



SEVERE COLD SPELL
J&K CM to monitor services from Srinagar
NEWS » PAGE 6

CENTRE'S ASSURANCE
Transit camp residents may get homes soon
NEWS » PAGE 4



ISRAEL'S SIEGE OF GAZA
Air strikes hit school, near hospital, kill 28
WORLD » PAGE 14

DATA POINT
Fiscal evolution of Odisha
RBI article analyses the State's journey from 2000 to 2024
OPINION » PAGE 9



HARD AT WORK
India hits the nets with gusto
SPORT » PAGE 16

India, Kuwait lift ties to 'strategic partnership'

The two sides sign a memorandum of understanding for exchange of defence personnel, exercises, supply of military equipment; they ink an MoU on cultural exchange and agreement on sports cooperation; Prime Minister holds discussions with Kuwaiti Amir; invites the Gulf country's investment body to 'look at new opportunities' in India

Kallol Bhattacharjee
NEW DELHI

India and Kuwait on Sunday signed a memorandum of understanding (MoU) on defence cooperation that will allow for exchange of defence personnel, joint exercises, and supply of military equipment. The MoU was part of the outcomes firmed up during Prime Minister Narendra Modi's two-day visit to the energy-rich Gulf kingdom, which bestowed its highest honour on him. Mr. Modi announced that the two sides had lifted the relationship to the level of "strategic partnership". The conversation between Mr. Modi and the Amir of Kuwait, Sheikh Meshal Al-Ahmad Al-Jaber

Al Sabah, covered areas such as pharmaceuticals, IT, fintech, infrastructure, and security. Earlier, India hosted the Foreign Minister of Kuwait, Abdullah Ali Al-Yahya, in New Delhi on December 3 and 4. **Economic ties** Mr. Modi met with the Prime Minister of Kuwait, Sheikh Ahmad Al-Abdullah Al-Ahmad Al-Sabah, and discussed ways to deepen economic ties. He invited a delegation from the Kuwaiti Investment Authority and other notables in the Kuwaiti economy to visit India and "look at new opportunities in the fields of energy, defence, medical devices, pharma, foodparks," the External Affairs Ministry



Prime Minister Narendra Modi receiving Kuwait's highest honour from the Amir, Sheikh Meshal Al-Ahmad Al-Jaber Al Sabah. PTI

said in a press note. Apart from the MoU on defence, the two sides signed an MoU on cultural exchange and agreement on sports cooperation. They welcomed the recent sealing of the Joint Commission for Cooperation in the area of defence. Working Groups in trade, investment, education, technology, agriculture, security and culture have been set up. The two sides already have Joint Working Groups (JWGs) on health, manpower, and hydrocarbons. Mr. Modi reached Kuwait on Saturday and visited the Gulf Spic Labour Camp where more than 90% of the inhabitants are from India.

Cultural connection He also met translators Abdulla Al Baroun and Abdul Lateef Al Neseef who have translated the Ramayana and Mahabharata into Arabic. Over the decades, several Gulf and Arab countries have translated the Indian epics and the work of the two translators have added to that tradition. "I am honoured to be conferred the Mubarak Al-Kabeer Order by His Highness the Amir of Kuwait, Sheikh Meshal Al-Ahmad Al-Jaber Al Sabah. I dedicate this honour to the people of India and to the strong friendship between India and Kuwait," Mr. Modi said after receiving the honour during the visit. The honour is bestowed generally on Heads of state and foreign sovereigns and to members of foreign royal families as a sign of friendship. Former U.S. President Bill Clinton and King Charles were among the previous recipients of the honour. Mr. Modi also met the Crown Prince of Kuwait Sheikh Sabah Al-Khaled Al-

Hamad Al-Mubarak Al-Sabah. Professor Zikrur Rahman, former diplomat who has served in multiple Arab countries, pointed out that Kuwait was the only Gulf Cooperation Council country that Mr. Modi had not visited earlier and the visit therefore was significant as Kuwait has maintained a friendly policy towards India over the past several decades. "PM Modi has visited all other Gulf countries barring Kuwait and it was time that he also covered Kuwait. Starting with the end of the Cold War and the first Gulf war, Kuwait has maintained a positive attitude towards India and therefore the visit at this time will be helpful for India," said Prof. Rahman.

INSIDE
Row after arrest of terror suspects in West Bengal
KOLKATA The arrest of a suspected member of a terror outfit in West Bengal on Sunday triggered the debate about whether the State is turning out to be a safe haven for extremist elements. » PAGE 4

Can't intimidate India to conform, says Jaishankar
MUMBAI External Affairs Minister S. Jaishankar has said India will work for the global good without being intimidated to "conform". » PAGE 6

Centre should overhaul GST regime, says Congress

The Hindu Bureau
NEW DELHI

The Congress on Sunday exhorted the Narendra Modi government to show the courage to overhaul the Goods and Services Tax (GST) regime, citing the "absurdity" of three different tax slabs for popcorn under the present system. In a post on X, Congress general secretary in-charge communications Jairam Ramesh said the current complexities in the system had thrown open several loopholes leading to tax evasion. These complexities, he said, were leading to significant GST invasion.

FULL REPORT ON
» PAGE 4

In search of life



Ground zero: Rescue operations continued on Sunday after a multi-storey building collapsed at Sohana village in Mohali district of Punjab on Saturday evening. Two people were killed in the accident. PTI (REPORT ON PAGE 4)

Half of MGNREGS sites inspected in West Bengal showed flaws: RTI reply

Sobhana K. Nair
NEW DELHI

On December 26, it will be three years since the Centre sent the last tranche of funds under the Mahatma Gandhi National Rural Employment Guarantee Scheme (MGNREGS) to West Bengal. The funds have been withheld by the Centre since December 2021, citing irregularities in implementation of the programme in the State.

A set of RTI replies reveals that one of the key factors prompting the Union Rural Development Ministry's decision was the inspection of 63 worksites out of which inconsistencies were reported in 31.

There are 3.4 crore registered MGNREGS workers in West Bengal. The Centre bears 90% of the budget for the scheme that provides guaranteed employment for up to 100 days in rural areas.

A series of RTI requests filed by Chakradhar Buddha from the National Campaign for People's Right to Information reveals that the Centre undertook three field visits to the State - January 22-24, 2019, to Purba Bardhaman and Hooghly districts; March 2-28, 2022, to Malda district; and a third visit from April 14-18, 2022, to Hooghly, Purba Bardhaman, and Darjeeling. In total, the teams inspected 63 worksites of which "32 were found satisfactory and the remaining 31 had serious shortcomings".

The Central teams broadly reported these faults with the implementation - "breaking bigger works into smaller parcels to avoid scrutiny", "existing work was fraudulently shown to be created under MGNREGS", "tendering



Ongoing issue: There are 3.4 crore registered MGNREGS workers in West Bengal and the Centre bears 90% of scheme budget. FILE PHOTO

norms were not followed for procurement of systems", "works not permissible under MGNREGS were taken up", "poor maintenance of files and records" and so on. The Centre also stated that the State government filed delayed and unsatisfactory action-taken reports when these faults were pointed out.

State against Centre Since the stoppage of funds, there has been much back and forth between the State government and the Centre. The State government has been criticised for its handling of the scheme, including allegations of corruption and mismanagement. The State government, in a hearing of a case in the Calcutta High Court on a petition filed by the Paschim Banga Khet Majoor Samity (PBKMS), has said that since the fund freeze, it has written to the Centre more than 20 times but has got no response.

On December 13, in a reply tabled in the Rajya Sabha to a question by Trinamool MP Saket Gokhale on the reason for stopping funds to West Bengal, the Union Ministry of Rural Development said, "The release of funds under Ma-

hatma Gandhi National Rural Employment Guarantee Scheme to the State of West Bengal has been stopped since March 9, 2022, as per provision of Section 27 of Mahatma Gandhi National Rural Employment Guarantee Act, 2005, due to non-compliance of directives of Central Government."

Section 27 empowers the Centre to stop releasing funds if irregularities are found in the scheme's implementation. The Section, however, does not stipulate holding back funds indefinitely. It also states, "appropriate remedial measures for its proper implementation within a reasonable period of time" has to be taken.

On December 18, a delegation of NREGA Sangharsh Morcha - a body of unions working with MGNREGA workers - met Union Rural Development Minister Shivraj Singh Chouhan who assured them of resolving it at the earliest. "We told Mr. Chouhan and the Ministry officials that workers are being punished for the theft of MGNREGS funds by the officials, which is unjust. We hope it is resolved at the earliest," Anuradha Talwar, of PBKMS said.

Congress seeks further probe by SC in Pegasus case after U.S. court holds Israeli group 'liable'

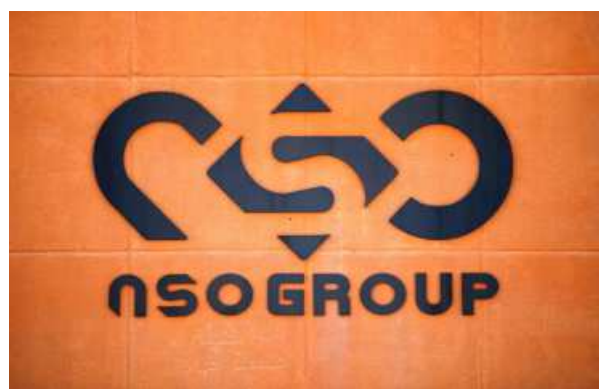
The Hindu Bureau
NEW DELHI

Renewing a debate on the alleged deployment of the Pegasus spyware by the Narendra Modi government, Congress leader Randeep Surjewala on Sunday asked if the Supreme Court would conduct a "further inquiry" as a U.S. court has held Israel's NSO group "liable" for its intrusive software.

On Friday, a U.S. court held NSO liable for hacking WhatsApp, in a case initiated by the software giant Meta. Sharing a media report on the verdict, Mr. Surjewala said on X, "The Pegasus spyware case verdict proves how 300 WhatsApp numbers of Indians were targeted in the illegal spyware racket." In 2021, reports said Pe-

gasus was used on more than 300 Indian mobile numbers. The reports had said that mobile numbers of Cabinet Ministers, Opposition leaders, holders of constitutional positions, journalists, and business persons were targeted.

'Reveal targeted users' Mr. Surjewala said it was time the Narendra Modi government revealed who the 300 users were. The Rajya Sabha member asked, "Who are the two Union Ministers? Who are the three Opposition leaders? Who is the Constitutional authority? Who are the journalists? Who are the business persons? What information was retrieved by the BJP government and agencies? How was it used - misused -



A U.S. court on Friday held NSO liable for hacking WhatsApp, in a case initiated by the software giant Meta. AP

and to what consequence?" He also questioned if appropriate criminal cases would now be lodged against the political executive or officers in the present government and the company owning the NSO group. "Will the Supreme Court take note of the judgment of the U.S. court in Meta v/s NSO? Will the Supreme Court proceed to make public the report of the Committee of Technical Experts on Pegasus Spyware, submitted to it in 2021-22?" Mr. Surjewala asked. Questioning if the Supreme Court would now

conduct a further inquiry in view of the judgment affirming the targeting of 1,400 WhatsApp numbers, including 300 from India, he asked, "Will the Supreme Court now ask Meta to submit to itself the 300 names to meet the ends of justice in the Pegasus case?" "Shouldn't Facebook (now Meta) now have responsibility to release the names of 300 Indians targeted by Pegasus, considering WhatsApp and Facebook have the biggest subscriber base in India and they have 'duty of care and disclosure' to its clients in India?" In 2022, a Supreme Court-appointed committee reported that Pegasus was not found in any of the 29 mobile phones it examined.

IN BRIEF



Dharma must be taught properly, says Bhagwat

Rashtriya Swayamsevak Sangh (RSS) chief Mohan Bhagwat on Sunday said all the persecution and atrocities that took place in the name of "dharma (religion)" happened due to misunderstanding and lack of understanding of "dharma". Speaking at the centenary function of 'Mahanubhav Ashra' in Maharashtra's Amravati district, he said 'dharma' was important and must be taught properly. Asserting that 'dharma' has always existed and everything works according to it and that is why it is called "sanatan", the RSS chief said "the conduct of dharma is protection of dharma". PTI

BJP begins membership drive in Jharkhand, aims for 60 lakh

The BJP on Sunday launched its mega membership drive in Jharkhand. State BJP chief Babul Marandi kicked off the drive at Khoron village in Giridih district. "I attended the divisional level workshop of the organisation's Mahapary of membership drive at Khoron in Belwana Panchayat of my Dhanwar Assembly constituency," Mr. Marandi posted on X. He claimed that hundreds of people took party membership at the workshop. The drive started in 5,628 centres across the State, a BJP office-bearer said. The BJP has decided to make around 60 lakh members during the drive, as it had received over 59 lakh votes in the recently concluded Assembly elections, he said. PTI

Uddhav, Raj Thackeray come together for family wedding

Shiv Sena (UBT) chief Uddhav Thackeray and his cousin Raj Thackeray, who heads the Maharashtra Navnirman Sena (MNS), came together at the wedding of the latter's nephew in Mumbai on Sunday. The politically estranged cousins were seen standing together along with other relatives at the wedding of Yash Deshpande, son of Mr. Raj's elder sister Jaywanti Deshpande, who is close to Mr. Uddhav's wife Rashmi Thackeray. Mr. Raj and Mr. Uddhav were accompanied by their family members at the function held in Dadar. Last week, Mr. Raj attended the wedding of the son of Ms. Rashmi's brother Shridhar Patankar. But the MNS chief had left before Mr. Uddhav arrived. PTI

Cancel State exams, RJD leader writes to Bihar CM

Press Trust of India
PATNA

Rashtriya Janata Dal (RJD) leader Tejashwi Yadav on Sunday wrote to Bihar Chief Minister Nitish Kumar, seeking cancellation of competitive exams conducted recently under "controversial circumstances". Mr. Yadav late on Saturday night visited the site here where candidates have been carrying out a round-the-clock protest.

Mr. Yadav, who is now the Leader of the Opposition, warned "many of the protesters I met last night have fallen ill. If anything untoward happens, the blame shall be on the government and the BPSK Chairman".

He had visited Gardani Bagh locality where he was told by the protesters that they were opposed to the decision of the Bihar Public Service Commission to order re-exam only at Bapu Pariksha Parisar, one of the over 900 centres where, on December 13, the combined competitive exams were held.

Notably, hundreds of aspirants at the Bapu Pariksha Parisar had boycotted the tests, alleging that question papers had been leaked.

Include mumps vaccine in Universal Immunisation Programme, T.N. to Centre

Serena Josephine M.
CHENNAI

Tamil Nadu, which records at least 150 cases of mumps in a month now, had earlier this year requested the Union government to consider adding the mumps vaccine to the Universal Immunisation Programme (UIP).

The Directorate of Public Health and Preventive Medicine, in a letter to the Union Health Ministry, requested the Centre to advise on any possibility of supplying the Measles, Mumps and Rubella (MMR) vaccine under routine immunisation to control all three diseases in the State. The need for the request arose after mumps cases were reported at various health unit districts in the State in February this year.

Under the UIP in Tamil Nadu, 11 vaccines are administered to children and pregnant women against 12 vaccine-preventable diseases — tuberculosis, diphtheria, pertussis, hepatitis B, haemophilus influenzae, tetanus, poliomyelitis, measles, rubella, rota virus, pneumococcal and Japanese encephalitis (in 14 select endemic districts).

Nodal officers to streamline execution of MoUs worth ₹1.8 lakh crore in Bihar

They will cover all 11 sectors for which proposals have been received and help investors in 'securing clearances within a year', says Chief Secretary; time for emergence of a new Bihar: Industries Minister

Press Trust of India
PATNA

Boyed by the success of the recent global investors' summit, 'Bihar Business Connect-2024', which saw the State receive investment proposals worth ₹1.80 lakh crore, the State government on Sunday said it will now ensure "conversion of memorandums of understanding (MoUs) into investment on the ground within a year".

In a statement, Chief Secretary Amrit Lal Meena said "one nodal officer for every five to 10 MoUs" will be nominated by the government to bring about ease of doing business.

These nodal officers will cover all 11 sectors for which proposals have come forth and will help the investors in "securing land and all other clearances", he said. "Progress will



Bihar Deputy CMs Samrat Choudhary and Vijay Kumar Sinha (right) at the Bihar Business Connect-2024 in Patna on December 19. PTI

be reviewed periodically by the State Investment Promotion Board," the Chief Secretary said.

Adani Group, Sun Petrochemicals, and a host of other companies committed to invest a record ₹1.80 lakh crore in Bihar — across sectors ranging from renewable energy to cement, food processing, and manufacturing — during the two-day global investors' summit, which concluded on December 20 in the

State capital. In all, the State government signed investment commitments with 423 companies. In the first edition of the investor meet in 2023, Bihar had received an investment commitment of ₹50,300 crore.

"The Industries Department already has a mechanism in place where we have appointed sector-specific nodal officers to ensure conversion of MoUs into investment on the

ground. They are on a 24x7 job to help investors secure all clearances," Bandana Preyashi, Secretary (Industries Department), said.

"The time for Bihar has come," said State Industries and Tourism Minister Nitish Mishra and added that the focus will now shift towards providing all the promised support to the investors so that the units could start quickly.

'Change in perception' "From now on it will be the emergence of a new Bihar... I think the myth or the perception that people had about Bihar (of the State being less investor-friendly) has gone. Now, it is a complete emergence of a new Bihar under the leadership of Nitish Kumarji. I'm positive that in years to come when these MoUs are converted into projects, they will have a big effect, big impact," he said.

Why such hatred, Kejriwal asks Centre over tableau exclusion

The Hindu Bureau
NEW DELHI

A day after news filtered in that Delhi's tableau has not been selected for participation in the Republic Day parade, AAP national convener Arvind Kejriwal on Sunday accused the Centre of playing politics.

"Delhi being the national capital, its tableau should be included in the Republic Day parade every year," he said.

Alleging that the Delhi tableau has been missing for several years, Mr. Kejriwal did not hold back.

"Why is there so much hatred towards Delhi and its people? If these leaders hold such animosity, why should the people of Delhi vote for them?" he said.

The BJP retorted saying that a designated committee took the decision and not every State can participate every year.

Delhi BJP president Virendra Sachdeva quipped that Mr. Kejriwal shows his "true colours" whenever a national festival approaches and said the people of Delhi have not forgotten that in 2014, the AAP leader tarnished the city's im-

age by staging a protest in the run-up to Republic Day.

"However, since elections are approaching in Delhi, Mr. Kejriwal wants to divert people's attention from the real issues," the BJP leader said.

Mr. Kejriwal also hit out at the BJP, claiming its election campaign lacked "any narrative, vision, or programme for the people of Delhi". "They have no plans to show as to what they would do if they form the government," the AAP leader said. (With PTI inputs)

Shah's Ambedkar remarks insult to parliamentary democracy: DMK

The Hindu Bureau
CHENNAI

The high-level executive committee of the Dravida Munnetra Kazhagam (DMK) on Sunday said the "insulting and distasteful attack" on Dr. Ambedkar in Parliament by Home Minister Amit Shah had caused a lasting shame for Parliamentary democracy by the Bharatiya Janata Party (BJP) government.

