful drug cartels regularly use bribery and intimidation to influence officials.

"The demolition of the judiciary is not the way forward," she said in a video released on Sunday.

Pina said last week that the top court would discuss whether it has jurisdiction to halt the reforms, though Lopez Obrador has said there is no legal basis for it to do so.



'Dangerous proposals'

The United States, Mexico's main trading partner, has warned that the reforms would threaten a relationship that relies on investor confidence in the Mexican legal framework.

The changes could pose "a major risk" to Mexican democracy and enable criminals to exploit "politically motivated and inexperienced judges," US Ambassador Ken Salazar said last month.

Financial market analysts say investor concerns about the reforms have contributed to a sharp fall in the value of the Mexican currency, the peso, which has hit a two-year low against the dollar.

Human Rights Watch had urged lawmakers to reject what it called the "dangerous proposals," saying they would "seriously undermine judicial independence and contravene international human rights standards."

WHY DID BRAZIL'S SUPREME COURT SUSPEND X?

The story so far:

Brazil's Supreme Court on August 30 ordered the "immediate, complete and total suspension of X's operations" in the country. Justice Alexandre de Moraes took the decision after X failed to appoint a legal representative in Brazil within the stipulated time. Mr. Moraes also ordered that anyone found accessing X using a VPN (Virtual Private Network) would have to pay a fine of 50,000 reals per day.

What is the background?

For nearly two years, Mr. Moraes has been probing what he calls "digital militias" — far-right groups and backers of Brazil's erstwhile President Jair Bolsonaro. When Mr. Bolsonaro lost the 2022 elections, these groups used X and other platforms to cast doubt on the integrity of the elections and incite violence, leading to the January 8, 2023 riots in the capital Brasilia when Bolsonaro's supporters attacked federal buildings, including the Supreme Court, with the aim of triggering a military coup. The Court viewed this as a direct attack on Brazilian democracy and asked Mr. Moraes to investigate it. As his probe progressed, Mr. Moraes ordered X to suspend scores of accounts for spreading disinformation and hand over information about them, including IP addresses, to aid in prosecution.

What was X's response?

Elon Musk, the billionaire owner of X, refused to comply with Mr. Moraes's demands, and even said that accounts suspended earlier would be reactivated. In April, Mr. Moraes responded by bringing Mr. Musk under the purview of his investigation, triggering a public arm wrestle with the billionaire tycoon.

X also claimed that Mr. Moraes had threatened its legal representative in Brazil with arrest and ordered a daily fine of 20,000 reals (\$3,580) for non-compliance. On August 17, Musk announced on X that rather than comply with the judicial orders, he had decided "to close our operation in Brazil, effective immediately." While X's offices were shut down, its services remained available in the country. In the face of X's continued defiance, and as the fines remained unpaid, Mr. Moraes gave an ultimatum of 24 hours for X to appoint a legal representative — a requirement for any company operating in Brazil. X ignored this demand, and once the deadline passed, Mr. Moraes ordered suspension of X until all court orders are complied.



What are the implications?

The refusal by X, a foreign company in Brazil, to obey local laws have raised important questions about regulatory sovereignty, the right mechanisms for curbing disinformation, free speech rights versus censorship, and cross-border internet governance. It has also flagged how social media can be weaponised for political purposes — with earlier Facebook in the U.S., and now X in Brazil coming under investigations for promoting incendiary far-right disinformation. Analysts have pointed out the Brazilian case is more complicated by the fact that X's owner, Elon Musk, has not only aligned himself with one political faction and politician, Mr. Bolsonaro, but has also been posting vituperative remarks against one of the country's top judicial officers.

Within Brazil, one stream of thought, especially on the right, considers Mr. Moraes' orders as an instance of judicial overreach. Others have acknowledged that his actions stem from a broad interpretation of judicial powers rather than specific legal provisions. But they believe that his draconian measures were required at a time when other institutions have failed to counter the serious attacks on Brazilian democracy.

How has the order panned out so far?

Starlink, another Musk-owned company that provides satellite internet service in large parts of Brazil, initially refused to block X, but caved in subsequently after the Supreme Court ordered its bank accounts to be frozen. Clearing the air on whether the ban was an individualistic act of one radical judge, five justices of the Supreme Court have voted to endorse the ban. As for ordinary Brazilians, a great number of them migrated to Bluesky, which claimed that it had gained 2.6 million new users within five days of X going offline. Most users and analysts, however, consider the fine of 50,000 reals for accessing X via VPN excessive.

THE UN THE WORLD NEEDS

Prime Minister Narendra Modi will travel to New York later this month to address the special global summit hosted by the United Nations on September 22-23. Ambitiously named "The UN Summit of the Future", the summit intends to forge a "new international consensus" on how to deliver "a better present and safeguard the future".

— A larger concern for many is "the future of the UN" itself. The group, which began eight decades ago in San Francisco with 50 countries as members, appears to be in decline now. It proves to be an ineffectual and inefficient tool for addressing current difficulties.

— "The United Nations was created not to bring us to heaven, but to save us from hell," Dag Hammarskjöld, the Swedish diplomat who served as the second Secretary-General from 1953 to 1961, famously stated.

— Dennis Francis, the Trinidadian diplomat and President of the General Assembly, chose "Rebuilding Trust and Reigniting Global Solidarity" as the theme of the 78th session, which will be held in September 2023.

— UN Secretary-General Antony Guterres addressed the special session, emphasising the importance of modernising and modernising the multilateral framework that has existed since World War II. "It's either reform or rupture. The world has changed. "Our institutions have not," he informed foreign leaders.



— Western intellectuals such as H G Wells, Albert Einstein, Aldous Huxley, and John Foster Dulles were predominantly influenced by the idea of Anglo-Saxon ethnic superiority and advocated for a world union commanded by the United States and other “English-speaking nations”.

— This dominating idea compelled Roosevelt and Churchill to create the groundwork for the UN in 1941. It should not be forgotten that the majority of the first 50 countries to join the United Nations in 1945 were from the sphere outlined by Wells in 1935.

— The United Nations membership has grown over time, and it now has 193 member nations and two observer states (the Holy See and Palestine). Brexit, AUKUS, and the lesser-known CANZUK (Canada, Australia, New Zealand, and the United Kingdom) are all the product of this thinking.

— This structure of ethnic dominance became the UN’s adversary. As non-English-speaking countries grew in strength and influence and began to assert themselves in global affairs, the dominating powers devised a mechanism to circumvent the institution rather than make it more democratic and inclusive.

For Your Information:

— The world body appears helpless in containing the wars in Ukraine and Gaza, imposing rules on the developed Global North regarding food security and other Sustainable Development Goals (SDGs) in the developing Global South, and forcing the industrialised North to compensate for the developing South’s climate compliance.

— The WTO’s dispute resolution process has been stalled since December 2019 due to the United States’ failure to confirm the nomination of new judges to the appellate panel. As of 2023, more than 600 bilateral and regional trade agreements are pending before the trade authority without decision.

DreamIAS



NATION

PERVEZ MUSHARRAF'S ANCESTRAL LAND IN UP TO BE AUCTIONED UNDER ENEMY PROPERTY ACT: WHAT IT MEANS

A parcel of land in Uttar Pradesh, previously belonging to the family of former Pakistan President Pervez Musharraf, is set to be auctioned under The Enemy Property Act.

The Union Home Affairs Ministry said in a notice erected on the plot that around 13 bighas of land in the Kotana Bangar village in Baghpat district has been directed for sale through e-auction until Thursday midnight (September 12).

Under the Act, the Indian government can take control of “enemy property”. Here’s all you need to know.

— Following the India-Pakistan conflicts of 1965 and 1971, people migrated from India to Pakistan. The Government of India took over the properties and firms of persons who obtained Pakistani nationality under the Defence of India Rules, which were enacted under the Defence of India Act of 1962.

— The Custodian of Enemy Property for India received these “enemy properties” from the Centre. The same was done with property left behind by people who fled to China following the 1962 Sino-Indian War.

— The Tashkent Declaration of January 10, 1966, featured a clause stating that India and Pakistan would consider the restitution of property and assets taken over during the fight. However, the Pakistani government disposed of all such properties throughout the country in 1971.

— The Enemy Property (Amendment and Validation) Bill, 2016, was passed by Parliament in 2017, amending the 1968 Act and the 1971 Public Premises (Eviction of Unauthorised Occupants) Act.

— It broadened the definitions of “enemy subject” and “enemy firm” to include an enemy’s legal heir and successor, whether a citizen of India or a citizen of a non-enemy country, as well as the succeeding firm of an enemy firm, regardless of the nationality of its members or partners.

For Your Information:

— The amended law provided that enemy property shall continue to vest in the Custodian even if the enemy or enemy subject or enemy firm ceases to be an enemy due to death, extinction, winding up of business or change of nationality, or that the legal heir or successor is a citizen of India or a citizen of a country which is not an enemy.

— The Custodian, with the previous approval of the central government, may dispose of enemy possessions vested in him under the terms of the Act, and the government may make directives to the Custodian in this regard.

— The amendments were intended to protect against claims of succession or transfer of property left by people who went to Pakistan and China following the conflicts. The major goal was to neutralise the impact of a court decision in this matter.



— The Bill’s declaration of purposes and reasons stated: “Of late, several judgements by various courts have negatively affected the functions of the Custodian and the Government of India as granted by the Enemy Property Act, 1968. In light of such interpretations by multiple courts, the Custodian finds it difficult to justify his conduct under the Enemy Property Act of 1968.”

— One significant judgement was handed down in the matter of the former Raja of Mahmudabad in Uttar Pradesh, who held several big properties in Hazratganj, Sitapur, and Nainital.

— Following the 1968 Act, the Raja’s estate was deemed enemy property. When he died, his son laid claim to the properties. Following a legal battle, on October 21, 2005, an apex court bench composed of Justice Ashok Bhan and Justice Altamas Kabir ruled in his favour.

— The ruling paved the way for other court filings in which genuine or alleged relatives of those who had migrated to Pakistan filed gift deeds claiming to be the legal owners of enemy property.

Finally, on January 7, 2016, the President of India issued The Enemy Property (Amendment and Validation) Ordinance, 2016, which was superseded by the Bill, which became law in 2017.

INDIA, UAE INK PACT FOR CIVIL NUCLEAR COOPERATION

In a first, India and the United Arab Emirates (UAE) on Monday signed a memorandum of understanding (MoU) for civil nuclear cooperation.

The deal between Nuclear Power Cooperation of India Ltd. (NPCIL) and the ENEC (Emirates Nuclear Energy Company)-led Barakah Nuclear Power Plant Operations and Maintenance took place during the current visit of Sheikh Khaled bin Mohamed bin Zayed Al Nahyan, the Crown Prince of Abu Dhabi, to India.

During the August 2015 trip of Prime Minister Narendra Modi to the UAE, both countries had agreed to cooperate in “peaceful use of nuclear energy”, including in areas of “safety, health, agriculture, and science and technology.”

Diplomatic sources pointed out that nothing like the agreement between the NPCIL and the ENEC had been signed before. The deal is part of the UAE’s policy of expanding investments into the nuclear energy sector.

Trilateral cooperation

Monday’s MoU is the result of nuclear cooperation-related discussion between India and the UAE spanning a few years. On September 19, 2022, the Foreign Ministers of France, India and the UAE met in New York on the sidelines of the UN General Assembly and launched a trilateral cooperation format. This meeting was followed by a phone call among the three Ministers on February 4, 2023.

The Ministry of External Affairs (MEA) had said following the three-party phone call that all three sides had agreed that the trilateral initiative “will serve as a forum to promote the design and execution of cooperation projects in the fields of energy, with a focus on solar and nuclear energy”.

The Crown Prince of Abu Dhabi was earlier in the day hosted by Prime Minister Narendra Modi at Hyderabad House in New Delhi.



LNG supply

Apart from the nuclear cooperation-related MoU, the two sides signed an MoU for long-term LNG supply between Abu Dhabi National Oil Company (ADNOC) and Indian Oil Corporation Ltd.

A third agreement between ADNOC and India Strategic Petroleum Reserve Ltd. (ISPRL) was also one of the outcomes during the visit of the Crown Prince of Abu Dhabi. Urja Bharat and ADNOC signed a Production Concession Agreement for Abu Dhabi Onshore Block 1.

The fifth MoU was between the Government of Gujarat and Abu Dhabi Developmental Holding Company PJSC (ADQ) on food parks development in India.

India and the UAE are part of the I2U2 grouping that includes Israel and the United States.

PERIODIC RESET

Prime Minister Narendra Modi's visit to Brunei and Singapore last week was part of a deliberate focus on India's "Act East" policy by the government in its third tenure. Not since 2018, when ASEAN leaders were in India for a summit and the Republic Day parade, has New Delhi reached out to the region in such a short time span. He is expected to travel to Laos for the ASEAN-India summit, the Philippines, and Indonesia, later this year. In addition, New Delhi has laid out the red carpet for the Prime Ministers of Vietnam and Malaysia. The message to reconnect with each of the countries in South East Asia, and even forge new ties, is well considered and overdue. Mr. Modi's visit was the first bilateral visit by any Indian Prime Minister. This neglect of ties with a country that has strategic ties with the U.S., trade ties with China, and is situated in the middle of ASEAN is telling. While India's trade with the ASEAN region has doubled in the past decade, it has actually declined with Brunei, with India ramping up its oil imports from Russia since 2022. The two sides do not have a strategic partnership, although the leaders discussed defence and geo-strategic issues, and Mr. Modi took a veiled jab at China. The two sides renewed their space cooperation, which hinges on Brunei hosting an ISRO station, and it remains to be seen whether other discussions on trade, investment and energy cooperation will bear fruit. In Singapore, the spotlight during Mr. Modi's visit was on semiconductors, given that Singapore is a major player in all parts of the electronics supply chain. As India seeks more technical expertise and investment in rare earths and chip making and Singapore seeks to defray some of the growing land and labour costs of its semiconductor industry, the two could make a perfect fit, also de-risking the process from U.S.-China-Taiwan tensions, American protectionist policies and Chinese predatory practices. This could also correct the drop in Singapore's FDI levels into India.

Hopes for more intense exchanges in technology, trade and investment can be realised only if the India-ASEAN engagement is more consistent. India's exit from the ASEAN-led RCEP in 2019 was a blow, and cuts India out of a large regional FTA. While New Delhi has refused to revise the decision despite ASEAN's entreaties, it must update the 2009 AITIGA and the 2005 CECA with Singapore. India's commitment to "ASEAN centrality" on all strategic issues in the Indo-Pacific has been warmly received, but it needs to coordinate more closely on geopolitical issues including Myanmar, the South China Sea and Quad engagement. While India's historical ties with the region date more than a millennium, modern ties need a periodic reset, as governments have carried out in the past with the "Look East" policy (1992) and the Modi government's Act East policy (2014).



EXPRESS VIEW ON KEJRIWAL'S BAIL: CALLING OUT THE PARROT

In his bail verdict, Justice Ujjal Bhuyan's criticism of CBI strikes many a chord — should be heard by those who pull the agency strings in a series of welcome rulings recently, the Supreme Court has upheld the principle of bail as rule and jail as exception, while underlining the sacrosanct nature of the individual's right to personal liberty guaranteed under Article 21 of the Constitution, and emphasising that the process of justice must guard against turning into the punishment. This recasting, or rather reassertion of a principled bail jurisprudence by the Court is reassuring. This is especially so given that it seemed to have taken an unfortunate step back from it for a period coinciding with a domineering executive weaponising its control of Central agencies to selectively and disproportionately target its political opponents. The apex court order Friday caps the relief granted to the AAP, whose top leadership had languished for long in jail — a little over a month after his deputy, Manish Sisodia, was granted bail, Delhi Chief Minister Arvind Kejriwal has been given a reprieve in the case involving allegations that his government had framed and implemented the 2021-22 excise policy, rolled back subsequently, to enhance profit margins of liquor manufacturers, wholesalers and retailers as part of a quid pro quo. The SC's order allows AAP leaders to breathe freely again. But it is heartening, most of all, because it asks important questions about the state's power to arrest an individual, lays down the necessity of due process and fairness, and emphasises the role of the courts in ensuring that investigations are not used as a tool of harassment.

"Deprivation of liberty even for a single day is one day too many", says the separate judgment by Justice Ujjal Bhuyan, one of the two judges on the bench. Justice Bhuyan agrees with Justice Surya Kant's conclusion that Kejriwal be given bail in a case that shows no signs of early closure. But he goes further. In a tone resonant with legal acumen and moral clarity, he also interrogates the necessity and timing of the arrest in the first place. He points to a sequence that is incriminating for the agencies whose responsibility it is to take forward the justice process. The CBI registered the case against Kejriwal in August 2022, filed four chargesheets, named 17 as accused, did not name Kejriwal. Only when a Special Judge granted regular bail to Kejriwal in an ED case nearly two years later that "the CBI activated its machinery and took the appellant into custody". Even on the date of his arrest by the CBI, Justice Bhuyan points out, Kejriwal had not been named as an accused. "Such action on the part of the CBI raises a serious mark ... on the arrest itself", says the judge. In a system governed by the rule of law, Justice Bhuyan draws a vital distinction: "Power to arrest is one thing but the need to arrest is altogether a different thing...".

Justice Bhuyan's judgment interrogates a range of systemic delays and evasions, and he does not spare the institution he belongs to. He points to higher courts lobbing the ball to the lower courts, and to courts playing safe on bail. But his judgment is a strong indictment, most of all, of the CBI. "It is important that the CBI dispel the notion of it being a caged parrot. Rather, the perception should be that of an uncaged parrot". India's premier investigative agency, and those who pull its strings, must heed the court. Because, as the judge has underlined, the concepts of fair investigation and fair trial are inextricable from, and essential to, the just balance between the expansive powers of the state and a citizen's rights, assured and protected by the Constitution. Kejriwal has got bail, the prosecution is in the dock.

UNPACKING KEJRIWAL BAIL ORDER

— During the hearings, both parties relied on Sections 41(1)(b) and 41A of the Code of Criminal Procedure, 1973. Section 41(1)(b) specifies the conditions for arrest without a warrant, while



Section 41A addresses the appearance of an accused before police in cases where arrest is not needed.

— Kejriwal claimed that none of the prerequisites for arrest specified in Section 41(1)(b) were followed in his instance, and that he was not provided with a notice by police as needed by Section 41A before being probed by the CBI in June.

— Justice Kant ruled that Section 41(1)(b) does not apply in this instance because the CBI Special Judge approved the agency’s application to arrest Kejriwal on June 26. He further ruled that Section 41A “does not envisage or mandate the issuance of a notice to an individual already in judicial custody”—Kejriwal was already imprisoned in connection with the ED case at the time.

— According to CrPC Section 41A(3), the police shall not arrest a person who “complies and continues to comply with the notice” of appearance issued under this section unless the police officer notes the reasons for arrest.

— Justice Bhuyan rejected this basis for Kejriwal’s arrest. He disagreed: “It cannot be the proposition that only when an accused answers the questions put to him by the investigation agency in the manner in which the investigating agency would like the accused to answer, would mean that the accused is cooperating with the investigation.”

— He also cited Article 20(3) of the Indian Constitution, which states that “No person accused of any offence shall be compelled to be a witness against himself,” and concluded that an accused has the right to keep silent.

— Justice Kant held that Kejriwal’s case fulfilled the “triple test” for bail because:

- I. The evidence is already in the CBI’s possession so there is no possibility of tampering with it;
- II. Kejriwal’s “position” and his “roots” in society mean that he is not a flight risk;
- III. In case the CBI’s concern that he will tamper with witnesses comes true, the necessary consequences will follow.

DELHI CM ARVIND KEJRIWAL GETS BAIL: WHAT ARE THE BAIL CONDITIONS — WHAT CAN BE THEIR IMPACT?

The Supreme Court on Friday (September 13) granted bail to Delhi Chief Minister Arvind Kejriwal in connection with the CBI’s complaint in the Delhi excise policy case. However, the Bench of Justices Surya Kant and Ujjal Bhuyan placed certain conditions — Kejriwal will have to abide by the same conditions placed on him by the SC when he received bail in connection with the Enforcement Directorate case on July 12, 2024.

Justice Bhuyan noted that he has “serious reservations” about two of the conditions, but refrained from expressing his views further to maintain “judicial discipline”.

What are the bail conditions imposed on Kejriwal? What impact will they have?

Kejriwal was first arrested by the ED on March 21, 2024, and then by the CBI while he was already in custody on June 26, 2024, in connection with the Delhi excise policy case. On May 10, the SC granted him interim bail in the ED case in view of the Lok Sabha elections. After he returned to



custody following the elections' conclusion, the SC granted him bail once again in connection with the ED case on July 12.

On both occasions, the Bench of Justices Sanjiv Khanna and Dipankar Dutta placed certain conditions. Along with furnishing a bail bond of Rs. 50,000, they held that while on bail:

Kejriwal will not be allowed to visit the Office of the Chief Minister and the Delhi Secretariat;

- He shall not “sign official files unless it is required and necessary for obtaining clearance/approval of the Lieutenant Governor of Delhi”;
- He will not comment on his role in the present case;
- He will not interact with any of the witnesses in the case or have access to the official case files.

Justices Surya Kant and Ujjal Bhuyan reiterated these conditions while granting bail to Kejriwal on Friday. The Bench also said Kejriwal shall not make any public comments about the merits of the CBI case, has to be present at every trial court hearing unless an exemption is granted, and fully cooperate with the trial court so the case may be concluded expeditiously.

However, Justice Bhuyan raised doubts about the condition restricting Kejriwal from visiting the Chief Minister's Office and the Delhi Secretariat, as well as the condition restricting him from signing official files unless it is “required and necessary” for obtaining the Delhi L-G's approval.

What can be the impact of the bail conditions?

Kejriwal from visiting the CM's office and the Delhi Secretariat may not present a steep hurdle according to sources in the Aam Aadmi Party. According to senior AAP leaders, while Kejriwal has been barred from going to the Chief Minister's office and the Delhi Secretariat, Cabinet meetings can be routed by circulation. This means that files with suggestions can be moved, signed by the CM, and ultimately sent to the L-G.

The condition against signing certain files may not hamper Kejriwal's powers in a significant way either. The National Capital Territory of Delhi (NCT of Delhi) holds a unique position in India's federal hierarchy. Although it is a Union Territory, Article 239AA of the Constitution provides that the NCT of Delhi shall have its own Legislative Assembly and Council of Ministers (with the CM at the head). If there is a difference of opinion between the L-G and the Council of Ministers “on any matter”, Article 239AA states that the L-G shall refer this to the President of India for a decision and that the L-G can take “immediate action” while this decision is pending if it is “urgent” and “necessary”. The L-G is also the administrator of the government in Delhi.

In this context, though Kejriwal can only sign files where his signature is “required and necessary” for the Delhi L-G's approval, this includes a bulk of the governance work in Delhi with the exception of the three subjects where the Centre through the Delhi L-G already exercises discretion under the Article 239AA — public order, police, and land.

MP ENGINEER RASHID GETS BAIL: WHAT WAS THE NIA'S 'TERROR' CASE AGAINST HIM?

A Delhi court on Tuesday (September 10) granted interim bail until October 2 to Lok Sabha MP Sheikh Abdul Rashid, popularly known as Engineer Rashid, to campaign for the Assembly



elections in Jammu and Kashmir. Engineer Rashid has been lodged in Delhi's Tihar Jail in a case of alleged terror funding since 2019.

— According to the NIA, Rashid used various public platforms to “propagate the ideology of separatism and secessionism”, was closely associated with various terrorist organisations, and wanted to “legitimise” the United Jihad Council (UJC), a platform of anti-India militant groups in J&K.

For Your Information:

— UAPA presents an alternate criminal law framework where the general principles of criminal law are reversed. By relaxing timelines for the state to file chargesheets and its stringent conditions for bail, the UAPA gives the state more powers.

— UAPA extends to the whole of India. The provisions of this Act apply also to—

- (a) citizens of India outside India;
- (b) persons in the service of the Government, wherever they may be; and
- (c) persons on ships and aircrafts, registered in India, wherever they may be.

— The words “terror” or “terrorist” are not defined, but the UAPA defines a “terrorist act” as any act committed with intent to threaten or likely to threaten the unity, integrity, security, economic security, or sovereignty of India or with intent to strike terror or likely to strike terror in the people or any section of the people in India or in any foreign country.

— The central government may designate an individual as a terrorist through a notification in the official gazette, and add his name to the Fourth Schedule to the UAPA. The government is not required to give an individual an opportunity to be heard before such a designation.

STREET POWER

It has been a tumultuous month in Kolkata with junior doctors and civil society leading protests against the brutal rape and murder of a woman doctor on duty on August 9. The rallying cry, “We demand justice”, is being heard loud and clear by everyone, from the State administration right up to the Supreme Court. Doctors have defied the Court's appeal to return to work, and had set conditions to hold talks with the State administration, including an assurance that the meeting is centred around their five key demands and is televised. The Mamata Banerjee government rejected the pre-conditions, and urged the doctors to return to work. The breakdown of trust between the two sides is proving to be counter-productive. The doctors want the culprits identified and punished; disciplinary action against R.G. Kar's former principal, Sandip Ghosh, who is in custody; resignation of Kolkata Police Commissioner Vineet Goyal; increased security for health workers; and an end to the “threat culture” in hospitals and medical colleges across West Bengal. As protests continue, the list of wants has expanded, and includes a call for an overhaul of the government health departments, which have not been functioning at their best.