"It is ridiculous that the BJP is enacting farcical dramas inside and outside Parliament to divert the unprecedented and

unacceptable speech of Mr. Shah. We strongly condemn him," said a resolution adopted in the meeting chaired by Chief Minister and DMK president M.K. Stalin.

Another resolution urged the Centre to release funds for cyclone relief works. "The State government requested Prime Minister Narendra Modi to release ₹6,675 crore to provide relief rehabilitation for people who were affected by cyclone Fengal. We wanted ₹2,000 crore as first instalment and demanded the same to the

Central team that visited Tamil Nadu to assess the damage. But the Centre has released only ₹944.80 crore. We strongly condemn the Centre for its failure to allot ₹6,675 crore for rehabilitation. The BJP should realise that the disaster relief fund is not its party fund," the resolution said.

The meeting also urged the BJP government to give up its plan to impose 'one nation-one election', saying that it would pose a challenge to free and fair elections that are vital for democracy.

Farmer leader's condition critical as fast enters 27th day

Press Trust of India
CHANDIGARH

As Punjab farmer leader Jagjit Singh Dallewal's fast-unto-death entered its 27th day on Sunday, doctors termed his health condition "critical".

Doctors attending to him at the Khanauri border protest site reiterated that Mr. Dallewal is at the risk of cardiac arrest and multi-organ failure.

Mr. Dallewal, 70, has been on a fast-unto-death at the Khanauri border point between Punjab and Haryana since November 26 to press the Centre to accept the agitating farmers' demands, including a legal guarantee for MSP on crops. A statement issued by the Samyukt Kisan Morcha (Non-Political) and Kisan Mazdoor Morcha said following the advice of doctors, the veteran farmer leader did not come on stage on Sunday.

Due to the continuous hunger strike for 27 days, his immunity has become very weak, putting him at



Farmer leader Jagjit Singh Dallewal during an indefinite fast at Khanauri border in Sangrur. FILE PHOTO

the risk of infection, the statement said.

The statement also said that former Punjab Chief Minister and Chairman of the Parliamentary Standing Committee on Agriculture Charanjit Singh Channi met Mr. Dallewal at the protest site on Saturday evening.

Quoting farmer leaders, the statement said on Tuesday, candle marches will be taken out across the country at 5.30 p.m. in support of Mr. Dallewal's hunger strike. On Thursday, when his fast will complete one month, symbolic hunger strikes will be held at tehsil and district levels, it said.

'BJP's 10-year Tripura report card will outweigh Left's three decades'

Press Trust of India
AGARTALA

Union Home Minister Amit Shah on Sunday said he would present the "report cards" of both the BJP and CPI(M) rule in Tripura in the 2028 Assembly elections, asserting that his party's performance by then would outweigh the previous Left regime's achievements.

Speaking at the National Cooperative Conference at Rabindra Bhavan here, he alleged that Tripura remained backward for 35 years during the Left Front rule as the government worked only for CPI(M) cadres. "Tripura has given mandate to the BJP twice. For the third time (2028 Assembly elections), I will come with report card of our 10-year-rule and compare it with that of 35-year rule of the CPI(M). I hope our report card will outweigh that of the Communists," Mr. Shah said.

On the Brus, who have been rehabilitated in Tripura after being displaced from Mizoram, the Minister said, "I am happy to see the Brus, who had been leading a miserable life for 23 years (as internally displaced persons), now having a decent life with basic facilities such as water,



Amit Shah with Tripura Chief Minister Manik Saha during the inauguration and foundation stone laying ceremony of various development projects in Dhalai district on Sunday. PTI

health care, education, electricity and LPG connection in Tripura. The Communist government did not think about Brus even though they are also Indians and deserve to lead a decent life."

Stating that piped water coverage in the State has increased from 2.86% in 2018 (when the BJP came to power) to 87% in 2024, he said, "This is what is called good governance."

Under the Communist rule, there was no free foodgrains for the poor but now each person gets 5-kg rice and everyone is getting free treatment of up to

₹5 lakh, Mr. Shah said.

He said investments have come to Tripura and people are getting free power and LPG connections. The school dropout rate is less than 3% while enrolment is 99%, but during the Left rule it was very poor, he said.

Certification issue

"Tripura produces 70% of its total agricultural output in an organic way but there has been a problem of certification. I urge farmers to connect with National Organic Cooperative Ltd to overcome this issue," Mr. Shah added.

The Minister also inaugurated and laid the foundation for several development projects worth ₹668 crore, including a Central Detective Training Institute (CDTI). "The CDTI (in Tripura) will train over 6,000 personnel annually from the northeastern states and central armed police forces (CAPFs). The institute will be equipped with state-of-the-art facilities such as advanced classrooms, simulation labs, IT data centres, and practical training areas, which will provide police personnel with modern skills," the release said.



Memorial to historic session: Dignitaries will pay a visit to the Veera Soudha, the venue of the historic session. FILE PHOTO

150 MPs invited for centenary of Cong. Belgaum session

The Hindu Bureau
BELAGAVI

Congres president Mallikarjun Kharge, Leader of the Opposition in the Lok Sabha Rahul Gandhi, and Wayanad MP Priyanka Gandhi are among the 150 dignitaries invited for the celebrations marking the centenary of the Congress session in Belgaum (now Belagavi) in 1924, which was presided over by Mahatma Gandhi.

The programme is scheduled in Belagavi for December 26 and 27. A Congress Working Committee meeting will be held in the city on the first day and a public rally in the CPED grounds on the second day.

Dignitaries will pay a visit to the Veera Soudha, the venue of the historic session, and will visit villages such as Hudali and Kanabragi where Gandhiji spent a few days.

A statue of Gandhiji will be unveiled on the Suvarna Vidhana Soudha premises, followed by cultural programmes.

The State government has planned a separate set of year-long celebrations. A committee headed by Minister H.K. Patil has chalked out plans to hold competitions for students, exhibitions of pictures and paintings, drama and cinema shows, and *charkha* marathons. Some tableaux will go round the State.

Memorial stones will be put up in all villages and towns that Gandhiji visited.

The Belgaum session holds an important place among the Congress annual sessions, now referred to as plenary sessions, for various reasons. It was the only Congress session that Gandhiji chaired in his long public life. He reached Belgaum on December 21, 1924, and left on December 29. He met leaders of political and social organisations and addressed meetings before and after the session.

It is believed that his focus on social service and volunteering led to the formation of the Seva Dal in Ghataprabha later.

Police release footage of melee at *Pushpa 2* release

The nine-minute video spans from Allu Arjun's entry to the death of a woman and injury to her son during the premiere of the film in a cinema on December 4; group vandalises actor's house

The Hindu Bureau
HYDERABAD

The Hyderabad city police released a video showing the events that led up to the stampede at Sandhya Theatre on December 4 during the premiere of the film *Pushpa 2* which resulted in the death of a woman, Revathi, and critical injuries to her son.

As per the nine-minute video, around 9.28 p.m., Arjun's vehicle was seen crossing Musheerabad Metro Station with the actor waving to fans opening the sunroof, causing a sudden rush of people towards the cinema.

As Mr. Arjun proceeded to the upper balcony of the cinema by taking the stairs, Revathi and her son were caught up in the densely packed crowd below. They collapsed from suffocation. Police officers inter-



Unease in air: A group of people threw stones and destroyed flower pots at actor Allu Arjun's residence on Sunday. PTI

vened, pulling the unconscious duo from the crowd through the broken grille gate. CPR was administered before they were rushed to the hospital by Station House Officer B. Raju Naik and Assistant Commissioner of Police L. Ramesh Kumar.

Despite being informed of Revathi's death and the condition of her son by Mr. Kumar, Allu Arjun's manager Santhosh did not take immediate steps to with-

draw the actor from the venue. At 11.15 p.m., Mr. Kumar spoke directly to Arjun, urging him to leave the premises.

But the actor decided to stay until the movie concluded. By 11.40 p.m., the ACP intervened once more, instructing the manager to ensure that the actor exited the cinema immediately. At 12.05 a.m. on December 5, the ACP escorted Arjun out of Sandhya Theatre.

On Sunday, members of the Osmania University Joint Action Committee staged a protest demanding justice for the family of Revathi. The protest escalated when its leaders forcibly entered the premises, destroying flower pots and throwing stones at the actor's residence.

Later in the evening, a group gathered outside the house, insisting on being let inside. When the staff refused to open the gates, some individuals scaled the walls, entered the compound, and caused further damage.

Five people have been detained, the police said.

Chief Minister A. Revanth Reddy condemned the attack on houses of film personalities and directed the Director-General of Police and Police Commissioner to take stringent action. "No laxity will be tolerated," he said.

A.P. urges GST Council to allow flood cess

The Hindu Bureau
VIJAYAWADA

Andhra Pradesh Finance Minister Payyavula Keshav requested the 55th GST Council in its meeting in Jaisalmer, Rajasthan, on Saturday to let the State government impose a 1% flood cess on goods in the tax slab above 5% transported through the State

to enable it to mobilise additional funds for distributing to those affected by the recent floods.

To aid rehabilitation

Mr. Keshav noted that the proposed cess would not impact the poor and the middle class, but help fund the relief and rehabilitation measures in flood-affected areas, pointing out

that the Kerala government had collected a similar cess during the 2018 floods.

He sought GST exemption and reduction on research services conducted by the government and private institutions to promote innovation and wanted the GST on fortified rice provided to the poor under the PDS to be pruned.

Mr. Keshav suggested to

the GST Council to ensure transparency in the Integrated GST settlement process and to make data accessible to the States, exempt small businesses and composition taxpayers from the reverse charge mechanism on rents and to simplify GST registration using technology to enhance ease of doing business.

Congress is competent to choose its CM: KPCC chief

The Hindu Bureau
THIRUVANANTHAPURAM

The Congress unit in Kerala on Sunday sought to dispel an imputation by Sree Narayana Dharma Paripalana (SNDP) Yogam general secretary Vellappally Natesan that a behind-the-scenes power struggle for the prospective post of Chief Minister after the Assembly elections in 2026 had consumed the party's top leadership in Kerala.

Mr. Natesan stirred the pot last week by suggesting that Congress Working Committee member Ramesh Chennithala was best suited for the post among the "competing" party leaders, including Leader of the Opposition V.D. Satheesan.

His comment appeared to assume some political significance as it came soon after the influential Nair Service Society (NSS) invited Mr. Chennithala to deliver the keynote address at the Mannam Jayanti celebration at its headquarters in Kottayam.

In Kannur, Kerala Pradesh Congress Committee (KPCC) president K. Sudhakaran said the Congress was competent in choosing its Chief Minister. The party had an array of leaders, including Mr. Chennithala, who were equally suited to the post. "Earlier, the Congress made K. Karunakaran Chief Minister when there were equally competent leaders, including A.K. Antony and Vayalar Ravi," he said.

Mr. Sudhakaran strongly objected to Mr. Natesan's purported statement that Mr. Satheesan was a power monger. "He [Mr. Natesan] should not have said that," he added.

Thanka Anki procession sets off from Aranmula; to reach Pampa on Wednesday

The Hindu Bureau
PATHANAMTHITTA

As preparations for the Mandala Puja gather momentum at Sabarimala, the ceremonial procession carrying the sacred golden attire, *Thanka Anki*, began its journey from the Sree Parthasarathy Temple in Aranmula on Sunday.

The sacred attire, after being displayed for darshan at the temple for two hours in the morning, was taken out on a motorised chariot amid an atmosphere charged with devotion. Travancore Devaswom Board (TDB) President P.S. Prashanth and District Police Chief V.G. Vinod Kumar were among those present.

The procession will receive grand receptions at various points before arriving at Pampa at 1.30 p.m.



Devotees gather around the *Thanka Anki* procession that began at the Sree Parthasarathy Temple in Aranmula on Sunday. LEJU KAMAL

on Wednesday. The golden attire will adorn the main deity at the Sabarimala Ayappa temple in a ceremony preceding the Mandala Puja the next morning.

Weighing 420 sovereigns, the *Thanka Anki* was offered to the Sabarimala temple by the late Chithira Thirunal Balara-

ma Varma of the erstwhile Travancore royal family in 1973.

In preparation for the Mandala Puja, the authorities have ramped up crowd control measures in the Sabarimala pilgrimage zone. Virtual queue bookings and spot entries for December 25 and 26 have

been restricted. Entry to the hillock will be limited from 1 p.m. on Wednesday to facilitate the smooth arrival of the procession. Once the procession reaches the Sannidhanam at 6.15 p.m., the restrictions will be lifted, said Pathanamthitta District Collector S. Prem Krishnan.

The number of devotees visiting Sabarimala this season has reached 28.93 lakh as of December 21 — marking an increase of 4.45 lakh from last year's. Of these, 23.42 lakh pilgrims booked slots for darshan through the virtual queue system, while over 5.01 lakh utilised the spot booking window.

As many as 60,304 devotees reached the hillock through the Sathram-Pulumedu trek path.

Kannada conference passes resolutions to promote use of language for commerce

The Hindu Bureau
MANDYA

The three-day 87th Akhila Bharata Kannada Sahitya Sammelana concluded here on Sunday with writers and litterateurs striking a cautionary note on the future of the Kannada language. A set of resolutions was passed to promote the use of Kannada and ensure its emergence as a language of commerce and transaction.

Kannada scholar C.P. Krishna Kumar, who delivered the valedictory address of the *sammelana*, said though geographical integration of Karnataka took place 70 years ago, it had not led to emotional integration and there were



Basavaraj Horatti

several challenges plaguing the language.

Citing Kavirajamarga, a 9th century treatise in Kannada on poetics, Professor Kumar said the boundary of the land of Kannadigas extended from the Cauvery to the Godavari, but the situation now was such that one had to struggle to establish its boundary.

Yet, it was regrettable that English was being promoted in educational insti-

tutions when teaching in the mother tongue (Kannada) could lead to better comprehension and deeper connection to culture. While there was no need to despise either English or any other language, primacy had to be accorded to Kannada as it enshrined the culture of the State, he said.

Chairman of the Legislative Council Basavaraj Horatti said it was not enough to organise Kannada Sahitya Sammelanas unless the resolutions were implemented. He called upon Kannada Sahitya Parishat president Mahesh Joshi to submit the resolutions to the Chief Minister and ensure that they were implemented.

Special Kerala Cabinet meet focuses on expediting rehabilitation for Wayanad landslide survivors

The Hindu Bureau
THIRUVANANTHAPURAM

A special Cabinet meeting chaired by Kerala Chief Minister Pinarayi Vijayan on Sunday focused on expediting the rehabilitation of families displaced by the devastating landslides in Wayanad.

Chief Secretary Sarada Muraliedharan presented a draft rehabilitation plan that reportedly includes proposals from the Kerala Infrastructure Investment Fund Board (KIIFB) for the construction of 1,000-square-foot single-storey houses for the survivors from Mundakkai and Chooralmala, which were



Total havoc: A damaged house and the terrain in the Chooralmala village after the recent landslides. PTI

severely impacted by the landslides in July.

In the initial phase, the rehabilitation strategy is expected to prioritise those who lost their hous-

es. The government also plans to convene a meeting chaired by the Chief Minister with benefactors and organisations that have pledged support for the re-

building efforts.

Besides, a dedicated panel will oversee the development of the proposed townships, and land acquisition processes will be accelerated to begin construction at the earliest.

Final decision

Official sources stated a final decision on the proposed plans would likely be made in the next Cabinet meeting.

The special Cabinet meeting follows the release of the first draft list of 388 beneficiaries by the Wayanad district administration recently. The purported exclusion of affected families and the duplication of

names have triggered protests, with several survivors staging a sit-in at Meppadi.

The Left Democratic Front (LDF) government is facing mounting pressure over delays in the rehabilitation effort. Adding to the challenges, the land identified for permanent resettlement near Nedumbala and Kalpetta are mired in legal disputes.

Further, the government's repeated requests for a special recovery and reconstruction package of ₹2,219 crore from the Union government is yet to yield a response. The issue was recently raised at the winter session of Parliament.

4 held in Telangana highway dacoity case

The Hindu Bureau
HYDERABAD

Four members of a gang behind a dacoity on National Highway no. 44 at Pebbair, nearly 160 km from here, was arrested on Sunday, four days after the incident, the Wanaparthy Police in Telangana said.

Two gang members are at large, the police said.

Sharing details, V. Satyanarayana, Inspector-General of Police, Multi-zone-II, said the police received information on December 18 that some unidentified persons had robbed a family on the roadside at Pebbair.

The police learnt that G.

Rajini, 54, and her family from Jagityal district were returning home after a pilgrimage to Tirupati and Arunachalam.

The gang broke the windscreens of their car, assaulted them, and snatched 13.5 tolas of gold from the women and fled. After gathering details, the police stepped up patrolling in the district.

"Initially, we registered a case of robbery but altered the section of law to dacoity as the detained persons confirmed that two more of their associates were involved in the crime," Superintendent of Police Ravula Giridhar said.

Centre must overhaul GST, current system has loopholes: Cong.

The Hindu Bureau
NEW DELHI

The Congress on Sunday exhorted the Narendra Modi government to show the courage to overhaul the Goods and Services Tax (GST) regime, citing the "absurdity" of three different tax slabs for popcorn under the present system.

In a post on X, Congress leader Jairam Ramesh said the current complexities in the system had thrown open several loopholes leading to tax evasion.

Mr. Ramesh said, "The absurdity of three different tax slabs for popcorn under GST, which has unleashed a tsunami of memes on social media, only brings to light a deeper issue: the growing complexity of a system that was supposed to be a Good and Simple Tax."

Tax frauds

These complexities, he said, were leading to significant GST invasion, input tax credit fraud was common, and the number of bogus companies set up to 'game' the GST system ran into thousands.

"Tracking of supply chains is weak; the registration process is flawed; advantages are being taken out of loopholes in turnover exemptions; compliance requirements are still cumbersome; and misclassification of goods is



Jairam Ramesh

frequent," Mr. Ramesh said.

He said the recent data on tax frauds uncovered by the Directorate General of GST Intelligence (DGGI) reveal GST evasion of ₹2.01 lakh crore in the financial year 2023-24.

"With the Union Budget now just 40 days away, will the Prime Minister and the Finance Minister summon the courage to launch a complete overhaul and institute a GST 2.0," Mr. Ramesh asked.

The GST Council on Saturday agreed to issue a clarification on taxation of popcorn, saying pre-packed and labelled ready-to-eat snacks will attract a 12% tax while 18% will be levied if it is caramelised.

There is no change in the tax rate of popcorn and the GST Council has only agreed that the Central Board of Indirect Taxes and Customs will issue a circular clarifying the current taxation regime of popcorn.