The State government has taken several steps for the protection of health workers, such as launching an initiative, ‘Rattirer Shaathi (helpers of the night)’. But these will not help stem the rot and are seen as tokenism at best. That the Court had to direct the State administration to provide separate duty rooms, toilets and install CCTVs indicates that the health infrastructure is creaking. The government needs to do more to break the logjam. The doctors and students too

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



must take the movement for justice to another level. They can resort to relay strikes, thus ensuring that a majority can return to work. In the quest for justice, doctors cannot end up being unjust to a large section of the people dependent on government hospital care. West Bengal is a poor State and when a government hospital under-performs, it affects the vulnerable the most. The government has said over six lakh patients have been turned away from government hospitals this month. Doctors refute the number, saying they are holding telemedicine services and 'Abhaya Clinics' on Sundays; and that senior doctors are working harder to ensure that work goes on. With the festival season around the corner, which is the chief source of revenue for a large number of people, the onus is on the government and the doctors to resolve the crisis at the earliest.

CENTRE TO RANK WORKING WOMEN'S HOSTELS ON SAFETY

The Centre is all set to launch a ranking system for working women's hostels across the country based on certain parameters, mostly relating to their security.

The move assumes significance amid cases of violence against women, including the rape and murder of a doctor in Kolkata which has led to widespread calls for safe working conditions for women.

The ranking, to be made available on a website, will be a one-stop list of all working women's hostels in the country, a senior official with the Women and Child Development Ministry told The Hindu. The move is aimed at ensuring better participation of women in the workforce, especially in urban areas, the official added.

The portal will list and rank all existing hostels run by private players, institutions, and the Union and State governments in each city.

The Ministry has held meetings with the Quality Council of India to develop parameters based on which the ranking would be done. The QCI has already sent a proposal, which has been discussed with the State governments.

Once finalised, the parameters will be sent to the State governments, which are then expected to circulate them among the hostels in their jurisdiction.

The guidelines will be based on security, cleanliness, and other desired facilities at such establishments. The entire exercise will be voluntary. The initial plan is to co-opt 200 such hostels each year, with the target being 1,000 at the end of five years, the official said.

More hostels

The portal will eventually give similar ranking of creches in each city. Apart from co-opting the existing hostels, the government is also working on establishing women's hostels, called 'Nirbhaya' hostels.

Nearly 25 such hostels have already been established at Delhi University, Nagaland, Uttarakhand, Uttar Pradesh, and Punjab. The Union and State governments will have a 60:40 fund-sharing ratio.

Apart from providing residential facilities, these hostels will offer transit stay for women who want to appear for interviews or exams.

The Centre has an existing scheme to provide hostel facilities for working women, called 'Sakhi Nivas' launched under Mission Shakti.



To implement this scheme, financial assistance for working women's hostels is directly released to the State governments.

There are 494 functional working women hostels in the country, with day care facility for the children, according to data shared by the government in Parliament.

AFTER UPSC CANCELLED CANDIDATURE, GOVT DISCHARGES KHEDKAR FROM IAS

The Department of Personnel and Training (DoPT) on Friday discharged former trainee officer Puja Khedkar from the Indian Administrative Service (IAS) after finding her "ineligible" to be a candidate for the Civil Services Examination (CSE) in 2022, DoPT sources said on Saturday.

This comes over a month after the Union Public Service Commission cancelled Khedkar's candidature for CSE 2022 following allegations of forgery and misconduct against her. According to the UPSC, she allegedly changed her name from Puja Diliprao Khedkar to Puja Manorama Dilip Khedkar to appear for the examination beyond the maximum number of attempts allowed, and also changed the names of her parents.

Through an order dated September 6, 2024, the Central Government discharged Khedkar under Rule 12 of IAS (Probation) Rules, 1954 — which provides for the discharge of a probationer found to be ineligible — with immediate effect, said a DoPT source.

The DoPT had set up a single-member committee on July 11 to verify the allegations against Khedkar. The committee submitted its report on July 27, the sources said. After that the government proceeded with a summary inquiry under Rule 12 of the IAS (Probation) Rules, 1954.

Sources said the DoPT inquiry found that Khedkar had appeared for the CSE from 2012 to 2023, though the maximum number of attempts — nine — in the category claimed by her (OBC and Persons with Benchmark Disabilities) had been exhausted in 2020. The inquiry found she was ineligible to be a candidate in 2022, the year in which she was selected.

Khedkar, for her part, has denied the allegations and moved the Delhi High Court against the cancellation of her candidature.

The former probationary officer, who was provisionally allotted the IAS (Maharashtra cadre) in 2023, was accused of misusing power and privileges during her training in Pune.

A criminal case was registered against her in July by Delhi Police for "misrepresenting and falsifying facts" following a "thorough investigation" by the UPSC into allegations of misconduct. The probe in the case, registered on the UPSC's complaint, is continuing.

On Thursday, Khedkar told the Delhi High Court that she was willing to get herself medically examined at AIIMS, after the city police claimed that one of her disability certificates may be "forged". She made the submission while the court was dealing with her anticipatory bail plea.

WHAT DOES DISSOLUTION OF SCOS ENTAIL?

The story so far:

The Union Ministry of Statistics and Programme Implementation has dissolved the 14-member Standing Committee on Statistics (SCoS) headed by eminent economist and former chief statistician of the country Pronab Sen. Geeta Singh Rathore, Director-General of the Ministry's

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National Sample Survey Office (NSSO), told the SCoS members that its works overlapped with that of the Steering Committee for National Sample Surveys, headed by Rajeeva Laxman Karandikar, former director of the Chennai Mathematical Institute and this was cited as the reason for dismantling the SCoS. Dr. Sen has said that the SCoS members had questioned the delay in conducting the census, as censuses have long been a crucial source of reliable data for policymakers. He also complained that the members were not given any specific reason for the committee's dissolution.

What were the key responsibilities of SCoS?

The SCoS advised the Centre on survey methodology, including sampling frames, sampling design, survey instruments, questions, etc. It also played a vital role in finalising the tabulation plan of surveys, reviewing the extant framework, and addressing the issues raised from time to time on the subjects, results, methodology, etc. related to all surveys. The Terms of Reference for the SCoS also included providing guidance for conducting pilot surveys/pre-testing, exploring the availability of administrative statistics relating to surveys/statistics, providing guidance for studying or identifying data gaps, providing additional data requirements, and imparting technical guidance to the Central and State level agencies for conducting surveys.

What is the role of the new committee?

The Steering Committee, which replaces the SCoS, has 17 members and one non-member secretary. The Centre has retained at least four members from the SCoS in the Steering Committee other than officials such as Ms. Rathore. Sonalde Desai, Bishwanath Goldar, S. Chandrasekhar, and Mausumi Bose are the four experts who are retained. The tenure of the Steering Committee will be for two years. Its Terms of Reference are quite similar to that of SCoS, including reviewing subject results, methodology questionnaires, sampling frames, sampling design, concepts, definitions, survey instruments etc. related to all National Sample Surveys. It will also advise the Ministry on survey methodology and finalise the tabulation plan of surveys.

The mandates of both the committees clash in a way, though the composition of the Steering Committee is different as it has more official members while the SCoS had several non-official members.

Why is there a pressure for a new census?

Serious academicians and policymakers have been demanding the Centre to conduct a census. The Opposition said that the lack of fresh data keeps crores of people away from schemes such as the National Food Security Act. The Opposition has also been questioning the numbers on employment and unemployment. On the periodic labour force surveys too, there were questions. Since the Census is conducted by the Union Home Ministry, the Ministry of Statistics has been telling the SCoS members in its meetings that it has no role in deciding the date of census. Statisticians and academics argue that the census can provide State and sub-district wise data on issues such as education and employment.

What are the flaws in administrative data?

While the Centre has been claiming that data provided by the EPFO, ESIC on its enrolments and Reserve Bank of India's KLEMS (K: Capital, L: Labour, E: Energy, M: Materials and S: Services) database gave a rosy picture about the employment scenario in the country. However, questions have been raised as administration data, especially on labour, is threshold-based. It is alleged that



such data was airing the perspectives of policy architects or reflecting the government's intentions.

The chances of manipulating the administration data set were also high as Government agencies generated that data and it is also argued that such data has limitations of analytical rigour.

On the other hand, survey-based data, including the census, has universal coverage without any thresholds, providing a wider and bigger platform. However, surveys such as PLFS could not provide State or district-level data, but the census will be able to provide even sub-district data. PLFS also allegedly had an urban bias.

How urgent is the next census?

The country's decennial census has been conducted every ten years since the 1870s, with the last census in 2011. The 2021 census was delayed due to the COVID-19 pandemic, and even after three years, the Centre has not provided a roadmap for the next census. Economists and policymakers argue that relying on 2011 census data for statistical surveys, even after 13 years, will negatively impact decision making. So they suggested that the way forward is to conduct the next census at the earliest.

1931 CASTE CENSUS: FROM BRITISH TO MANDAL LINK

Anjishnu Das writes— “The nearly century-old exercise to last count castes in a Census in India gives a good idea of the challenges the enumerators can face in any fresh effort, plus the complexities of the exercise.”

— “The 1931 Census that counted castes was conducted by the colonial British government, and was the first such exercise after the 1901 Census. The caste section put the numbers of Other Backward Classes (OBC) at 52% of the total 271 million population. This figure became the basis of the Mandal Commission's recommendation in 1980 to grant 27% reservations to OBCs in education and government jobs, which was implemented only in 1990.”

— “J H Hutton, the Census Commissioner at the time, countered those who argued against adding caste to the Census exercise saying that “the mere act of labelling persons belonging to a caste tends to perpetuate the system”. Hutton's logic was that “it is impossible to get rid of any institution by ignoring its existence like the proverbial ostrich”.

— “But Hutton and his team ran into a series of problems while enumerating caste. Hutton enumerated some of them – from “a wave of non-cooperation, and the (salt) march of Mr Gandhi and his contrabandistas” to the Congress observing a ‘Census Boycott Sunday’, to numerous local-level movements that hampered efforts.”

— “Besides, over the course of previous Census exercises, the methodology on caste had undergone several changes. For instance, in 1881, only groups with more than a lakh population were counted. In 1901, Census Commissioner H H Risley decided to use the “varna hierarchy” system, sparking numerous movements by caste groups who viewed the Census as a vehicle to move up the social order.”

— “Hutton was openly critical of using the varna hierarchy in the Census...So, in 1931, occupation rather than varna was used to classify castes. But this model had its own pitfalls. For one, it was unable to reconcile the variations in an occupational group's social standing across regions – for



instance, Hutton noted that “cultivation in northern India is a most respectable occupation, whereas in certain parts of southern India it is largely associated with the ‘exterior’ castes”.

— “While Hutton’s use of the occupational model addressed the question of defining caste, the still was unable to fully account for the fluidity of caste identity and the variations in the names of groups across regions, says Ayan Guha, a research fellow at the University of Sussex who has written on the history of caste.”

— “The first problem was to define caste. You have to agree on the traits that make certain groups a caste and certain groups not a caste... The second problem was that caste has a lot of fluidity... The third problem was the standardisation of names – same castes with different names in different regions,” Guha says.”

— “Guha adds that Hutton had also flagged the problem of the dynamic nature of identity claims with groups changing caste identities from census to census...Guha also points out “there was no uniform approach towards classification criteria for ordering of caste groups”.

— “Guha says that if a caste census is to be conducted today, it is likely to run into the same issues as the 1931 Census. In particular, the fluidity of caste identity – from one group seeking to be identified as a tribe, like the Meiteis in Manipur, to some groups fusing over time, like herder communities coming together as Yadavs, to the fission of some castes – will likely pose a challenge.”

For Your Information:

— Every Census in independent India from 1951 to 2011 has published data on Scheduled Castes and Scheduled Tribes, but not on other castes. Before that, every Census until 1931 had data on caste. However, in 1941, caste-based data was collected but not published.

MONTHS AFTER HIS ABRUPT RESIGNATION FROM EC, ARUN GOEL APPOINTED AMBASSADOR TO CROATIA

The Ministry of External Affairs (MEA) on Saturday appointed former Election Commissioner Arun Goel as India’s Ambassador to Croatia, six months after he abruptly resigned from the Election Commission.

In a statement, the ministry said: “Shri Arun Goel has been appointed as the next Ambassador of India to the Republic of Croatia. He is expected to take up the assignment shortly.”

MEA sources confirmed that the new Ambassador was indeed the former EC, a retired IAS officer of the Punjab cadre. Goel’s appointment to the EC and his sudden resignation in March had created controversy.

While serving as the secretary of the Union Ministry of Heavy Industries, Goel took voluntary retirement from the IAS on November 18, 2022. The next day he was appointed as an Election Commissioner. His appointment was challenged in the Supreme Court, which dismissed the plea in August 2023.

Later, just days before the Lok Sabha elections were announced on March 16, Goel resigned on March 9. According to sources, he cited personal reasons to do so. Goel’s term in the Election Commission was till 2027, and would have seen him become the Chief Election Commissioner after the retirement of current CEC Rajiv Kumar in 2025.



In his 37-year IAS career, Goel has held the post of Union Culture secretary, Delhi Development Authority vice-chairperson and several posts in the Punjab government.

His profile on the EC website says: “As Secretary, Heavy Industries, he catalysed E-vehicle movement in India to a tipping point. He implemented Production Linked Incentive scheme for auto Industry in a record time getting investments worth Rs 67,690 crore against target of Rs 42,500 crore and PLI for Advanced Chemistry Cell Battery Storage getting manufacturing set up for 98 GW against target of 50 GW.”

In Punjab, he oversaw the masterplan of New Chandigarh and implemented power reforms in the state.

WHAT ROLE DOES CSTT PLAY IN STANDARDISING TECHNICAL TERMS?

The story so far:

In alignment with the National Education Policy (NEP) 2020, to impart education in the Indian languages for an improved understanding and improved teaching-learning outcome, the government has initiated technical education, including engineering and medicine in Indian languages. The All India Council for Technical Education (AICTE) has introduced “AICTE Technical Book Writing and Translation” in 12 scheduled Indian languages. The government is also collaborating with technical education departments to distribute one set of books in Indian languages for the libraries of each degree and diploma-level institution. The Commission for Scientific and Technical Terminology (CSTT) has also launched a website offering technical terms in all 22 official Indian languages for various educational subjects.

What is CSTT?

The CSTT, established on October 1, 1961, focuses on preparing standardised scientific and technical terminology in Indian languages. It regularly publishes a range of bilingual, trilingual, and multilingual glossaries, definitional dictionaries, and monographs, besides publishing quarterly journals named ‘Vigyan Garima Sindhu’ and ‘Gyan Garima Sindhu’. The CSTT also takes up the publication of university-level textbooks through its Granth Academies, textbook boards, and publication cells located in various parts of the country.

It also undertakes the publication of administrative and various departmental glossaries that are widely used by government departments, institutions, research laboratories, autonomous organisations, and public sector units besides organising workshops, seminars, symposiums, conferences, orientation, and training programmes to increase the use and popularise the standard terminology of Hindi and other Indian languages.

What is the name of the new website and how does it operate?

The CSTT glossary search website, “Shabd,” is hosted at ‘<https://shabd.education.gov.in>’. “Shabd” is a data server that features all the glossaries of CSTT in digital searchable mode. Other institutions or agencies preparing dictionaries can also host their work in digital form on this platform. The aim is to showcase a central repository for all the terminologies prepared in or for Indian Languages.

The platform allows users to search for scientific and technical terms in Indian languages and provide feedback on existing equivalents prepared by CSTT. The search options include language,



subject, dictionary type, and language pairs. It also allows users to search specific glossaries or the entire collection.

What was the process of collating the words?

The CSTT prepares the terminologies through the Expert Advisory Committees consisting of subject and language experts, along with linguists, who are focused on finding out the equivalent terms in the specific subject areas and language. The terminology prepared by CSTT is used by Granth Academies, textbook boards, and publication cells for textbook preparation and is also used by institutions such as NTA, NCERT, NTM, AICTE, and so on. The “Shabd” website contains words taken from various definitional dictionaries, glossaries, and reference materials that have been published by the CSTT over the years.

When was the portal launched and what has been the response so far?

The site first went active in March this year and since then, it has had 1,36,968 hits from across the country and the world.

How many words drawn from how many subjects are available on the portal?

The entire collection which as of now includes about 322 glossaries has about (21,84,050 headwords). This covers disciplines in Humanities, Social Sciences, Medical Sciences, Engineering, Agricultural Sciences, and more than 60 subjects such as Journalism, Public Administration, Chemistry, Botany, Zoology, Psychology, Physics, Economics, Ayurveda, Mathematics, Civil and Electrical Engineering, Computer Science, Political Science, Agriculture, Culture, Transport, Geology, Capital Market, Cell Biology, Broadcasting, Music and Finearts, CSIT, AIML, Linguistics, Forestry, Entomology, Plant Pathology, Soil Science, Nematology, Sericulture, LIS, and others.

Prof Girish Nath Jha, Chairperson of CSTT, says, “The institution is working hard to enable Indian languages as per the huge mandate given to it by our government and our constitution. We hope to progress faster by using AI and related digital technologies in future”.

FROM THE MARGINS TO THE MAINSTREAM: HOW FILMS ARE ELEVATING MARGINALISED VOICES

The recently released three mainstream films Thangalaan, Vaazhai (Tamil), and Veda (Hindi) are of historic significance. Away from the conventional trends of populist flicks, which often celebrate the cultural and political domination of the social elites, these films revolve around the concerns and dreams of socially marginalised groups. By introducing powerful Dalit protagonists, these films advance a nascent but impressive journey of Dalit cinema, registering a claim for greater democratisation in the Indian film industry.

A visible domination of a peculiar brand of films — often called the ‘masala entertainments’ — and filmmakers, mainly the rich social elites, have made Indian cinema a sphere that lacks democratic credentials. While entertainment-centric popular cinema is necessary for sustaining the film industry, its core centrality for profit and entertainment has marginalised the ethical concerns around which any art form shall be conceptualised. For example, fame, profits, and privileges are appropriated by the niche social elite junta, making the marginalised social groups a dormant spectators of cinematic magic. Ironically, the scant presence of artists and filmmakers from vulnerable social groups such as Dalits, Adivasis, and Other Backward Castes, is not seen as an unhealthy convention in the film fraternity.



In recent years, the Dalit cinema genre tried to bring some reforms to the conventional routine of popular Indian cinema. The impetus for this change has been driven largely by the regional film industry, especially the Marathi and Tamil cinema, which offers exceptionally brilliant artwork that caters to the interests and concerns of marginalised social groups, and quality entertainment to the general audience. Nagraj Manjule's *Fandry* (2013), *Sairat* (2016), and *Naal* (2018) set impressive examples of films that are both socially sensitive and commercially successful. Later Marathi films like *Uchalya* (2015), *Jayanti* (2021), *Kasturi* (2019), *Zollywood* (2022), *Aatmapamphlet* (2023), etc. kept the momentum on, building a crucial dialogue on cinema's responsibility in offering socially responsible films. However, it is the Tamil filmmakers who have created a strong stir to establish this genre as a significant commercial model.

More possibilities

Pa Ranjith's earlier successful films — *Madras*, *Kala*, and *Kabali* — have advanced the idea of a new Dalit hero. Big film stars like Rajinikanth are roped in to tell stories about the crises in Dalit lives, their resilience, and heroic attributes. This success was further cultivated creatively by brilliant filmmakers, especially Mari Selvaraj (*Karnan* 2021 and *Pariyerum Perumal*, 2018) and Vetrimaaran (*Asuran*, 2019 and *Viduthalai*, 2023), substantiating the arrival of 'Dalit genre' in Indian cinema. By offering nuanced Dalit characters, bestowed with mainstream heroic credentials (like Rajinikanth's character in *Kabali*, Dhanush in *Karnan*, and Udhayanidhi in *Maamannan*), it breaks the conventional 'victim' stereotypes attached to the representation of Dalit characters on screen.

The Dalit genre in Tamil and Marathi cinema thus created a strong rupture, influencing the Hindi film industry to take its cognisance. As a response, Bollywood has also supplemented this churning by offering powerful Dalit characters in earlier films like *Masaan* (2015), *Manjhi-the Mountain Man* (2015), and recently *Jhund* (2022), *Shamshera* (2022), *Bheed* (2023), and now *Veda* (2024). Interestingly, while this emerging Dalit genre sensitively showcases the claims and desires of the marginalised communities, these films also ensure quality entertainment with the influx of dance, music, drama, and action sequences.

This genre thus offers a possibility that the Dalit character may also emerge as a 'mainstream hero', their stories can be inspirational tales and the artists belonging to the Dalit-Bahujan strata may gain mainstream fame. The recent success and critical acclaim of *Thangalaan* and *Vaazhai* suggest that this genre is here to stay.

Within the intellectual discussions on Indian cinema, the popular Hindi cinema has not received a respectable appreciation. It is often seen as a profit-seeking industry that creates hyper-sensational fiction to bewitch the audience, taking them away from engaging with crucial social and political concerns.

In the mid-1970s, the few aberrations that offered critical and socially sensitive narratives were marked as alternative genres or the art-house cinema, restricting its celebration within the mainstream cinema culture. There is an apprehension that the recent arrival of a nascent but impressive Dalit cinema can be relegated with similar tags to retain the domination of conventional ideas and identities in the filmmaking enterprise.

It is an appropriate time for the film fraternity to recognise and collaborate with the outstanding cinematic works of artists and producers from socially marginalised communities, elevating them as an inspiration for the new generation.



New cultural festivals, public institutions, and policy frameworks by the state are required that would promote the culture and talent of diverse social groups that are often marginalised in mainstream discourse on cinema, art, and festivity. It is essential to create new platforms and old institutions of popular culture to improvise in order to connect and promote the producers, artists, and technicians from Dalit, Adivasi, and Other Backward Caste communities.

It is also crucial for more Dalits to join the film industry as producers, technicians, and directors bringing their stories and talents. It is high time that the nascent Dalit genre shall be recognised as part of the reformist cinema track, guided by an inclusivist vision, showcasing that the film industry has a crucial responsibility towards promoting social diversity and the values of social justice.

EXPRESS VIEW ON FILM ABOUT THE EMERGENCY: LET IT PLAY

Many excesses and horrors marked the 21-month-long interregnum when India's robust democracy was put on hold by the Indira Gandhi regime. They included forced sterilisations, bulldozing of homes, mass arrests of political opponents and pliant compliance, with some notable exceptions, by institutions that were meant to be guardrails against executive transgression and overreach. At its core, the Emergency, 1975-77, was a violation of the social contract enshrined in the Constitution, that makes the rights to life, liberty and free speech inalienable. It is, therefore, a troubling irony that a film certification board constituted by a government whose leaders lay claim to the proud legacy of the arduous struggle that led to the Emergency being revoked should be blocking the release of a movie about that dark period.

Ever since its trailer was released last month, *Emergency* – directed and co-produced by BJP MP Kangana Ranaut who also plays Indira Gandhi in the film — has been at the centre of controversy. As a report in this newspaper revealed, the Central Board of Film Certification (CBFC) had cleared the film for UA (with parental guidance) certification subject to three cuts and a fact-check on disparaging comments about India and Indians by Richard Nixon and Winston Churchill. The producers agreed to comply except in the case of one cut. Subsequently, Sikh bodies, especially the Shiromani Gurdwara Parbandhak Committee (SGPC), objected to *Emergency* on the grounds that it misrepresents the Sikh community and its leaders, and can cause religious disharmony. A PIL has also been moved in the Punjab & Haryana High Court seeking a ban on the film. The quality of the movie is not the question here — it has not yet been released. The sensitivity of its subject matter, too, cannot be cited as a reason. Politically sensitive subjects have practically turned into a film genre recently, with movies like *Uri: The Surgical Strike*, *The Kashmir Files* and *The Kerala Story*. In fact, some of the aforementioned titles received de facto state support, even though they also invited criticism from other quarters that found their depictions to be flawed and/or in flagrant service of a particular political ideology. It is difficult, then, not to surmise that the CBFC is acting as a tool of a politics that selectively invokes the Emergency as a cautionary tale — this year, the government announced that June 25 would be marked as 'Samvidhan Hatya Diwas' — but has few qualms about wielding some of the same powers of censorship that ran amok in that period. MP Ranaut has recently run foul of her party over her loose statements about the farmers' protests. The BJP is well within its rights to take disciplinary action against a member within and through party forums. But whether her film is good or bad, offensive to some or art to others — these are calls for the audience to take. The right to freedom of expression can, and must, include the right to make what many may think is offensive — art, by definition, is contested. Ranaut's work as an actor is formidable but surely she knows that too often her party — and other parties, too, it must be said — conflate the artist, their art and their politics towards a disquieting silence.



The Information and Broadcasting Ministry and the CBFC would also do well to remember the tale of Kissa Kursi Ka. The film satirising Indira Gandhi and Sanjay Gandhi was banned and later the destruction of its negatives even became a criminal case. The movie became an example of a thin-skinned polity, the ban serving to do more damage than a release could have. That facet of the Emergency must not be repeated with Emergency.

NOW, FIND CASE RECORDS OF MAHATMA GANDHI'S ASSASSINATION ON DELHI HC'S NEW EMUSEUM PORTAL

What did the FIR lodged in the aftermath of the assassination of Mahatma Gandhi in 1948 contain? What did the trial court judgment say? One can now find details of this case, as well as several other important ones like the Parliament attack and Jessica Lal murder, in a digital format on the Delhi High Court's eMuseum portal.

This, along with two more e-services — 'Humour in Court' and WhatsApp services to provide information about causers, case filings and case listings directly to advocates — were launched at an event at the HC Wednesday. The 'Humour in Court' web portal will feature humorous anecdotes from courtrooms and will be vetted by a sub-committee headed by Justice Rekha Palli as the chairperson and comprising Justices Prateek Jalan and Amit Bansal.

As of now, other important cases that are in the repository of judgments as part of the eMuseum include the first case of Delhi High Court, Indira Gandhi assassination, Parliament attack, Red Fort attack, Jessica Lal murder, Uphaar cinema fire, Nitish Katara murder, and decriminalisation of homosexuality. They are available for public perusal at <http://35.207.227.0/myindex.html>.