Arrest of terror suspects in Bengal triggers political row

BJP questions law and order situation in the State and infiltration through the India-Bangladesh border, while the ruling Trinamool Congress says that it is the Centre's job to secure the border

Shiv Sahay Singh
KOLKATA

The arrest of a suspected member of a terror outfit in West Bengal on Sunday once again triggered the debate about whether the State is turning out to be a safe haven for extremist elements.

A suspected member of the outlawed Tehreek-e-Mujahideen in Kashmir was arrested in a joint operation by the Jammu and Kashmir Police and the West Bengal Special Task Force at Canning in South 24 Parganas.

Javed Munshi, the alleged operative, was produced before a court in Kolkata's Alipore that sent him on a transit remand till December 31.

The development comes days after the West Bengal Police arrested two suspected operatives of the Ansarullah Bangla Team (ABT) from Murshidabad. Those arrested were identified as Minarul Sheikh, 48, a pump mechanic, and Mohammad Abbas Ali, 29, who was trying to set up a small education centre for children.

These arrests were part of a joint operation by the Assam Police leading to the arrest of eight operatives of



Major bust: Javed Munshi, a suspected member of the outlawed Tehreek-ul-Mujahideen terror outfit in Kashmir, leaves after being produced before a court in Alipore in Kolkata on Sunday. ANI

the ABT. All those arrested have been produced before a court in Assam.

The arrests led to a war of words between the ruling Trinamool Congress and the Bharatiya Janata Party (BJP) over the law and order situation in the State and the infiltration through the India-Bangladesh border.

Kolkata Mayor and senior Trinamool leader Firhad Hakim said the arrests were made by the West Bengal Police under Mamata Banerjee's leadership and there is zero tolerance against extremists. "It is the duty of the Home Mi-

nistry to ensure that the BSF is strengthened so there is no trespassing on the borders," Mr. Hakim said.

BJP State president Sukanta Majumdar said the Centre was willing to take all responsibility of the border provided that the State government allocated the land required for erecting border fences.

BJP leader Amit Malviya alleged that the arrested ABT operatives held voter ID cards of two separate constituencies - Kandi and Hariharpara in Murshidabad.

"This incident is just the

tip of the iceberg. Illegal infiltrators obtaining voting rights have become a significant part of the Trinamool's voter base, enabling their continued grip on power," Mr. Malviya posted on social media.

The arrests and the political blame game come at a time when developments in Bangladesh have raised political temperatures in West Bengal.

The alleged attacks on minorities in Bangladesh have given the BJP and other Hindutva organisations an opportunity to organise sustained protests in different parts of the State.

NC MP to join protest outside CM's house on reservation issue

Peerzada Ashiq
SRINAGAR

National Conference MP Syed Aga Ruhullah on Sunday announced that he would join a sit-in outside the residence of Chief Minister and party leader Omar Abdullah against the prevalent reservation scheme that allegedly discriminates against open merit category students in Jammu and Kashmir.

In a statement posted on X, Mr. Ruhullah, the MP from Srinagar, requested all protesters "to maintain civility and focus on raising genuine demands for a rational reservation policy".

"To those who seek to exploit this issue for political gains: I welcome you to step out tomorrow and step away from rhetoric. Show your sincerity where it matters - the streets," Mr. Ruhullah said, in an oblique reference to Opposition parties, mainly the Peoples Democratic Party (PDP) and the J&K Peoples Conference (JKPC).

Scores of open merit category students' bodies have supported Mr. Ruhullah's protest call.

A spokesperson of the J&K Students Association, which has extended its "full support" to the protest, appreciated the National Conference leader for his decision to "stand with the people by addressing their concerns in



Syed Aga Ruhullah

a peaceful and dignified manner".

Mr. Abdullah has assured aggrieved students and aspirants that he would look into the issue of reservation.

"JKNC had committed to examining all aspects of it in our election manifesto. It is as a continuation of this commitment that a Cabinet Subcommittee was constituted, and it is in the process of starting its work by engaging with all stakeholders," Mr. Abdullah said.

The Centre's decision to add communities to the Other Backward Classes (OBC) category, and to add the Pahari community in the Scheduled Tribe (ST) list has shrunk the open merit category to around 40% in J&K.

Open merit category students maintain the Supreme Court's 1992 ruling ensures reservations could not exceed 50%, and anything above it violated equal access as guaranteed by the Constitution.

One in three women gets urinary tract infection before turning 25: doctors

The Hindu Bureau
CHENNAI

Urinary tract infection is very common in women, with one in three having an episode before turning 25. Contrary to the belief that dirty toilets lead to UTI, doctors say a woman contracts the infection by not voiding the bladder periodically.

Women have shorter urethra. Around 18% of pregnant women experience UTI, and post-menopausal women contract the infection for want of oestrogen, said doctors who participated in a webinar on "Recurrent urinary tract infection in women - Management and Prevention", organised by The Hindu and Naruvi Hospitals, Vellore, on Sunday as part of a series on "Prevent illness, promote wellness". Consultant urologist Ro-



hit Sethi said sexual intercourse, change of sexual partners, spermicide use, a history of UTI in mother and sisters, and a childhood history of the infection could cause UTI.

Nitin Kekre, head of the urology department at Naruvi Hospitals, said recurrent UTI in healthy non-pregnant women is the most common and uncomplicated. In Tamil Nadu, it is common to diagnose diabetes when a woman comes with UTI, he added. Doctors must explain to their patients the cor-

rect method of collecting urine for laboratory investigation, he said.

Ganesh Gopalkrishnan of Vedanayagam Hospital, Coimbatore, said patients who go hospital hopping and use multiple antibiotics or have uncontrolled diabetes are susceptible to complicated UTI. Sometimes the infection could reach the kidney, which would require hospitalisation, he said.

Maneesh Sinha, consultant urologist at Naruvi Hospital, Bengaluru, said it was normal for gynaecologists to search for bacterial infection during pregnancy. Doctors do this to prevent infection of the kidneys. Since the enlarged uterus does not allow urine to go down, infection could travel from the bladder to kidneys, he said.

The webinar is available at <https://bit.ly/4InbOSK>.

Officials from Kerala begin clearing biomedical waste from T.N. district

Shankari Nivethitha B.
TIRUNELVELI

A team of 70 officials from Kerala on Sunday began operations to remove truckloads of hazardous waste, which was brought from Kerala and dumped in various locations across Tirunelveli district.

The waste, which was dumped in Pazhavor, Kodaganallur, Nadukallur, Kondanagaram, Ilanthaikulam, and Barathi Nagar, included biomedical refuse, such as syringes and blood samples, and other hazardous substances. These were reportedly transported from a regional cancer centre and a private hospital in Thiruvananthapuram.

The issue, which drew significant media attention, was taken up *suo motu* by the Southern Bench of the National Green Tribunal (NGT).

The Bench, comprising Justice Pushpa Sathya-



Cleaning up: Biomedical waste being removed from Pazhavor in Tirunelveli district. A. SHAIKMOHIDEEN

rayana and expert member Satyagopal Korlapati, on Thursday directed the Kerala government to remove the waste within three days of the order.

Following this, officials from the Kerala government inspected the affected sites on Friday and said necessary actions would be taken in line with the NGT's instructions.

They added that a detailed report would be sub-

mitted to the Kerala government.

In compliance with the order, 16 heavy-load trucks were brought in from Kerala to remove the waste.

A team, led by Sakshi Mohan, Assistant Collector, Thiruvananthapuram, and Gopakumar, Health Department officer, Kerala, oversaw the removal operation at the sites.

Mr. Gopakumar said: "We are clearing the waste

using 16 trucks. A total of 70 officials from various departments from Kerala are involved in the task."

He added that the waste would be segregated once it reaches Kerala and will also be disposed of safely, if it is hazardous medical waste.

District Collector of Tirunelveli K.P. Karthikeyan and Sub-Collector of Cheranmahadevi Arpeet Jain were present.

Four-year-old boy dies after being hit by car in Mumbai

The Hindu Bureau
MUMBAI

A four-year-old boy, Ayush Laxman Kinvade, was killed in Mumbai on Saturday when a reversing car hit him while he was playing on the road near Ambekar College.

The driver, Bhushan Sandeep Ghole, 19, was arrested at the scene and charged with causing death by negligence, among other Sections under the Bharatiya Nyaya Sanhita.

A police officer from the R.A.K. Marg police station said the incident happened at 5.15 p.m. when the child was playing on the road.

Prima facie, the driver was not under the influence of alcohol, the officer said, adding that further investigation was under way.

The police have asked the family to visit on Tuesday for further inquiry.

40 years on, displaced Maharashtra villagers get 'verbal assurance' for permanent homes

Purnima Sah
MUMBAI

Residents of Sheva Koliwada, a transit camp in Uran taluk of Maharashtra's Raigad district, have received a verbal assurance from a senior official of the Union government that they would be provided permanent homes soon.

The villagers have been living in the transit camp for 40 years after being relocated from their village where the Jawaharlal Nehru Port stands now. The villagers had boycotted the Lok Sabha and Maharashtra Assembly elections this year.



JNPA officials with Joint Secretary R. Lakshmanan and Raigad Deputy Collector Waghmare in New Delhi. SPECIAL ARRANGEMENT

Following The Hindu's report, Santosh Kumar Rai, the Election Commission's (EC) general observer for the Uran Vidhan Sabha constituency, met the vil-

lagers ahead of the Assembly election and urged them to cast their vote.

Mr. Rai told the residents that he would submit their concerns to the EC.

Bharat Waghmare, Deputy Collector (Rehabilitation), Raigad district, had also urged the villagers to vote, promising to do his best to end their problems.

On December 19, community leaders met the Joint Secretary of the Ministry of Ports, Shipping and Waterways, R. Lakshmanan, at the Transport Bhavan in New Delhi. At the meeting, the Joint Secretary verbally approved the proposal submitted by Mr. Waghmare to begin construction for the rehabilitation of 256 families on 10 hectares of land located in Jaskhargaoon and Fundegaon in Uran taluk.

Earlier, an association of displaced women of Sheva Koliwada had said they would stage a protest on Saturday by blocking the JNPA's navigation. Following the meet in New Delhi, the agitation stands postponed to January 22, 2025.

"This is only verbal assurance by Mr. Lakshmanan. When we enquired about the project, he refused to give a concrete response. We strongly feel that this may be one more attempt to buy time and induce people to call off the protest," Nandakumar Parwar, president, Maharashtra Small-Scale Traditional Fish Workers Union, said.

Press Trust of India
CHANDIGARH

The death toll in the Mohali building collapse climbed to two with the body of a 29-year-old man recovered from under the rubble on Sunday, even as a preliminary investigation suggested that digging in an adjacent plot led to the incident.

The multi-storey building collapsed on Saturday evening in Sohana village of Punjab's Mohali district, with at least five people trapped under it.

Sub-Divisional Magistrate, Mohali, Damandeep Kaur said one body was recovered during the ongo-

ing rescue operation and identified as of Abhishek Dhanwal from Ambala.

The first victim was a 20-year-old woman from Himachal Pradesh, who died of her injuries after being rescued on Saturday.

The police have booked two building owners in the incident.

The National Disaster Response Team, Army, and State rescue teams have been working since

Saturday evening to address the crisis. Medical teams and an ambulance have been deployed at the site.

Mohali Senior Superintendent of Police Deepak Pareek told reporters at the site on Sunday that the owner of the building had a plot of land adjacent to it on which digging work to construct a basement was on.

"However, no permission was taken for the digging," Mr. Pareek said.

Leader of the Opposition in the Punjab Assembly Partap Singh Bajwa slammed the Mohali district administration over the incident.

NDA will fight Bihar election under Nitish, says State's Deputy CM

Putting to rest speculation, senior BJP leader Samrat Choudhary says alliance is working under the leadership of Nitish and Modi in the State

The Hindu Bureau
NEW DELHI

To avoid any confusion in the ranks ahead of the crucial Assembly election in Bihar in late 2025, senior Bharatiya Janata Party leader and the State's Deputy Chief Minister Samrat Choudhary on Sunday said the polls would be fought under the leadership of Bihar Chief Minister and Janata Dal (United) chief Nitish Kumar.

He was responding to Union Home Minister Amit Shah's statement in a recent interview with a news channel in which he was asked if the NDA could go to the polls in Bihar with-



Samrat Choudhary

out declaring a chief ministerial candidate as in Maharashtra.

Mr. Shah replied, "We will sit together and decide. We will let you know after we have made a decision."

His response gave fodder to the Opposition in

the State and triggered speculation that the BJP was finally throwing its hat in the ring for the top post.

Dismissing speculation, Mr. Choudhary said, "The NDA is working under the leadership of Nitish Kumar and Prime Minister Narendra Modi in Bihar, and we will continue to contest elections under the leadership of both leaders."

2020 precedent

He said that in 2020 too, the alliance had announced Mr. Kumar as its chief ministerial face.

"In future also, we will contest elections under the leadership of Nitish Kumar and Narendra Modi," he said.

For democracy to thrive, expression and dialogue must coexist: Dhankhar

The Hindu Bureau
NEW DELHI

Vice-President and Rajya Sabha Chairman Jagdeep Dhankhar on Sunday called for accountability of lawmakers, and said people would force them to think about why they were sent to Parliament.

His comments came in the wake of a sharp drop in productivity in the recently concluded Winter Session of Parliament.

Addressing recipients of the Chaudhary Charan Singh Awards, 2024, he said that for any democracy to succeed, expression and dialogue must go hand in hand with great responsibility on both sides.

'Make no mistake'

"It is time for every thinking Indian to scratch his brains and to generate a deep sense of accountability with all those who are enjoined with obligations.



Vice-President Jagdeep Dhankhar meets Rajendra Singh who won the Sewa Ratna Award at the Chaudhary Charan Singh Awards. PTI

Make no mistake, I am referring to parliamentarians," Mr. Dhankhar said. "People will force you to think, why did you go there [Parliament]?"

Reflecting on former PM Charan Singh's legacy, the Vice-President said, "Agriculture is the spine of rural development. Unless agriculture develops, the rural

landscape cannot be changed. And unless the rural landscape changes, we cannot aspire to have a developed nation."

Discussing India's economic trajectory, Mr. Dhankhar said, "Undoubtedly, at the moment, India is on the rise as never before. Indisputably, our economy is blossoming. We

The Vice-President lays stress on need for strengthening the village economy

are the fifth largest globally and on track to becoming the third largest, ahead of Japan and Germany. But to be a developed nation by 2047, our income must increase eightfold – a daunting challenge."

The Vice-President laid stress on the need for strengthening the village economy. "The greatest market we have is agricultural produce, yet farming communities are hardly involved with it. The farming sector must be prioritised by governments for it to become an engine of economic development," Mr. Dhankhar added.

The awards were presented for contributions to agriculture, rural development, and journalism.

CPI(M) seeks withdrawal of election rule amendment

Press Trust of India
NEW DELHI

The CPI(M) on Sunday demanded immediate withdrawal of the election rule amendment preventing public inspection of certain electronic documents such as CCTV camera and webcasting footage.

Based on the recommendation of the Election Commission (EC), the Union Law Ministry on Friday amended Rule 93(2)(a) of the Conduct of Election Rules, 1961, to restrict the type of "papers" or documents open to public inspection, in what is said to be a move to check their misuse.

The CPI(M) said these steps were initially introduced by the EC in consultation with political parties to ensure greater transparency.

"Media reports suggest that the government held consultations with the Election Commission of India while drafting the new rules. However, the Election Commission's reported concurrence was not preceded by any consultation with political parties, contrary to the established precedents over the years," the CPI(M) said.

The CPI(M) said its experience, particularly during the Lok Sabha elections in Tripura, showed that charges of rigging led to the examination of video-graphic records within polling booths, ultimately resulting in repolls being announced in almost half the polling booths across both constituencies.

Modi govt. has hatched a 'systematic plot' to destroy EC's integrity: Congress

Press Trust of India
NEW DELHI

Congress president Mallikarjun Kharge on Sunday hit out at the government for tweaking an election rule to prevent public inspection of certain electronic documents, alleging it is part of the Modi government's "systematic conspiracy" to destroy the

institutional integrity of the Election Commission (EC).

Mr. Kharge also said the Modi government's "calibrated erosion" of the EC's integrity is a frontal attack on the Constitution and democracy.

The government has tweaked an election rule to prevent public inspection of certain electronic docu-

ments such as CCTV cameras, webcasting footage, and video recordings of candidates to prevent their misuse. Based on the recommendation of the EC, the Union Law Ministry on Friday amended Rule 93(2) (a) of the Conduct of Election Rules, 1961, to restrict the type of "papers" or documents open to public inspection.

Every time the Congress party wrote to the EC, they have responded in a condescending tone and chosen not to even acknowledge certain serious complaints, Mr. Kharge said.

"This again proves that the ECI, even though it is a quasi-judicial body, is not behaving independently," he added.

AAP wins Patiala Corporation, no majority in Ludhiana, Jalandhar

Press Trust of India
CHANDIGARH

Punjab's ruling Aam Aadmi Party (AAP) won the municipal elections in Patiala but fell short of a majority in Ludhiana and Jalandhar municipal corporations even though it emerged as the largest party in the two civic bodies.

In Amritsar and Phagwara, the Congress turned

out to be the largest party. Elections to five municipal corporations – Ludhiana, Jalandhar, Patiala, Amritsar and Phagwara – and 44 municipal councils and nagar panchayats in Punjab took place on Saturday.

AAP is set to elect its mayor in Patiala, which is the stronghold of former Chief Minister Amarinder Singh.

The ruling party won 43

out of the total 53 wards which went to the polls in Patiala in a resounding victory. The Congress and the BJP won four wards each and the Shiromani Akali Dal (SAD) secured two wards.

In Ludhiana which has 95 wards, AAP won 41 while the Congress secured 30. The BJP won 19 wards, Independents three and the SAD two.

Pawar calls up Fadnavis over Parbhani and Beed situation

The Hindu Bureau
MUMBAI

A day after visiting the families of the sarpanch who was murdered in Beed and the Dalit law student who died in police custody in Parbhani, NCP(SP) chief Sharad Pawar on Sunday dialled Maharashtra Chief Minister Devendra Fadnavis to convey the ground situation in both the regions.

"The situation in both places is intense and quite serious. I have asked the CM to take note of the issue and asked for a proper investigation into the matter."

He made the call to the CM after his Saturday visit to both locations. Mr. Pawar expressed displeasure with the probe announced by Mr. Fadnavis and called it inadequate.

He demanded a thorough investigation into the matter and demanded that the main accused be booked.

Mr. Pawar, during his visit, said: "An atmosphere of fear has been created in Beed and we will not be quiet about this but counter this collectively. We take responsibility for the children's education even though we understand that nothing can compensate for the grief and loss of a person; we can offer our support to the family as this is not their fight alone."

He also visited the Nandkhedra village in Parbhani to meet the family of Somnath Suryavanshi in Parbhani.

He raised serious concern over the claims made by the State that the law student died of health complications.