ON ANI'S DEFAMATION SUIT AGAINST WIKIPEDIA

The story so far:

The news agency ANI sued Wikipedia parent Wikimedia Foundation last month for defamation, due to a description of the news agency as a propagator of government propaganda on the website. Last week, a Delhi High Court judge threatened to order the government to block Wikipedia if the Foundation didn't provide details of the users who made these edits.

What does the page on ANI say?

When Wikipedia's page for the news agency Asian News International started reflecting new reporting scrutinising the firm's record in 2020, a back-and-forth edit war ensued among users — seasoned editors on one side, and largely new accounts that only edited the ANI page, according to public logs of changes made to the entry — for months. The agency, which largely syndicates video and text feeds from around the country to news channels and other outlets (including to The Hindu), was described as "running [a] pro India fake news network aimed at influencing European think tank [sic] against Pakistan," a version of the article then read. Over time, this rough sentence in the page's introduction was smoothed out, annotated, and crystallised into what it says today: that the agency is "accused of having served as a propaganda tool for the incumbent central government, distributing materials from a vast network of fake news websites, and misreporting events on multiple occasions." ANI found the description, along with a longer section detailing these descriptions, defamatory. They sued the Wikimedia Foundation, which runs Wikipedia, in the Delhi High Court earlier this year, seeking ₹2 crore in damages.



In statements to The Hindu, the Wikimedia Foundation has stood by the ANI page, saying that the descriptions in that entry are borne out by reliable sources (which include The Diplomat, the EU DisinfoLab, and The Caravan magazine). Users who have made more than 300 edits and have an account that is at least a month old are free to “improve” the page, the Foundation said.

What has the Delhi High Court ordered in the case so far?

At the second hearing on August 20, Justice Navin Chawla ordered the company to serve three of its users with a summons to appear in the case, and provide “details” about these users. The demand appeared to be aimed at unmasking the individual editors who made these changes, something that the Foundation has historically not done outside the U.S. Even as the non-profit communicated with ANI’s lawyers shortly before the subsequent hearing on Thursday, the latter filed a contempt application. At the Thursday hearing, Mr. Chawla issued a verbal threat to order the Indian government to block Wikipedia if it did not comply. An “authorised representative” of the non-profit was directed to be personally present at the next hearing on October 25.

Does Wikipedia face lawsuits and censorship threats elsewhere?

Wikipedia has faced bans and lawsuits from around the world by individuals and organisations that have been aggrieved by descriptions of them. In Russia, Wikipedia editors have been targeted with arrests and intimidation since the beginning of that country’s invasion of Ukraine. In 2019, a German court ordered the Foundation to remove records of an older version of an article about academic Alex Waibel; in the U.S., the firm routinely faces lawsuits, and nearly all cases have either been withdrawn or found in the non-profit’s favour, due to the country’s ironclad protections for web platforms.

The encyclopedia allows nearly anyone to edit posts, even without being logged in. However, some posts on contentious topics are restricted (sometimes for a long duration) to registered users with a track record of making contributions that have been upheld by other users. Norms on the site are decided by the community, and may be enforced unevenly, with articles on less notable subjects suffering from issues like advertising-like language.

Does Wikipedia content have an ideological bias?

The current policies followed by Wikipedia users do not have an explicit ideological flavour. These include guidelines such as having a “neutral point of view,” only including “notable” information and having reliable sources decided by the community. However, the site is often accused of a progressive, liberal bias, something that a few studies have also attested to.

Conservative grievances with Wikipedia users’ editorial slant have invariably become part of the discourse around the ANI-Wikipedia case. OpIndia, a right wing news portal that has covered the ANI lawsuit closely, has accused Wikipedia editors of propagating liberal “propaganda” on the site; has previously revealed the identity of an individual editor who started and contributed to the entry on the 2020 Delhi riots; and has criticised the site’s description of the riots for allegedly downplaying attacks by Muslim rioters. The portal’s editor on Sunday vowed to put out a detailed “dossier” outlining these allegations. Wikipedia’s volunteer editors have had a general prohibition on OpIndia articles since 2009, with the site being described by a Wikipedia policy page on reliable sources by/for editors as “considered generally unreliable due to its poor reputation for fact-checking and accuracy”.



Has Wikipedia faced criticism for content vandalism in India before?

Wikipedia has faced the Union government's ire at least once in the past due to vandalism. The cricketer Arshdeep Singh's page was briefly vandalised last year, and then Minister of State for Electronics and Information Technology Rajeev Chandrasekhar said the vandalism was inconsistent with the government's principles for the Indian internet. The site's volunteers had quickly addressed the vandalism and restricted the page to experienced editors.

The site also suffers from a weakness under Indian law — unlike social media companies, it has no procedure in place to block access to articles after receiving a court order. In 2019, the Wikimedia Foundation termed a prior draft of the IT Rules, 2021, which enable such blocking orders, as having “the potential to limit free expression rights for internet users across the country”.

Can Wikipedia be blocked?

However, Wikipedia may not be completely immune from arm-twisting or blocking. China, for instance, has had the site blocked for years. While Russia has not blocked the site, it has arrested volunteer editors of Russian-language Wikipedia, and told search engines to mark the site as a violator of Russian laws. Since Wikipedia content is licenced under what is called Creative Commons Attribution-ShareAlike Licence 4.0, its pages can be legally mirrored to a “fork” setup that can edit and censor its content as per government demands or individual biases. Ruwiki is an example of such a fork, which complies with Russian authorities' narratives on the Russia-Ukraine war.

NATIONAL TESTING HOUSE TO NOW CERTIFY DRONES

The Quality Control of India has approved the National Test House (NTH), under the Ministry of Consumer Affairs, as the certifying body for drones.

— “As part of the Certification Scheme for Unmanned Aircraft Systems (UAS), National Test House, Northern Region, Ghaziabad, has been provisionally approved by the Quality Council of India as a Certification Body for type certification of drones.”

— “This significant milestone aligns with the Government of India's push towards fostering a robust and globally competitive drone ecosystem under Drone Rules 2021,” a ministry statement said.

— Securing type certification under Drone Rules 2021 is mandatory to operate in India, the ministry said, adding: “as part of the Certification Scheme for UAS, the NTH is tasked with evaluating drone models to ensure compliance with applicable national and international standards.”

For Your Information:

— In July Finance Minister Nirmala Sitharaman allocated Rs 500 crore for Namu Drone Didi scheme, an initiative aimed at providing drones to 15,000 selected women self-help groups (SHGs).

— The Namu Drone Didi scheme aims to provide drones to 15,000 selected women SHGs during the period 2023-24 to 2025-2026 for providing rental services to farmers.



CYBER CRIME AN IMPORTANT ASPECT OF NATIONAL SECURITY, SAYS SHAH

Cyber security is no longer limited to the digital world and has become an important aspect of national security, Union Home Minister Amit Shah said on Tuesday, adding that the country's development was "impossible in current times" without keeping cybersecurity in mind.

— "Today technology is being used extensively in all new initiatives and the increasing use of technology is also creating many threats. And that is why cyber security is no longer limited to the digital world but has also become an important aspect of national security," he said during the first foundation day celebrations of the I4C or Indian Cyber Crime Coordination Centre here.

— The I4C, established in 2018, is a department under the Ministry of Home Affairs (MHA) tasked with establishing a national-level coordination centre to address cybercrime-related issues. Shah also inaugurated four I4C platforms — Cyber Fraud Mitigation Centre (CFMC), the 'Samanvaya' platform, a Cyber Commandos programme and a Suspect Registry.

— According to an official, in the Suspect Registry system, the I4C will share a list of all the repeat offenders in their server, which can be accessed by police personnel of any state and also by the bank officials before opening bank accounts.

— Shah said the government is also planning to train and prepare 5,000 cyber commandos over the next five years.

For Your Information:

— The changing geo-political and economic shifts have compelled the Indian government to take active steps to evolve in cyberspace.

— This includes strengthening internal safety and security under the Ministry of Home Affairs, investment in defence infrastructure, and having bilateral agreements with countries across the globe, to remain coordinated and have defensive-offensive strategies for the interest of the nation, its citizens, and the industry.

— Such strategic focus has culminated in key initiatives such as the National Cyber Coordination Centre, Cyber Surakshit Bharat, and National Critical Information Infrastructure Protection Centre being created and strengthened.

INDIA GENERATES HIGHEST PLASTIC POLLUTION IN WORLD: WHAT A NEW STUDY FOUND

India contributes to a fifth of global plastic pollution, a study published in the journal Nature last week found.

India burns roughly 5.8 million tonnes (mt) of plastic each year, and releases another 3.5 mt of plastics into the environment (land, air, water) as debris. Cumulatively, India contributes to 9.3 mt of plastic pollution in the world annually, significantly more than the countries next in this list — Nigeria (3.5 mt), Indonesia (3.4 mt) and China (2.8 mt) — and exceeding previous estimates.

Problem of 'unmanaged' waste

The study, carried out by University of Leeds researchers Joshua W Cottom, Ed Cook, and Costas A Velis, estimated that around 251 mt of plastic waste is produced every year, enough to fill up



roughly 200,000 Olympic sized swimming pools. Roughly a fifth of this waste — 52.1 mt — is “emitted” into the environment, unmanaged.

The authors define “managed” waste as what is collected by municipal bodies, and either recycled or sent to a landfill. Most plastic waste meets the latter fate. “Unmanaged” waste refers to plastic which is burnt in open, uncontrolled fires producing fine particulates and toxic gases like carbon monoxide which have been linked to heart disease, respiratory disorders, cancer, and neurological problems. It also includes plastic which ends up in the environment as unburnt debris — polluting every conceivable place on Earth from the heights of Mount Everest to the bottom of the Mariana Trench in the Pacific Ocean.

Of the unmanaged waste, roughly 43% or 22.2 mt is the form of unburned debris and the rest, some 29.9 mt, is burnt either in dumpsites or locally.

Global North-South divide

A trend that the study identified was that there is a notable Global North and Global South divide when it comes to plastic pollution. “On an absolute basis, we find that plastic waste emissions are highest across countries in Southern Asia, Sub-Saharan Africa and South-eastern Asia,” the study said.

In fact, approximately 69% (or 35.7 mt per year) of the world’s plastic pollution comes from 20 nations, none of which are High Income Countries (those with a gross national income per capita of \$13,846 or more, according to the World Bank). This is despite these HICs — which are all in the so-called Global North — having higher plastic waste generation rates than countries in the South. Not a single HIC is “ranked in the top 90 polluters, because most have 100% collection coverage and controlled disposal,” the study said.

Open burning is the predominant form of plastic pollution in the Global South (with the exception of Sub-Saharan Africa, where uncontrolled debris comprised a larger share of the pollution pie) unlike in the Global North, where plastic pollution predominantly comprised uncontrolled debris. This, the researchers say, is simply a symptom of inadequate or completely absent waste management systems, and a lack of public infrastructure for the same.

However, “we shouldn’t put the blame, any blame, on the Global South... [or] praise ourselves about what we do in the Global North in any way,” researcher Costas Velis told The Associated Press, adding that people’s ability to dispose of waste depends largely on their government’s power to provide the necessary services.

Criticism of the research

The study comes as treaty negotiations for the very first legally binding international treaty on plastics pollution are ongoing. In 2022, the UN Environmental Assembly agreed to develop such a treaty — which experts say might be the most important environmental accord since the Paris Agreement on climate change in 2015 — by the end of 2024. However, consensus on what it should entail has been hard to come by.

On one hand are fossil-fuel producing countries and industry groups, who view plastics pollution as a “waste management problem”, and want to focus on that instead of curbing production. On the other hand are countries in the European Union and Africa, who want to phase out single-use plastics and introduce production curbs.



This “High Ambition Coalition” says that simply “managing” plastic waste to the point where there is no pollution at all is impossible, given the scale of plastic waste generation, and the economics and complexity of recycling. A study published in April in the journal *Science Advances* found a linear, direct relationship between increasing plastic production and plastic pollution — meaning a 1% increase in production resulted in a 1% release in pollution. (Win Cowger et al, “Global producer responsibility for plastic pollution”, 2024).

Critics of the recent research say that the recent research plays into the plastic being a “waste management problem” narrative. “It risks us losing our focus on the upstream and saying, hey now all we need to do is manage the waste better,” Neil Tangri, senior director of science and policy at GAIA, a global network of advocacy organisations working on zero waste and environmental justice initiatives, told The AP. “It’s necessary but it’s not the whole story.”

Notably, plastics industry groups have praised the study. “This study underscores that uncollected and unmanaged plastic waste is the largest contributor to plastic pollution,” Chris Jahn, the council secretary of the International Council of Chemical Associations said in a statement.

ORGAN-ON-CHIP TECH COULD BOOST BIOE3 OBJECTIVE TO PERSONALISE MEDICINE

On August 24, the Government of India announced the ‘BioE3’ policy to drive innovation in the biotechnology sector by establishing biomanufacturing facilities, bio-AI hubs, and bio-foundries. (‘AI’ stands for artificial intelligence.) A key focus area of the policy is precision therapeutics, which involve developing and administering drugs according to the needs of individual patients. The policy also aims to boost the development of biologics such as gene therapy and cell therapy.

Recent advancements in human-relevant 3D culture models, also known as ‘new approach methods’ (NAMs), have shown promising results in the field of precision therapeutics. These models include 3D spheroids, organoids, bioprinting, and organ-on-chips.

The global organ-on-chip market is expected to be worth around \$1.4 billion by 2032. This expansion is the result of increasing investments in R&D within the field of NAMs, particularly in organ-on-a-chip technology. Since its invention, this technology has acquired significant momentum and stands poised to revolutionise the healthcare sector by integrating cells derived from a human body with a well-defined in vitro biological environment (i.e., in the lab) that mimics the body’s conditions.

A major driving factor in the organ-on-chip market is the increasing demand to replace the use of animals to test drugs.

In April, an English company named CN Bio raised \$21 million from venture capitalists to expand its R&D in organ-on-chip technology. In the U.S., Vivodyne raised \$38 million in seed funding to integrate large-scale automation and AI with organ-on-chips. These are just two recent examples to illustrate the growing interest in this technology and its commercial value.

Drug testing and development

In the current and traditional drug development process, researchers take almost a decade and an average cost of \$2.3 billion to bring a new drug from the lab to the market. However, many drug candidates also fail in the final stages of clinical trials. One major reason is that in the early stages of trials, these drugs are tested on animal models — animals genetically engineered to respond to



a drug the way a human organ (or organs) might. Drugs that succeed on these animals often fail in humans, however.

Organ-on-chip technology offers a potential solution to this problem by providing a more accurate and efficient platform for testing drugs without involving animals or humans in preclinical testing. An organ-on-chip is a small device designed to recreate the dynamic functions of some human organ in a controlled microenvironment. They are expected to be better than the cell cultures and animal models researchers currently use for testing the effects of a drug. The results from the use of these devices would in turn provide a better understanding of the drug-candidate's efficacy and toxicity, reduce the use of animals, and pave the way for personalised treatment.

The technology could also reduce the time and cost of drug development, bringing drugs to the market faster and potentially at lower prices.

Investments in technology

Researchers first reported the usefulness of an organ-on-chip model in a 2010 study. Two years later, the U.S. National Institutes of Health allocated \$100 million in funding for scientists to develop specific organs-on-chip devices, including for the kidneys, intestines, and the heart, as well as body-on-chip devices that could simulate the effects of a drug on multiple organs at once.

The technology's potential for drug development was quickly clear, and as a result, there are several organ-on-chip companies around the world today focussing on developing microphysiological systems for various organs. In addition to those above, chips exist today to mimic the liver and the lungs.

The U.S. government further boosted this field by passing the FDA Modernisation Act 2.0 in September 2022. The Act allows researchers to develop, use, and qualify organs-on-chips as a suitable alternative wherever applicable, including to test drugs at the preclinical stages of drug development. A year earlier, the members of the European Union had resolved to phase out the testing of cosmetics on animals. The bloc is currently working towards a regulatory framework for the use of NAMs, including organ-on-chips.

Many international pharmaceutical companies are also testing the waters. For instance, Bayer is collaborating with TissUse for a liver and multi-organ-on-a-chip model. Roche is using chips developed by Mimetas to study the effects of inflammatory bowel disease and hepatitis B virus infections. AstraZeneca and Johnson & Johnson are using several chips made by Emulate Bio for their biological research. According to one recent estimate, at least 30 pharmaceutical companies worldwide are evaluating organ-on-chip models in a bid to move away from animal testing.

Challenges for India

India also took a step in this direction by amending the New Drugs and Clinical Trials Rules 2019 to permit the use of human organs-on-chips and other NAMs prior to and in conjunction with animal testing when evaluating new drugs. In July this year, the CSIR-Centre for Cellular and Molecular Biology, Hyderabad, and the Central Drugs Standard Control Organisation hosted a workshop on the latest scientific and regulatory developments in the field of NAMs.

Developing an organ-on-chip technology requires experts from diverse fields — such as bioengineering, pharmacology, biotechnology, computer science, and clinical medicine — to work together. Currently, more than 80 laboratories are working on NAMs, including developing 3D



culture models for various applications. To fully harness the technology's potential, India needs to establish dedicated centres that facilitate such collaboration.

Second, the presence of such centres will help to converse between industry and academia. In particular, personalised medicine requires NAMs to accommodate genetic differences between Indian populations for which a NAM is being tailored and the populations on which a given drug or therapy has already been tested.

Third, researchers will have to contend with regulatory bodies and their requirements and navigate regulatory frameworks pertaining to the development, standardisation, and qualification of organ-on-chip devices. The centres could streamline this process and ensure chips make it from the lab bench to the factory floor without a glitch.

Since these centres will host a dedicated and qualified team of researchers, they could also build a new skill base for the next generation of scientists and engineers and help ensure a steady flow of talent to drive the development of organ-on-chip technology forward. The centres could even create opportunities for an industry-linked doctoral programme to help graduate and postgraduate students to move seamlessly between academia, research, and industry after completing their education.

As medical research advances rapidly, it is important for the Indian government, the business and investment communities, and policymakers and regulators to facilitate the establishment of organ-on-chip centres that improve the healthcare system whilst boosting the economy. By supporting these technologies and centres, India could also increase its self-sufficiency in a domain of developmental and strategic importance.

INDIA'S SICKLE CELL CHALLENGE

Last year, Prime Minister Narendra Modi launched the National Sickle Cell Anaemia Elimination Mission to eliminate sickle cell disease as a public health problem by 2047, from Shahdol, Madhya Pradesh. Mr. Modi has seen this debilitating condition from close quarters during his term as Chief Minister of Gujarat, where sickle cell disease is a major public health concern. In this article, we highlight the many opportunities to build on this momentum.

Challenges in India

With over a million people affected with sickle cell disease, India bears the world's second largest burden of this condition. A majority of the patients are concentrated in the tribal belt running across Odisha, Jharkhand, Chhattisgarh, Madhya Pradesh, and Maharashtra.

Sickle cell disease is caused by a genetic abnormality: if both parents carry the sickle cell trait, the child has significant chances of being born with the disease. While healthy individuals have disc-shaped red blood cells, those with sickle cell disease have red blood cells that take on a crescent or sickle-like shape. The lifespan of these patients is significantly shortened (to about 40 years) and their quality of life is curtailed due to the range of health complications caused by sickle cells, including sickle cell anaemia, recurrent infections, pain, swelling, and damage to vital organs. In addition to health issues, patients also suffer from the social stigma that is attached to this disease. They can sometimes be deemed "genetically inferior" and ostracised. Some of them are told that this disease is "God's curse". In some areas, the condition is attributed to "black magic". Due to the hereditary nature of sickle cell disease, patients also face diminished marital and social prospects.



With the launch of the Mission in 2023, the Central government's attention to the disease is high. Among other efforts, a large-scale screening programme is underway nationwide. Hydroxyurea, a vital medicine for treating sickle cell disease, been included in the essential medicines list; this has increased access to it. While measures such as these will help detect and treat sickle cell disease, there are still many challenges.

Our estimates suggest that only 18% of the people affected by sickle cell disease in India are receiving consistent treatment. This is because patients drop out at all stages of treatment: while getting screened for the disease, while getting diagnosed, while starting treatment, and while trying to adhere to treatment.

The largest drops occur at the diagnosis and treatment adherence stages. Getting a correct diagnosis is a challenge as many people hesitate to seek support due to the stigma associated with the condition. They often consult traditional healers, who frequently misdiagnose the condition. While the public system has a stronger diagnostic capacity for sickle cell disease, there is a historic mistrust of it in tribal areas. As a result, few patients get tested.

The second big drop is around treatment adherence. No permanent cure is available for sickle cell disease. Ongoing research in gene therapy is promising, but will be unaffordable for most of the affected population even when it becomes available. At present, relatively inexpensive drugs such as hydroxyurea are effective for most patients if administered with the right dosage and frequency. However, there is seldom a regular and convenient supply of medicines, along with adherence support (such as that provided to TB patients). Key medicines sometimes go out of stock. Patients have also said that they need to travel long distances to pick up their medicines. In a State in central India, a healthcare professional noted that patients travel for more than 200 kilometres to seek treatment. Further, coverage of several vaccinations, which reduce the frequency of infections and improve the quality of life for patients, remains poor.

The way ahead

The Mission can build on its initial successes by tackling some of these challenges. First, it is important to reduce the stigma related to the disease and build trust in public health institutions. Awareness should be raised through targeted media campaigns to bust specific myths (which vary by region and tribe). For this, India could draw from its experience in tackling polio and HIV. With reduced stigma, the chances of sickle cell trait carriers concealing their carrier status may also reduce, which would in turn lead to fewer women giving birth to children with the condition.

Second, given that cases are often missed and diagnosis delayed, there could be increasing screening for newborns. This strategy is low-cost with a high pay-off and would especially be effective in areas where the condition is endemic.

Third, drugs as well as adherence support must be available close to patients, in the nearest health and wellness centres. For complications, interdisciplinary centres of excellence at the district/division levels should be made operational.

Fourth, ensuring that all known patients receive approved vaccines will be crucial; this may require catch-up vaccination programmes.

Fifth, health in tribal areas should be operationally strengthened by factoring in conditions unique to these areas. Healthcare should also be adequately funded.



Finally, research should be conducted to better understand the disease and its pathways in India, and to develop new treatments. Philanthropists and members of civil society must play a catalytic role, and work with the Central and State governments.

OVER 70% CHILD DEATHS IN INDIA ARE LINKED TO MALNUTRITION

In 2021, in India, 0.7 million children under the age of five died. Of these, 0.5 million of the deaths were attributed to child and maternal malnutrition. That means, over 70% of them were linked to nutritional deficiencies. In the same year, the world over, 4.7 million children under the age of five died; 2.4 million of those were attributed to child and maternal malnutrition. That means around 50% of child deaths — about 20% points less than India's figures — were linked to nutritional deficiencies.

In most cases, children don't die of malnutrition. They die from conditions that are exacerbated or are triggered by it. In most cases, it is a risk factor for premature death. By far, the biggest is low birth weight, which often happens because the mother is malnourished or has experienced infectious diseases during pregnancy. After the first few weeks or months of life, children are also more vulnerable to infection and disease when they are underweight or are malnourished and don't develop at a healthy rate. Hundreds of thousands die as a result of 'wasting', which means their weight is too low for their height, or 'stunting', which means they are too short for their age.

Death rates from malnutrition are much higher in low-income countries, where children often don't get the diversity of nutrients they need and where infectious diseases are much more common. In rich countries malnutrition death rates are 20 to 50 times lower than in the poorest countries, on the left. Most malnutrition deaths occur in Sub-Saharan Africa and South Asia.

Thankfully, fewer children are dying from malnutrition than a few decades ago.

The world over, around 6.6 million deaths were linked to malnutrition risks in 1990. By 2021, this had fallen to around 2.4 million — a 63% drop. Improvements in nutrition have driven some of this decline. In India, the corresponding drop was from 2.4 million to 0.5 million — a 80% drop.

Progress in tackling infectious diseases has also been crucial. Disease and malnutrition have a bidirectional relationship. This means that if diseases are less common, the health risks from being malnourished are also lower. In the last few decades, deaths from diarrhoeal diseases have plummeted thanks to clean water, improvements in sanitation, handwashing, and better and more widespread treatments. Antimalarials and bednets have reduced malaria death rates. Most children are vaccinated against tuberculosis, and a growing number are against rotavirus.

Support for mothers and babies during pregnancy and after birth has also improved. More births are attended by skilled health workers, which means that when babies are born with very low birth weights, professional medical workers are there to help and advise.

Tackling the diseases and health conditions that affect malnourished children is another way of reducing the poor health outcomes of malnutrition. But of course, improving the nutrition of children and mothers is crucial.

EXPRESS VIEW ON SUICIDE PREVENTION: PULL BACK FROM THE EDGE

In the alleged death by suicide of a 21-year-old student at IIT Guwahati — a month after a 23-year-old was found dead in her hostel room at the institute — is another grim reminder of a

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looming public health crisis. The numbers tell a sobering story: According to data from the most recent National Crime Records Bureau (NCRB) report, 1.71 lakh people died by suicide in 2022. At 12.4 per 1,00,000 individuals, it is the highest ever rate recorded in the country. Globally, the number stands at a stark 7,26,000 people. That the widely-prevalent medical model is not sufficient to tackle this worldwide crisis has long been flagged by health professionals and suicide-prevention bodies. Their claim is now backed by a study, published as a six-part series called “A Public Health Approach to Suicide Prevention”, in *The Lancet Public Health*. It calls on policymakers and governments to consider the larger causes that can drive people over the edge.

The conventional framework for suicide prevention has typically focused on individual risk factors such as family history, mental ill health, drug and alcohol use. This is the approach taken by India’s National Suicide Prevention Strategy, unveiled in November 2022, which laid out three objectives: One, establishing surveillance mechanisms for suicide; two, setting up psychiatric outpatient departments that will provide suicide prevention services and three, integrating a mental well-being curriculum in all educational institutions. What such an approach fails to account for, as the Lancet study points out, is the role played by social determinants, such as macroeconomic policies, healthcare coverage and social and cultural values, and commercial determinants like the alcohol and firearm industries, in exacerbating tendencies for self-harm. This, in turn, means thinking about suicide prevention on a larger scale, relying not just on targeted interventions, but considering how policies, such as those aimed at poverty alleviation or reducing homelessness, might help. In the US, for example, it was found that a one dollar rise in the minimum wage between 2006 and 2016, resulted in 8,000 fewer deaths by suicide per year.

According to NCRB data, as many as 154 farmers and daily-wage labourers died by suicide everyday in 2022. In the same year, there were over 13,000 student suicides. The scale of the problem, which affects many sections of the population, calls for creative thinking on the part of the government, and for a wider policy approach that leaves no one behind.

WHY DOES DROWNING NOT FIGURE AS A HEALTH CRISIS IN INDIA?

Google “drowning in India,” and the search throws up at least four incidents involving multiple deaths in just the past three days: a tourist drowned at a beach in Goa; four girls between 9 and 13 drowned in a pond in Madhya Pradesh; two teenagers drowned in a river, also in Madhya Pradesh; and a 14-year-old boy saved from drowning in a river by a trainee constable in Maharashtra.

Why is it that when at least 38,000 people die of drowning every year in the country — a figure that experts say is a huge underestimate — is the issue of drowning not considered a public health crisis in India? The issue is a global problem, says Lopa Ghosh, senior communications advisor at Global Health Advocacy Incubator (GHAH). Drowning caused over 2.5 million preventable deaths in the last decade globally, with 90% in low and middle income countries, making it the third leading cause of unintentional injury death worldwide, and yet, the attention and resources allocated to it are scant.

At a recent workshop for journalists on drowning prevention conducted by GHAH with support from Bloomberg Philanthropies in Bangkok, experts from different countries in Asia highlighted how government and community-led initiatives could make a significant difference.



Safe Spaces

According to the National Crime Records Bureau, in 2022, over 70% of deaths due to drowning in India were due to accidental falls into water bodies. Of these, nearly 3,000 were children below 14, a majority of them male. The data however, says Ms. Ghosh, does not capture the real picture: many deaths go unreported, and flooding deaths, which are a significant number, are not listed under drowning deaths.

Initiatives such as those begun in Bangladesh that provide safe spaces for children to play in, alongside barricading, signage around water bodies, and swimming lessons for school-age children, are crucial measures that could help decrease drowning deaths, the experts pointed out.

While swimming lessons remain out of reach for most children, one community-led initiative in West Bengal may show the way: a pilot project by the NGO Child in Need Institute, in partnership with global agencies, has introduced pond-based swimming pools in the Sundarbans — the world's biggest delta and a region where drowning claims dozens of children every year. Young children will be taught swimming in a controlled environment in local ponds.

Changing perception

Changing the narrative around drowning is crucial to bring it into the spotlight — just as tobacco and smoking went from being seen as glamorous to toxic, so too should drowning be brought to the forefront, from the small crime reports it is mentioned in now to a large public health crisis that has devastating consequences upon families and the country's economy, said Ms. Ghosh.

However, despite the Union Ministry of Health's December 2023 unveiling of the Strategic Framework for Drowning Prevention and launch of a report on a National Strategy for Prevention of Unintentional Injury last week, experts say India has a way to go.

ON THE CHALLENGES TO ROAD SAFETY IN INDIA

The story so far:

The "India Status Report on Road Safety 2024," prepared by the TRIP Centre at IIT Delhi, not only highlights India's slow progress toward meeting international goals of reducing road accident fatalities, but also emphasises the organic connection between road construction, mobility, and the need for a differentiated approach to mitigate road accidents.

What does the report state?

This report analyses road safety in India, using data from First Information Reports (FIRs) from six States and audits of State compliance with Supreme Court directives on road safety governance. It exposes disparities in road traffic death rates across States, emphasising the vulnerability of motorcyclists and the high rate of fatal crashes involving trucks. Road traffic injuries remain a major public health challenge in India, with little progress in reducing fatalities, despite advancements in other sectors. Most Indian States are unlikely to meet the United Nations Decade of Action for Road Safety goal to halve traffic deaths by 2030.

In 2021, road traffic injuries were the 13th leading cause of death in India and the 12th leading cause of health loss (measured in Disability-Adjusted Life Years, or DALYs). In six States (Haryana, Jammu and Kashmir and Ladakh, Punjab, Rajasthan, Uttarakhand, Uttar Pradesh), road traffic injuries ranked among the top 10 causes of health loss.



Why is crash surveillance necessary?

India's national road safety data systems are insufficient for guiding public policy. Currently, there is no national crash-level database. Road safety statistics at both State and national levels are compiled from individual police station records, which are aggregated at district, State, and national levels before being published. These tables allow only the most basic analyses, preventing effective intervention or program evaluation. Furthermore, comparisons with other datasets, such as the Global Burden of Disease (GBD) study and Sample Registration System (SRS), suggest that these tables often contain inaccurate information on key variables like the victim's mode of transport — data crucial for road safety management.

In the absence of a crash surveillance system, the report had to rely on FIRs from six States and State road safety governance audit reports.

How are States faring in road safety?

Road safety varies significantly across India, with per capita death rates differing more than threefold between States. Tamil Nadu, Telangana, and Chhattisgarh recorded the highest death rates, at 21.9, 19.2, and 17.6 per 1,00,000 people, respectively. In contrast, West Bengal and Bihar had the lowest rates, at 5.9 per 1,00,000 in 2021. Six states — Uttar Pradesh, Maharashtra, Madhya Pradesh, Karnataka, Rajasthan, and Tamil Nadu — account for nearly half of all traffic fatalities in India.

The report also reveals that pedestrians, cyclists, and motorised two-wheeler riders are the most common victims of road accidents, while trucks are responsible for the highest proportion of impacting vehicles. It also notes that in only seven States do more than 50% of motorised two-wheeler riders wear helmets, despite the fact that this simple safety measure could significantly reduce fatalities and serious injuries.

Only eight States have audited more than half of their National Highway lengths, and very few States have done the same for their State Highways. Basic traffic safety measures, including traffic calming, markings, and signage, are still lacking in most States. Helmet usage in rural areas is particularly low, and trauma care facilities are inadequate. Tailored strategies are essential to address the unique road safety challenges faced by different States.

How does India fare globally?

The report presents a sobering comparison between India and developed countries like Sweden and other Scandinavian nations, which have excelled in road safety governance. In 1990, an Indian was 40% more likely to die in a road accident than someone in these countries. By 2021, this figure had soared to 600%, indicating a sharp rise in road fatalities. The report questions whether better-equipped vehicles with more advanced safety features are the solution, given that two-wheeler riders, cyclists, and motorcyclists represent the majority of road fatalities.

What is the way forward?

Central and State governments need to prioritise the scale-up of road safety interventions. A national database for fatal crashes should be established. Public access to this system will improve understanding of specific risks to road users and the effectiveness of various interventions implemented in the States.



LEARNING FROM THE SUCCESS OF THE SWACHH BHARAT MISSION

The building of around 11 crore individual household latrines under the Swachh Bharat Mission (SBM) has averted 60,000-70,000 infant deaths annually, according to a recent study published in the prestigious science journal Nature. That shouldn't come as a surprise. Open defecation is a known source of water and food contamination, besides disease transmission through the fecal-oral route. Repeated infections, in turn, lead to dehydration and malabsorption of nutrients. NFHS data shows the percentage of Indian households with no toilet facility falling from 55 to 39 between 2005-06 and 2015-16. The decline was sharper and within a shorter period to 19 per cent in the 2019-21 survey, enabled by subsidised provision of toilets at scale under SBM launched in October 2014 by the Narendra Modi government. There may be questions over official claims of India becoming open defecation-free. But reduction in infant and child mortality consequent to improved sanitation access is consistent with international experience — and India, as the Nature study has established.

Moreover, it isn't just early child mortality rates that need to come down. Equally important are stunting (low height-for-age) and wasting (low weight-for-height). These are, again, a result of both inadequate nutrition and poor absorption from recurrent diarrhea, cholera and typhoid attacks caused by contaminated food and water. That's where a national sanitation programme like SBM could have a transformative role along with the Jal Jeevan Mission. The latter, which envisions providing safe drinking water through tap connections to all rural households by 2024, is also being taken up at-scale. The Nature study has demonstrated district-level toilet access of 30 per cent and above corresponding with substantial lowering of infant and under-five mortality rates. Similar critical thresholds are possible when SBM's effects are combined with that of universal piped drinking water availability.

The Modi government has made implementation of schemes at population scale one of its key signatures. Some — notably SBM and Jan Dhan — have been successes. Universal access to bank accounts has not only allowed subsidy and welfare payments to be directly transferred to beneficiaries, but also facilitated digital transactions through UPI and other mobile-based protocols. Toilets for all are, likewise, not just about ensuring dignity; they address a major pathway through which millions of Indians are repeatedly exposed to enteric pathogens. But there are, equally, schemes that have been not-so-successful (Soil Health Card) or whose effects aren't yet visible (Jal Jeevan). Ultimately, it's a matter of sustained intervention and schemes going beyond meeting their initial numerical targets.

— In 2012, the infant deaths reported was 40 per 1,000 live births per district which fell to about 33 in 2016 and further dropped below 30 by 2019. Likewise, the deaths of children under the age of five in 2012 was about 44 per 1,000 live births per district. It dropped to below 40 in 2014, 35 in 2016 and in 2019, it was below 30.

A WIN-WIN FOR ACADEMIA, INDUSTRY

On July 23, 2024, Finance Minister Nirmala Sitharaman's announcement of operationalising the Anusandhan National Research Foundation (ANRF), a move that was five years in the making since its first mention, was a pivotal moment for India's research ecosystem.

— Established under the ANRF Act, 2023, the foundation aims to fund, coordinate, and promote research across India's universities and colleges, which have long suffered from a lack of infrastructure, particularly in state-run institutions.

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— This initiative is a crucial step in pushing India towards becoming a knowledge-driven society, following the model of research powerhouses like the US, Germany, South Korea, and Israel.

— One of the primary goals of ANRF is to address the infrastructure gap in state and central universities, where 95 per cent of students are enrolled but research capabilities are often non-existent. The foundation aims to facilitate timely disbursement of funds, reduce bureaucratic hurdles, and foster industry-academia collaboration.

— With a total budget of Rs 50,000 crore over five years, the government's contribution is Rs 14,000 crore, while the rest must be raised from non-governmental sources like industry and philanthropists. This approach mirrors the successful model in the US, where much of R&D funding comes from the private sector.

— The decision to bring ANRF into action aligns well with the goals outlined in the National Education Policy (NEP) 2020, which emphasised the need to make India a knowledge-based economy. Given that India has over 4.3 crore students spread across 1,168 universities and 45,473 colleges, it is essential to bridge the gap between teaching and research.

— Centrally funded institutions like IITs and IIMs, though prestigious, enroll less than 1 per cent of the total student population. ANRF seeks to address this "missing middle" by supporting state universities and other underfunded institutions, thereby democratising access to quality research infrastructure.

— Coordination is another crucial challenge that ANRF aims to tackle. Currently, several ministries, including defence, agriculture, and health run separate R&D programmes, often leading to duplication and inefficiency. ANRF will serve as a coordinating body, ensuring that resources are used efficiently and R&D efforts across sectors are aligned. This streamlined approach is expected to make India's R&D landscape more cohesive and impactful.

— Industry participation ensures that research aligns with market needs, while philanthropists can drive research in social or public good areas. By involving industry, India can address current R&D funding challenges, such as general financial rules (GFR) and cum

ANRF's focus on supporting lower Technology Readiness Levels (TRLs) is also vital.

— The government's recent announcement of a Rs 1 lakh-crore corpus for higher TRL research in Focused Research Organisations (FROs) and deep-tech startups complements ANRF's efforts. Together, these two initiatives aim to cover the entire spectrum of research from basic to industry-driven development, creating a comprehensive R&D ecosystem.

— With the right execution, ANRF has the potential to position India as a knowledge-driven economy, paving the way for sustainable and inclusive development.

For Your Information:

— India currently spends a low proportion of its GDP – 0.7 per cent – on research and development. The gross expenditure on R&D declined from 0.84 per cent in 2008 to about 0.69 per cent in 2018, the last year for which confirmed figures are available.

— In comparison, the US spent 2.83 per cent, China spent 2.14 per cent, and Israel spent 4.9 per cent of its GDP on research and development.



SAMAGRA SHIKSHA FUND DELAY PUNISHES ROLE-MODEL STATES

Over the past year, the Centre has withheld funds of the Samagra Shiksha scheme (SSA) to at least five Opposition-ruled States — Tamil Nadu, Kerala, Punjab, West Bengal, and Delhi. The SSA is an overarching programme for the school education sector. Data show that the Centre's decision has more to do with acceptance of the PM Shri scheme, which aims to develop "exemplar model schools, that offer leadership to other schools", than the outcomes of the SSA. In some cases, unwillingness to accept the National Education Policy in its entirety was also a reason.

The fees for students enrolled under the Right to Education depends on SSA funds. Salary delays for teachers have also been reported in these States. Owing to the financial burden, Kerala and Punjab relented and Delhi too may agree to the Centre's terms.

By delaying the funds, the Centre has penalised the States that are at the forefront of achieving the SSA's major objectives, such as bridging social and gender gaps, ensuring equity and inclusion in school education, promoting vocational education, ensuring school provisions, and training teachers.

The graph compares 22 major States on 20 objectives of the SSA. On all 20 objectives, Kerala is in the top half (best 11 States) of the list, even leading in many. Tamil Nadu is in the top half on 19 objectives. Delhi is in the top half on 18 objectives, and West Bengal on 15. Punjab features in the top half for 12 of the objectives.

Among the States which got the funds, Gujarat is in the top half for only eight of the 20 objectives. Uttar Pradesh and Madhya Pradesh are in the top half for three objectives each, and Bihar for two.

CENTRE RELAXES EXCLUSION CRITERIA UNDER PMAY; FIND OUT WHO IS ELIGIBLE TO AVAIL GOVT'S RURAL HOUSING SCHEME

The Centre has relaxed the "automatic exclusion" criteria under the Pradhan Mantri Awas Yojana-Gramin (PMAY-G), allowing families owning "two-wheelers, motorised fishing boats, refrigerators, landline phones" and earning "up to Rs 15,000 per month" to now avail the rural housing scheme.

The parameters were among the criteria that render households ineligible under the scheme. The parameters that will continue to result in "automatic exclusion" are: (Owning) motorised three/four-wheelers; mechanised three/ four-wheeler agricultural equipment; Kisan Credit Card with credit limit of Rs 50,000 or above; Household with any member as a Government employee; Household with non-agricultural enterprises registered with Government; Any member of family paying income tax; Paying professional tax; Land ownership ceiling of 2.5 acres or more of irrigated land.

The revision in the PMAY-G standards of ineligibility was announced by Union Rural Development Minister Shivraj Singh Chouhan in a video conference with the Rural Development Ministers of the states Tuesday. He also said that land related criteria under the scheme have also been rationalised.

Under PMAY-G, all households living in houses with pucca roof and/or pucca wall, and households in houses with more than two rooms were already filtered out. The exclusion criteria revision is



significant in view of the Centre's aim to construct two crore additional houses under the rural housing scheme by 2028-29. On August 9, the Union Cabinet approved a proposal of this effect.

These two crore houses will be over and above the target of 2.95 crore rural houses set under the 'Housing for All' programme, of which 2.65 crore houses have already been completed so far.

Prime Minister Narendra Modi is set release an instalment of Rs 2,745 crore to PMAY-G beneficiaries on September 15 in Jamshedpur, Jharkhand. He will also distribute acceptance letters to all the targeted beneficiaries in the financial year 2024-25.

Under the PMAY-G, each beneficiary gets up to Rs 1.2 lakh in the plains and Rs 1.30 lakh in hilly states, difficult areas, and tribal and backward districts under the Integrated Action Plan (IAP). The Centre and states share expenses in the 60:40 ratio in case of plain areas, and 90:10 for Northeastern states, two Himalayan states and the UT of J&K. The Centre bears 100% cost in case of other UTs including Ladakh.

For Your Information:

— The Pradhan Mantri Awas Yojana (PMAY) is a flagship housing credit-linked subsidy scheme launched by the Government of India in 2015 to provide affordable housing to the economically weaker sections and lower-income groups of the country.

ICF, MAKER OF VANDE BHARAT, IS CHANGEMAKER OF THE YEAR

In a glittering ceremony marked by a pulsating percussion performance by Sumesh Narayanan and a stirring account of an adventurous feat by sailor Abhilash Tomy, Union Finance Minister Nirmala Sitharaman presented The Hindu businessline's Changemaker of the Year award to the Integral Coach Factory (ICF), the manufacturer of the Vande Bharat train, for redefining travel for Indians.

Teacher, inventor, entrepreneur and mentor Ashok Jhunjhunwala, under whose stewardship the IIT-Madras Research Park developed dozens of cutting-edge technologies and spawned several start-ups, was crowned Iconic Changemaker of the Year.

Receiving the award on behalf of the ICF, U. Subba Rao, its General Manager, said: "The PM asked us to put out more such trains in the fastest time. We are proud to say that 12 more trains will be rolled out across India."

Seven categories

The sixth edition of the event saw awards being given in seven categories – Digital Transformation, Social Transformation, Financial Transformation, Young Changemaker, Iconic Changemaker, Changemaker of the Year, and the Chairperson's Award. The Digital Transformation winner was the Goa-based Molbio Diagnostics, which is helping in early detection of infectious diseases by bringing critical diagnostics services right to people's doorsteps.

In Social Transformation, there were two winners – the Wildlife Trust of India, a name synonymous with the right to passage for elephants and an organisation that has rescued and rehabilitated bears, rhinos, elephants, vultures, whale sharks and more; and Design for Change, a movement started by the Ahmedabad-based Kiran Bir Sethi, which works to make children the future changemakers of the world.



The Financial Transformation award was given to Mann Deshi Mahila Sahakari Bank, which has transformed the financial landscape for rural women. India's youngest chess world championship challenger, D. Gukesh, got the Young Changemaker award.

Earlier, inaugurating the event, Nirmala Lakshman, Chairperson of THG Publishing Private Limited, said, "Impactful change begins with vision." She added, "Changemakers are those who strive to change the present paradigm."

RAILWAY BOARD CHAIRMAN FLAGS SHORTAGE OF MANPOWER

Days after taking charge as the Chairman and Chief Executive Officer of the Railway Board, Satish Kumar has raised concerns about the critical issue of manpower shortages in the Indian Railways and sought additional staff "urgently" to ensure the safe operation of trains.

In a letter to the Finance Ministry, Mr. Kumar highlighted the exponential growth in railway infrastructure, particularly the increase in new lines and trains, and emphasised the need for the creation of new posts. "For effective monitoring and execution of various projects, maintenance of new assets, and the smooth and safe operation of trains, there is an urgent requirement for additional manpower in Indian Railways," he stated.

Mr. Kumar's concerns are set against the backdrop of a series of major accidents resulting in multiple fatalities across the railway network over the past two years. Filling the large number of vacancies across various departments, especially in safety-related roles, has been a long-standing demand of trade unions.

Increase in capex

He pointed out that creating new posts required approval from the Department of Expenditure, and noted the significant increase in capital expenditure by the Railways — from ₹1.48 lakh crore in 2019-20 to ₹2.62 lakh crore in 2023-24. This increased spending had led to a substantial rise in assets, necessitating adequate manpower for reliable, and safe train operations.

To meet the ambitious targets set for 2030, more trains would have to be operated, which required increased manpower for both train operations and infrastructure maintenance. The creation and expansion of new assets and lines in the Railways also necessitated adherence to all safety parameters for clearance by the Commissioner of Railway Safety.

Given that compliance with safety norms was paramount in train operations, outsourcing critical activities like maintenance of tracks, bridges, locomotives, coaches, wagons, and signalling equipment was not feasible. Therefore,

Mr. Kumar stressed the need for the Ministry of Railways to be granted authority to create non-gazetted posts in essential safety categories.

Underlining the urgent need for more manpower, Mr. Kumar noted that the number of locomotives increased from 11,739 in March 2019 to 15,564 in March 2024, which was a 59.86% increase. This growth was accompanied by a rise in the number of loco sheds, workshops, and running rooms (rest houses for train crews). Additional manpower was required to operate these locomotives for both passenger and freight trains and to maintain the associated assets.

Regarding passenger amenities, the number of escalators rose from 656 in March 2019 to 1,436 in March 2024, and the number of lifts increased by 196%. Electrification was completed over

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63,456 km of route, compared to 35,488 km previously. On the revenue front, the Railways recorded a 40% increase in passenger earnings and a 31.4% increase in freight loading between 2019-20 and 2023-24, the Chairman said.

THE ROLE OF DISTRICT AGRO-MET OFFICES IN SUPPORTING FARMERS

The story so far:

Last week, PTI reported that the India Meteorological Department (IMD) is planning to revive District Agro-Meteorology Units (DAMUs) under the Gramin Krishi Mausam Sewa (GKMS) scheme. The IMD established 199 DAMUs in 2018 in collaboration with the Indian Council of Agricultural Research. The aim was to use weather data to prepare and disseminate sub-district level agricultural advisories. In March, DAMUs were shut down following an order issued by the IMD.

Why are agro-met units important?

Around 80% of farmers in India are small and marginal. They largely practise rain-fed agriculture in the backdrop of a decades-long farm crisis that is now overlaid with climate change-related weather variability. “The climate is changing. Monsoon onset and withdrawal dates have changed. We also see extended dry spells and heavy wet spells. Farmers should have this information because it affects crops,” Madhavan Rajeevan, former secretary, Ministry of Earth Science, told The Hindu.

The DAMUs were located within Krishi Vigyan Kendras (KVKs). Scientists and researchers trained in meteorology and agriculture were recruited as DAMU staff. They used weather data provided by the IMD like rainfall, temperature and wind speeds to prepare agricultural advisories related to sowing and harvesting, usage of fertilizers and pesticides, irrigation etc.

These advisories were sent to millions of farmers across the country free-of-cost in local languages twice a week. They were shared via text messages, WhatsApp groups, newspapers and also through in-person communication from DAMU staff and KVK officers. Since these advisories provided weather information in advance, they helped farmers plan activities like irrigation. They also served as early warnings for extreme events like droughts and heavy rainfall. Many studies conducted over the years have stressed the benefits of agro-met advisories.

Why were DAMUs shut down?

According to a report by Article-14, the NITI Aayog misrepresented the role of DAMUs and also sought privatisation. NITI Aayog falsely claimed that agro-met data was automated, thereby undercutting the role of DAMU staff. In reality, the DAMU staff played a huge role in preparing agricultural advisories based on weather data by the IMD. These advisories were prepared at the block-level across districts and then communicated to farmers in local languages. NITI Aayog also sought monetisation of such services as opposed to the current scheme where agro-met information was provided free-of-cost to all farmers.

In February, the Gujarat-based Association of Agrometeorologists wrote to the Prime Minister expressing “deep concern and disappointment” about the decision to shut down the agro-met units while highlighting how DAMUs helped build “climate resilience” among the farming community. In the same month, Union Minister Nitin Gadkari wrote to Jitendra Singh, current Minister of State in the Ministry of Earth Sciences seeking a continuation of the services.



What about private players?

At present, there are a handful of private players in the weather advisory space. But there are serious concerns about the affordability of such services. “Private companies work with a profit motive and the prices become exorbitant for small and marginal farmers who are the majority,” Mr. Thimmegowda said. For instance, consider how some companies currently charge ₹10,000 per crop for an annual subscription to their advisories. This would mean an investment of ₹20,000-40,000 for many farmers who cultivate vegetables and cereals. Some companies also charge rates as high as ₹60,000-80,000 for annual subscriptions to downscaled farm-level agromet advisories. Further, Mr. Thimmegowda explained that there could be bias in agro-met advisories related to usage of fertilizers etc. “Their recommendations of fertilizers and pesticides could be biased towards certain brands.”

WEATHER GODS

Earlier this week the Union Cabinet cleared the ₹2,000 crore Mission Mausam, which primarily involves a major upgrade of instruments used by organisations such as the India Meteorological Department, the National Centre for Medium Range Weather Forecasting and the Indian Institute of Tropical Meteorology (IITM). These are the organisations that form the backbone of India’s weather and climate forecasting system on multiple time-scales. In the first tranche of the mission until 2026, the Ministry of Earth Sciences (MoES), the nodal body executing the exercise, hopes to procure and install up to 60 weather radars, 15 wind profilers and 15 radiosondes. These are instruments that give regular updates on the changing parameters of wind speeds, atmospheric pressure, humidity, and temperature at various elevations of the atmosphere. Had this been all that the Mission was about, it would not have been too different from the National Monsoon Mission, launched in 2012. The crux of that exercise was to evolve a new approach to forecasting the monsoon by developing weather models that relied on intensive computing. Thanks to this, India has an umbrella weather model that can be tweaked to generate forecasts on multiple timescales — from daily to seasonal monsoon predictions. Beyond the monsoon, such a model could be customised for heatwaves, cold waves and local forecasts.

Making weather forecasts more accurate and improving precision is a never-ending iteration but Mission Mausam seeks to open more vistas. Instead of being a slave to weather, humankind tries to control it. One of the proposals associated with the new mission is to set up a ‘cloud-simulation chamber’ at the IITM, which will help model rain clouds. They would then test various “weather interventions” such as seeding clouds and tweaking them to control the rainfall from them. There are also plans to control lightning. As statistics reveal, lightning strikes are the number one cause of nature-propelled deaths, above floods and landslides, in India. While there are multiple socio-economic factors as to why this is so, meteorologists say they hope, one day, to be able to tweak the electrical characteristics of the cloud so that there are fewer lightning strikes that lethally traverse from sky to ground. While experiments have been done in other countries, there is much uncertainty on its feasibility. Investing in fundamental research in the atmospheric sciences is a welcome move. The complexities posed by climate change suggest that multiple fronts may have to be opened to mitigate the effects of greenhouse gas emissions. While weather modification may not be a panacea, it will not hurt to wholesomely understand it.