One Santa too many



People dressed as Santa Claus take part in Christmas peace rally at Mint in Chennai on Sunday. R. RAGU

Modi to give out 71,000 appointment letters today

Press Trust of India
NEW DELHI

Prime Minister Narendra Modi will distribute more than 71,000 appointment letters to new recruits in various Union government departments on Monday via videoconferencing, his office said.

Rozgar Mela is a step towards fulfilment of the commitment of the Prime Minister to accord the highest priority to employment generation, according to a statement issued by the Prime Minister's Office (PMO).

The Rozgar Mela will provide meaningful opportunities to youngsters for their participation in nation-building and self-empowerment.

History must praise DMK rule as golden period, akin to reign of Cholas, says Stalin



Enthusias the cadre: Chief Minister M.K. Stalin and other leaders at the party's high-level executive meeting on Sunday. Mr. Stalin asked functionaries to work hard for the DMK's win in the 2026 poll.

The Hindu Bureau
CHENNAI

Chief Minister M.K. Stalin on Sunday said it was his wish that history praised the DMK rule as the golden period of Tamil Nadu, akin to how the reign of Cholas was described.

Delivering an address at the party's high-level executive meeting on Sunday, Mr. Stalin said history should record that men clad in black and red nurtured Tamil Nadu, marking a golden period of rule.

"Our party and the government enjoy the goodwill of women. This goodwill should be converted into votes. We should also win the confidence of young and new voters. We should communicate in their language, and stick to the trend," he added.

The Chief Minister further said it was the duty of DMK functionaries and cadre to take the achievements of the State under the Dravidian Movement, in the last 75 years, to the people. He also cited statistics to support his argument that the AIADMK was

rejected by people in the 2024 Lok Sabha election.

"The AIADMK, led by former Chief Minister Edappadi K. Palaniswami, lost an average of 1.5 lakh votes in a constituency. Why does he [Mr. Palaniswami] refuse to condemn the BJP government for granting permission to mine tungsten in Madurai? Has he criticised Union Home Minister Amit Shah for his remarks against B.R. Ambedkar? Does he have the courage to speak against the BJP government and Prime Minister Narendra Modi? He raises his voice only against the DMK. He thinks his vociferous attacks against the DMK will make him MGR and Jayalalitha. People will only remember his betrayals..," he added.

He further said the DMK and its allies would win the 2026 Assembly election, even if Opposition parties formed an alliance or contested alone to split votes. "But there is no room for complacency. Winning 200 seats is not easy. You have to work hard..." he added.

BJP, Sena slam Rahul's plan to visit Parbhani

The Hindu Bureau
MUMBAI

A day after the Monday visit of Leader of the Opposition in the Lok Sabha Rahul Gandhi to Parbhani was announced, BJP and Shiv Sena leaders in Maharashtra on Sunday termed the Congress's actions "drama" and "hypocrisy".

Mr. Gandhi is scheduled to meet the kin of two persons killed in the recent violence in the region and offer his condolence.

Taking a dig at Mr. Gandhi, Shiv Sena leader Shaina N.C. said, "Rahul Gandhi is travelling on a special flight to project that he is with Somnath Suryavanshi's family is hypocrisy. Why does he not raise concern or come out with



Rahul Gandhi is arriving in Nanded on Monday to meet the families of Somnath Suryavanshi and Vijay Dashrath Wakode. REUTERS

support when he sees a scuffle outside the Parliament House? We are with Somnath Suryavanshi's family with all our support and unlike Rahul Gandhi, we are not playing politics in this."

State BJP chief and Reve-

lution. With such politics, the Congress would not find its feet in the State," he said.

Mr. Gandhi is set to arrive in Nanded on Monday afternoon. He will meet Somnath's family and then visit Vijay Dashrath Wakode's home. He will return to Delhi the same evening. His schedule was shared by Congress leader Vijay Wadettiwar.

Mr. Gandhi will be accompanied by prominent Congress leaders Maharashtra in-charge Ramesh Chennithala, State president Nana Patole, senior leader and former Minister Balasaheb Thorat, MLA Vijay Wadettiwar, MLA Amit Deshmukh, MP Ravindra Chavan, MP Kalyan Kale, Shivaji Kalge, State vice

president (Organisation and Administration) Nana Gawande, Chief spokesperson Atul Londhe, Parbhani District Congress Committee president Suresh Warapudkar, and State president of the SC Department Siddharth Hattimbire, among others.

The violence in Parbhani was triggered by the alleged desecration of a Constitution replica near Babasaheb Ambedkar's statue on December 10. The violence saw a mob of 200-300 people vandalising property and government offices, causing losses amounting to ₹1.89 crore. The police arrested 43 individuals for arson and filed charges against a total of 51 people.

IN BRIEF



PM to attend Christmas celebrations hosted by CBCI

Prime Minister Narendra Modi will attend the Christmas celebrations hosted by the Catholic Bishops' Conference of India (CBCI) at the CBCI Centre here on Monday, the Prime Minister's Office (PMO) said. Mr. Modi will interact with key leaders from the Christian community, including Cardinals, Bishops, and lay leaders of the Church, a statement issued by the PMO said. This is the first time a Prime Minister will attend such a programme at the headquarters of the Catholic Church in India, it said. The Catholic Bishops' Conference of India was established in 1944 and is the body which works closest with all the Catholics across India.

'Sunny Leon' beneficiary of Chhattisgarh govt. cash dole

'Sunny Leone' has been a beneficiary of the Chhattisgarh government's Mahtari Vandan Yojana and has withdrawn ₹10,000 from a bank account in Bastar, so says the inquiry into a case in which money was fraudulently withdrawn using the actor's name under the scheme. The scheme is a direct cash incentive scheme under which ₹1,000 is given to eligible married women in the State. The website through which data on the beneficiaries can be publicly accessed shows the name of the beneficiary as "Sunny Leon" and her husband's name as "Jonny Sins", both misspelt names of the actors.

India cannot be intimidated to conform, says Jaishankar

Minister says India will do what is right in national interest and for global good and will not permit others to have a veto on its choices; independence should not be confused with neutrality, he says

Press Trust of India
MUMBAI

External Affairs Minister S. Jaishankar has said India can never permit others to have a veto on its choices and will do whatever is right in the national interest and for the global good without being intimidated to "conform".

In a video message for a function in Mumbai on Saturday, he said when India is etched more deeply in global consciousness, its repercussions are truly profound.

In a world grappling with unhealthy habits, stressed lifestyles or recurring climate events, there is much learning to be gained from India's heritage. But the world will only know when the countrymen take pride in it, he said. In an age of globalisation, technology and tradition must march together, said Mr. Jaishankar.

"Bharat will inevitably progress but it must do so without losing its *Bharatiyata*. Only then can we truly emerge as a leading power in a multi-polar world," he said.



Resolute approach: External Affairs Minister S. Jaishankar said India is poised today at a crucial juncture. ANI

Mr. Jaishankar was conferred the 27th SIES Sri Chandrasekarendra Saraswati National Eminence Award. The awards are given in four fields - Public Leadership, Community Leadership, Human endeavour, Science and Technology, and Social Leadership - with primacy on spiritualism.

The External Affairs Minister did not attend the event but sent his video message.

Exceptional nation
"Independence should never be confused with neutrality. We will do whatever is right in our nation-

al interest and for global good without being intimidated to conform. Bharat can never permit others to have a veto on its choices," he said. "For too long we were schooled to visualise progress and modernity as a rejection of our heritage and traditions," Mr. Jaishankar said.

Perhaps, this came from an affinity for imported models, or perhaps it was a discomfort with its own practices. But now as the deepening of democracy has thrown up more authentic voices, the country is rediscovering itself and finding again its own persona, he said. Mr. Jaishankar said India is an exceptional nation because it is a civilisation state. Such a country will only exercise influence when it fully leverages its cultural strengths in the global arena, he said.

"To that, it is essential that we ourselves, the younger generation, are fully aware of the value and significance of our heritage. This can be articulated at various levels, but most importantly it should have an impact at the societal level," he said.

'Crucial juncture'
Mr. Jaishankar said India is poised today at a crucial juncture. On the one hand, the last decade has demonstrated that it has the capabilities, confidence and, the commitment to advance development across broad fronts. It has shown that the problems of poverty, discrimination and lack of opportunities can be indeed addressed.

On the global stage, it has established itself as an independent power but one committed to global good, especially the well-being of the global south, he said.

August 1 cut-off date for UPSC age limit is unfair: aspirants to CJI

The Hindu Bureau
NEW DELHI

At least 15 civil services exam aspirants have written separate letters to Chief Justice of India Sanjiv Khanna alleging that regulations which set August 1 as the cut-off date for determining the maximum age eligibility amounts to a denial of equal opportunity and is discriminatory.

The letters written last week by Bandi Sivagopal, Deepak Azad and M.D. Kurup contended that the upper age limit cut-off date of August 1 discriminated among candidates born the same year but a few months or days apart.

In the case of general category aspirants, they argue that a person who attained 32 years on July 31 would be ineligible to apply for the exams while her counterpart whose 32nd birthday fell any day after August 1 of the very same year was eligible.

"I request your immediate and decisive intervention to shift the age eligibility cut-off to January 1, as practised in other government recruitment processes, to ensure fairness and equal opportunity for all aspirants regardless of their birth month," Mr. Si-



The UPSC aspirants argue that the rules for maximum age eligibility is discriminatory.

vagopal wrote. Yash Sharma's letter argued that the cut-off date of August 1 for calculating the maximum age limit was a violation of Article 21 of the Constitution. "The policy restricts aspirants' ability to pursue their chosen profession, undermining their right to life and dignity," he said. A letter by Manisha Dey said the policy violated Article 16 (equality of opportunity in public employment), "denying these aspirants an equal opportunity to serve the nation, thereby violating their fundamental rights".

The letters, however, revealed that a petition on the issue was previously dismissed in the Supreme Court in October 2024.

J&K CM cancels Jammu meetings as cold wave grips Kashmir Valley

The Hindu Bureau
SRINAGAR

Jammu and Kashmir Chief Minister Omar Abdullah on Sunday cancelled all meetings scheduled in Jammu, the winter capital, in the wake of the cold wave and growing power crisis in the Kashmir Valley.

After attending the national level meeting of the 55th GST Council in Rajasthan on Saturday, Mr. Abdullah on Sunday announced that he would station himself in Srinagar for the next week "to personally oversee the functioning of the Power Department and other critical services".

"In light of the severe cold spell in the Kashmir Valley and the resultant difficulties with water and electricity supply, I have decided to cancel my forthcoming programmes in Jammu and station myself in Srinagar for the next week to personally monitor the functioning of the Power department and other important departments," Mr. Abdullah said in a post on X.



Warming up: People burst firecrackers near the Dal Lake in Srinagar on Sunday as they mark the start of Chillai Kalan, the 40-day period of harshest winter. IMRAN NISSAR

The Kashmir Valley is reeling under one of the coldest winters in recent years, with temperatures plummeting to record lows in many places, including Srinagar, which recorded minus-8.5 degrees Celsius on Saturday, the coldest December night in more than 50 years.

The intense cold spell has severely disrupted water supply and electricity. "Under the circumstances this is the right thing to do and I will make it up to the people/organisations whose programmes have been affected," he added.

The intense cold spell has severely disrupted water supply and electricity. "Under the circumstances this is the right thing to do and I will make it up to the people/organisations whose programmes have been affected," he added.

Tiger from Similipal forest in Odisha strays into Purulia in West Bengal

Shiv Sahay Singh
KOLKATA

A three-year-old tiger has strayed into the Bandwan area of West Bengal's Purulia district from the Similipal Reserve Forest in Odisha. The animal crossed over to Purulia from Jhargram district, where it had remained for several days. This region in south Bengal, with fragmented forests, does not have a tiger population. Forest officials said it does not have a prey base to sustain a tiger population.

The female tiger had been brought to Similipal from Maharashtra and is fitted with a radio collar.

A senior State government official said the West Bengal Forest Department was trying to drive the tiger back to Similipal by the same route. Efforts are also



In the wild: The tiger had been brought to Similipal from Maharashtra and is fitted with a radio collar. BISWARANJAN ROUT

being made to capture the animal and release it into a wild habitat to avoid human-animal conflict, the State forest official said. To avoid crowding, officials have not disclosed the exact location of the animal.

Local police and forest officials have been urging people to not venture into the forests. Central Armed

Police Force personnel are assisting the police in avoiding human-animal conflict.

In June 2018, a tiger was hunted down by locals after it had strayed into the same region of the State. West Bengal has a population of about 100 tigers in the Sundarbans mangrove forests.

PDP legislator Parra gets I-T notice in Srinagar

The Hindu Bureau
SRINAGAR

Firebrand Peoples Democratic Party (PDP) leader and legislator Waheed-ur-Rehman Parra, 37, has been served summons by the Income Tax (I-T) Department in Srinagar.

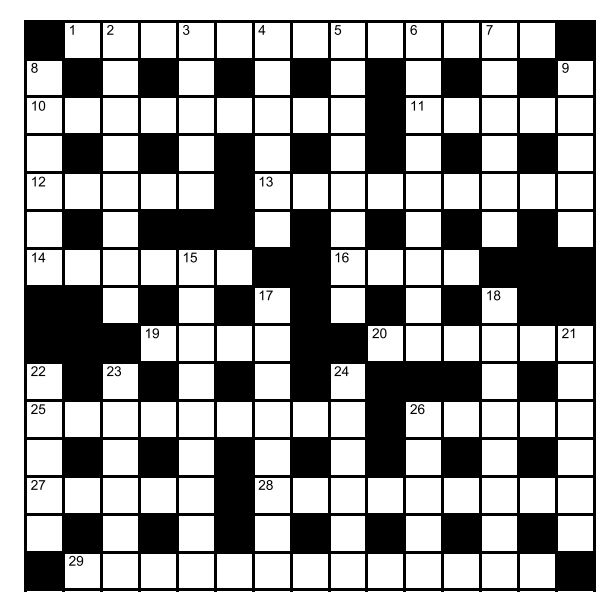
According to the notice, Mr. Parra was required to attend the I-T office in Srinagar on December 20.

Ironically, he received the notice on Sunday. The notice says: "Give evidence and produce either personally or through an authorised representative the books of account or other documents and not to depart until you receive my permission to do so."

The summons has been issued under Section 131 of the Income Tax Act. The case pertains to verification of the affidavit filed by the candidates who contested elections.

THE CROSSWORD+ 14363
(set by Afterdark)

To solve this puzzle online, get across to our crossword site. @ <https://qr.go.page.link/jjpTn>



- Across**
- 1 Gathering at moonlit garage to party (13)
 - 10 Petty office obtains circular over WhatsApp (9)
 - 11 Construction material makes setter smile (1-4)
 - 12 Like state's inspection (5)
 - 13 Monk's mule flogged to procure fruit (9)
 - 14 Woman beats 4 radicals at start (6)

- 16 Lawyer is on stand (4)
 - 19 Storage for oils damaged (4)
 - 20 Great I have been awake in leave (off) (4,2)
 - 25 British title given by old army or new establishment (4,5)
 - 26 Cognizant present in Warsaw area? (5)
 - 27 Good landlord, provided spirit (5)
 - 28 Follow and arrest choker, say (3,6)
 - 29 Criminal worried about cocaine reaching country by connection, say (13)
- Down**
- 2 Argue with son and relatives to get leather (8)
 - 3 Officer touring America with youth leader is powerful (5)
 - 4 Oppressive atmosphere in Mumbai Indians, as top management picks one (6)
 - 5 Trip outside home, guards on vacation get a closer view from here (8)
 - 6 Council in ancient Rome at 7, takes rum, regular starlit party (9)
 - 7 Lover lying, concealing to an excessive degree (6)
 - 8 Vessels, tubs damaged outside Officer's Academy (1-5)
 - 9 Change the last word, last word (5)
 - 15 Strange! In Theni GMAT, I conducted ended partially (9)
 - 17 Toyed with pic photoshopping? Correct (8)
 - 18 Crooked legislator expels lieutenant from the harem (8)
 - 21 Author's best, ultimate lines of verse (6)
 - 22 Join the greatest, gain good name (5)
 - 23 Stream famous music director's second song, by end of day only (6)
 - 24 New bag or new shoe? (6)
 - 26 Criminal often smuggles overhead (5)

SUDOKU

	5	9	1		2			
8		7	6	3				
					4		8	
		2		6	3			9
	1						6	
9			4	2		3		
	2		7					
				1	8	6		7
			3		6	1	2	

DIFFICULTY RATING: ★★☆☆☆

Solution to previous puzzle

N	E	J	R	A	L	N	E	T	W	O	R	K	
E	V	E	I	M	R	O	S						
S	P	A	S	H	E	T	T	O	C	E	T		
P	C	A	M	S	I	N	A						
R	H	U	M	B	U	S	I	G	H	T	L		
I	E	S	I	D	E	S							
T	E	E	H	E	O	B	O	E	S				
S	O	P	N	E	S								
A	P	P	E	S	T	R	I	P	O	D			
S	O	A	P	O	P	E	R	A	B	O	G	E	V
I	R	R	R	L	E	L	B						
D	O	E	L	O	R	A	N	G	E	A	D		
E	A	O	N	M	I	S	D						
E	X	H	I	B	I	T	I	O	N	I	S	M	

Solution to yesterday's Sudoku

2	1	6	4	5	9	8	7	3
5	9	8	1	3	7	2	6	4
7	3	4	6	8	2	5	9	1
8	4	3	7	6	5	9	1	2
1	7	2	3	9	8	4	5	6
9	6	5	2	1	4	3	8	7
3	8	1	9	4	6	7	2	5
6	2	9	5	7	3	1	4	8
4	5	7	8	2	1	6	3	9

In big update, minimum possible mass of dark matter particles revised

In 1922, Jacobus Kapteyn estimated the density of dark matter. Since then, a century of sophisticated measurements has held up the figure. It's equal to the heft of two protons per teaspoon, which means your house could contain dark matter with a mass equivalent of a trillion protons – but herein lies the rub

Nirmal Raj

Dark matter is an enigmatic, invisible substance supplying five-sixths of the matter of the universe. Unlike photons, the particles of light and the particles of dark matter need to have non-zero mass, or else the dense and intricate structure of matter on cosmic scales will not form.

How light can a dark particle then be? For decades, scientists thought this minimum mass was about 10^{-31} times the mass of a proton. But in May this year, theoretical physicists revised the limit and pushed it up by an order of magnitude to 2.3×10^{-30} proton masses. This is a significant update in the world of dark matter.

Uniformly or in lumps?

To understand these numbers and their importance, let us first build a mental picture of dark matter. Dark matter is said to be everywhere in the universe. Does that mean it is in your house? In 1922, Dutch astronomer Jacobus Kapteyn studied the motion of stars neighbouring the Sun and concluded the density of “dark matter” (using that term for one of the first times) must be 0.0003 solar masses per cubic light year.

Since then, through a century of increasingly sophisticated measurements, the accuracy of Kapteyn’s conclusion has held up remarkably well. This density of dark matter can be re-expressed as the heft of two protons per teaspoon, which means your house could contain dark matter with a mass equivalent of a trillion protons.