ON UNCOMMON CYCLONES IN THE ARABIAN SEA

The story so far:

The north Indian Ocean supplies a large part of the moisture required to generate the 200 lakh crore or so buckets of water during the summer monsoon. That implies a lot of evaporation from the Arabian Sea and the Bay of Bengal, which requires these seas to be warm enough to allow evaporation. Warm tropical oceans also tend to be hotbeds of cyclones. And yet, the north Indian Ocean is the least active region of the world's oceans vis-à-vis the number of cyclones. The combination of some factors that favour cyclogenesis and some that suppress it make this area unusual in terms of cyclone seasons, numbers, and the response of the ocean and the cyclones to global warming.

Why is the Indian Ocean unique?

The Indian Ocean receives a lot of attention for its monsoonal circulation and the dramatic seasonal wind reversals to the north of the equator. But it's also unique because it has 'oceanic tunnels' connecting it to the Pacific Ocean and the Southern Ocean. The Pacific tunnel brings a significant amount of warm water every year in the upper 500 m while the Southern Ocean tunnel brings in cooler waters below about 1 km.

The Arabian Sea warms rapidly during the pre-monsoon season as the Sun crosses over to the northern hemisphere. The Bay of Bengal is relatively warmer than the Arabian Sea but warms further and begins to produce atmospheric convection and rainfall. The trough that eventually leads to the monsoon onset over Kerala arrives in mid-May itself over the Bay of Bengal. The post-monsoon season is the northeast monsoon season for India, and produces significant amounts of rain over several States.

All these wind patterns and sea surface temperatures influence cyclogenesis throughout the year over the north Indian Ocean and sustain the stark contrast in cyclogenesis between the Arabian Sea and the Bay of Bengal.

Does climate change play a part too?

Climate change amplifies the uniqueness of the Indian Ocean. More heat is coming in from the Pacific Ocean now while the Southern Ocean is also pushing in warmer waters. The Indian Ocean is warming rapidly due to these inputs, plus atmospheric changes in winds and humidity. The north Indian Ocean and the monsoon are now responding to related climate change drivers from tropical oceans as well as from pole-to-pole influences.

The Ocean's rapid warming is now reported to be affecting the heat uptake by the Pacific Ocean and the sinking of heavy waters in the north Atlantic Ocean. The Indian Ocean is essentially acting like a clearinghouse for ocean warming during climate change. All these region-specific idiosyncrasies play into cyclogenesis, cyclone numbers, and their responses to climate change over the Indian Ocean.

Are cyclones common?

During the monsoon itself, the strong southwesterly winds — or the so-called low-level jet — drive a strong evaporation and mixing of cold subsurface waters with the surface waters. Thus the Arabian Sea becomes significantly cooler during the pre-monsoon season. The strong convective



activity over the Bay of Bengal produces many low-pressure, or cyclonic, systems during the monsoon but they rarely grow into cyclones.

This is because the strong monsoon winds vary in strength and direction from the surface to the middle atmosphere. This variation is called vertical shear and it tends to strip off the energy from any cyclone that may be trying to grow.

The net result is that the dominant cyclone season is uniquely split into the pre- and post-monsoon seasons over the north Indian Ocean. All other cyclogenesis regions have a single cyclone season during the year.

The main impact of the monsoonal circulation is that the warm ocean, the heat content, and the atmospheric convection favour cyclogenesis over the north Indian Ocean. This leads to cyclones being formed during the pre-monsoon and the post-monsoon seasons. However, the Arabian Sea has much less convective activity during the pre-monsoon and is relatively less prone to cyclogenesis. The northeast monsoon and dry continental air ends up cooling the Arabian Sea post-monsoon.

The number of cyclones in the Arabian Sea is thus about half of that over the Bay of Bengal in both seasons.

Thus, the cooler temperatures, stronger wind shear, and the relatively low convective activity over the Arabian Sea make the Arabian Sea relatively a desert for cyclones.

Some upward trend in the number of cyclones was reported from 2010 onwards but the Arabian Sea has been eerily calm the last few years.

What is Asna?

There was a lot of excitement recently about a rare August cyclone — named 'Asna' — born from the transition of a strong land-born depression onto the warm Arabian Sea. This is the first north Indian Ocean cyclone in August since 1981. The depression that grew into this cyclone itself was unusual in terms of its powerful growth over land. Low-pressure systems are typically born over the Bay of Bengal and traverse the core monsoon zone to bring about 60% of the total seasonal rainfall.

These ocean-born depressions can feed off of prior rainfall (as soil moisture) as they pass over India. There is some evidence that these low-pressure systems are now contributing to extreme rainfall events, but they have been stuck in a corridor for over a century. The unusual growth of the low-pressure system that brought deluges to western India fed off the soil moisture from excess rainfall since the beginning of the season. It was big enough to start hitting the warm northern Arabian Sea as it approached the western end of land. The ocean supplied the energy required for convection and to retain, and even, grow in strength.

Once its transition to the ocean is complete, it grew into a regular cyclone, but as a remarkably unusual land-born cyclone. The warming over the Arabian Sea has already been reported to be related to the northward shift of the low-level jet, which itself is driven by rapid warming over West Asia. Cyclonic storm Asna did cause nearly 50 deaths and left a trail of damages to crops and properties. It dissipated over the ocean eventually due to dry desert air being entrained into the circulation.



As the English writer Daniel Defoe said, “Expect nothing and you’ll always be surprised.” The warm 2023-2024 that resulted from a combination of global warming and El Niño, with a likely contribution from underwater volcanic eruptions, has produced plenty of surprises in terms of extreme events across the planet. The monsoon’s evolution has also been unusual, especially since the forecasted strong La Niña hasn’t emerged yet. The rainfall distribution remained as unpredictable as ever with a wet peninsular India and a strange mix of wet and dry regions over the country’s north.

A low-pressure system is unusual but its amplification over land is. Its dash across land onto the ocean is another unexpected event. We didn’t expect it and obviously were duly surprised.

NBWL CLEARS POWER LINES IN NATIONAL PARK, FLAMINGO HABITAT

In its first post-election meeting, held after a gap of five months in July end, the standing committee of the National Board for Wildlife (SC-NBWL) has cleared projects such as a transmission line in Little Rann of Kutch, a controversial transmission line project in Goa’s Mollem national park as well as a clutch of infrastructure projects in tiger corridors of central India, among others.

— The SC-NBWL, headed by Union Environment Minister Bhupender Yadav, also pulled up the Madhya Pradesh tourism department for carrying out constructions in Son Gharial sanctuary and adjacent tiger corridors without permits.

— The NBWL is primarily responsible for promotion and conservation of wildlife. It also appraises and approves development projects that fall within and outside protected areas such as sanctuaries, national parks and tiger reserves.

— An expert committee which was formed to carry out a site visit recommended to NBWL that the project’s right of way should be divided into a ‘wire zone’, for areas below the powerline and ‘border zone’ for areas between the powerline for plantations.

— The transmission line will involve felling of 7,881 trees in a forest located in the Western Ghats and home to tiger, gaur, sloth bear, an array of amphibians and reptiles.

— Goa’s citizens have been protesting the transmission line as well as a railway line doubling and highway widening proposal passing through the sanctuary and the Mollem national park under the ‘Save Mollem’ banner. The Bhagwan Mahavir Wildlife Sanctuary is located in the Goan town of Mollem in the heart of the western ghats. This is the largest of Goa’s four protected wildlife areas which contains the Molem National Park.

— The forest is predominantly semi-evergreen and evergreen type. The notable large mammals are Tiger, Leopard, Sloth Bear, Gaur, Sambar, and Barking Deer.

— Two approvals were granted for erection of transmission lines in Gujarat. One in the Kutch Desert Wildlife Sanctuary in the Great Rann of Kutch and another in the Wild Ass sanctuary in Little Rann of Kutch over 100 hectares.

— The wild ass sanctuary is home to wild asses, jackals, bluebulls, desert fox, Indian wolf, jungle cat, chinkara.

— The wildlife board also approved widening of the National Highway 46 between Itarsi and Betul through the tiger corridor between Satpura and Melghat tiger reserve.



— Tiger corridors help wildlife to migrate between habitats and linear infrastructure such as highways prove to be fatal for them when they attempt to cross the roads. Animal underpasses help tigers, bears and other mammals to migrate between habitats safely.

National Board for Wildlife (NBWL)

— In its first post-election meeting the standing committee of the National Board for Wildlife (SC-NBWL) has cleared several infrastructure projects.

— The National Board for Wildlife came into existence with the Gazette Notification dated 22nd September 2003.

— It has 47 members with the Prime Minister in the Chair. The Minister in charge of the Ministry of Environment & Forests in the Central Government is the Vice-Chairperson.

— Like the NBWL, the State Board for Wildlife is headed by a Chief Minister.

— The standing committee for NBWL is headed by the union environment minister and at the state level the SBWL will be headed by its environment minister.

For Your Information:

— Governments in developing countries face a dilemma, a political-economy conundrum that requires a fine balancing act.

— On the one hand, in light of climate change and the degradation of fragile and vulnerable ecologies, there is a need for regulation of projects that have a potentially adverse environmental impact.

— On the other hand, investment and infrastructure development are crucial for employment generation and poverty alleviation.

PORT BLAIR RENAMED AS SRI VIJAYA PURAM: HOW THE CITY GOT ITS NAME — AND ITS CONNECTION WITH IMPERIAL CHOLAS

Port Blair, the capital city of Andaman and Nicobar Islands, will now be known as 'Sri Vijaya Puram', Union Minister Amit Shah said in a post on X on Friday (September 13). He said the decision of changing the name was inspired by the vision of Prime Minister Narendra Modi, "to free the nation from colonial imprints".

Shah added that "while the earlier name had a colonial legacy, Sri Vijaya Puram symbolises the victory achieved in our freedom struggle and the A&N Islands' unique role in the same."

How did Port Blair get its name?

The city of Port Blair is the entry point of the Andaman and Nicobar Islands. It was named after Archibald Blair, a naval surveyor and lieutenant in the Bombay Marine. Blair was the first officer to carry out a thorough survey of the Andaman Islands.

After joining the Bombay Marine in 1771, Blair set out on a survey mission along the coasts of India, Iran, and Arabia next year. By the late 1780s, he had participated in a number of survey missions, including those in the Chagos archipelago, Diamond Harbour located in the south of Calcutta, and along the Hooghly River.



In December 1778, Blair left for his first surveying voyage to the Andamans from Calcutta, along with two ships, Elizabeth and Viper. The expedition, which lasted till April 1779, took him around the west coast of the island, thereby sailing north along the eastern coast he reached the natural harbour which he initially named as Port Cornwallis (after Commodore William Cornwallis, Commander-in-chief of the British Indian Army). Later the island was renamed after him. Blair was immediately aware of the significance of his discovery and wrote a detailed report of his survey, which was received very positively by the East India Company (EIC) officials.

Soon after, the EIC decided to colonise the islands, mainly to establish as a safe harbour from which it could check the activities of the Malay pirates. The island was also to serve as a refuge for shipwrecked people and a place where their officers could take shelter in case of hostilities with other powers. With several convicts being transported to the islands to serve unpaid labour, the island soon became a penal colony.

In December 1792, however, the colony was shifted to the north east part of Andaman to the newly established Port Cornwallis for purely strategic reasons. But the new colony could not sustain for too long on account of severe disease and death there. The EIC stopped operating it in 1796.

The Revolt of 1857 resulted in a large number of prisoners for the British, prompting the immediate renovation and resettlement of Port Blair as a penal colony. Most of the convicts received life imprisonment at Port Blair. Several of them were hanged, while many died due to disease and the degrading conditions in the region.

With the strengthening of the Indian Independence Movement in the late 19th century, a huge cellular jail was established here by 1906. Popularly known as Kaala Paani, it housed several freedom fighters, including Veer Damodar Savarkar.

Meanwhile, Blair had already returned to England in 1795 and is known to have read an account of the Andaman Islands before the Royal Society of London in 1799.

Why was Port Blair's connection with the imperial Cholas and Srivijaya?

Some historical records suggest that the Andaman Islands were used as a strategic naval base by the 11th century Chola emperor, Rajendra I to carry out an attack on Srivijaya, which is in present day Indonesia. As per an inscription found at Thanjavur dated to 1050 CE, the Cholas referred to the island as Ma-Nakkavaram land (great open/ naked land), which possibly led to the modern name of Nicobar under the British.

As noted by historian Herman Kulke in his co-edited book, *Nagapattinam to Suvarnadwipa: Reflections on the Chola Naval Expeditions to Southeast Asia* (2010), the Chola invasion of Srivijaya was a unique event in the history of India and "its otherwise peaceful relations with the states of Southeast Asia which had come under India's strong cultural influence for about a millennium."

Several scholars have speculated about the reason for the attack on Srivijaya. Nilakanta Sastri, in his work on the Cholas had suggested that "we have to assume either some attempt on the part of Srivijaya to throw obstacles in the way of the Chola trade with the East, or more probably, simply a desire on the part of Rajendra to extend his digvijaya to the countries across the sea, so well known to his subjects at home, and add luster to his crown." Others like the American historian G W Spencer interprets the Srivijaya expedition as to be part of the Chola expansionism which had been ongoing for decades culminating in wars with other empires of South India and Sri Lanka.



According to inscriptional records, after attacking Srivijaya, Rajendra I captured king Sangrama Vijayottunggavarman, and looted a large amount of treasures from the Buddhist Empire, including the Vidhyadara Torana, the jewelled war gate of Srivijaya.

CONTROVERSY OVER MUMBAI'S SALT PANS: WHY DO THESE LANDS MATTER?

Earlier this month, the Centre approved the transfer of 256 acres of salt pan land in Mumbai to the Dharavi Redevelopment Project Pvt Ltd (DRPPL), a joint venture between Adani Realty Group and the Maharashtra government, for building rental housing for slum dwellers.

— Salt pan lands comprise parcels of low-lying lands where seawater flows in at certain times, and leaves behind salt and other minerals. Along with Mumbai's mangroves (also at risk due to development), this ecosystem is instrumental in protecting the city from flooding.

— According to the Coastal Regulation Zone (CRZ) notification of 2011, the ecologically sensitive salt pans fall under CRZ-1B category, where no economic activity is allowed with the exception of salt extraction and natural gas exploration.

— In all, 5,378 acres of land in Mumbai have been designated as salt pan lands, approximately nine times the size of the Dharavi slum. About 31% of this land is located in residential and commercial belts, and roughly 480 acres are encroached upon, a 2014 study by the state government found. The same study found that about 1,672 acres of Mumbai's more than 5,000 acres of salt pan lands are "developable".

For Your Information:

— Salt pans are among the last "undeveloped" parcels of land, thus far protected by the Ministry of Environment and Forests under the stringent CRZ norms. But this has not stopped state governments from trying to acquire these lands from the Centre, for various development projects.

— In 2015, Fadnavis zeroed in on 400 acres of salt pan land along the Eastern Express highway in Mulund to relocate slums under the Slum Rehabilitation Authority (SRA) scheme. The state government also planned to use much of the remaining 5,000 acres of salt pan land for affordable housing.

Why do salt pans matter?

— Salt pans are situated in low-lying areas, and water received during heavy rain gets accumulated here. Water from Thane creek also flows in during high tide and gets collected in the salt pans, preventing flooding in the eastern suburbs. If the salt pans are covered owing to construction, areas like Vikhroli, Kanjurmarg, and Bhandup will definitely go underwater during heavy rain.

— Environmentalist and Conservation Action Trust chief Debi Goenka said it is the salt pans that made things relatively better for the eastern suburbs (as compared to the western ones) during the July 2005 deluge, when 944 mm of rainfall in a single day caused widespread loss of lives and damage to infrastructure.

— Salt pans, which, along with the mangroves, stop the city from flooding, also host various species of birds and insects. Goenka said Mumbai's Development Plan 2034 ignores sustainability, but also exhibits complete disregard for the flora and fauna that will be impacted.



WHY SEPTEMBER 12 IS OBSERVED AS SARAGARHI DAY

September 12 marks the 127th anniversary of the Battle of Saragarhi, regarded today as one of the finest last stands in global military history.

— On this day in 1897, 21 soldiers were pitted against over 8,000 Afridi and Orakzai tribal militants and managed to hold down the fort for seven hours.

— Though heavily outnumbered, the soldiers of 36th Sikhs (now 4 Sikh) regiment, led by Havildar Ishar Singh, fought till their last breath, killing 200 militants and injuring 600.

— Saragarhi was the communication tower between Fort Lockhart and Fort Gulistan. The two forts in the rugged North West Frontier Province (NWFP), now in Pakistan, were built by Maharaja Ranjit Singh but renamed by the British.

— Though Saragarhi was usually manned by a platoon of 40 soldiers, on that fateful day, it was being held by only 21 soldiers from the 36th Sikh (now 4 Sikh) and a non-combatant called Daad, a Pashtun who did odd jobs for the troops.

— Saragarhi helped to link up the two important forts which housed a large number of British troops in the rugged terrain of NWFP. Fort Lockhart was also home to families of British officers...

— Around 9 am that day, the sentry at Saragarhi saw a thick haze of dust and soon realised that it was caused by a large army of tribal people marching towards the fort. He estimated their number between 8,000 and 15,000...

— The tribal folk wanted to isolate the two forts by cutting off the lines of communication between them...

— Making a departure from the tradition of not giving gallantry medals posthumously, Queen Victoria awarded the 21 dead soldiers...

— In 2017, the Punjab government decided to observe Saragarhi Day on September 12 as a holiday.

— Even today the Khyber Scouts regiment of the Pakistani army mounts a guard and salutes the Saragarhi memorial close to Fort Lockhart.

For Your Information:

— Considered as one of history's greatest last stands, the epic 'Battle of Saragarhi' has been listed as one of the top eight battles of bravery by UNESCO.

THE STORY OF THE GREAT STUPA OF SANCHI FROM ASHOKAN TIMES TO NOW

External Affairs Minister S Jaishankar on Wednesday stopped by the replica of the East Gate of Sanchi's Great Stupa standing in front of Humboldt Forum museum in Berlin.

The ornate red sandstone gateway, which was unveiled in December 2022, is a 1:1 reproduction of the original structure standing at almost 10 metres high and 6 metres wide, and weighing roughly 150 tonnes.



The Great Stupa of Sanchi

A stupa is a Buddhist commemorative monument usually containing sacred relics of the Buddha or other venerable saints. The archetypal stupa is a hemispherical structure, whose origins can be traced to pre-Buddhist burial mounds found in India.

The Great Stupa of Sanchi exemplifies this form. Commissioned in the third century BCE by Emperor Ashoka, it is the largest and oldest structure in a complex of Buddhist monuments comprising numerous other stupas, temples, and monasteries. The most recent construction in Sanchi can be dated to as late as the twelfth century CE.

“Sanchi is unique not only in its having the most perfect and well-preserved stupas but also in its offering a wide and educative field for the study of the genesis, efflorescence and decay of Buddhist art and architecture [in India],” Debala Mitra, the director-general of the Archaeological Survey of India from 1981 to 1983, wrote in Sanchi (1957).

The Great Stupa is one of the oldest standing stone structures in India, believed to have been built over the Buddha’s relics. Its construction was overseen by Ashoka’s wife Devi, who hailed from the nearby trading town of Vidisha. The development of the Sanchi complex was supported by patronage from Vidisha’s mercantile community.

Gateways of the Great Stupa

While the original stupa itself is a rather plain hemispherical structure crowned by a chhatra (parasol), what makes it instantly recognisable are the ornamental gateways or toranas that stand in front of it.

The four toranas, oriented to the four cardinal directions, were constructed in the first century BCE, likely within a few decades of each other during the reign of the Satavahana dynasty.

These gateways are made of two square pillars which support a superstructure comprising three curved architraves (or beams) with spirally-rolled ends. The pillars and the architraves are adorned with beautiful bas relief and sculptures depicting scenes from the Buddha’s life, stories from the Jataka Tales, and other Buddhist iconography.

“The art impresses greatly by its rhythm, symmetry, decorative beauty and perfect handling of the floral and plant motifs... They even admitted flagrantly amorous scenes on their sacred monuments, which do not fit in with Buddha’s teachings,” Mitra wrote. The gates do not, however, represent the Buddha in his human form, as was the norm in the period of their construction.

The toranas and the balustrade surrounding the Great Stupa were once painted.

The East Gate and its replica

In Europe, the East Gate is the most famous of the Sanchi toranas. There is a historical reason behind this.

The Sanchi complex was in abject ruins when it was “discovered” by British officer Henry Taylor in 1818. Alexander Cunningham, who later founded the ASI, led the first formal survey and excavations at Sanchi in 1851. The site was restored to its present condition by ASI director-general John Marshall in the 1910s with funding from the begums of nearby Bhopal.



Till restoration work began in the late nineteenth century, however, Sanchi was frequently ravaged by treasure hunters and amateur archaeologists, some of whom wanted to take its gates to Europe. They were unable to do so, and had to make do with plaster casts instead.

The East Gate was cast in plaster by Lieutenant Henry Hardy Cole for the Victoria and Albert Museum in the late 1860s. Multiple copies of this cast were later made, and displayed across Europe. The latest Berlin replica too traces its origin to this original cast.

According to the website of the Humboldt Forum, “A plaster cast of the original gate, purchased from London, was on display in the entrance hall of the Königliches Museum für Völkerkunde Berlin from 1886. A cast of this preserved copy was made of artificial stone in 1970...”

This is what was used for the Humboldt Forum replica, with 3D scanning, modern robots, skilled German and Indian sculptors, and enlarged photos of the original torana for aid.

The upper architrave of the gate represents the seven Manushi Buddhas (previous Buddhas, with the historical Buddha being the latest incarnation). The middle architrave depicts the scene of the Great Departure, when prince Siddhartha leaves Kapilavastu to live as an ascetic in search of enlightenment. The lower architrave depicts Emperor Ashoka visiting the Bodhi tree under which the Buddha attained enlightenment.

Other decorative elements include the shalabhanjika (a fertility emblem represented by a yakshi grasping the branch of a tree), elephants, winged lions, and peacocks.

SITARAM YECHURY: A COMRADE OF HIS TIME

Ever since India attained Independence, a fundamental question has divided the country's communists, in terms of both ideology and tactic: How should a “revolutionary movement”, keeping with Marxist principles, engage with the complex set of social factors and political actors of a country this layered and so diverse? This question became more pronounced, and the answers to it more nuanced, with the rise of the BJP as one of two major national parties since the late '80s. Sitaram Yechury, general secretary of the Communist Party of India-Marxist (CPM), who died at 72 on Thursday, was seen by many as a “pragmatic comrade” — unlike the “hardliners”, who are opposed to working with the Congress, not just the BJP. Along with his predecessor Harkishan Singh Surjeet, Yechury was an alliance builder since the days of the United Front governments of the 1990s. In an era of renewed coalition politics post the 2024 general election, Yechury was not merely a comrade and guide for communists — he played that role for the INDIA bloc as a whole. It will be difficult for the Opposition to find another figure with his ideological and moral clarity, as well as political-tactical nimbleness.

Yechury, along with colleague, friend, and sometimes rival Prakash Karat, began his political career in JNU, where he was thrice the student union president. He was involved in the anti-Emergency movement and spent some time in prison. In 1992, Yechury and Karat entered the CPM politburo — among the youngest to be inducted — and were seen as the future of the party in the aftermath of the Soviet Union's collapse. As one of the most articulate voices of the Opposition in the Rajya Sabha, Yechury soon became the face of the party and was seen to advocate close ties with the Congress. Like Buddhadeb Bhattacharjee, the former CM of West Bengal who died last month, Yechury recognised that changing politics demanded that the dogmas of 20th-century communism were revisited. In 2008, delivering a lecture on EMS Namboodiripad's birth centenary, Yechury spoke of how the “concrete analysis of concrete



conditions” (one of Lenin’s descriptions of the Marxist dialectic) in India demanded an issue-based alliance with the Congress as well as an engagement with the social faultlines in India — including and especially, caste inequality. For decades, communist hardliners had barely engaged with caste. Even in his so-called pragmatism, Yechury was a staunch communist.

For Marxists, it is economic, social and historical forces that determine politics, not individuals. Nonetheless, Yechury’s unique personality and charm — as leaders across the political spectrum testify to — helped soothe many egos and unruffle many feathers. “Comrade”, in the popular imagination, is merely a term used by communists. Its broader meaning, however, is someone who is a friend and colleague. Most “serious comrades” in India, the cliché goes, are sombre men who do not smile. Yechury did indeed have a formidable strategic and political mind, but he could also smile and laugh, not just with friends but also with rivals. At a time when too many in public life seek to make their rivals their enemies, his affability, too, is a part of his legacy.

SHORT NEWS

‘EACH DAY’S DELAY MATTERS’: SUPREME COURT QUASHES DETENTION OVER COMMUNICATION ‘FAILURE’

Underlining that “each day’s delay matters” in cases of personal liberty, the Supreme Court on Thursday reiterated that in cases of preventive detention, the detaining authority must furnish to the detenu copies of all documents which are relied upon by it and failure to do so would vitiate the detention.

INDIA-GULF COOPERATION COUNCIL (GCC)

- External Affairs Minister S Jaishankar attended the first India–Gulf Cooperation Council (GCC) Foreign Ministers’ meeting in Riyadh, Saudi Arabia from September 8-9.
- The GCC is an influential grouping founded in 1981. It comprises the United Arab Emirates, Bahrain, Saudi Arabia, Oman, Qatar and Kuwait.
- The total volume of India’s trade with GCC countries stood at USD 184.46 billion in the financial year 2022-23.

QUAD MEETING

- The USA will host the QUAD Leaders Summit of 2024 on September 21.
- Originally, India was supposed to host this year’s Leaders Summit; however, it didn’t materialize, and Joe Biden wants to host it as a parting gift.
- India will host the 2025 Leaders Summit.

HINDI DIWAS

- Hindi Diwas is observed on **September 14** to mark the anniversary of Hindi’s recognition as an official language in 1949.



- Hindi is the most widely spoken language in India and the third most spoken language in the world after Mandarin Chinese and English.
- To commemorate the occasion a postage stamp was unveiled by Union Home Minister & Minister of Cooperation, Shri Amit Shah, at Bharat Mandapam, New Delhi, in a grand ceremony marking 75 years of Hindi as the official language.
- World Hindi Day or Vishwa Hindi Diwas, is celebrated on January 10 every year to mark the importance and celebrate Hindi as a language.

SEMICON INDIA 2024

- SEMICON India 2024 is organised in India from 11 to 13th September 2024 in partnership with SEMI and industry associations in Greater Noida, Uttar Pradesh.
- The theme is 'Shaping the Semiconductor Future'.
- The Semiconductor Executives' Summit was also held on the 10th of September, 2024 at Bharat Mandapam.

INDIA SUCCESSFULLY TEST FIRES TWO SURFACE-TO-AIR MISSILES IN 2 DAYS

For the second day in a row, India successfully tested the Vertical Launch Short Range Surface to Air Missile (VLSRSAM) at the Integrated Test Range (ITR) in Chandipur on Friday.

In all tests, the missile successfully intercepted a high-speed, low-altitude aerial target that mimicked a sea-skimming aerial target. The missile demonstrated its precision and ability to neutralise targets.

AFTER INDORE EMERGED WINNER 7 TIMES, CLEAN CITY RANKINGS TO HAVE 'GOLDEN CITIES' CATEGORY

Indore has been named the cleanest city for seven years in a row, and Union Housing and Urban Affairs Minister Manohar Lal Khattar announced on Friday that the next round of the Swachhata rankings will include a separate category for cities that have previously been ranked first, leaving the general competition open for new winners.

Indore has won the overall cleanest city award for the past seven years; this year, it shared first place with Surat.

The awards, which were introduced in 2016, cover categories such as big cities, small cities, Ganga towns, and cantonment boards.

ELONGATED TORTOISE

- The elongated tortoise (*Indotestudo elongata*) was spotted in Haryana's Damdama area during a research survey in the Aravallis.
- **Distinctive feature:** The tortoise has a pink ring on its nostril, which appears during the breeding season. Mature individuals of both sexes develop a distinct pinkish colouration surrounding the nostrils and eyes during the season.

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



- It is listed as **critically endangered** under the IUCN Red List of Threatened Species.
- It is found in the Sal deciduous and hilly evergreen forests and is distributed across Southeast Asia. It is **not** native to the **Aravallis**.

MIKE PANDEY

- Mike Pandey, a renowned filmmaker and conservationist has been awarded the **2024 Jackson Wild Legacy Award**.
- The Jackson Wild Legacy Award is one of the most prestigious global honours in wildlife and environmental filmmaking.
- Mike is also a three-time Green Oscar winner who is celebrated for his powerful and hard-hitting films that have led to five legislative changes in India, including the protection of whale sharks globally, vultures, horseshoe crabs, and elephants.

MAHUAPANI

- Mahuapani village in the Jashpur district of **Chhattisgarh** has got electricity connection for the first time since Independence.
- The village is home to over 100 families from the Pahadi **Korwa tribe**, a Particularly Vulnerable Tribal Group (PVTG).
- The project is part of the PM-JANMAN, a scheme launched by PM Modi on Janjatiya Gaurav Diwas (November 15, 2023), from the Khunti District of Jharkhand.

FIVE DECADES OF POLITICS (BOOK):

It is a memoir of political leader Sushilkumar Shinde which is co-authored by Rasheed Kidwai and Digvijaya Singh.

DreamIAS



BUSINESS & ECONOMICS

TOP MEMBER OF DHAKA INTERIM GOVT SAYS ADANI POWER DEAL UNDER SCRUTINY

The interim government of Bangladesh, led by Muhammad Yunus, is set to scrutinise Indian businesses including the Adani Group which exports power from its Jharkhand unit under a 2017 agreement. More specifically, the interim government is keen to know the terms of the agreement and if the price being paid for power is justified.

In November 2017, Adani Power (Jharkhand) Ltd (APJL) signed a 25-year 1,496 MW (net) Power Purchase Agreement with the Bangladesh Power Development Board. Under this, Bangladesh would buy 100 per cent electricity produced by APJL's Godda plant. The unit, which runs on 100 per cent imported coal, was declared a Special Economic Zone by the Indian government in March 2019.

The Godda plant, fully commercially operational during April-June 2023, supplies 7-10 per cent of Bangladesh's base load. In 2023-24, it exported about 7,508 million units of power, or almost 63 per cent of India's total power exports of 11,934 million units to Bangladesh.

In value terms, India's power exports to Bangladesh had crossed \$1 billion, almost 10 per cent of India's total exports to its neighbour.

The Financial Times reported on September 9 that Adani had warned the Bangladesh interim government that its backlog of overdue payments — of over \$500 million — had become “unsustainable”. It quoted Bangladesh energy advisor Muhammad Fouzul Kabir Khan saying the country faced total power liabilities of \$3.7 billion, and was late on paying \$492 million to Adani, to whom it owes a total of \$800 million.

On August 12, the government amended a 2018 regulation that sought to derisk plants such as that of Adani, permitting connection of such a generating station to the Indian grid. This would facilitate sale of power within India in case of sustained non-scheduling of full or part capacity. Essentially, it clears the decks for the sale of power domestically if there is a delay in payments.

As per the annual report of the Bangladesh Power Development Report, the average cost of electricity imported from Indian companies by Bangladesh stood at 8.77 Bangladeshi Taka per unit during 2022-23 (July-June).

However, it varied from company to company. In case of the NVVL Ltd it was 4.22-8.45 Bangladeshi Taka per unit; PTC India Ltd 9.05 Bangladeshi Taka per unit; Sencrop Energy India 9.995 Bangladeshi Taka per unit; and APJL 14.02 Bangladeshi Taka per unit.

Elaborating on ties with India, the top functionary said, “We want to have a stable relationship with India, a neutral relationship.” He added: “But giving Sheikh Hasina refuge is a problem... First we saw that she was there for some time, and now she is being given space for doing activities against Bangladesh...,” the functionary said, referring to ousted Bangladesh Prime Minister Sheikh Hasina's statements.

On the economic situation which Yunus is also focusing on, the functionary said, “Hasina has left the administration rotten, finances are rotten, corruption is rampant...there are people in the level of peon who have amassed crores of Bangladeshi Taka.”



INDIA'S ECONOMIC RELATIONSHIP WITH CHINA 'UNFAIR', LACKING BALANCE: JAISHANKAR

Amid a growing trade deficit with China, External Affairs Minister S Jaishankar has said that India's economic relationship with China has been lacking balance, as Indian goods do not have the same market access in China as Chinese products enjoy in India.

This comes after Chinese imports surpassed \$100 billion in FY24 and continue to rise in the current financial year. However, India's exports barely crossed \$16 billion in the last financial year. Imports from China have already exceeded \$60 billion in the first seven months of 2024, a 10 per cent increase compared to \$55 billion recorded during the same period last year.

"We feel that the economic relationship with China has been very unfair and very unbalanced. We don't have the same market access there, while they have much better market access in India," Jaishankar said during an address at the Global Centre for Security Policy in Geneva on Thursday.

A working paper by the Economic Advisory Council to the Prime Minister (EAC-PM) published in 2022 had highlighted that Indian exporters face a range of non-tariff barriers in China, limiting market access for Indian exports, particularly in agricultural and pharmaceutical products. Non-tariff barriers refer to any measures, other than customs tariffs, that impede international trade.

On pharmaceutical exports to China, the EAC-PM paper noted that unlike other countries, China does not allow second-chance testing through a third-party lab when products are rejected in random sampling due to non-compliance found during testing.

The EAC-PM also pointed out that exports of mangoes and grapes to China are subject to the annual listing of approved facilities by the General Administration of Customs of the People's Republic of China (GACC).

"Indian authorities have submitted a dynamic list, through the Agricultural and Processed Food Products Export Development Authority (APEDA), that can be verified online, showing products registered after a stringent recognition process by APEDA and the National Plant Protection Organization (NPPO). However, the list must be resubmitted every year, followed by additional requirements for video inspections," the paper noted.

This annual re-registration process by the GACC, along with the hosting of the approved facilities list on their website, results in duplication of procedures, causing delays, increasing transaction costs, and creating trade barriers for Indian grapes and mangoes, according to the EAC-PM.

The EAC-PM also highlighted that high translation costs are a major challenge faced by Indian exporters in China, as documents notified by China at the WTO, which mention their standards and regulations, are either incomplete or written in Chinese. The paper suggested that one way to reduce these costs would be for China to adhere to the WTO-notified languages, which are English, French, and Spanish.

Often, China does not specify the product category it refers to when issuing sanitary and phytosanitary (SPS) and technical barriers to trade (TBT) notifications. This forces Indian exporters to invest additional time and money in translating and gathering relevant documents from various sources.



LAST MILE WOES

The latest retail inflation data from the National Statistical Office yet again highlights the challenge in achieving durable price stability. Provisional estimates for year-on-year price gains in August show the headline rate based on the Consumer Price Index (CPI) quickened marginally to 3.65%, from July's 3.60%, as a sharp rebound in vegetable inflation led to a wider acceleration in overall food price gains. Price gains in vegetables — the third-largest constituent of the Consumer Food Price Index — surged by more than 380 basis points last month to 10.7%, spurring food price inflation to 5.66%. Among vegetables, year-on-year inflation in the most widely consumed potato and onion still remained in the high double digits for a sixth and 13th month at 64% and 54%, respectively, a moderation from July's levels notwithstanding. Other vegetables including carrot, palak and brinjal experienced a surge in price gains with all three posting double-digit inflation. Also, disinflation in the prices of pulses and cereals remained slow, with year-on-year price gains in the former still in the double digits for a 15th straight month at 13.6%, while the latter logged an inflation reading of 7.3%. Disconcertingly, food inflation in the rural areas rebounded to exceed 6%, and this at a time when stuttering private consumption is trying to regain momentum in the economically crucial agrarian hinterland. As an external member of the Monetary Policy Committee Shashanka Bhide noted in his comments at the RBI's policy review meeting last month, "high food inflation would therefore hit growth adversely as it affects consumption".

A durable disinflation to the RBI's medium-term monetary policy goal of 4% headline retail inflation also faces other challenges, a key element being a resurgence in core inflation. The price gains measure, which strips out the more volatile food and fuel components, inched up to 3.38% after having snapped a 17-month decelerating streak in July. Based on responses from goods manufacturers polled for the monthly HSBC India Manufacturing PMI survey, HSBC observed this month that there was a "marked increase in prices charged for goods in August" with the rate of output-charge inflation the second-fastest in close to 11 years. Add to this the spatial and temporal volatility of the monsoon, and the outlook for price stability becomes even more muddled. RBI Governor Shaktikanta Das on Friday said that the last mile of disinflation was proving to be "challenging". With policymakers still having to traverse a fair distance to ensure inflation does not undermine broader economic momentum, he reassuringly acknowledged that authorities "cannot afford to look the other way".

SOOTHING SALVO

Meeting for the second time after the 2024 general election results, the Goods and Services Tax (GST) Council on Monday sought to calm some of the rising clamour against the 18% indirect tax levy on insurance premium payments. A new Group of Ministers is being formed to urgently recommend tax changes for life and health insurance policies, with an assurance the Council would meet again in November to take a call on its report. This marks a notable shift from last month, when Finance Minister Nirmala Sitharaman had staunchly defended the levy in Parliament, noting that States earn a large chunk of these revenues and Members of Parliament, who took on the Centre on the matter must flag it with States' Ministers as they are a party to the Council's decisions. It must be noted that a reconsideration of GST levies on insurance had come up at least three times under the Council's aegis, starting a year and a half since the GST's July 2017 launch, but the status quo was preferred each time.

What is plausibly different this time around is that the government's own have echoed the sentiment. While Union Minister Nitin Gadkari has averred that the GST levy on life insurance



premium is tantamount to taxing the uncertainties of life, the BJP's now-critical allies such as the TDP and Jana Sena Party have also sought a rollback of the levies on health and life insurance. Perhaps not unrelated is the government's post-poll decision to desist from tom-tomming GST's buoyant monthly collections, perceived by many as a celebration of high levies on consumers. GST revenues just from health insurance premia rose over 54% between 2021-22 and 2023-24, yielding ₹8,262 crore last year. One hopes that any reduction in the GST on health covers considered by the Council is not selective or limited, for instance, to group policies or senior citizens or with a cap on the cover, and it is ensured they translate into real cuts in premia payments. After the COVID-19 pandemic, while awareness levels about health cover needs have risen, hospitalisation and insurance cover costs have spiked even faster. Given India's inadequate public health systems, a serious disease or malaise afflicting a single family member can push an average household into poverty. For life covers, the Council could take a more nuanced approach by extending most relief to pure term insurance policies that help families tide over shocks, rather than to myriad market-linked investment products offered by the industry in the guise of insurance. If, in the Council's wisdom, helicopter services availed on a 'shared seat' basis must attract only 5% GST, insurance policies surely deserve more benign taxation too.

For Your Information:

- The GST regime came into force after the Constitutional (122nd Amendment) Bill was passed by both Houses of Parliament in 2016. More than 15 Indian states then ratified it in their state Assemblies, after which then-President Pranab Mukherjee gave his assent.
- It came into effect in 2017 and was billed as an attempt to simplify the existing tax structure in India, where both the Centre and states levied multiple taxes, and to make it uniform.
- According to Article 279, the GST council is meant to "make recommendations to the Union and the states on important issues related to GST, like the goods and services that may be subjected or exempted from GST, model GST Laws". It also decides on various rate slabs of GST, whether they need to be modified for certain product categories, and so on.

GST EVASION DOUBLES IN FY24; MUMBAI TOPS DETECTION LIST

Tax evasion of Rs 2.01 lakh crore was detected in the financial year 2023-24, nearly double from Rs 1.01 lakh crore detection in the previous financial year under the Goods and Services Tax (GST) regime, data released by the Directorate General of GST Intelligence (DGGI) on Saturday showed.

- The report by the investigative arm of GST showed that among services, real money online gaming; and banking, financial and insurance sectors were the most evasion prone sectors. Among goods, iron, copper, scrap & alloys, and pan masala, tobacco, cigarette and bidi were registered as the sectors most prone to GST evasion in FY24.
- Mumbai topped among zones with the highest amount of GST detection of Rs 70,985 crore, followed by Delhi (Rs 18,313 crore), Pune (Rs 17,328 crore), Gurugram (Rs 15,502 crore) and Hyderabad (Rs 11,081 crore), as per the latest annual report of the DGGI.
- On-payment of tax including clandestine supply, undervaluation etc., comprised 46 per cent of the total GST evasion cases in FY24, followed by availment of fake input tax credit (20 per cent) and wrong availment /non-reversal of ITC/blocked credit (19 per cent).



— Sector-wise breakup for 2023-24 showed that real money online gaming sector recorded highest GST evasion of Rs 81,875 crore in 78 cases, followed by banking, financial and insurance (BFSI) sector with Rs 18,961 crore evasion in 171 cases. Works contract services had 343 cases involving Rs 2,846 crore of evasion, whole pharmaceutical had 22 evasion cases with GST evasion of Rs 40 crore.

For Your Information:

— GST is essentially a consumption tax and is levied at the final consumption point. The principle used in GST taxation is Destination Principle. It is levied on the value addition and provides set offs. As a result, it avoids the cascading effect or tax on tax which increases the tax burden on the end consumer.

— It is collected on goods and services at each point of sale in the supply line. The GST that a merchant pays to procure goods or services can be set off later against the tax applicable on supply of goods and services.

EXPRESS VIEW ON INDIAN WORKERS: FILL THE SKILL GAP

Early this year, the first batch of workers from India left for Israel to plug the labour shortage in its construction sector that arose after a ban on Palestinian workers. Now, an investigation in this paper has revealed that this labour arrangement is under strain due to a glaring skill mismatch between the workers' abilities and the expectations of them. Some of these workers have now returned home, while others have been redeployed to other sectors considering the strengthening ties between the two countries. The evidence of the mismatch, however, does not take away from the benefits for Indian labour that stem from such work agreements. In fact, pacts that facilitate labour mobility between countries need to be advanced, while, at the same time, plugging the gaps such as those that the investigation has uncovered.

Indian labour, both unskilled and skilled, will be increasingly in demand across the world, especially in regions characterised by an aging workforce and labour shortages. In 2020, the Global Skill Gap report prepared by the National Skill Development Corporation (NSDC) had estimated the demand for labour in sectors across key regions such as the GCC countries (Gulf Cooperation Council) and the EU. The sectors it identified — construction, trade, health and social care, among others — are indicative of the sources of labour demand across the world. Some in the western world are now advocating for temporary work contracts to meet the labour shortages. But in order for Indian workers to productively engage in the global labour market, it is critical that they receive the necessary education and training in the skills that are needed. As per the labour force survey, only a small segment of those in the age group of 15-59 years have received formal vocational/technical training. The NSDC can play a critical role here. The focus should be on the entire ecosystem, encompassing the technical and training institutes, the trainers, and also the curriculum, among others, in order to ensure that the skills imparted are in line with what the market demands. Perhaps the Sri Lankan approach of ensuring that workers receive a few weeks of additional training before their departure can be considered, as well as exposing them to international processes and work practices.

The issue of skill mismatch, of shortage of skilled workers despite a huge labour force, has often been highlighted. In fact, several Indian firms have raised this matter in the past with regard to jobs across the entire skill spectrum. Considering that an educated and skilled work force is critical for reaping the demographic dividend, the focus should be on ensuring that those entering



the labour market receive appropriate training, and that their skills are constantly upgraded to adapt to an ever changing work environment.

DEADLINE FOR BENEFICIAL OWNERSHIP OF FPI HOLDINGS ENDS ON SEPT 9

Even as the deadline to disclose the beneficial owners of holdings in foreign portfolio investors (FPIs) to the Securities and Exchange Board of India (SEBI) ends on September 9, some of these foreign investors have sought legal recourse to keep away from adhering to the regulations.

Two Mauritius-based foreign portfolio investors (FPIs) — LTS Investment Funds and Lotus Global Investment — have moved the Securities Appellate Tribunal, seeking urgent relief from complying with Sebi's new foreign investor norms. These two FPIs were mentioned in the January 2023 report on the Adani Group by US-based short-seller Hindenburg Research.

According to these FPIs, Sebi's directions to comply with certain conditions that did not apply to other FPIs have discriminated their investors. They have sought time until March 2025 to meet these norms.

In August last year, markets regulator Sebi had asked FPIs, holding more than 50 per cent of their equity AUM (assets under management) in a single corporate group or with an overall holding in Indian equity markets of over Rs 25,000 crore, to disclose granular details of all entities holding any ownership, economic interest, or exercising control in the FPI. The norms were announced to prevent the possible round tripping by certain promoters using the FPI route.

LTS Investment Fund's asset is nearly \$1.5 billion, as per the Hindenburg Research's January 2023 report.

Sebi said certain FPIs have been observed to hold concentrated portion of their equity portfolio in a single investee company/ corporate group.

Such concentrated investments raise the concern and possibility that promoters of such investee companies/ corporate groups, or other investors acting in concert, could be using the FPI route for circumventing regulatory requirements such as that of disclosures under Substantial Acquisition of Shares and Takeovers Regulations, 2011 (SAST Regulations) or maintaining Minimum Public Shareholding (MPS) in the listed company.

The sell-off in the market in August can be attributed to the final deadline for FPIs to disclose their beneficial owners to the Sebi.

FPIs pulled out Rs 20,339 crore from the market in August this year. "Failure to meet this requirement would result in FPIs being disqualified from investing in India, necessitating the liquidation of their holdings. This regulatory pressure has led many FPIs to sell off their investments, causing a broad decline in the stock market," said Ameya Ranadive CMT CFTe, StoxBox.

The regulator said granular details of all entities holding any ownership, economic interest, or exercising control in the FPI will have to be provided by FPIs. While economic interest means returns from the investments made by the FPI, ownership interest means ownership of shares or capital of the entity or entitlement to derive profits from the activity of the entity.



FPIs holding more than 50 per cent of their Indian equity AUM in a single Indian corporate group or holding over Rs 25,000 crore of equity AUM in the Indian markets are required to disclose details, it said.

In a consultation issued in May last year, Sebi had said that based on the data as of March 31, 2023, FPI assets under management of around Rs 2.6 lakh crore may potentially be identified as high-risk FPIs who would have to make additional disclosures.

Sources said FPIs which may be required to provide enhanced disclosures are expected to be significantly less than estimated in the consultation paper and the Sebi board note.

FINANCE MINISTRY REJECTS AGRI MOVE FOR HIGHER INCENTIVES TO PUSH NATURAL FARMING

The Finance Ministry has shot down a proposal from the Agriculture Ministry to provide a one-time incentive of Rs 20,000 per hectare to farmers who adopt natural farming, saying it was much higher than what was earlier approved, The Indian Express has learnt.

— The Agriculture Ministry under Shivraj Singh Chouhan had circulated a Cabinet note in July last week seeking the Finance Ministry's approval for the incentives to be provided to farmers under the proposed National Mission on Natural Farming (NMNF). However, the Finance Ministry informed the Agriculture Ministry a week later that the proposed rates of incentives were "considerably higher" than the rates approved by the Expenditure Finance Committee (EFC).

— The EFC had approved an incentive of Rs 15,000 per hectare to be provided through Direct Benefit Transfer (DBT) to farmers who adopt natural farming, it is learnt. This was approved in the financial year 2022-23...

— The Agriculture Ministry began deliberating on hiking the proposed incentives... Conveying its views to the Agriculture Ministry, the Finance Ministry said it has "no objection" to the proposal subject but "increase in norms beyond the norms appraised by the EFC is not supported".

— Under the NMNF, the Centre aims to bring about 7.5 lakh hectare of land under natural farming, offering incentives to farmers who adopt it.

— Natural farming also figured in the Independence Day speech of Prime Minister Narendra Modi this year.

— The proposed NMNF is an improvement on the Bhartiya Prakritik Krishi Paddhti (BPKP).

— The Centre also promoted natural farming in a 5-km belt along the Ganga River under the Namami Gange scheme. Besides, several states have also taken initiatives at their level to promote natural farming.

— According to sources, about 22 lakh hectare area has been brought under natural farming till date and 34 lakh farmers are engaged in practicing natural farming.

For Your Information:

— The Agriculture Ministry defines natural farming as a "chemical-free" farming system that uses only inputs produced using livestock and plant resources. This is the reason the ministry wants to implement it first across districts having high fertilizer consumption.



- The Andhra Pradesh Community Managed Natural Farming (APCNF) programme and Dr. Rattan Lal, a renowned soil scientist of Indian origin won the esteemed Gulbenkian Prize.
- APCNF, implemented by Rythu Sadhikara Samstha (RySS), is recognized as the world’s largest agroecology programme, benefiting over a million smallholder farmers across 5,00,000 hectares in Andhra Pradesh.
- “The APCNF programme empowers small farmers by enabling them to switch to natural farming methods. It has immense benefits to both farmers and the soil they rely on.”

ANTI-SUBSIDY DUTY ON STEEL PIPE IMPORTS FROM CHINA, VIETNAM EXTENDED FOR 5 YEARS

The Ministry of Finance has extended the anti-subsidy duty on imports of “welded steel pipes and tubes” from China and Vietnam for five years, citing injury to the domestic industry, according to a notification issued late on Tuesday. The duty was initially imposed in September 2019.

This follows a recommendation from the Directorate General of Trade Remedies (DGTR), under the Ministry of Commerce, to continue the countervailing duty. The DGTR — a quasi-judicial body that independently undertakes investigations before making its recommendations to the Centre on administering trade remedial measures including anti-dumping, countervailing duties and safeguard measures — had said that the additional production capacity of Chinese manufacturers is likely to be utilised for exporting these goods to India.

Steel and steel product imports from China and Vietnam are facing increased scrutiny, with the domestic industry claiming that Chinese goods are being imported into India at predatory prices. The industry also said that goods are being routed through Vietnam to “exploit duty benefits” under the India-ASEAN Free Trade Agreement (FTA).

The DGTR has also initiated an anti-dumping investigation into imports of hot-rolled flat products of alloy or non-alloy steel originating from or exported by Vietnam. India’s imports from Vietnam have been rising, increasing by 17 per cent to \$5.8 billion between January and July this year, compared to the same period last year.

A report by Crisil highlighted that India became a net importer of steel in FY24, with an overall steel trade deficit of 1.1 million tonnes, signalling a shift from its previous position as a net exporter since fiscal 2017. While China, South Korea, and Japan remain the top exporters, Vietnam has now emerged as a new entrant on the list.

The Economic Survey had earlier noted that the recent increase in global trade through Mexico and Vietnam is the result of Chinese firms re-routing their supply chains through these countries. The survey also pointed out that China dominates the supply of several critical minerals used in manufacturing, making it difficult to decouple from China.

Meanwhile, India’s imports from China continue to rise. Imports from China have already surpassed \$60 billion in the first seven months of 2024, a 10 per cent increase compared to the \$55 billion recorded during the same period last year. In FY24, imports from China exceeded \$100 billion.



CENTRE RAISES IMPORT DUTY ON EDIBLE OILS

Days after allowing soybean procurement at Minimum Support Price (MSP), the Centre has increased import duties on edible oils. The Ministry of Finance issued a notification to this effect Friday.

— In a statement, Union Minister of Agriculture Shivraj Singh Chouhan said the Government had decided to “increase import duty on edible oils from 0% to 20%”. Upon adding other components, the total effective duty will be 27.5%, Chouhan said.