But this would also be naïve: Kapteyn’s and subsequent measurements are only valid when regarding the million-cubic-lightyear volume and don’t apply when we zoom in for a closer look. This is because stars, whose motion is used for the measurement, are themselves separated by a few light years. Whether or not dark matter is present on smaller length scales would depend on how it is distributed: either uniformly or in lumps.

An occasional visitor?

Let’s assume it is spread around like fine flour, which the standard theories of cosmology also predict. If it comes in lumps, the spacing between them may be as large as many light years, and there will perhaps be no dark matter under your roof.

Now, since we know the local density of dark matter, the value of the unknown mass of the dark particle will determine



A Hubble Space Telescope view of the galaxy NGC2985. The evidence for dark matter emerged in the 1970s when astronomers found an unusual pattern in the rate at which stars in a galaxy rotated the farther they were from the centre. JUDY SCHMIDT/NASA

the separation between two neighbouring particles. If it is 100 proton masses, the inter-particle separation will be 7 cm. Then dark particles at any given moment will not only be in your house but also in your head.

If dark matter is made of an elementary particle, the heaviest it can be is about 10^{19} times a proton’s mass. In that case the interparticle separation would be 30 km. So dark matter won’t be a resident of your house but will visit occasionally (since the particles travel randomly at around 300 km/s).

Then again, a 10^{20} gram agglomerate of dark particles would be apart by more than the size of the solar system, reducing our chance of discovering them.

Fluid rather than a flock

What about small masses? At 10^{-11} proton masses, every red blood cell in your body will contain a dark matter particle. But now quantum physics becomes important. Every object is also a wave, with its wavelength given by the inverse of its momentum. Thus the lighter a dark matter particle is, the larger its wavelength will be. For 10^{-11} proton masses, the wavelength will be about 2 cm, much larger than its micrometre interparticle separation.

So for small masses, we must picture a

It’s not every day that particle physics gets to redraw a fundamental goal post by an order of magnitude. And it is a sign of our times that this could only have been done with computers as opposed to a blackboard

collection of dark particles as a fluid rather than as a flock of grains.

If we now dial the mass of a dark particle all the way down to 10^{-31} proton masses, the wavelength is 200 light years, about the size of a dwarf galaxy. The substance of a dwarf galaxy is chiefly in the form of dark matter, with only about 1% contribution from stars. This simple fact translates to a restriction on the dark matter particle’s mass: it must be greater than 10^{-31} proton masses. If it were lower, its spatial extent would exceed the dwarf galaxy, and we can’t form a macroscopic object smaller than its microscopic constituents.

The time of computers

This is where the paper from May matters. Its authors have shown that this lore is too simplistic and that researchers can do something sharper. First, using

data on how stars move in Leo II, a dwarf galaxy orbiting the Milky Way, they inferred the dark matter density in it as a function of the distance from its centre. This density profile isn’t unique due to measurement uncertainties, so they generate a set consistent with the stellar data. Next, they numerically solved the Schrödinger equation after modifying it to account for gravity and obtained an ensemble of density profiles. Finally, they carried out a statistical procedure to match the two sets of density profiles – the empirical one from observing Leo II and the theoretical one from solving the equation.

Their key finding here was that the inner regions of Leo II contained more invisible mass which dark particles of 10^{-31} proton mass couldn’t account for. Thus they surmised heavier particles are needed to accommodate the inner crowding.

It’s not every day that particle physics gets to redraw a fundamental goal post by an order of magnitude. And it is a sign of our times that this could only have been done with computers as opposed to a blackboard.

(Nirmal Raj is an assistant professor of theoretical physics at the Centre for High Energy Physics in the Indian Institute of Science, Bengaluru. nraj@iisc.ac.in)

THE GIST

Scientists thought the minimum mass of dark matter was about 10^{-31} times the mass of a proton. But in May, theoretical physicists revised the limit and pushed it up by an order of magnitude to 2.3×10^{-30} proton masses

If the mass of a dark particle is 10^{-31} , the wavelength is 200 light years, about the size of a dwarf galaxy, which is chiefly dark matter. This restricts the dark matter particle’s mass. It must be greater than 10^{-31} . If it were lower, its spatial extent would exceed the galaxy

Researchers inferred the dark matter density in Leo II. They matched the two sets of density profiles – empirical and theoretical. They found that Leo II contained more invisible mass, which dark particles of 10^{-31} proton mass couldn’t account for

BIG SHOT



Youngsters examine ‘Harlow’, a rehabilitated loggerhead sea turtle, just before it was released into the Atlantic Ocean on Saturday in Marathon, Florida. Rescued in June, the reptile was found unable to dive, emaciated, and covered with barnacles by a family that was fishing off the Keys. AFP

WHAT IS IT?

SpaDeX: meeting in space

SpaDeX is the name of a new mission to be flown by the Indian Space Research Organisation (ISRO). During the mission, two satellites will be launched into orbit around the earth, where they will demonstrate technologies to dock and undock while in motion.

ISRO needs to master in-space docking so that satellites launched in separate rocket launches can link up to perform more sophisticated tasks. The technology will be essential for the ‘Bharatiya Antariksh Station’, a new India-made space station ISRO has begun work on.

If the SpaDeX test is successful, India will become the fourth country in the world to have a space programme capable of docking in space. The satellites for the SpaDeX mission will be launched onboard the PSLV C60 mission. The launch is expected to happen on December 30, 2024.

Each of the spacecraft weighs about 220 kg. The rocket will launch them simultaneously but independently into a 470-km-wide circular orbit at a 55° inclination, with a local time cycle of about 66 days.

The docking manoeuvre will be SpaDeX’s primary objective.



The two satellites, dubbed ‘Chaser’ and ‘Target’, involved in the ISRO SpaDeX mission. ISRO

Once it has been accomplished, the two satellites will proceed to the secondary objectives: “the transfer of electric power between the docked spacecraft, which is essential for future applications such as in-space robotics, composite spacecraft control, and payload operations after undocking,” per an ISRO statement.

With agency inputs

-The Hindu Bureau

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



Pie in the sky

The simultaneous elections idea is a non-starter

With the Union government introducing two Bills in the Lok Sabha to implement its idea of simultaneous elections to the Lok Sabha and the State Assemblies, the stage is set for Parliament to debate the feasibility, or otherwise, of the idea of what the government calls "One Nation, One Election". With the Opposition pressing on a division of votes on the introduction of the Bill – 263 for and 198 against – the writing on the wall was clear. The government does not have the two-thirds majority in Parliament to pass the constitutional amendments to facilitate simultaneous elections. A 39-member House panel will examine the two Bills. The content in the Bills themselves are in line with the recommendations of a committee headed by former President of India Ram Nath Kovind that envisaged simultaneous Lok Sabha and Assembly elections as a first step, followed by municipal and panchayat polls within 100 days of the general election. For the amendments to conduct municipal elections, they would have to be ratified by at least half of the State Assemblies.

The Constitution Amendment Bill seeks to add a new provision that will provide for the timeline for simultaneous elections and as per the wording in the Bill, this could happen only in 2034 unless the Lok Sabha terms prior to that are curtailed for some reason. Other provisions echo the Kovind committee recommendations – for example, if a State Assembly gets dissolved before five years of its term, after the "appointed date" – the date for synchronising Lok Sabha and Assembly elections – fresh "midterm" elections will be held but the new Assembly will not have a full five-year tenure. Its tenure will end five years from the "appointed date". The Bill also provides the Election Commission the option to defer or not hold Assembly elections to a particular State, but the full term of that Assembly will still coincide with that of the Lok Sabha elections. These provisions are anti-federal. The idea of conducting multiple elections to an Assembly before the stipulated five-year period also militates against the ostensible rationale provided for the idea of introducing simultaneous elections – cost-cutting. The idea of federalism, sharing power at different levels of governance, is tied to the exclusive importance and roles demarcated to them and elections are a way for voters to exercise their specific concerns related to these different levels of government. By subsuming the electoral cycles into one time frame, the idea of simultaneous elections has the potential to diminish the importance of each tier, which is also in line with the centralising tendencies of the BJP/NDA regime. This makes it imperative for those committed to federalism to steadfastly oppose this idea.

Away from home

There are no easy solutions to the travails of Indian workers abroad

The story of 16 Indian workers allegedly deceived into working under inhumane conditions in Libya highlights the persistent issue of labour exploitation faced by millions of Indians abroad. According to government reports, these workers, who had travelled to the United Arab Emirates for employment, were later coerced into relocating to Benghazi, Libya, to work in a cement factory. While the Indian mission has been providing them with food and supplies, the workers cannot leave without the necessary exit permits. This incident is far from isolated. In June, a fire at a labour camp in Mangaf, Kuwait, claimed the lives of at least 40 Indians. Prime Minister Narendra Modi's recent visit to Kuwait has brought attention to the plight of Indian workers, particularly those in labour camps. Despite Mr. Modi's acknowledgment of Kuwait's support for its over one-million-strong Indian community, the dangers faced by Indian workers remain a concern. According to the Ministry of External Affairs, there are around 13 million Indian nationals abroad, with most in the Gulf countries. These workers, who lack eligibility for citizenship in their host countries, contribute significantly to India's economy through remittances – about \$111 billion in 2022. However, their personal gains are often limited. Many are burdened by recruitment fees, loans for travel and relocation, and exploitative work conditions such as the *kafala* system in the Gulf countries.

The Indian government has made attempts to regulate labour migration. The introduction of the e-Migrate system over a decade ago for workers travelling to 18 countries requiring Emigration Clearance (ECR) was a step forward. However, labour contractors and agents, operating in international networks, often circumvent these safeguards. Moreover, these protections do not extend to non-ECR countries such as Israel and Russia, where Indian workers have faced dire consequences, including death in conflict zones. Reforming India's Emigration Act, stricter monitoring of recruitment agents, and demanding higher compensation guarantees from foreign employers are necessary. Yet, a more sustainable solution lies in fostering equitable economic growth in India. Ultimately, in cases like that of the workers in Libya, the government is often left with no choice but to repatriate them. However, many return to a bleak future. For most, the harsh realities of life overseas still appear preferable. Rather than merely celebrating the success of its diaspora, India must use platforms such as the Pravasi Bharatiya Sammelan to address the struggles of these workers. Their plight remains in stark contrast to India's growing economic and diplomatic ambitions on the global stage.

The global warming fight has a challenge for India

The outcome of the climate conference (COP29) in Azerbaijan has been disappointing. The meeting took place at a time of transition in American politics. While international climate negotiations remain stalemated, nature is moving inexorably towards becoming a hotter planet. The fight against global warming requires reducing emissions. Developed countries have accepted 2050, China 2060, and India 2070 as the deadline for energy transition to net zero emissions by 2070.

There are two developments that will cut short the transition time. The European Union's (EU) Carbon Border Adjustment Mechanism (CBAM), which will be effective from 2026, will result in penal customs duties on imports unless the carbon tax in exporting countries is hiked to the EU level. The second is increasing pressure to accept the 'peaking' of emissions. The G-7 Summit in Hiroshima last year, and Apulia in June 2024, called on the 'major economies' to accept the peaking of emissions by 2025. This was a reference to China and India as the EU and the United States have already accepted 'peaking'.

The incoming Donald Trump administration may take the U.S. out of the climate agreements again. Regardless of this, we must take action to achieve a clean environment, for our own sake. But we cannot ignore India's development imperative. We need more electricity to replace fossil fuels. India's electricity consumption is a third of the global average. While developed countries and China have to diversify to clean energy sources, India has to grow and diversify.

These twin challenges entail much higher costs and require a longer transition time. However, we do not have the luxury of waiting till 2070 as pressure mounts for the 'peaking' of emissions. The 'peaking' year is an intermediate stage where emissions plateau before declining to the net zero stage. China has accepted the goal of peaking by 2030. India cannot remain an outlier indefinitely. At the most, we may have a decade when our emissions will be capped. A more compressed transition schedule means that we have to depend upon existing technologies. Small modular reactors and hydrogen will take more than a decade to become commercially viable.

Ramp up generation

Can we escape pressure for early peaking? While targets in climate negotiations will be voluntary, they will be enforced through bilateral tariff measures and international financing conditions. The peaking level will determine the quantum of energy available for future growth. We need to rapidly ramp up electricity generation to establish our claim to an energy level that is sufficient to sustain future growth before we are constrained to accept the peaking of emissions. China has 200 GW of new coal-based power



D.P. Srivastava

a former Ambassador and Coordinator of the Vivekananda International Foundation (VIF) Task Force on India's Energy Transition in a Carbon-Constrained World

plants sanctioned or under construction.

Reaching net zero emissions (NZE) will entail growth in demand for electricity based on clean sources, as new sectors such as transport and industry are brought under electrification. This increase will be of a much higher order of magnitude than existing trends which are derived from the power sector alone. What is the minimum quantum of electricity needed to reach NZE? Which is the cheapest generation mix needed to achieve the minimum level? A Vivekananda International Foundation (VIF) Task Force on India's Energy Transition in a Carbon-Constrained World mandated IIT Bombay to answer these two questions based on mathematical modelling.

It estimated the minimum quantum of demand for electricity as 21,000 Terawatt hours (TWh) by 2070. An International Energy Agency report has pegged India's energy demand at 3,400 TWh by 2040. Different timelines make a comparison difficult. But it is worth keeping in mind that India's energy consumption in 2020 according to NITI Aayog data was 6,200 TWh. Is it realistic to peg its energy demand two decades later at half the level of 2020, the pandemic year, when the economic activities were slow? This is a prescription for energy deficit and slow growth.

The *Economist* has suggested decoupling growth with energy. The West has not followed this paradigm. Will India's service economy minimise the need for energy? Server banks needed to power the digital economy require a huge amount of energy. Generative AI will increase energy demand exponentially. This is why Microsoft and other tech giants are turning to nuclear power, which is the only source of clean, firm power at scale.

Cost and land

For energy transition, the choice lies between renewables and nuclear, the two forms of energy that are emission-free. But which of the two entails lower cost and land? The current renewables tariff does not fully take into account storage and transmission costs. A paper by the Central Electricity Authority last year acknowledged that the cost of renewables round the clock ranges from ₹4.95 per unit to ₹7.5 a unit (on the assumption of only six hours of storage). This is higher than the tariff for nuclear power at ₹3.80 a unit. The VIF-IIT Bombay study has also brought out that the renewable high option will cost the most (\$15.5 trillion), while the nuclear high option will cost the least (\$11.2 trillion) by 2070.

The VIF report has shown that the renewable high approach will require 4,12,033 square kilometres – double the total surplus land of 2,00,000 sq.km available in India. The nuclear high approach will require 1,83,565 sq.km. The renewable route for the production of green

hydrogen will increase the demand for electricity for electrolysis and make land constraints worse.

On the margins of COP28 in the United Arab Emirates, a group of over 20 countries, including the U.S., France, and Japan have pledged to triple nuclear power by 2050. Nuclear power already provides 20% of electricity generation in the U.S. and 70% in France. Japan joined this group despite the legacy of the Hiroshima and Nagasaki bombings, and the Fukushima accident. In India's case, there is a need for a sharper increase, as the share of nuclear power in generation is as low as 3%.

Ramping up nuclear power requires government support, as resources on this scale cannot be internally generated by the Nuclear Power Corporation of India Limited (NPCIL). Nuclear power also needs to be given the status of green energy as it is emission-free. Besides operationalising existing joint ventures between the NPCIL and public sector units, public-private partnerships with industries in hard-to-abate sectors should be encouraged given the looming EU deadline for enforcing the CBAM. The bulk of the additional demand for generation will have to be met by larger 700 MW-1,000 MW reactors.

The issue of finance

At COP29, developed countries committed a paltry \$300 billion per year from diverse sources by 2035 against the demand by developing countries for \$1.3 trillion. Will this distant goal survive the Trump presidency? Most of this will be non-concessional finance. Many developing countries cannot absorb loans. Multilateral development banks have their statutes, which will require amendment.

Green finance from private sources will come only if the tariff is raised, and the health of DISCOMs is restored. The government cannot bear the fiscal burden of energy transition. The public has to be sensitised to steep hikes in tariffs given the investment in creating new-generation assets. This requires political consensus.

COP29 has finalised the rules for carbon trading. This amounts to rich countries buying the carbon entitlement of the poorer countries to cushion their lifestyle changes. If we cannot diversify to clean sources by the peaking year, we will need carbon for our growth rather than a trade-off.

The energy transition is a fight for limited carbon space. No major economy is likely to diversify to clean energy before the global carbon budget runs out in the next 10 years. An equitable share in the remaining carbon space is crucial for future growth. We must establish our claim by establishing high-generation capacity. The EU and the U.S. have already claimed entitlement to remaining carbon space by unilaterally establishing their peaking levels. China will keep expanding its claim till 2030.

Pointing the beacon at India's undersea warfare power

The year 2024 started on a high note for the Indian Navy, with Operation Sankalp expanding from the Strait of Hormuz to the Red Sea to ensure the safety and the security of shipping from piracy and providing assistance to ships targeted by the Houthis. The Navy's continued response in addressing piracy, hijacking, and drone attacks on international merchant shipping has reinforced its status as a preferred security partner and first responder. In 2024, while several salient episodes marked the Navy's operational preparedness, an area that witnessed several critical developments was undersea warfare.

Pivotal developments

One key development was the commissioning of India's second indigenous nuclear-powered ballistic missile capable submarine (SSBN), INS *Arighaat*, in August 2024. Adding value to the third leg of India's nuclear triad – and hence nuclear deterrent value – the SSBN mirrors its predecessor, INS *Arihant*, in size and propulsion. The boat, as submarines are known colloquially, has a higher indigenous content than INS *Arihant*. The advanced sonar and propulsion systems and upgraded acoustic dampening are a distinctive addition to India's underwater warfare capabilities. These capabilities were emblematically enhanced by the recent testing of the K-4 submarine-launched ballistic missile (SLBM) from INS *Arighaat*, with a range of 3,500 kilometres. While the firing was successful, the results of the test parameters are awaited. Successful tests and the induction of the missile as a composite weapon package of SSBNs would place most of China under striking range.

About a month after the commissioning of INS *Arighaat*, the Cabinet Committee on Security cleared the long-pending Project-77 (P-77), giving its final approval to construct two



Sarabjeet Singh Parmar

a retired Indian naval captain, and is Distinguished Fellow at the Council for Strategic and Defence Research, New Delhi



Araudra Singh

a researcher at the Council for Strategic and Defence Research, New Delhi

The approach to enhance the Indian Navy's undersea capabilities highlights the government's move to ensure maritime stability and security

nuclear-powered attack submarines (SSNs) at a cost of ₹40,000 crore. Delivery of the first SSN is scheduled for 2036-37 and the platform is expected to include over 90% indigenous content. The addition of the SSNs would enhance the Navy's underwater warfare capabilities, which essentially includes providing protection to deployed SSBNs. With the induction of the SSNs, India would become the only non-P5 nation operating SSBNs and SSNs.

On conventional submarines

While nuclear boats open up new vistas of capabilities, conventional boats will always be relevant. In the past, there has been discussion in the U.S. about the re-induction of non-nuclear boats, as not all undersea missions require nuclear power. In India's case, Project-75, in collaboration with France, will see the commissioning of the sixth Scorpene boat, INS *Vaghsheer* soon. The Navy is looking to order three more such boats, which will add the required punch and help fill the void with the decommissioning of older boats. The efficacy of non-nuclear boats has increased with the advent of air independent propulsion (AIP). Therefore, Project 75(D), which seeks to induct AIP-enabled boats, involves Spain and Germany as contenders to build such boats, and is expected to reach its logical conclusion when the technical and financial evaluations are completed. In all cases, indigenous content is expected to increase. For example, the follow-on three Scorpene boats are expected to feature 60% indigenous content. In the case of Project 75(D), with the bidders, Germany's Thyssenkrupp Marine Systems (TKMS) and Spain's Navantia, accepting India's transfer of technology and indigenous content requirements, the first boat is likely to include a minimum of 45% indigenous content, rising to 60% in the sixth boat.

Another domestic development in niche undersea naval technologies is the approval of building 100-tonne Unmanned Underwater Vehicles (UUVs) at a cost of ₹2,500 crore. UUVs would add to India's undersea capabilities as a low-cost option with a high return on investment. This project is symbolic of India's positioning of niche technologies as strategic enablers to address increasingly complex and evolving threats in the maritime space.

Some of the hurdles

The approach to enhance the Navy's undersea capabilities in tandem with surface and aviation elements underscores the importance placed at various levels of the Indian government on ensuring maritime stability and security. This approach would create a balanced blue water force. However, this calls for addressing long-drawn budgetary issues to manage the mismatch between planned acquisitions and modernisation allocations and excessive time delays. Sustained funding for projects with long gestation periods, streamlined processes on specifying requirements, shortlisting original equipment manufacturers, and issuance and evaluation of tenders would require focus. A balanced force would ensure fulfilling the Navy's strategic and operational requirements, which are indispensable for addressing the threats, challenges, and risks emanating from the maritime domain while also taking advantage of the opportunities that arise.

These opportunities, especially cooperation and collaboration with strategic partners and other friendly maritime nations, would augur well not only for India's growth as a maritime nation but also support India's maritime visions of Security and Growth for All in the Region (SAGAR) and a free, open, and inclusive Indo-Pacific.

LETTERS TO THE EDITOR

Thriving on opaqueness

Ironically, the central government's amendment of the Conduct of Election Rules, to restrict public access to polling footage, comes at a time when the need of the hour is more, not less, transparency. As a matter of fact, the word 'information' in the RTI Act includes not just papers and documents but also any information stored even in a computer and an

electronic device. Therefore, the move to restrict access to the same confirms the fact that both the government and the Election Commission of India thrive on opaqueness (Page 1, "Govt. amends rule to restrict access to polling footage", December 22). In an age when public faith in institutions is on the decline, the move appears to be calculated to circumvent the judiciary's

order on a petitioner's plea for poll video footage. Regardless of the final outcome, the fact remains that the Government and the EC are in cahoots when it comes to the question of providing information to the general public under the RTI Act, even though it is a fundamental right – a trend which borders on the ominous. **M. Jameel Ahmed,** Mysuru

Insurance and GST

It is surprising that a review of GST levies on life and health insurance has been deferred (December 22). In fact, there is no major hurdle in giving relief to citizens on these insurance policies. Life and health insurance policies are essential to all citizens, and still, a lot of the population has to be covered. As almost all insurance companies have increased

the premium for health policies as well as co-payment by the policy holder, additional GST is a burden on policy holders. **J.P. Reddy,** Nalgonda, Telangana

Even a fleeting understanding of the need to have health and life insurance underscores the need to have insurance for a substantial amount for which proportionately high

premiums are paid. Hospitalisation is getting more expensive by the day, which makes insurance imperative and desirable. If the government's objective is to keep its coffers healthy, it is a sad commentary on its functioning. **V. Lakshmanan,** Tirupur, Tamil Nadu

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

The challenges of posthumous reproduction

On October 4, 2024, the Delhi High Court allowed the parents of a dead man to use his frozen semen for posthumous reproduction. The young, unmarried man had preserved his semen sample at a hospital in Delhi while undergoing chemotherapy. He passed away in September 2020. When his parents, his legal heirs, approached the hospital in December 2020 requesting the semen sample to be released, the hospital declined, citing the need for appropriate orders from the High Court. The parents filed a petition with the High Court. The hospital countered that “no laws, including the Assisted Reproductive Technology (ART) (Regulation) Act, 2021, govern the release of frozen semen samples of an unmarried deceased male to his parents or legal heirs.” The Court also noted that neither the ART Act nor its Rules, 2022, deal with a situation of this kind. In its order, the Court cited a similar case in 2018, where the parents of an unmarried man who died in Germany used his cryopreserved semen to have grandchildren. After his death, the semen was shipped to India and used to conceive two children through a surrogate and egg donor.



Sarojini Nadimpally
works on gender, reproductive and genetic technologies, and surrogacy



Richa Sharma
works on gender and sexual and reproductive health and rights with young people

in such manner as may be prescribed.” However, Section 2(e) defines a commissioning couple as “an infertile married couple”. So, the Act applies only to infertile married couples and does not specify unmarried individuals or grandparents. The High Court order emphasises that the consent was not implied but explicitly expressed by the deceased. In the absence of clarity in the law, the Court’s acceptance of this consent raises questions.

While acknowledging the emotional component, it is crucial to critically examine the petitioners’ wish to “preserve the legacy of their son” for genetic perpetuity through posthumous conception, thereby resurrecting the social significance of genetic connectedness and the birth of a child as fundamental aspects of family. Regarding this, the Ministry of Health and Family Welfare responded that “the ART Act is intended to support infertile couples or women and does not encompass situations such as the petitioners, who aspire to have a grandchild through surrogacy.” In the absence of legal provisions regarding the case, it is important to question the ethics of grandparenthood as well as the procedure followed to obtain the sperm of a son who has since died. A primary legal concern is parentage: as the sperm donor died, who will get parental rights? Can he and the surrogate be considered parents of the child? What will the birth certificate say?

No clear guidelines
The Court considered international legal precedents, such as *Doodeward v. Spence and Yearworth v. North Bristol NHS Trust*, while addressing genetic material. These lawsuits have explored the ownership of human biological material and the rights of individuals or families to control it after death. These cases demonstrate the evolving legal views on posthumous gamete retrieval and use. While certain regulations like the EU Directive

ensure the safe handling of human genetic ‘material’, including reproductive ‘material’, they fail to provide clear guidance on the ethical and legal complications of posthumous conception.

Building on these precedents, the High Court ruled that semen, being genetic material, qualifies as property or an estate and in the case of a deceased person, it is part of the individual’s biological material, like the human corpse or its organs. This categorisation of human tissues, including reproductive, as property have been part of feminist debates. Feminists have critiqued the ‘property’ approach towards human tissues, suggesting that it leads to the commodification of human tissue and reduces people to mere ‘objects,’ which serve as the raw material for added value extraction. They have argued that this approach stems from the intersections of patriarchy, capitalism, and reproductive biotechnologies. They have further argued that the female body shares a common concern about women’s bodily subjection, whether through “medical science, population-control agencies, or the patriarchal organisation of sexuality and kinship.” The High Court order commodifies genetic reproductive “material” by defining semen as “property”, although it explicitly prohibits the use of the semen sample for any commercial or monetary purposes.

Conversely, it is important to assess whose rights are at stake here. The Court order emphasised that since science has made it possible for infertile couples to conceive, the parents’ desire to carry on their deceased son’s legacy through his cryopreserved semen cannot be defeated. This raises more questions than answers regarding its ethical and legal ramifications. In the absence of specific guidelines, it becomes imperative to revisit existing laws and address gaps instead of relying on interpretations of the status of posthumous conception.

Existing laws and provisions
With advances in reproductive technology, cryopreservation of gametes (sperm and oocyte) is possible outside the body for long periods. But using cryopreserved gametes for posthumous conception raises complex ethical, social, and regulatory issues.

The ART Act and the Surrogacy (Regulation) Act, 2022, address issues related to fertility, infertility, gamete donation, and surrogacy. But neither addresses the current case. Besides, the ART Act’s clauses contain ambiguities and gaps. For example, Clause 24(f) of the Act states that “the collection of gametes posthumously shall be done only if prior consent of the commissioning couple is available

It is imperative to revisit existing laws and address gaps instead of relying on interpretations of the status of posthumous conception

From waste to energy to pollution

How thermal plants and waste-to-energy plants intensify air pollution

STATE OF PLAY

C. P. Rajendran

Delhi remains the most polluted city in India, as of December 20. Air pollution in the capital is over 17 times the limit prescribed by the World Health Organization, according to official data. Particulate matter (PM2.5) can go deep inside the lungs, causing respiratory illnesses. Air toxicity also results in increased incidences of cancer and miscarriages.

The fight against pollution remains unsuccessful despite efforts by the government and interventions by the Supreme Court. Air pollution in Delhi mostly originates from human activities such as burning coal, petrol, diesel, and gas; biomass in industries; and coal-based power plants. Kitchen smoke, vehicular emissions, the large-scale construction activity, firecrackers, and the burning of residual crops also vitiates the air. Although many of the major sources of pollution are active throughout the year, the worsening of air quality during winter happens due to temperature inversion. Heavier winds prevent pollutants from scattering and keep them concentrated closer to the ground.

The recommendations for pollution mitigation largely range from promoting crop diversification in the neighbouring States to transforming the transport sector. Only a few reports dwell sufficiently on the role that thermal plants and waste-to-energy plants play in intensifying air pollution. According to the Centre for Research on Energy and Clean Air, thermal plants emit sulphur dioxide at levels 240 times higher than stubble burning. “While stubble burn-



ing receives heavy penalties, coal-fired power plants operate with repeated compliance extensions,” the report states.

The guidelines of the Ministry of Environment, Forest and Climate Change require coal-based power plants to install flue-gas desulfurization systems, which can reduce their annual sulphur dioxide emissions by more than 60%. However, the Union Power Ministry has been seeking an extension of the deadlines. The Central Electricity Authority has already missed two deadlines and has asked for time till 2035.

Besides coal power plants, Delhi’s four waste-to-energy (WtE) plants located in Ghazi-pur, Narela, Okhla, and Tehkhand are also major sources of pollution. These plants burn garbage to produce steam that runs turbines to generate electricity. This is seen as a solution to the mounting garbage crisis. While WtE plants in Delhi generate electricity, they also produce bottom ash and fly ash. The bottom ash that remains after combustion comprises about 20-30% of the original waste volume. Hailed as a green solution to the city’s mounting garbage crisis, waste-to-energy incinerators are like open pit garbage fires that billow toxic particulate matter and gases.

The *New York Times* published an article on Novem-

ber 9, 2024, focusing on the Timarpur-Okhla WtE plant, commissioned in 2012. The paper found that the plant’s fly ash contains cadmium that is four times higher than the Environmental Protection Agency’s permissible limits and 10 times the legal amount of dioxins, a notorious toxic substance. The plant does not follow any ecological norms in handling fly ash, causing air and water contamination, despite public concerns over health and environmental impacts. No clear guidelines against WtE plants have been issued under the Graded Response Action Plan, a set of emergency measures that kick in to prevent further deterioration of air quality once it reaches a certain threshold.

Modern incinerators have primary and secondary burn chambers and controlled burners designed for efficient burning with the lowest possible emissions. The newest generation plants elsewhere in the world use stoker technology, and others use advanced oxygen enrichment technology. Several treatment plants worldwide use relatively novel processes such as direct smelting. It is unclear if the plants in Delhi use any filters or scrubbers to prevent the pollutants from escaping.

Marginalised communities suffer the worst consequences of air pollution in Delhi, and WtE plants are located close to such enclaves. Environmental justice demands that the efficacy and usefulness of WtE plants in Delhi be evaluated urgently. They must stop functioning until they incorporate appropriate technology for toxicity-free garbage burning for generating electricity.

C.P. Rajendran is an adjunct professor at the National Institute of Advanced Studies, Bengaluru

Worst to best: The fiscal evolution of Odisha in the last two decades

Higher non-tax revenue stemmed from increased revenues from mining leases, where premiums were tied to market prices rather than extraction volumes

DATA POINT

The Hindu Data Team

From being one of the most fiscally stressed States at the turn of the millennium, Odisha has become among the least indebted State by the end of FY24. A recent article in the Reserve Bank of India’s *State Finances: A Study of Budgets* analyses Odisha’s fiscal journey from 2000 to 2024. This was the time when Naveen Patnaik, who is now the Leader of the Opposition, was Chief Minister of Odisha.

According to the RBI article, the passage of the Odisha Fiscal Responsibility and Budget Management Act (OFRBMA) in 2005 marked a decisive shift in the State’s financial journey. The article divides Odisha’s journey into four phases: 1) FY01-FY05: high debt-era; 2) FY06-FY14: debt consolidation through rule-based fiscal policy; 3) FY15-FY20: prioritising capital expenditure; 4) FY21-24: pandemic to the present.

Chart 1 shows the debt-to-GDP ratio of all States and the debt-to-GDP ratio of Odisha in FY01-FY24. It also captures Odisha’s capital outlay as a percentage of its GDP in these four phases. Odisha’s debt-to-GDP ratio of 57.3% in 2002-03 was much higher than the consolidated debt-to-GDP ratio of 32.1% for all States. The interest payments-to-revenue receipts ratio (IP/RR) was 34.2% in 2002-03, placing a substantial burden on the State’s finances. The debt-to-GDP ratio declined to 16.0% in 2023-24, the lowest among States.

Odisha’s finances faced severe strain during the pre-reform period. Salary and pension bills, losses from public sector undertakings, excessive subsidies, and poor recovery of loans and advances pushed the State into a fiscal quagmire. Revenue expenditure consistently outpaced revenue receipts (**Chart 2**). The chart shows the trends in revenue receipts and ex-

penditure as a share of GSDP over time. It also shows Odisha’s tax and non-tax revenues as a share of GSDP in the FY01-FY24 period.

The Odisha FRBM (Amendment) Act, 2016, introduced stricter fiscal guidelines, mandating a revenue surplus, capping the fiscal deficit at 3% of GSDP, and limiting debt to 25% of GSDP. The State has adhered to these benchmarks, with revenue receipts increasing significantly from tax and non-tax sources, as seen in **Chart 2**.

Public debt also grew faster than the State’s GSDP in the pre-reform period, breaching debt sustainability norms and raising concerns about long-term fiscal health. After the passage of the OFRBMA, key tax reforms, including the introduction of VAT, rationalisation of tax rates, expansion of the tax base, stricter enforcement, and the adoption of IT-based tax administration, generated a consistent revenue surplus from 2005-06 (**Chart 3**). The chart shows deficit indicators: revenue deficit and gross fiscal deficit as a share of the State’s GSDP over time.

While maintaining a surplus in the revenue account, Odisha sharply increased its capital outlay during this period, largely funded through higher borrowings, as seen in **Chart 1**.

This fiscal discipline enforced through the reform also brought debt under control, with the IP/RR ratio falling below the 15% threshold set by the OFRBMA, as shown in **Table 4**. The table shows the key fiscal indicators of the State.

Odisha demonstrated good fiscal management during the COVID-19 pandemic, with periodic revisions to tax and user charges and monthly revenue reviews. It was the only State to post a revenue surplus (1.7% of GSDP) in 2020-21, which rose to 6.5% of GSDP in 2021-22, driven by higher non-tax revenue. This largely stemmed from increased revenues from mining leases, where premiums were tied to market prices rather than extraction volumes.

Debt to discipline

The data for the charts were sourced from an article titled “Transforming Fiscal Management – A Case Study of Odisha”, featured in the Reserve Bank of India’s “State Finances: A Study of Budgets of 2024-25”



Chart 2: The chart shows the trends in revenue receipts and expenditure as a share of GSDP over time. It also depicts the State’s tax and non-tax revenues as a share of GSDP in the FY01 to FY24 period

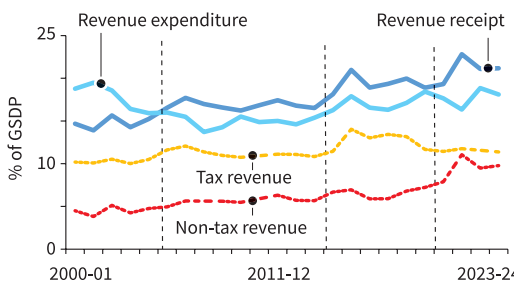


Chart 1: The debt-to-GDP ratio of all States and the debt-to-GDP ratio of Odisha in the FY01 to FY24 period. It also captures Odisha’s capital outlay as a % of its GDP

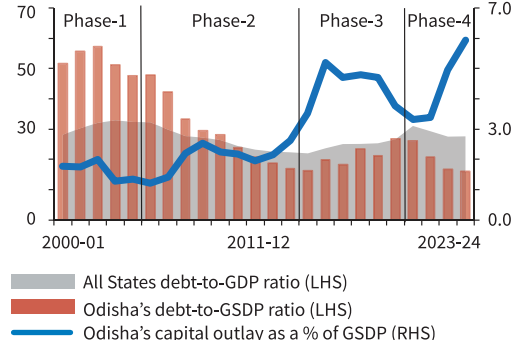


Chart 3: The chart shows deficit indicators: revenue deficit and gross fiscal deficit as a share of the State’s GSDP over time. The Odisha FRBM (Amendment) Act’s fiscal deficit cap of 3% is also marked

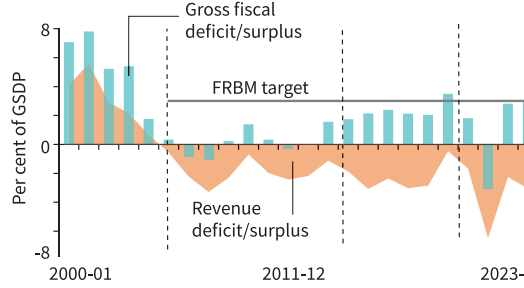


Table 4: The table shows the key fiscal indicators of the State over time

Phase	Debt sustainability indicators of Odisha (%)					Nominal GSDP/ GDP growth rate (%)		Real GSDP/ GDP growth rate (%)	
	D-G: Rate of growth of public debt (D) minus rate of growth of nominal GDP (G)	R-G: Nominal rate of interest (R) minus rate of growth of nominal GDP (G)	IP/RR: Interest payments (IP) as a % of revenue receipts (RR)	IP/GSDP: Interest payments (IP) as a % of GSDP	PD/GSDP: Primary deficit (PD) as % of GSDP	Odisha GSDP	All India GDP	Odisha GSDP	All India GDP
Phase 1 (FY01-05)	1.4	-0.6	33.2	4.9	0.6	11	9.9	6.5	5.7
Phase 2 (FY06-14)	-12.6	-9.2	12.2	2.1	-1.9	16.2	15	7.6	6.7
Phase 3 (FY15-20)	9.7	-4.4	5.5	1.1	1.3	10.5	10.2	7	6.8
Phase 4 (FY21-24)	-17.4	-8.2	4.7	1	0.2	13.2	11	7.2	4.8

The article sourced the data from Dwivedi, H. K., and Sinha, S. K. (2023), “Is expenditure by States for development compromised to ensure compliance of fiscal targets?”; FRBM amendments; Odisha Budget – an insight 2022-2023; Status paper on the public debt of Odisha: 2023

FROM THE ARCHIVES

The Hindu

FIFTY YEARS AGO DECEMBER 23, 1974

“Inhuman” conditions of Railway travel

New Delhi, Dec. 22: The Railway Convention Committee of the Lok Sabha has admonished the Railway administration for the “overcrowding and inhuman conditions” in which the third class (now second class) passengers have to travel and asked it to examine withdrawal of air-conditioned coaches in the overall interest of the travellers.