— The decision comes at a time when prices of soybean, the leading source of edible oils, are reported below the MSP. The other two are sunflower and palm oil. Last week, the government allowed procurement of soybeans at MSP in four states — Maharashtra, Madhya Pradesh, Karnataka and Telangana. Maharashtra, the country’s second-largest producer of soybeans, is set for polls later this year.

For Your Information:

— During each cropping season, the government announces minimum support prices for 23 crops. Simply put, the MSP for a crop is the price at which the government is supposed to procure/buy that crop from farmers if the market price falls below it.

— As such, MSPs provide a floor for market prices, and ensure that farmers receive a certain “minimum” remuneration so that their costs of cultivation (and some profit) can be recovered.

— The MSPs serve one more policy purpose. Using them, the government incentivises the production of certain crops, thus ensuring that India does not run out of staple food grains.

— Crops covered by MSPs include:

7 types of cereals (paddy, wheat, maize, bajra, jowar, ragi and barley),

5 types of pulses (chana, arhar/tur, urad, moong and masur),

7 oilseeds (rapeseed-mustard, groundnut, soyabean, sunflower, sesamum, safflower, nigerseed),

4 commercial crops (cotton, sugarcane, copra, raw jute)

PINK BOLLWORM ATTACK: HARYANA COTTON FARMERS OPT FOR PADDY

In Sirsa, Fatehabad and Hisar, the three major northeast Haryana cotton-growing districts, an environmental crisis is unfolding. Haryana has seen an overall fall in acreage under cotton cultivation to 4.76 lakh hectares (lh) this kharif season from 6.65 lh in 2023. This has been accompanied by an increase in the area under rice from 15.20 lh to an all-time-high of 16.44 lh in the state.

— The reduction in the cotton area — also reported in neighbouring Rajasthan (from 7.91 lh to 5.13 lh) and Punjab (2.14 lh to 1 lh) — has been attributed mainly to PBW infestation. Its larvae burrow into the bolls (developing fruits) of cotton plants. The resultant damage affects both the weight and quality of the harvested bolls, containing the lint fibre and seeds.



— The pest's infestation, reported on a significant scale since 2021, has not been the only factor. In May-June this year, at the time of sowing, the price of kapas (raw unginned cotton) averaged Rs 6,700-6,800 per quintal in Haryana mandis. This was against the average Rs 11,100-11,200 per quintal two years ago.

— **The spread of pink bollworm:** The pink bollworm first appeared in north India during the 2017-18 season in a few districts in Haryana and Punjab, primarily cultivating Bt cotton, and spread to Rajasthan by 2021.

— PBW primarily spreads through the air. Residue of infected crops, often left by farmers on the field to be used as fuel, can also harbour PBW larvae which can then infect future crops. Infected cotton seeds are another reason behind the pest's spread.

For Your Information:

— Cotton (*Gossypium hirsutum* L.) is the most important commercial crop known as the "King of natural fibre" and is also known as "White Gold" around the world.

— India is the only country that grows all four cultivated cotton species as well as their intra- and inter-specific hybrids.

GOVT CLEARS 12 INDIAN START-UPS FOR INCENTIVES UNDER CHIP DESIGN PLAN

The Ministry of Electronics and IT (MeitY) has approved chip design related proposals from at least 12 Indian start-ups and has committed more than Rs 130 crore to their projects, which span from developing integrated circuits for telecommunication applications, to artificial intelligence (AI) hardware accelerators, The Indian Express has learnt.

In total, the approved projects will cost Rs 342 crore, and the Centre has committed close to Rs 133 crore towards them. So far, the government has released a little more than Rs 7 crore. The government has received 59 applications under the design linked incentive (DLI) scheme, of which it has cleared 12 for financial assistance. 21 applications are under review.

The twelve companies, and the innovations they are working on are: DV2JS Innovation (image sensor system on chip for automotive applications); Vervesemi Microelectronics (microcontroller integrated circuit for industrial applications); Fermionic Design (beamformer IC for satellite communication); Morphing Machines (RISC-V multi-core accelerators for telecom applications); Calligo Technologies (hardware accelerators for AI); Sensesemi Technologies (wearable SoC for healthcare applications); Saankhya Labs (basestation SoC for 5G communication); Aheesa Digital Innovations (networking SoCs for telecom application); Netrasemi (edge-AI SoC for smart vision and IoT applications); Green PMU Semi (energy harvesting power management IC for IoT and sensing applications); WiSig Networks (NarrowBand IoT SoC); and MosChip Technologies (smart energy metre IC).

The DLI scheme is part of the overall \$10 billion incentive scheme for the semiconductor ecosystem, which was rolled out by the government in December 2021. The design scheme aims to offer financial incentives and infrastructure support across various stages of development and deployment of semiconductor design for integrated circuits, chipsets, and system on chip over a period of five years.



India is a major force in chip designing, with all major semiconductor companies having their design offices in the country. However, these engineers have traditionally designed systems for foreign companies, which has resulted in zero to little intellectual property creation by Indian entities. The chip DLI scheme is an attempt at plugging that gap, as it incentivises a crucial part of the chip supply chain — the IP.

The run rate of the scheme, however, seems to be slower than the Centre's initial projections. The government wants to fund at least 100 start-ups over five years under the DLI scheme, which would be an average of 20 entities per year. But, since announcing the scheme in December 2021, it has only approved 12 start-ups so far.

The IT Ministry did not respond to a request for comment.

Earlier this week, India approved its fifth semiconductor unit in the form of an assembly and testing plant being set up by Kaynes Semicon in Gujarat.

MeitY, chip design, chip making, chip design proposals, Indian start-ups, integrated circuits development, telecommunication applications, artificial intelligence, AI hardware accelerators, Indian express news

India has ambitions to become a major chip hub on the lines of the United States, Taiwan and South Korea, and has been courting foreign companies to set up operations in the country. Previously, the country has approved a fabrication plant worth \$11 billion being set up by Tata Electronics in partnership with Taiwan's Powerchip, and three different chip assembly plants being set up by the Tatas, US-based Micron Technology, and Murugappa Group's CG Power in partnership with Japan's Renesas.

Currently, there are more proposals to set up semiconductor units with the government.

This includes a fabrication plant proposed by Israel's Tower Semiconductor and the Adani Group, and a Rs 4,000 crore assembly plant by Zoho.

After having committed nearly all of the \$10 billion in subsidies under its ambitious semiconductor manufacturing incentive policy, the government has prepared a blueprint for the second phase of the scheme — it could increase the outlay of the programme to \$15 billion, offer capital support for raw materials and gases used in chip manufacturing, and reduce subsidies for assembly and testing plants, The Indian Express had earlier reported.

PM E-DRIVE: EXCLUSION OF ELECTRIC CARS FROM THE SCHEME COULD DENT SALES FURTHER

Under the Centre's new PM Electric Drive Revolution in Innovative Vehicle Enhancement (PM E-DRIVE) Scheme, entailing an outlay of Rs 10,900 crore over two years, fiscal incentives have been extended to electric two- and three-wheelers, buses, trucks, and even ambulances. However, unlike its predecessor, the FAME-2 scheme, the latest subsidy makes a significant omission—electric cars.

— While electric cars were also left out of the stopgap Electronic Mobility Promotion Scheme (EMPS), introduced in April and set to expire by the end of this month, the industry had hoped the final scheme would include some benefits for four-wheelers. The chorus for subsidies grew louder especially after a marked decline in sales following the conclusion of the FAME-2 programme.



— With their exclusion now confirmed, the government's stance is clear—lower GST for electric cars, schemes for localisation of components and batteries, and additional funds for charging stations to address range anxiety are deemed sufficient steps on its part.

— Approved by the Union Cabinet on Wednesday, the PM E-DRIVE scheme aims to support approximately 25 lakh electric two-wheelers, 3 lakh electric three-wheelers, and 14,000 electric buses through demand incentives.

— Automakers will be able to claim reimbursements from the government on the sale of eligible **electric vehicles**. Like its predecessor FAME-2, PM E-DRIVE will be administered by the Ministry of Heavy Industries.

— However, unlike FAME-2, which supported 55,000 electric passenger cars, including strong hybrids, PM E-DRIVE maintains a conspicuous silence on electric cars. There is one exception—the proposal to install 22,100 fast chargers for electric four-wheelers, a subtle recognition of the lingering concerns around range anxiety.

— The exclusion of electric cars from the new scheme comes after the Minister of Road Transport and Highways Nitin Gadkari said that the EV sector no longer requires subsidies at an industry event earlier this week. He cited declining lithium-ion battery costs and the growing benefit of economies of scale, predicting that within two years, the cost of petrol and diesel vehicles would be on par with EVs.

For Your Information:

— The government said that the primary objective of the PM E-DRIVE scheme is to expedite the adoption of EVs by providing upfront incentives for their purchase, as well as by facilitating the establishment of essential charging infrastructure for EVs.

— The PM E-DRIVE scheme aligns with the government's broader push for e-mobility to reduce greenhouse gas emissions and dependency on fuel imports. It is set to play a crucial role in reaching the ambitious target of 30 per cent electric vehicle penetration by 2030.

GOOD, BUT NOT ENOUGH

In a welcome move, the Union government's decision to extend the coverage of Ayushman Bharat Pradhan Mantri Jan Arogya Yojana (AB PM-JAY) to senior citizens over 70 years, irrespective of their income, provides a modicum of free health coverage to nearly 60 million people. With out-of-pocket expenditure for health care in India among the highest in the world, the decision is indeed laudable. While the decision to provide free health coverage up to ₹0.5 million per year for a section of the population is noble, it will in no way fulfil the public health objectives that are much needed for the targeted beneficiaries. First and foremost, the health assurance scheme is limited to secondary and tertiary care hospitalisation. The absence of coverage for outpatient care, diagnostics and medicines is particularly concerning as chronic diseases have increased sharply in India in the last few decades. Increased life expectancy and an early onset of these diseases would mean that people over 70 may very often suffer from multiple chronic diseases. Most of the health-care expenditure by the elderly will, therefore, be through outpatient care (40%-80%), which will not be covered by the scheme. Since its launch in 2018, the penetration of PM-JAY into smaller cities and towns has been low in most States. Unlike in most of the southern States, primary and secondary health care in the public sector has been largely neglected and is inadequate and ill equipped to meet the demand in other parts. Robust primary and secondary



public health care will sharply cut the load on tertiary health care and hence the need for curative care; a reduced curative care load at tertiary hospitals will make the PM-JAY scheme succeed.

Thailand focused and progressively strengthened its primary health-care system, and even diverted funds earmarked for urban hospitals to build rural hospitals and health centres to attain universal health coverage. In contrast, in the U.S., banking primarily on insurance-based schemes is what led to the surging costs of health care. India appears to be going the U.S. way. Though there is waning enthusiasm in the private sector due to low treatment rates and delayed payment, as per media reports, since its launch, two-thirds of the total money spent each year under the PM-JAY scheme went to private hospitals; it was 53% in the case of the southern States. Weakened primary and secondary health care will result in an overload in tertiary health care, which the private players will be well poised to take advantage of. This can lead to a further shrinking of the government's commitment to strengthen the public health-care system by over-relying on the insurance modality which is neither affordable nor will provide appropriate health care for the needy. In its present form, PM-JAY is a measure that is essential, but is incomplete.

Note:

AB PM-JAY is already the world's largest public health insurance scheme. It provides free cover upto Rs 5 lakh annually to all members of eligible families — estimated to comprise the bottom 40% of the population economically — irrespective of age.

Those eligible for the expanded cover will be able to register themselves and get the Ayushman Bharat card as soon as the new module is added to the existing portal.

Beneficiaries can register either through the government's Ayushman App or at the Ayushman Bharat counter at any government health facility. Anyone who has turned 70 as per their Aadhaar can register for the new health cover.

There will be no exclusions or waiting period of pre-existing conditions. Beneficiaries will be able to utilise their policy as soon as they complete their eKYC. The portal will also be face-authorisation-enabled, to ensure that even elderly persons whose fingerprints are difficult to read or have changed over time can avail the benefits.

Elderly members (age 70 and more) of families that are already covered in accordance with their economic status will get a top-up cover of Rs 5 lakh — to be used only for the elderly. These elderly beneficiaries will have to re-register to receive the top-up cover.

The scheme will cover almost 6 crore individuals (from 4.5 crore families), of whom 1.78 crore are already covered by the scheme. "For the additional top-up amount, the financial implication is very little," a senior official said.

The Ayushman Bharat scheme already covers 1,670 procedures across 26 specialities, which includes 25 geriatric packages. More packages for the elderly are in the process of being added, officials said.

Those who are covered under these government health schemes will have the option of choosing either Ayushman Bharat or continuing with their existing coverage.

People who are covered under the Employees State Insurance Corporation (ESIC), however, will be eligible to have both their existing cover and Ayushman Bharat. This is because premiums for ESIC are paid by the insured and their employer, not the government.



People who have their own privately purchased insurance cover will be eligible to have the Ayushman Bharat cover as well.

Cost to government

The initial outlay from the Centre for the expansion of the scheme will be Rs 3,437 crore. This will cover the costs for the six months in the current financial year and all of next year, officials said. States will have to contribute 40% to the cost of the scheme.

Ayushman Bharat has not been implemented by Delhi, West Bengal, and Odisha. Officials said that Odisha is currently in talks with the Centre to launch the scheme.



DreamIAS



LIFE & SCIENCE

ALL ABOUT THE POLARIS DAWN MISSION, WHICH WILL ATTEMPT FIRST PRIVATE SPACEWALK

A SpaceX Falcon 9 rocket lifted off from Florida on Tuesday, carrying American billionaire Jared Isaacman and three others into orbit to attempt the world's first private spacewalk.

The five-day mission, known as Polaris Dawn, is the first of three testing and development missions under the Polaris Program, which will be jointly executed by Isaacman and Elon Musk's SpaceX. The program aims to develop new technologies that could be used to send people to Mars some day.

Tuesday's launch was originally scheduled for August 28, but was delayed due to a helium leak. It was again postponed due to bad weather around Florida.

First, what exactly is a 'spacewalk'?

A spacewalk or an "extravehicular activity (EVA)" is a period of activity spent outside a spacecraft by an astronaut in space.

The first-ever spacewalk was carried out on March 18, 1965, by the Soviet cosmonaut Alexei Leonov at the height of the Space Race — the 20th century competition between the US and USSR over who could conquer space exploration first — during the Cold War. Leonov's walk lasted 10 minutes.

Today, spacewalks are usually done outside the International Space Station (ISS) and can last between five and eight hours.

Spacewalks are done for several reasons, including to carry out science experiments. Astronauts can attach experiments to the outside of a spacecraft during their spacewalk, and observe how the space environment impacts different things. They can also test new equipment, and repair satellites or their spacecraft during the walk.

To carry out a spacewalk, astronauts have to wear a spacesuit and use rope-like safety tethers to attach themselves to their spacecraft. "One end is attached to the spacewalker. The other end is connected to the vehicle. The safety tethers keep astronauts from floating away into space," according to NASA, the US space agency.

The other way is to wear a SAFER (Simplified Aid for EVA Rescue). It is put on like a backpack, and consists of small jet thrusters to help an astronaut move around in space. SAFER is controlled by astronauts with a small joystick.

Who is on board Polaris Dawn?

At the helm of the Polaris Dawn mission is Isaacman, who is the founder of the electronic payment company Shift4. He has bankrolled the mission along with SpaceX, and is the commander of the crew.

This is Isaacman's second trip into space. In 2021, he went into low-Earth orbit for three days, and then splashed down off Florida.



Apart from Isaacman, the crew comprises Scott Poteet, a retired US Air Force lieutenant colonel; and two SpaceX employees, Anna Menon, a lead space operations engineer, and Sarah Gillis, an engineer who oversees astronaut training.

What are the mission's objectives?

The crew, who are travelling in SpaceX's Dragon capsule, will first aim to get a maximum of about 1,400 km from Earth. This will be farther away from the 1,372 km altitude that NASA's Gemini XI mission reached in 1966, the record for any crewed mission that was not headed to the Moon.

That height means that the Polaris Dawn mission will be well into the inner band of the Van Allen radiation belts — regions in space that encircle the Earth and are highly radioactive — which begins at around 1,000 km altitude. The crew will use this opportunity to “conduct research with the aim of better understanding the effects of spaceflight and space radiation on human health”, according to the mission's website.

Subsequently, the capsule would drop to a lower orbit for the rest of the mission, which includes a spacewalk. The spacewalk is scheduled for Thursday, the third day of the mission.

For the spacewalk, all crew members will put on spacesuits and then, all of the air will be let out of the capsule. “The hatch will then be opened and the inside of the spacecraft will become part of the vacuum of outer space,” The New York Times said.

Only two crew members — Isaacman and Gillis — will leave the capsule for the spacewalk. Poteet and Menon will stay inside to manage the safety tethers and observe readings to ensure that nothing goes awry.

The spacewalk's main aim is to test the spacesuits, developed by SpaceX for this mission. Known as EVA spacesuits, they are equipped with cameras and heads-up displays that display to the astronauts information about the status of their suits outside their vehicle, according to a report by Euro News. The suits also feature an “improved thermal management”, the report said.

Once Isaacman and Gillis return inside, the hatch will be closed and the capsule will be repressurised.

During the mission, the crew will conduct 40 scientific experiments. This includes trying to obtain X-ray images without an X-ray machine, with the help of natural showers of radiation in space.

The crew will also test laser-based communication provided by SpaceX's Starlink satellite network. This technique allows communication among satellites without relying on ground infrastructure to send signals.

PLANETARY PROTECTION: KEEPING OUT 'TOXIC ALIENS'

WHAT IS IT?

In space missions from the earth to another planetary body, planetary protection is the idea that it's important to preserve the biospheres of the earth and the body against contamination by “alien” microbial life.



It's an important principle of interplanetary missions, such as from the earth to the moon or Mars. It stems from the idea that we ought to keep the planetary biosphere "pristine" and from being "corrupted" by influences that may not exist had the space mission not been undertaken.

On September 5, China announced it would be pulling up the date for Tianwen-3, its ambitious Mars sample-return mission, to 2028, potentially ahead of the U.S. During the announcement, the mission's designer said it would abide by the planetary protection principle.

The principle has a legal basis in Article IX of the Outer Space Treaty (1967). It states that parties to the treaty explore outer space while avoiding "harmful contamination and ... adverse changes" in the earth's and the body's environments due to "the introduction of extraterrestrial matter."

An important way to "clean" spacecraft ahead of interplanetary missions to conform to the planetary protection principle is to fully assemble the vehicle and bake it in a dry room for three days at 120 degrees C. This increases the costs and the technical strength of the spacecraft, but such are the demands of keeping biospheres 'clean'.

IRAN LAUNCHES SECOND SATELLITE INTO ORBIT THIS YEAR, SAYS GOVT

Iran on Saturday launched a research satellite into orbit with a rocket built by the Revolutionary Guards, state media reported.

— The launch comes as the United States and European countries accuse Iran of transferring ballistic missiles to Russia that would be likely used in its war with Ukraine within weeks. Iran has denied this.

— The Chamran-1 satellite, which was launched into space by the Qaem-100 satellite carrier, was put into a 550-kilometre (340-mile) orbit and its first signals had been received, the media said, adding that the solid fuel carrier was designed and built by the Aerospace Force of the Revolutionary Guards.

— The primary mission of the satellite, which weighs 60 kg (132 pounds), "is to test hardware and software systems for demonstrating orbital manoeuvring technology in height and phase," according to state media.

— In January, Iranian media reported that the Sorayya satellite had been launched into a 750 km orbit, the highest by the country so far.

— The U.S. military alleges the long-range ballistic technology used to put satellites into orbit could also allow Tehran to launch long-range weapons, possibly including nuclear warheads.

For Your Information:

— The launch is also significant as it is the first under Iran's new reformist President Masoud Pezeshkian, following the death of his predecessor Ebrahim Raisi in a helicopter crash earlier this year. The future direction of Iran's space program under Pezeshkian remains uncertain, as he has yet to publicly articulate his stance on these initiatives.

— The launch has intensified concerns among Western nations, particularly the United States, which views Iran's space program as a potential cover for developing intercontinental ballistic missile (ICBM) capabilities.



— Intercontinental ballistic missiles (ICBMs) are a type of ballistic missile with a range greater than 5,500 kilometers and are primarily designed to deliver nuclear warheads. They can carry conventional, chemical, and biological weapons, although the latter types have rarely been deployed on ICBMs.

— The United States, Russia, China, France, India, the United Kingdom, Israel, and North Korea are known to possess operational ICBMs, with Pakistan being the only nuclear-armed state that does not have them.

WHY DO ROCKETS REQUIRE HELIUM?

Two NASA astronauts on Boeing's Starliner will remain on the International Space Station for months due to a broken propulsion system that includes helium leaks.

— Helium is inert — it does not react with other substances or combust — and its atomic number is 2, making it the second lightest element after hydrogen.

— To reach and maintain orbit, rockets must travel at specific speeds and altitudes. A heavier rocket demands more energy, which not only raises fuel consumption but also necessitates more powerful engines, which are more expensive to create, test, and operate.

— Helium has a very low boiling point (-268.9 degrees Celsius), allowing it to stay a gas even in extremely cold conditions, which is essential because many rocket fuels are stored at those temperatures.

For Your Information:

— Helium is utilised to pressurise fuel tanks to provide uninterrupted fuel flow to the rocket's engines, as well as for cooling systems.

— As fuel and oxidiser are used in the rocket's engines, helium fills the empty space in the tanks, maintaining overall pressure. Because it is non-reactive, it can safely mix with the tanks' remaining contents.

— Helium's small atomic size and low molecular weight allow its atoms to escape via tiny gaps or seals in storage tanks and fuel systems.

PHOTOELECTRIC EFFECT

For all his work in transforming our understanding of gravity and spacetime, Albert Einstein won his sole Nobel Prize for something else: explaining the photoelectric effect.

In the early 20th century, physicists found that when a metal is irradiated with light, it emits some electrons.

Curiously, they found the emitted electrons' kinetic energy depended on the incoming rays' frequency, not intensity.

In 1905, Einstein explained the effect by proposing that light is made of particles called photons. When a photon possesses more energy than some threshold, it is able to kick an electron in the metal out.



This effect is at the heart of solar power: solar cells are specially engineered materials whose electrons can be knocked out by the photons in sunlight. The electrons are made to flow through a wire to produce an electric current.

Understanding the photoelectric effect better could help us make new, more efficient solar cells and shed more light on the physics that produces the effect. Because it involves the material's electronic properties, its clear theoretical understanding means physicists can use it to reveal subatomic features that are inaccessible to other probes.

Motivated by these opportunities and advances in electronics and optics in the post-war era, physicists took their studies to new highs in the 20th century.

USE OF AI IN WARFARE

As the use of artificial intelligence (AI) by the world's militaries grows, the political effort to regulate the way revolutionary technology is used in warfare is growing too. If the ongoing wars in Ukraine and Gaza are emerging as "AI labs" for warfare, there is also a diplomatic push to establish at least some general norms on how to limit the dangers of its military use.

— India, which has been actively engaged in the development and safe use of AI in the civilian sphere, has stood out from the rising worldwide discussion on limiting the technology's military applications. However, when new global frameworks for 'AI arms control' arise, Delhi must steer the process rather than ignore it.

— The conference on Responsible Use of Artificial Intelligence in the Military Domain (REAIM), which begins Monday (September 9) in Seoul, South Korea, is part of a new global diplomacy aimed at shaping global norms on AI's military applications. The summit is co-hosted by Kenya, the Netherlands, Singapore, and the United Kingdom.

— This is the summit's second incarnation; the first was held in The Hague in February 2023, hosted by the Dutch government. Although there were no dramatic outcomes from The Hague summit, it extended the global discourse on AI's military implications and drew in a wider spectrum of players.

— Until recently, the discussion over military AI had focused on autonomous weapons, or 'killer robots'. Fears that computers and algorithms would take over the conduct of conflict prompted calls for weapons control. Keeping people in the decision-making loop about the use of force has been a major goal of this discussion.

For your information

— The REAIM approach broadened the debate beyond 'killer robots' to include a broader range of challenges by acknowledging that AI systems are finding increasingly useful applications in conflict. While leading militaries have long employed AI for inventory management and logistical planning, in recent years, its usage in battlefield intelligence, surveillance, and reconnaissance has grown dramatically.

— Major militaries see AI's ability to transform the collection, synthesis, and analysis of massive amounts of battlefield data as beneficial in raising situational awareness, increasing the time available for decision-making on the use of force, improving targeting precision, limiting civilian



casualties, and increasing the tempo of warfare. Many sceptics have warned that the alleged benefits of AI in warfare may be false and hazardous.

— The growth of so-called AI decision-making support systems (AI-DSS) and their ramifications are among the topics being discussed in the REAIM process. The Hague summit called for continued dialogue, and the second summit wants to formalise some kind of agreement on these topics. The Korea summit has three goals: understanding the implications of military AI on global peace and security, implementing new standards for using AI systems in military affairs, and developing proposals for long-term global control of AI in the military domain.

COVID IMPACT: BRAINS OF TEENAGERS SHOW PREMATURE AGEING, FINDS NEW STUDY

The brains of teenagers who lived through the Covid-19 pandemic are showing symptoms of premature ageing, a new study has found. The researchers behind the study said physical changes that occurred during adolescence, such as thinning of the cortex and growth of the hippocampus and the amygdala, were more significant after the pandemic compared to the pre-pandemic time, which suggests the brain has aged faster.

For the study, the researchers compared MRI scans of 81 teenagers in the United States before the pandemic with scans of 82 teens collected during the pandemic after lockdowns were lifted.

“Brain age difference was about three years – we hadn’t expected that large an increase given that the lockdown was less than a year [long],” Ian Gotlib, a professor of psychology at Stanford University and first author of the study, told The Guardian.