The Committee’s fifth report for 1978 presented to the House on December 20, has said that out of the total of 1252.18 million non-suburban originating passengers during 1971-72 only 6.17 millions, that is 0.3 per cent, travelled by air-conditioned or first class. Also third-class passengers contribute 37 per cent of the total passenger earnings (non-suburban) of the Railways.

The report says: “The Committee considers that the basic and foremost concern of the Railways as a premier public transport is to provide quick and easy means of communication to the teeming millions of the country and that all its policies in this regard should be mass oriented. The Committee considers that so long as the Railways are not in a position to ensure a seat to a third class passenger on any train and for any distance at a reasonably short notice, if not on demand, the provision of facilities for the more affluent sections of society by way of air-conditioned trains/coaches is out of tune with the declared objective of establishment of a socialistic society.

The Railways, however, would not agree to the proposal for a total withdrawal of the air-conditioned class on the ground that as a commercial organisation it should continue to provide the classes of travel for which there was demand.

A HUNDRED YEARS AGO DECEMBER 23, 1924

Overseas trade figures

The following are monthly overseas trade figures of British India for November: Total values in lakhs of rupees of private merchandise and of private treasure: Total imports of private merchandise Rs. 2,2,54; Total exports of private merchandise Rs. 3,364; Net import of treasure Rs. 878; Total viable balance of trade, merchandise and treasure in favour of India Rs. 261; Balance of remittance of funds adverse to India Rs. 304.

Text & Context

THE HINDU

NEWS IN NUMBERS

Number of DPIIT-registered startups in Tamil Nadu

10,000 Tamil Nadu has achieved a milestone by registering over 10,000 startups with the Department for Promotion of Industry and Internal Trade (DPIIT), under the Union Ministry of Commerce and Industry. PTI

Number of Palestinians killed since October 7, 2023

45,259 The health ministry in Gaza said on Sunday that at least 45,259 people have been killed in the more than 14 months of war between Israel and Palestinian militants. The toll includes 32 deaths in the last 24 hours, according to the ministry. AFP

Number of people screened for TB in Uttar Pradesh

27 In lakh. The Uttar Pradesh government has screened over 27 lakh citizens under a comprehensive campaign aimed at eliminating tuberculosis (TB) from the State by 2025. Special efforts are underway in 15 districts with a high prevalence of TB, including Ayodhya, Sitapur etc. PTI

The death toll in Mozambique due to Cyclone Chido

94 Cyclone Chido killed at least 94 people in Mozambique in its deadly rampage through the Indian Ocean last week, the country's disaster management agency said on Sunday, raising a previous death toll of 76. The cyclone also destroyed 1,10,000 homes in Mozambique. AFP

Entities banned from the securities market by SEBI

9 Markets regulator SEBI has uncovered a front-running scheme involving PNB MetLife India Insurance Company equity dealer Sachin Dagli and eight other entities, who generated gains of ₹21.16 crore. SEBI has prohibited them from the market. PTI

COMPILED BY THE HINDU DATA TEAM

Follow us [facebook.com/thehindu](https://www.facebook.com/thehindu) twitter.com/the_hindu [instagram.com/the_hindu](https://www.instagram.com/the_hindu)

Are Manipur militants using Starlink devices?

Why has the recovery of a Starlink satellite antenna and router in Manipur in mid-December sparked concerns? Does Starlink have regulatory approval in India? How exactly does Starlink prevent users, in regions which do not have authorisation, from accessing their satellites?

EXPLAINER

Sahana Venugopal

The story so far:

Billionaire Elon Musk has denied claims that his space company SpaceX's satellite internet technology, Starlink is being used by militants in Manipur. This came after the Indian Army and police seized weapons and what looked like a Starlink-branded satellite router and antenna. Starlink is still pending approval in India, though it will be starting in Bangladesh and Bhutan in 2025.

What is Starlink?

Starlink uses an extensive low Earth orbit satellite constellation to deliver broadband internet that has high speeds and low latency. This means that rather than restricting users to essential or emergency functions, they can also stream content, play games online, make video calls, or carry out other high data rate activities, per the company. It is a popular choice for users worldwide in remote areas, sea vessels, disaster-struck regions, or places where oppressive regimes have throttled access to more mainstream internet services. There are thousands of satellites in the Starlink system, and they orbit Earth at around 550 km. Though they cover the entire globe, per SpaceX, the company is not authorised to provide its services to users in some regions.

What is the controversy?

The Spear Corps of the Indian Army on December 16 shared photos on Elon Musk-owned X of guns, ammunition, and country-made mortars that the army and police units had seized in Manipur. X users spotted a small satellite device and router, with the latter bearing the SpaceX logo. In response to an X user who claimed that Mr. Musk's technology was being used by terrorists, the billionaire replied, "This is false. Starlink satellite



Remote connection: A Starlink satellite internet system set up on a boat in Brazil in July. REUTERS

beams are turned off over India." The Starlink device also had "RPF/PLA" written on it, which refers to a Myanmar-based Meitei extremist group that is banned in India. Per Starlink's website and coverage map, the service date for Myanmar is unknown.

However, this is not the first time SpaceX has become embroiled in controversy in India. Last month, smugglers were caught by the Andaman and Nicobar islands police with over 6,000 kg of meth and a Starlink device that was allegedly used for navigation and communication, despite service being prohibited in Indian waters. Furthermore, in August, Starlink equipment was seen being sold on B2B platform IndiaMART.

Can Starlink internet be controlled? International borders are not solid and it is not easy to refine satellite internet

coverage to such a precise degree that service is activated or halted exactly in line with a nation's border. An additional complication is that many international borders are contested or unclear, while satellites moving above them are continuously transmitting encrypted signals. This encryption stops satellites from being hacked by militants or other malicious actors trying to intercept the service. The key question then is whether militants in Manipur can effectively use Starlink satellite internet within India.

"If these [Starlink] boxes have been purchased from outside of India, by whatever means, they can be used because then, that box is authorised. The only thing is, do they have a position location feature? In that case, yes, if you buy a [Starlink] terminal in the U.S. and bring it to India, because of the geographical location change, it might not

work. But that is provided the terminal has a built-in geographic location identifier," theorised former Indian Space Research Organisation (ISRO) engineer, Arup Dasgupta. To help visualise how Starlink stops users in prohibited regions from accessing its satellite internet, Mr. Dasgupta used the analogy of a set-top box that does not let TV watchers access some channels while others who have access can watch these channels.

With regards to seized Starlink devices, Mr. Dasgupta pointed out that by tracking the unique identification code of the Starlink terminal, it might be possible to find the buyer. However, this too could prove difficult due to shadow companies obfuscating the trail of illegal buyers. In essence, more information is needed from SpaceX and Mr. Musk to understand how the company ensures that Starlink satellite internet does not reach the countries yet to allow Starlink.

The Hindu was also able to download the Starlink app from the Google Play Store in India and go through the set-up process up to the point a plugged-in Starlink device was needed. This is in stark contrast to banned apps like TikTok, which are unavailable on the app store.

Mr. Musk in February this year also trashed news reports claiming that Starlink devices were being sold to Russia, and later explained that Starlink satellites would not close the link in Russia.

What does Indian law state?

India strictly regulates and restricts the use of satellite-based communication devices, even by Indian civilians and citizens in conflict-free zones. Everyday gadget users within the country would have noticed that even key satellite-based emergency features on premium phones that are easily available for users overseas are not enabled for use in India. Under Section 6 of the Indian Wireless Act and Section 20 of the Indian Telegraph Act, the use of thuraya/iridium satellite phones is illegal in the country. These restrictions are in place to combat militancy and terrorism.

THE GIST

The Spear Corps of the Indian Army on December 16 shared photos on Elon Musk-owned X of guns, ammunition, and country-made mortars that the army and police units had seized in Manipur. X users spotted a small satellite device and router, with the latter bearing the SpaceX logo.

India strictly regulates and restricts the use of satellite-based communication devices, even by Indian civilians and citizens in conflict-free zones.

International borders are not solid and it is not easy to refine satellite internet coverage to such a precise degree that service is activated or halted exactly in line with a nation's border.

What are the new interception rules and safeguards?

What do the new Telecommunications (Procedures and Safeguards for Lawful Interception of Messages) Rules, 2024 state? Will it override Rule 419A of the Indian Telegraph Rules, 1951?

R.K. Vij

The story so far:

The Union Government, on December 6, notified the Telecommunications (Procedures and Safeguards for Lawful Interception of Messages) Rules, 2024 which empower some enforcement and security agencies to intercept phone messages under certain conditions. These rules supersede Rule 419A of the Indian Telegraph Rules, 1951.

What do the new rules state?

The new rules authorise the Union Home Secretary and the Secretary to the State government in-charge of the Home Department as the competent authority to order the interception of any message or class of messages. An officer not below the rank of a Joint Secretary to the Union Government, may also issue such order of

interception in 'unavoidable circumstances' (without defining such circumstances). The Central Government may also authorise any law enforcement or security agency to intercept messages for reasons specified under Section 20(2) of the Telecommunications Act, 2023.

"In remote areas or for operational reasons", the head or the second senior most officer of the authorised agency at the central level, and head or the second senior most officer of the authorised agency (not below the rank of IG Police) at the State level may also issue an order of interception, but the officer will have to submit such an order to the competent authority within three working days of the date of its issuance. If such order is not confirmed by the competent authority within seven working days from the date of issue, such interception shall henceforth cease. The rules also mandate the destruction of records relating to

interception every six months by the authorised agency and review committee (unless required for functional requirements or court directions).

How are the new rules different?

First, the condition of interception by authorised agencies only in 'emergent cases', has been relaxed. Interception by authorised agencies is now possible if it is not feasible for the competent authority to issue orders in 'remote areas or for operational reasons'. Second, under Rule 419A, there was no limit for the number of IGP rank officers at the State level who could be authorised for interception. But now, in addition to the head of the authorised agency, only (one) the second senior most officer can be authorised for interception. Third, in case the interception order by an authorised agency is not confirmed within seven days, any messages intercepted shall not

be used for any purpose, including as evidence in court.

The Indian Telegraph Act of 1885 had provided the Union Government to make rules for 'the precautions to be taken for preventing the improper interception or disclosure of messages', but no such safeguards were framed for a long time. The safeguards and procedure of interception under Rule 419A were notified only in March, 2007, consequent to the directions issued by the Supreme Court in *People's Union for Civil Liberties (PUCL) versus. Union of India and Another* in 1996. The Supreme Court, in this case, not only elaborated the terms 'public emergency or in the interest of the public safety', but also held that the right to privacy cannot be curtailed arbitrarily without laying down safeguards which are just, fair and reasonable.

What are concerns about new rules?

While the pre-requisite of 'emergent cases' for interception by authorised agencies has been relaxed without additional checks, the rules are criticised for not fixing any accountability for the wilful misuse of powers of interception by authorised agencies. The rules are silent about punitive actions if any authorised agency abuses the powers of interception for a period up to seven days, before its confirmation by the competent authority.

R.K. Vij is a former Indian Police Service officer.

THE GIST

The new rules authorise the Union Home Secretary and the Secretary to the State government in-charge of the Home Department as the competent authority to order the interception of any message or class of messages.

The Indian Telegraph Act of 1885 had provided the Union Government to make rules for 'the precautions to be taken for preventing the improper interception or disclosure of messages', but no such safeguards were framed for a long time.

The rules are silent about punitive actions if any authorised agency abuses the powers of interception.

BUILDING BLOCKS



Quick action: Traffic police have started using speed guns to crack down on speeding vehicles in Puducherry in September, 2023. S.S. KUMAR

The principle behind the working of a speed gun, used for motion tracking

A speed gun is a device to measure the speed of a moving object without having to be in contact with the object. Speed guns are widely used by law enforcement officials to monitor traffic speed, by coaches to gauge the performance of their athletes, and in various other industries

Amartya Srinivasan
Vasudevan Mukunth

The world of today is a world in motion. People constantly want to get somewhere. The heavens are filling up with satellites, our skies with airplanes and rockets, our seas with ships and submarines, and our land with cars, bikes, and trains. Humans have developed laws, rules, technologies, and subsequently entire industries to make sure all these vehicles move smoothly, without harming humans or each other. A small but significant piece of this picture is the speed gun.

What is a speed gun?

A speed gun is a device to measure the speed of a moving object without having to be in contact with the object. To achieve this, the device bounces electromagnetic radiation of a specific frequency off the object, capturing the reflection and using the Doppler effect to infer the object's speed. Speed guns are electronic, and use complex circuitry to emit the radiation used to make the measurement.

These devices are widely used by law enforcement officials to monitor traffic speed, by coaches to gauge the performance of their athletes, and in various other industries in need of accurate motion tracking.

What is the Doppler effect?

The Doppler effect is named for the Austrian physicist Christian Doppler and relies on the simple concept of relative

velocity. Say there's a man sitting at the centre of a field blowing a whistle. The sound waves move out in a circular, concentric pattern with the whistle at the centre, and evenly spread out. A woman standing at the edge of the field will receive these waves at frequent intervals – as and when the waves' crests reach her. (Since sound waves move at 343 m/s in air, human ears can't hear the gaps.)

Each wave has a frequency and a wavelength. A higher frequency produces a higher pitch and vice versa.

Now, say the whistling man is moving around the field on a buggy. If the buggy is moving towards the woman, the waves in front of the vehicle become bunched up. In other words, from the woman's perspective, the waves would have acquired both the speed of the buggy in addition to the speed of the sound wave. Thus the waves will reach the woman more frequently, and she will perceive a higher pitch. (For the same reason, the sound will have a lower pitch in a direction behind the buggy.)

This is why, when a train moves into a station, people on the platform will hear the horn blowing at a higher pitch than when the train is leaving the station. This effect is the Doppler effect.

The speed gun was originally developed during World War II for military use and applies the effect using radio waves rather than sound waves. A speed gun has a radio transmitter and a receiver. The transmitter emits radio waves, which the person holding the speed gun can direct at an object. The receiver collects the waves reflected by the object back in the direction of the

speed gun.

If the object is approaching the speed gun, the frequency of the returning waves will be slightly higher than that of the transmitted waves. A simple computer in the gun can deduce the object's speed based on this difference.

How are the speed and the effect linked?

All electromagnetic waves have a fixed speed – equal to the speed of light in that medium. In vacuum, this value is denoted c: 299,792,458 m/s. Any change in the frequency the speed gun detects directly corresponds to the Doppler shift caused by the object's motion. This principle is powerful because it allows the speed gun to work accurately over a wide range of distances and velocities without being affected by air resistance.

A speed gun can calculate the speed of a moving object by multiplying the difference (between received and emitted frequencies) with c and dividing by the emitted frequency times 2.

This relationship shows how the difference is directly proportional to the speed of the object: the faster it moves, the more pronounced the difference will be. In other words, the only condition is that the object should be moving much slower than the speed of light – which is the case in most, if not all, practical applications of the speed gun.

Do speed guns have shortcomings?

The technology to emit radio waves is ubiquitous today. The principle is simple: when an antenna is excited by an alternating current with a radio-wave

frequency, it emits radio waves.

Radio-wave frequency is in the range of 30 Hz to 300 billion Hz.

For a long time, the equipment to produce the waves was bulky. This changed when scientists invented transistors in the 1940s. Electronic circuits built using transistors considerably simplified the process of producing radio waves and also made the transmitters much smaller.

However, radio waves have intrinsic shortcomings that transmitters can't fully adjust for. For example, radio waves diverge as they move through the air. If an antenna is 5 cm long, the waves it emits will diverge by 22° to either side, producing a beam that is 44° wide overall.

Such a beam could strike more than one moving vehicle and produce inaccurate speed readings.

A continuous-wave radar – which emits radio waves and tracks their reflections continuously – may also produce readings due to multiple vehicles.

Engineers have developed systems to compensate for these errors but the resulting setups have been more sophisticated and more expensive.

For such reasons, LIDAR speed guns have been replacing radar counterparts. The name is short for 'light detection and ranging'. LIDAR uses laser light instead of radio waves; the gun's operation is otherwise similar. Laser light has very low divergence and thus offers better targeting.

Amartya Srinivasan is a Class XI student at P.S. Senior Secondary School, Mylapore, Chennai. Vasudevan Mukunth is deputy science editor, The Hindu.



KNOW YOUR ENGLISH

He seems content with his life

She has the most unrealistic things on her bucket list. Mine is more grounded and doable

S. Upendran

What is the meaning and origin of the expression 'bucket list'? (Sree Deepa)

A 'bucket list' consists of a list of things that you have never done, but would like to before you leave this world. It comes from the idiom 'kick the bucket', meaning 'to die'. A 'bucket list' is your personal wish list, and it may include anything – climbing Mt. Everest, going skydiving, getting a picture taken standing in front of the Taj, eating idli and vada in a well-known hotel in Madurai, having a conversation with a famous author, winning a chess tournament, etc. These are mostly things that you have not experienced or achieved till now, but would like to before dying. The expression was coined and made popular by Justin Zackham, the man who wrote the screenplay for the Hollywood film, *The Bucket List*, starring Jack Nicholson and Morgan Freeman.

Swimming with sharks! That's one more item to add to my bucket list.

What is the correct pronunciation of the word 'content'? (Varun Joshi)

This is a word that can be used as a noun, verb and an adjective. Its pronunciation will vary depending on its function. As a noun, the word is often used to refer to all the articles in a magazine or all the clothes contained in a suitcase. This is just one of the meanings. When used as a noun, the stress is on the first syllable – KON-tent. In this case, the first syllable rhymes with the words 'don', 'on' and 'John', while the second syllable, sounds like the word 'tent'.

Jai was so angry that he emptied the contents of the garbage can in the bedroom.

His articles are beautifully written – but they lack content.

When used as an adjective, the word means 'satisfied'; you are pleased with what you have and do not need anything else to make your situation better. You are in a happy state of mind. As a verb and an adjective, the word has the stress on the second syllable – ken-TENT. The 'o' in the first syllable is pronounced like the 'a' in 'china', while the second syllable is pronounced like the word 'tent'.