The study also found severe mental health problems in the young population after the pandemic. The impact of faster brain ageing and its effect on mental health is not clear yet.

“We are starting to rescan all of the participants at age 20, so we’ll have a better sense of whether these changes persist or start to diminish with time,” Gotlib said.

“In older adults, these brain changes are often associated with reduced cognitive functioning. It’s not clear yet what they mean in adolescents. But this is the first demonstration that difficulties in mental health during the pandemic are accompanied by what seem to be stress-related changes in brain structure,” he added.

Earlier in 2020, researchers had said that fewer face-to-face encounters among teens might harm mental health and growth. Between the ages of 10 and 24 years is a life stage when interacting with peers is vital for brain development and building a sense of self, according to the authors of an opinion piece in the Lancet Child and Adolescent Health journal. Studies have indicated that reduced social contact during this period may have long-term detrimental effects.

CLARITY OF VISION

The casual exaggeration of claims in medicine, unsubstantiated by science and facts, has long been a plague in the health sector. The promise of spectacular cures advertised in the media from time to time, in fact, prompted separate legislation to curb such claims: the Drugs And Magic Remedies (Objectionable Advertisements) Act. Last week, controversy over the claims over the prowess of eye drops prescribed for presbyopia (progressive loss of the near focusing ability of the eye due to ageing), led to the Central Drugs Standard Control Organisation (CDSCO) suspending a pharma company’s permission to manufacture and market the product. The CDSCO said that the company



had made claims, for which it had not been authorised (that using the drops could lead to reading glasses not being needed for presbyopia). “In view of public interest, and due to the likelihood of the public being misled by these claims,” permission had been suspended. The company, ENTOD Pharmaceuticals, held that approval for the drug was based upon a valid controlled clinical trial that demonstrated efficacy and safety in 234 patients. It ladled the blame for the ‘claims’ on to media reports on the new product “which went viral and public imagination [that] led to an unusual escalation for which ENTOD Pharmaceuticals is not responsible”. Despite these protestations, the company had posted a message on X (since deleted) tagging Prime Minister Narendra Modi: “PresVu is the first DCGI-approved proprietary prescription eye drops to eliminate the need for reading glasses”.

The main ingredient in the drops, pilocarpine, works by causing the pupils to constrict, creating a pinhole effect. This would enable someone with presbyopia to see better. Pilocarpine, itself, is not a new application in ophthalmology, or even, presbyopia. It has been used to treat glaucoma, though its use waned because of the side effects, and has since been replaced by better drugs. The U.S. FDA had, in 2021 and 2023, approved pilocarpine-based eye drops for use in presbyopia. While the announcement of these approvals was publicised at the time, the communiqués mentioned the advantages of using the eye drops, along with the side effects, a measured claim about offering another option for presbyopes, in addition to glasses, contact lenses and surgery. The intervention of the CDSCO in this case, clearly is an attempt to reinforce the Drugs and Magic Remedies Act. This is a valid intervention in India today, where frequent advertisements for fantastic cures indicate the presence of an industry that thrives on cheating gullible patients. It is the duty of the government to set store entirely by scientific data, and rein in unsubstantiated claims about drugs, no matter who makes them.

VACCINES FOR MPOX

The Democratic Republic of Congo (DRC) — epicentre of the mpox outbreak that has become virulent and spread to other countries — has received its first donation of mpox vaccines.

— Since January 1, 2022, mpox cases have been reported from 121 countries, including 20 WHO member-states across Africa...On Monday, India confirmed its first mpox case, which was a travel-related infection.

— Despite **the surge in the number of cases**, vaccines have been in short supply in Africa. Apart from DRC, the only other African country to have any mpox vaccine is Nigeria. That is one of the main reasons why mpox spread rapidly, prompting the WHO to declare the infection a global health emergency last month.

— Mpox, which was first reported in humans in 1970, has come under the spotlight largely due to the spread of its new clade Ib variant. Organisms belonging to a clade share common ancestors. When it comes to mpox, there are two different clades: clade I and clade II; the former is the deadlier of the two.

— Clade Ib seems to be transmitting more rapidly between people than previous variants, including through sexual activity. Clade Ia mostly comes from animals, according to a report in the journal Nature. The new variant is also affecting more women and children in the impacted African countries.



— Three mpox vaccines are available currently. All are weakened versions of vaccinia, a live virus that also served as the basis for the smallpox vaccine.

— Gavi and UNICEF cannot buy vaccines unless the WHO issues an Emergency Use Listing to products or gives them full approval, according to a report in the journal Science. To get these, companies have to submit efficacy and safety data about their products.

— Getting a vaccine is recommended for a high-risk population, especially during an outbreak. The vaccine can also be administered after a person has been in contact with someone who has mpox. In these cases, the vaccine should be given less than four days after contact with an infected person. The vaccine can be administered for up to 14 days if the person has not developed symptoms.

For Your Information:

— Mpox, previously known as monkeypox, is a self-limiting viral infection caused by mpox virus (MPXV). The most common symptoms of mpox include fever, headache, muscle aches, back pain, low energy, and swollen lymph nodes, along with pox-like rashes that last for two to three weeks.

— Virologist Dr Gagandeep Kang told The Indian Express, “Both smallpox and mpox belong to the same family of viruses. Mpox is less severe and has lower case fatality rates but is spreading fast because it has animal reservoirs, which smallpox did not have.”

TAKING TB SERIOUSLY

Time is of the essence in adopting advanced technology in medical care. When medical technology arrives dragging its feet, then its transformative effects are not that dramatic. The Union Health Ministry’s decision to introduce the new treatment regimen for drug-resistant tuberculosis hardly a couple of years after it was recommended by the World Health Organization (WHO), is a step in the right direction. Last week, the government approved the BPaLM regimen comprising four drugs — Bedaquiline, Pretomanid, Linezolid and Moxifloxacin. This regimen has been proven to offer better outcomes, remarkably shortening the duration of treatment, and resulting in improvements in quality of life for persons living with multidrug-resistant tuberculosis (MDR-TB), which resists treatment by isoniazid and rifampicin, the two hitherto frontline drugs in TB treatment. The move makes tremendous sense for a country that voluntarily set itself an earlier target for TB elimination by 2025, five years ahead of the global target under the UN Sustainable Development Goals. TB elimination means there should be under one case of TB for a population of 10 lakh. Traditional treatments can last up to 20 months, and entail severe side effects for the patient. The BPaLM regimen is reputed to cure drug-resistant TB in just six months, with a high success rate. It is particularly significant in this country, because an estimated 75,000 people living with drug-resistant TB can now switch to this shorter, cheaper treatment regimen. This move, experts endorse, will undoubtedly improve treatment outcomes and help thousands of patients.

The government has, admirably, shown a commitment and political will to see the back of TB, and has, over the years, implemented several measures in aid of this. Shifting from conventional culture and drug sensitivity testing to rapid molecular tests for diagnosing MDR-TB has resulted in improved case detection, higher treatment coverage, better treatment success rates, and falling death rates. Extra support (financially, nutritionally and societally) in the form of the Ni-kshay Mitra scheme has also yielded results. India’s reduction of TB incidence by 16% from 2015 to 2022 is almost double the pace at which global TB incidence is declining, as per WHO’s Global TB



Report 2023. Mortality has also reduced by 18% during the same period in India. It was India which led the way earlier with its Directly Observed Therapy Short-course programme, revolutionising TB care back in the day with supervised administration of drugs. Centring its patients, the government should not merely follow, but be a pioneer in diagnosing and treating TB.

WHAT IS ANTI-MICROBIAL RESISTANCE (AMR) AND WHY IS IT A GRAVE THREAT?

Ahead of the September 26 UN General Assembly High-Level Meeting on antimicrobial resistance, the World Health Organization last week published its first-ever guidance on antibiotic pollution from manufacturing.

— AMR and consequently, the creation of “superbugs” — affects healthcare everywhere, but has especially poor outcomes in patients suffering from multiple diseases. A survey by the Indian Council of Medical Research (ICMR), the country’s apex body for the formulation, coordination and promotion of biomedical research, shows that AMR continues to rise across the country.

— AMR is a condition in which a pathogen acquires the ability to survive and cause infection even in the presence of an antimicrobial drug. AMR is the result of evolution of microbes in a situation where there is a misuse or overuse of antibiotics.

— Excessive use of antimicrobial drugs can lead to the creation of resistant or extremely resistant superbugs, which can circulate in hospitals, through drinking water, or sewers. Infections caused by these pathogens will not respond to commonly prescribed antibiotics.

— Growing antibiotic resistance would mean that simple infections would become difficult to treat.

Reasons behind the increasing AMR

1. Many Indians have a tendency to pop an antibiotic for a fever, without even checking if the fever is caused by a bacterium. An antibiotic is of no use for viral infections such as influenza, but consuming it can drive up resistance in the population.

2. Doctors must be educated to not use broad-spectrum antibiotics, Dr Walia said. These are antibiotics that work against a wide range of infections, but these are also the ones that are more likely to lead to resistance. Overuse of antibiotics has rendered some of them useless or of limited use.

3. The WHO’s guidelines on antibiotic pollution from manufacturing released last week provides guidance on wastewater and solid waste management for antibiotic manufacturing facilities. Despite the high levels of antibiotic pollution that have been widely documented, the issue is largely unregulated, the WHO said.

— The three most common pathogens isolated in patient samples from tertiary care centres in the ICMR surveillance network are e. coli, which can cause gut infections; Klebsiella pneumoniae, which can cause pneumonia and urinary tract infections; and Acinetobacter baumannii, which is mainly associated with hospital acquired infections, the recent report said.



UNDERSTANDING OVARIAN CANCER: ITS CAUSES, SYMPTOMS, AND SCREENING METHODS

Ovarian cancer is the most lethal gynaecological malignancy. It is often called a “silent killer” because its symptoms are non-specific and mimic less serious conditions that lead to late diagnosis and a poor prognosis. In India, ovarian cancer ranks among the top three cancers, contributing to 6.6% of all women’s cancers.

In 2022, India reported 47,333 new ovarian cancer cases and 32,978 deaths. These alarming figures highlight the gravity of the disease. Understanding lesser-known aspects of ovarian cancer can enhance prevention, early detection, and treatment efforts, offering hope to patients and healthcare providers.

Unlike other cancers, ovarian cancer presents vague symptoms such as bloating, pelvic or abdominal pain, loss of appetite, feeling full quickly, and an urgent or frequent need to urinate. Other signs include indigestion, constipation, back pain, persistent fatigue, weight loss, and postmenopausal vaginal bleeding. These symptoms are often mistaken for common ailments, leading to late diagnosis. A 2004 study reported women with (malignant) ovarian cancer typically experience these symptoms 20 to 30 times a month, and which are more severe than those without the disease. Unfortunately, because of the overlapping nature of these symptoms with other common ailments, they can be dismissed until the cancer has advanced. Healthcare providers must be vigilant when women report persistent symptoms.

Cancer subtypes and screening

Ovarian cancer is not a uniform disease. It has two main subtypes: type I and type II. Type I tumours are less common, typically diagnosed at an early stage, and have a better prognosis. Type II tumours are more common, more aggressive, usually diagnosed at an advanced stage, and are responsible for most deaths due to ovarian cancer.

The survival rate for patients with ovarian cancer depends on the stage of detection and access to appropriate treatment. Researchers reported in September 2022 that around 20% of patients with advanced ovarian cancer who receive optimal surgery and platinum-based chemotherapy could be disease-free at 10 years and might be considered potentially cured.

Unlike breast or cervical cancer, there are no effective screening tests for ovarian cancer. The CA125 blood test, often included in cancer screening packages, is not recommended for routine screening in women at average risk due to its limited specificity. While CA125 is useful to monitor ovarian cancer after diagnosis, it is less effective at screening asymptomatic women as it can lead to false positives and unnecessary further testing, anxiety, and potentially over-treatment.

Due to the absence of a reliable screening tool, awareness of risk factors and symptoms becomes crucial. Regular consultations with healthcare providers and discussions about family history can lead to earlier detection and better management of ovarian cancer.

Genes and endometriosis

While it’s possible to develop ovarian cancer even without a family history of breast or ovarian cancer, it’s the most heritable of all cancers: 65-85% of hereditary ovarian cancer cases involve mutations in the BRCA1 or the BRCA2 genes. Women with these mutations have a significantly



higher risk of developing ovarian cancer — up to 50% for BRCA1 and around 15% for BRCA2. Some other genes have also been associated with hereditary ovarian cancer.

Genetic testing allows for personalised risk management, including tailored clinical surveillance, chemoprevention, and prophylactic surgeries, which can reduce the risk of developing ovarian cancer in high-risk women. Endometriosis, a condition where uterine-like tissue grows outside the uterus, has been linked to an increased risk of certain types of ovarian cancer, particularly endometrioid and clear-cell cancers. This said, endometriosis-linked ovarian cancer risk is low and radical measures, such as a bilateral salpingo-oophorectomy, to prevent ovarian cancer alone are rarely justified.

Lifestyle factors

Certain lifestyle factors are linked to ovarian cancer risk. For example, the use of talcum powder in the genital area has long been debated, with mixed evidence about its potential link to ovarian cancer. In the past, some talc products contained asbestos, a known carcinogen, but the evidence regarding modern, asbestos-free talc is still inconclusive. Experts including the American Cancer Society have called for more research to settle these questions. Another emerging area of concern is the use of chemical hair products. Some studies have shown a possible link between the prolonged use of hair dyes and an increased risk of ovarian cancer.

Additionally, frequent use of hair straighteners, relaxers or pressing products that release formaldehyde gas — a known carcinogen — may elevate the risk of developing ovarian cancer. Again, more research is required.

HRT, menopause, and genetic counselling

Hormone replacement therapy (HRT), commonly used to alleviate menopausal symptoms, has been linked to a higher risk of ovarian cancer even when used for less than five years. Postmenopausal women considering HRT should weigh this risk against the benefits and explore alternatives with their healthcare provider to make informed decisions.

For women with a family history of ovarian or breast cancer, genetic counselling is a valuable tool. This process helps identify individuals at risk for hereditary cancers and provides tailored guidance on preventive measures and potential treatments. Through personalised risk management strategies, genetic counselling can improve outcomes and help reduce the likelihood of developing ovarian cancer.

PANIC IN THE TIME OF CHOLERA: ISSUES CRITICAL TO MANAGING A RESURGENCE

There is no escaping the damage caused to health by climate change across the globe. But as we talk of innovation and AI-assisted vaccine platforms, there is, on the civic and local side, a stunning lack of attention to very simple issues — clean water, hygiene, and sanitation. The latter was greatly exacerbated again by climate change, resulting not only in mortality but also reduced quality of life. The recent cholera data published by the World Health Organization (WHO) falls into this category of simple issues that don't get the attention they deserve.

Cholera is an acute diarrhoeal disease caused by the ingestion of water or food contaminated with vibrio cholerae. It can cause severe diarrhoea, vomiting, leg cramps, and weakness, and people with low immunity such as malnourished children and people living with HIV/AIDS are at greater risk of death if infected. As a paper in Nature points out: "The dynamics of the infection involve



multiple interactions between the human host, the pathogen, and the environment, which contribute to both human-to-human, and environment to human transmission pathways. The most common pathways of contracting the germs are by eating food cooked by infected people, drinking contaminated water, and shaking hands with infected people. The main symptom of cholera is severe acute watery diarrhoea that lasts for three to seven days. If treatment is delayed, this can lead to excessive and fast dehydration and possibly death.”

The situation is quite dire, if we take Unicef Deputy Executive Director Ted Chaiban at his word: “2 billion people still lack access to safely managed drinking water, and 3.6 billion people lack access to safely managed sanitation.”

According to the data, the number of reported deaths from cholera increased last year by 17% compared to 2022. The number of cases increased by 13%. “Cholera killed 4000 people last year, a disease that is preventable and easily treatable... Preliminary data show that the global cholera crisis continues in to 2024, with 22 countries reporting active outbreaks,” said WHO director general Tedros Tedros Adhanom Ghebreyesus.

From 1 January to 28 July 2024, a total of 5,052 cholera and AWD cases were reported across four countries in the South-East Asia Region. During this period, cases were reported from India (3,805 cases), Myanmar (1,141 cases), Bangladesh (86 cases), and Nepal (20 cases), as per WHO data. 2,400 deaths have already been reported to WHO across all continents as of 22 August.

Dr. Tedros, in his message, added that conflict, climate change, unsafe water and sanitation, poverty and displacement all contributed to the rise in cholera outbreaks last year. His revelation that the geographical distribution of cholera had also changed significantly, with cases from the Middle East and Asia declining by one-third, and cases from Africa more than doubling, was worrisome, given the existing inequities in access to health care. Not surprisingly, the global cholera crisis has caused a severe shortage of cholera vaccines. Between 2021 and 2023, more doses were requested for outbreak response than the entire previous decade, the WHO DG said. About 36 million doses were produced last year, only half the amount requested by 14 affected countries. Therefore, since October 2022, the International Coordinating Group, which manages emergency vaccine supplies, has had to suspend the standard two-dose vaccination regimen, adopting a single-dose approach to reach and protect more people with limited supplies. Dr. Tedros also emphasised that there is currently only one manufacturer of cholera vaccines, and urged other manufacturers planning to enter the market to accelerate their efforts and make doses available at affordable rates.

His prime message though was: While vaccination is an important tool, safe drinking water, sanitation and hygiene remain the only long-term and sustainable solutions to ending cholera outbreaks and preventing future ones.

In an article in Science, Kai Kupferschmidt records microbiologist Rita Colwell's long time argument that warmer surface waters can favour the emergence of the bacterium. He argues that whether this actually plays a role in large outbreaks across the world is contested, but another climate link is very clear. The article says: “Floods can aid spread by causing latrines to overflow into water sources, for instance, and droughts can boost concentration of the bacterium in shrinking ponds and streams and force people to use unsafe water.”

The truth that the data has offered us cannot be ignored: conflict, climate change, limited investment in development and population displacement due to emerging and re-emerging risks are all contributing factors to the rise in the number of cholera outbreaks. Clearly several of the



sustainable development goals are not on course, and nowhere near meeting the targets, and access to safe drinking water and sanitation is far from being the fundamental right that the United Nations General Assembly declared it was in 2010.

But meanwhile, there has been some galvanisation globally, to address the challenge. The Global Task Force for Cholera Control (GTFCC) by WHO developed a 'Global Roadmap for Ending Cholera by 2030', emphasising the need for multi-sectoral interventions —from identifying disease transmission and reporting that essential information to government agencies, to sensitising afflicted or vulnerable communities with hygiene reminders and providing sanitation facilities, and facilitating OCV campaigns —in hotspot areas.

In May this year, seven countries and 10 major health partners affiliated with the Global Task Force on Cholera Control (GTFCC) came together, on the side of the World Health Assembly in a powerful show of multisectoral commitment to end the global cholera emergency. The International Federation of Red Cross and Red Crescent Societies (IFRC), the United Nations Children's Fund (UNICEF), and the WHO —in partnership with the GTFCC — urged immediate collective action with only six years left to meet the GTFCC's 2030 global roadmap goals. The focus was on the critical need for sustainable funding to advance safe water, sanitation and hygiene services, strengthen disease surveillance in cholera hotspots and scale up local oral cholera vaccine manufacturing.

IFRC Secretary General Jagan Chapagain underlined what public health experts have been articulating since the global resurgence of cholera, and the pressure it has placed on health systems, globally: "We cannot accept such a staggering loss of life to a disease that is entirely preventable and treatable with the tools we have in the 21st century. This event serves as a stark reminder that there is much more work to do as we approach 2030. We must urgently refocus our efforts and elevate cholera control to the forefront of global dialogues, while backing it with tangible investments at the grassroots level."

Now everything will hinge on whether investments come through and local governments are convinced to spend on ensuring clean water, hygiene and sanitation. It is also important for these governments to recognise the creeping significance of climate change, and take measures to mitigate and counter the effects.

HOW TO SPOT PREDIABETES BEFORE IT BECOMES DIABETES

Most patients keep asking me about the symptoms of prediabetes — a condition when blood sugar levels are higher than normal but not high enough to be declared diabetes. They want to know if something is to be made out of their hunger cravings or not. The fact of the matter is that there are virtually no symptoms of prediabetes and it can only be diagnosed by routine screening. If symptoms like exhaustion, frequent urination or unexplained bouts of hunger or thirst show up, then you have already progressed to diabetes.

WHAT CONSTITUTES PREDIABETES

Before one develops overt diabetes, the intermediate stage called prediabetes may be defined as a condition of Impaired Fasting Glucose (IFG) (if you have higher than normal sugar levels after a period of fasting), or as Impaired Glucose Tolerance (IGT) (if you have higher than normal sugar levels after eating) or a combination of both. According to the WHO definition of prediabetes, the plasma glucose level in the fasting state is between 110 and 125 mg/dL. The two hours after meal



reading should be 141-199 mg/dL. If the fasting blood sugar level is above 126 mg/dL, you have diabetes.

WHY PREDIABETES MUST BE REVERSED IMMEDIATELY

Prediabetes is not an innocuous state and can lead to heart attack, disease and strokes. Its diagnosis becomes important because besides isolated spikes of blood sugar, it also elevates blood pressure and cholesterol. Some of the long-term damage to the blood vessels, heart and kidneys may have already started in this stage. Hence a comprehensive approach is required to control it.

What many do not realise is that the division of prediabetes and diabetes was made because those overtly diabetic were more susceptible to developing eye infection, kidney and nerve complications.

INTERVENTIONS TO ROLL BACK PREDIABETES

Studies both in India and abroad have proven that lifestyle interventions — that is diet, exercise and weight loss — are the most effective way to halt diabetes. For those in whom lifestyle corrections do not work, metformin has been cleared by the drug controller for prediabetes. Other drugs are not approved for use at this stage.

WHO SHOULD BE SCREENED?

All adults above 30 should be screened for prediabetes. But if that may seem overwhelming, those with a family history of diabetes, obesity, polycystic ovary disease (PCOD), those who are physically inactive and have a lot of stress should undergo screening. Take the oral glucose tolerance test (OGT) and the haemoglobin A1C (HbA1c) test, which maps blood glucose for three months. In the US, anybody with a reading between 5.7 per cent to 6.4 per cent is considered to be living with prediabetes even if their blood glucose test is normal.

Those with full-blown diabetes have difficulty reversing their condition but can keep it under control and lead a long life if they keep their ABC levels under control. This means you should keep your A or haemoglobin A1c levels below 6.4 per cent, B or blood pressure in normal range and C or cholesterol levels under control.

DOCTOR FIGHTS FIRMS PEDDLING 'SUGARY' ORSL PACKS AS ORS

Diarrhoea is the third leading cause of childhood mortality in India, accounting for 13% of all deaths among children under five. During episodes of diarrhoea and vomiting, a crucial step is to ensure proper rehydration. With this in mind, the World Health Organization (WHO) recommends a Reduced Osmolarity Oral Rehydration Solution (ORS), which contains the precise concentrations of sodium, potassium, chloride, citrate, and dextrose needed for the human body to rehydrate effectively. However, when people ask for ORS at pharmacies across the country, they are often given ORSL tetra packs, which are frequently mistaken for the WHO-recommended ORS.

This is where Hyderabad-based paediatrician Sivaranjani Santosh comes in. She has been actively campaigning against the sale of ORSL, which is labelled as an electrolyte drink but is not suitable for rehydration during diarrhoea. "During diarrhoea, high-sugar drinks should be avoided because excess sugar can worsen the condition," explains Dr. Sivaranjani. "When ORSL was introduced, manufacturers met with paediatricians, leading many to believe it was ORS. But in reality, the sugar content in ORSL is as high as in packaged soft/fruit drinks, with only a little extra



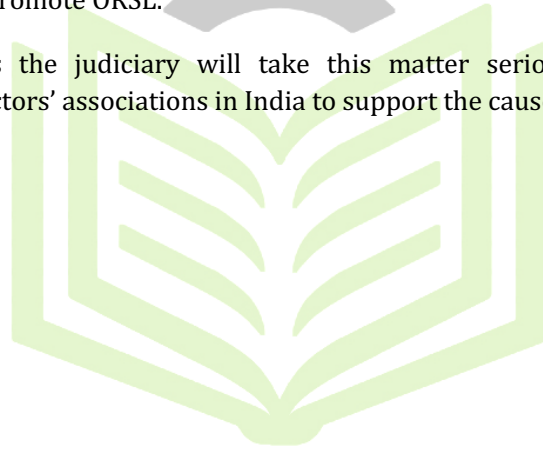
sodium. We noticed that many children’s diarrhoea worsened. When we investigated we realised ORSL is not the same as ORS.”

Once Dr. Sivaranjani identified the problem, she began raising awareness through workshops, social media platforms such as Facebook and Instagram, and by reaching out to media outlets. In 2023, she took the issue to the Central Drugs Standard Control Organisation (CDSCO), which referred her to the Food Safety and Standards Authority of India (FSSAI). In April 2023, FSSAI issued an order to stop the mislabelling of ORSL. However, in July, the order was revised to allow companies with a valid trademark to retain the name ORS, provided they included a disclaimer.

Some manufacturers began adding disclaimers on ORSL tetra packs stating “Do not use during diarrhoea,” but these disclaimers are often printed in very small fonts, and easy to overlook. “Pharmacists also prefer selling ORSL because they earn a higher margin, as ORSL is twice as expensive as standard ORS solutions,” adds Dr. Sivaranjani.

In 2022, Dr. Sivaranjani filed a Public Interest Litigation (PIL) in the Telangana High Court, demanding that manufacturers remove the letters ‘ORS’ from the name ORSL. In response to the PIL, companies introduced the misleading concept of “silent dehydration,” a term not found in any medical literature, to promote ORSL.

Dr. Sivaranjani hopes the judiciary will take this matter seriously and has called upon paediatricians, and doctors’ associations in India to support the cause.



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