The children were content to eat leftovers for breakfast.

The children had to content themselves eating leftovers for breakfast.

Is it okay to say 'Please fill up all the vacancies in the department'? (K. Janardhan, Nellore)

Such a sentence is frequently heard in our country. Careful users of the language would not say, 'fill up a vacancy'. Books on usage suggest that one 'fills a vacancy' and not 'fills up a vacancy'.

Filling the vacancy is not easy.
upendrankye@gmail.com

THE DAILY QUIZ

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

The Gabriel García Márquez novel, *One Hundred Years of Solitude*, has been dramatised by Netflix. How well do you know the literary giant?

Radhika Santhanam

QUESTION 1

One Hundred Years of Solitude was once described as "the greatest revelation in the Spanish language since 'Don Quixote'". Who said this?

QUESTION 2

One day, while discussing García Márquez's book, *The Story of a Shipwrecked Sailor*, X said that there was a miscalculation in the speed of a boat. Impressed by X's eye for detail, García Márquez began giving his manuscripts to X before submitting them. Who was X, a famous person with whom García Márquez shared a deep friendship?

QUESTION 3

What did García Márquez consider his "true profession"?

QUESTION 4

García Márquez considered this as an exceptional piece of work in journalism. This piece was originally published in *The New Yorker* (the magazine dedicated its entire editorial space to just this one piece) and was later sold as a book. Name the piece.

QUESTION 5

García Márquez wanted his final novel to be destroyed, but his sons defied their father's wishes and published it a decade after his death. What is it called?

QUESTION 6

García Márquez considered this his most important book from a literary viewpoint. Through it, he decided to tell the history of Latin America through the life of a dictator who refused to die. What is the book called?



Visual question: Where is this statue of García Márquez located?

Questions and Answers to the December 20 edition of the daily quiz:

- Inspired by the namesake album of a popular artist, this word became a trend and also was part of the U.S. Presidential campaign. **Ans: Brat**
- According to the dictionary, this word means "to say, do, or provide what someone wants even though it is not proper, good, or reasonable". **Ans: Pander**
- This word is the name of a titular character from a children's book, but means something else in the context of the economy. **Ans: Goldilocks**
- _____ is a new word used to describe spam/unwanted content related to Artificial Intelligence. **Ans: Slop**
- In our hyper-online era, this phrase was used to encourage people to participate in real world experiences. **Ans: Touch grass**
Visual: This word was declared Cambridge Dictionary's word of the year. **Ans: Manifesting**
Early Birds: Nobody got all the answers correct.

Word of the day

Qualm:

uneasiness about the fitness of an action (particularly for reasons of ethics, morals or propriety); a mild state of nausea

Synonyms: misgiving, scruple, squeamish

Usage: *She had some qualms about moving to a new city.*

Pronunciation: newsth.live/qualmpro

International Phonetic Alphabet: /kwa:m/, /kwɔ:m/

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

MONEYWISE

Shuffling Feet: FPIs on D-Street

MARKET MUSINGS

Ashokamithran T.

India's key benchmark indices just had their worst week since June 2022, with the S&P BSE Sensex and NSE Nifty dropping almost 5% over five successive days of trading in the red. Both the benchmarks closed at a 21-day low last Friday, undoing a tentative recovery over the previous fortnight from five-month nadirs attained in late November.

To be clear, India was not the only major market to be hit in the past week, particularly after the U.S. Federal Reserve announced a 0.25% cut in interest rates but accompanied it with a rather hawkish guidance on the outlook for further rate reductions in 2025.

As Shrikant Chouhan, head of equity research at Kotak Securities pointed out, global equity markets witnessed various degrees of sell-off through the week with Brazil's markets down 10%, Japan down 5% and even the S&P-500 index in the U.S. sinking 4%, in light of the U.S. monetary policy makers' caution on the pace of future interest rate cuts.

Foreign Portfolio Investors (FPIs), who had exited Dalal Street in hordes over October and November, breaking four months of positive net inflows, have so far been net buyers in December, but this may yet change in the rest of the trading days this month after the Federal Reserve's remarks. To put the numbers in context, FPIs' net outflows were over a whopping ₹94,000 crore in October, followed by another ₹21,600 crore-odd in November.

Multiple factors were said to be at work, including Indian corporates' underwhelming performance in the July-September quarter (Q2 of 2024-25) that was also subsequently confirmed in official GDP growth numbers that slipped to a seven-quarter low of 5.4% compared to the Reserve Bank of India's projection of 7%. China's stimulus packages and the incoming U.S. President Donald Trump's remarks on tariff measures against countries like India also dented sentiment.

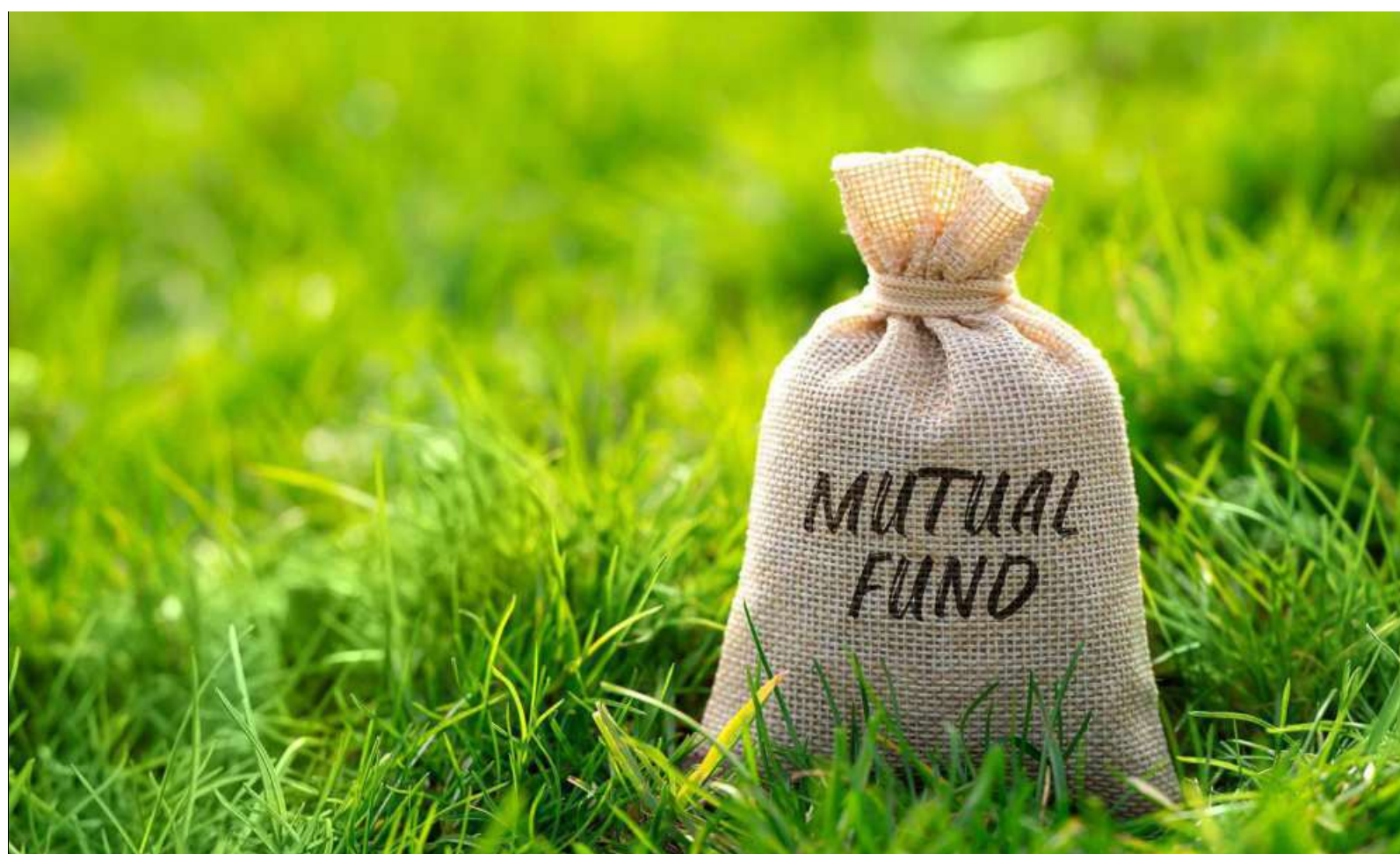
December has seen net inflows that are a little over November's exit numbers so far, but those are still well below this year's high figure of ₹57,724 crore net inflows in September that had lifted the Sensex and Nifty to their all-time peaks.

There is an urban legend in Dalal Street that investment managers at FPIs, who generally follow the calendar year unlike India's April-March financial year format, tend to square up positions through December as they gear up for their Christmas vacation. And by January, things tend swing back to the positive territory. Whether this held true in recent years or not (it didn't in January 2024, for instance), the likelihood of FPIs doing a January prop-up for Dalal Street is slim for the coming year, even as the Trump administration's effect remains an imponderable factor.

In fact, some believe a major FPI fillip is unlikely till the April-June quarter, or Q1 of 2025-26, provided India Inc. delivers some improved results. HDFC Securities noted that U.S. equities were receiving disproportionately large amount of inflows with an inflow of \$109 billion so far this year as opposed to \$233 billion for the rest of the world.

"We believe that the U.S markets will continue to attract more flows and the Indian markets will become more attractive when we start to show better earnings in 2025-26... That's when we will see more participation coming in from the FPIs," remarked Dheeraj Relli, managing director and chief executive officer of HDFC Securities, while discussing Indian equities' outlook for 2025 last week. Hopes of a quick interest rate cut from the RBI also hinge on the growth-inflation balance being restored soon, so the markets may remain edgy for a while to come. Retail investors must tread with care and temper expectations of a calendar change boost. Merry Christmas!

Send queries on personal finance and investing to the moneywise@thehindu.co.in ID. Our experts in personal finance will respond to select queries, but will not give specific recommendations for investment in a particular mutual fund, share or fixed deposit.



Pay on use: The interest component is charged only on the withdrawn amount until its repayment. GETTY IMAGES/ISTOCK

Borrowing against mutual funds? 5 must-know factors

Just like personal loans, lenders do not impose any end-usage restrictions on such loans but there are some things borrowers should keep in mind before tapping this avenue for an exigency

MONEY ON DEMAND

Sahil Arora

Loan against Mutual Funds (LAMF) allows investors to leverage their existing mutual fund (MF) investments for meeting personal requirements or short-term cash-flow mismatches.

Just like personal loans, lenders do not impose any end-usage restrictions on LAMF proceeds, which makes it an excellent alternative for those unable to avail unsecured loans. Here, I will discuss some other LAMF features that borrowers should be aware of before applying for it.

Varying LTV ratios

List of approved securities and their LTV (loan to value) ratios can vary.

Most lenders maintain a list of mutual funds eligible for availing LAMF.

The LTV ratios for these funds vary depending on their asset class and are subject to the regulatory caps on LTV ratios set by the RBI. According to the Reserve Bank of India (RBI) regulations, banks are free to set the LTV ratios for loan against debt funds as per their loan policies.

In case of equity-oriented mutual funds, while the regulatory cap on LTV ratios is 75%, banks usually offer LTV ratios of up to



Borrowers can also draw from sanctioned limits in tranches for any number of times and similarly, make repayments till the expiry of their overdraft tenures

60% depending on their credit-risk assessment of those funds.

Moreover, the list of eligible mutual funds can also vary across banks and NBFCs depending on their credit risk policies. Thus, while comparing LAMF options, borrowers should first find out whether their mutual fund(s) are eligible for availing LAMF and then, compare the LTV ratios assigned to the mutual funds by various lenders.

Overdraft facility

LAMF is usually offered in the form of overdraft facility wherein the credit limit is sanctioned on the basis of LTV ratio and market valuations of the pledged securities. The borrowers can withdraw the entire sanctioned limit or a part of it as per their financial requirements.

They can also draw from their sanctioned limits in tranches for any number of times and similarly make repayments till the expiry of their overdraft tenures. The interest component is charged only



The absence of prepayment charges and EMI burden provides greater flexibility to the borrowers in managing repayment obligations as per their cash flows

on the withdrawn amount until its repayment. These flexibilities makes LAMF an excellent financing facility for MF investors to meet their short-term cash-flow mismatches without compromising on their long-term financial goals.

Flexible repayment

Investors availing LAMF facilities usually need to service their incurred interest amount every month. Being an overdraft facility, borrowers have the flexibility to repay the principal component, in part or in full, as per their convenience and without incurring any prepayment charges.

Thus, the absence of prepayment charges and EMI burden in LAMF provides greater flexibility to the borrowers in managing repayment obligations as per their cash flows.

Securities revaluation

Being invested in market-linked securities, NAVs of mutual funds are prone to varying degrees of volatility depending on their asset

class(es). This leads lenders to revalue the pledged mutual funds at periodical intervals. Lenders may also conduct interim revaluation during steep market corrections or bearish phases. As the credit limit in LAMF is primarily determined on the basis of the NAVs of pledged mutual funds, any sharp fall in the value of the pledged mutual funds may lead the current LTV ratio to exceed the original ratio. In such a situation, lenders may ask LAMF borrowers to pledge more securities or make cash/check payments to bring back their LTV ratio to the required levels. Failing to do so may lead lenders to levy penal charges or even liquidate the pledged securities.

Credit score agnostic

Lenders factor in the credit scores of their loan applicants, especially in case of unsecured loan options, to assess their creditworthiness. As the lenders have the option to redeem the pledged MFs in case of repayment defaults or delays, they usually take a more relaxed approach while evaluating LAMF applicants having low credit scores. However, some lenders may still consider the credit scores of their LAMF applicants while setting their interest rates.

(The writer is chief business officer, secured loans, Paisabazaar)

Longevity risk and lifestyle

THINK INVESTOR

During 38 years of working life, you not only have to save for intermediate life goals such as buying a house and funding children's education but also provide for 40 years of post-retirement expenses

Venkatesh Bangaruswamy

Saving for retirement is typically an important goal all of us. In this article, we discuss life expectancy in relation to your retirement portfolio.

Longevity risk

Retirement portfolio is an accumulation portfolio. You save every month from post-tax monthly income during working life and build wealth to retire comfortably. The portfolio you create immediately upon retirement is called retirement income portfolio. This portfolio must generate income streams to fund your post-retirement lifestyle expenses.

You must start with life expectancy to determine the amount you require at retirement. The life expectancy number you find on the Internet is an average. That means, there is a strong possibility you will live past this reported life expectancy. Also note you must consider your parents' life expectancy, as genetics play a vital important role in estimating life expectancy. If your parents live longer, chances are you will too. Often, individuals assume they will live till 82-85 years, considering their lifestyle and health condition.

Suppose you retire at 60. The amount you accumulate in retirement portfolio must be enough to buy investment products that can fund post-retirement expenses for you and spouse. What if you assume a life expectancy of 75 for determining the amount required at retirement? Then, chances are high you will run out of money during retirement. Note that there is a likelihood that you may live longer even if you reasonably estimate your life expectancy. The risk that you (or your spouse) will outlive your investments is called longevity risk.

Conclusion

You must balance longevity risk and current lifestyle expenses. So, you should not be very conservative in estimating life expectancy viz. you should not assume you will live till 100. You may have moderated longevity risk as there is a small chance many of us will live till 100. But this means you must save for 40 years of post-retirement living, assuming you retire at 22. Suppose you started working at 60.

During 38 years of working life, you not only have to save for intermediate life goals such as buying a house and funding children's education but also provide for 40 years of estimated post-retirement expenses.

In addition, for every year you work, you must save for a year of estimated retirement expenses. That can be difficult to achieve.

(The author offers training programmes for individuals to manage their personal investments)

Bank Fixed Deposit Rates

Bank Name	Interest Rates (%)			
	Highest Slab	1-year Tenure	3-year Tenure	5-year Tenure
Small Finance Banks				
AU Small Finance Bank	8.00	7.25	7.50	7.25
Equitas Small Finance Bank	8.25	8.10	8.00	7.25
ESAF Small Finance Bank	8.25	6.00	6.75	6.25
Jana Small Finance Bank	8.25	8.25	8.25	8.20
NorthEast Small Finance Bank	9.00	7.00	9.00	6.25
Suryoday Small Finance Bank	8.60	8.05	8.60	8.25
Ujjivan Small Finance Bank	8.25	8.25	7.20	7.20
Unity Small Finance Bank	9.00	7.85	8.15	8.15
Utkarsh Small Finance Bank	8.50	8.00	8.50	7.75
Private Sector Banks				
Axis Bank	7.25	6.70	7.10	7.00
Bandhan Bank	8.05	8.05	7.25	5.85
City Union Bank	7.50	7.00	6.50	6.25
CSB Bank	7.75	5.00	5.75	5.75
DBS Bank	7.50	7.00	6.50	6.50
DCB Bank	8.05	7.10	7.55	7.40
Federal Bank	7.40	7.00	7.10	7.10
HDFC Bank	7.40	6.60	7.00	7.00
ICI Bank	7.25	6.70	7.00	7.00
IDFC First Bank	7.90	6.50	6.80	6.75
Indusind Bank	7.99	7.75	7.25	7.25

Bank Name	Interest Rates (%)			
	Highest Slab	1-year Tenure	3-year Tenure	5-year Tenure
Public Sector Banks				
Jammu & Kashmir Bank	7.00	7.00	6.75	6.50
Karur Vysya Bank	7.60	7.00	7.00	7.00
Karnataka Bank	7.50	7.25	6.50	6.50
Kotak Mahindra Bank	7.40	7.10	7.00	6.20
RBL Bank	8.00	7.50	7.50	7.10
SBM Bank India	8.25	7.05	7.30	7.75
South Indian Bank	7.40	6.70	6.70	6.00
Tamilnad Mercantile Bank	7.60	7.00	6.50	6.50
YES Bank	7.75	7.25	7.25	7.25
Public Sector Banks				
Bank of Baroda	7.30	6.85	7.15	6.80
Bank of India	7.30	6.80	6.50	6.00
Bank of Maharashtra	7.35	6.75	6.50	6.50
Canara Bank	7.40	6.85	7.40	6.70
Central Bank of India	7.45	6.85	6.75	6.50
Indian Bank	7.30	6.10	6.25	6.25
Indian Overseas Bank	7.30	7.10	6.50	6.50
Punjab National Bank	7.25	6.80	7.00	6.50
Punjab & Sind Bank	7.45	6.30	6.00	6.00
State Bank of India	7.25	6.80	6.75	6.50
Union Bank of India	7.30	6.80	6.70	6.50

Home Loan Interest Rates

Name of Lender	Loan Amount (Rs.)		
	Upto 30 lakh	Above 30 lakh & upto 75 lakh	Above 75 lakh
(In %)			
Public Sector Banks			
State Bank of India	8.50-9.85	8.50-9.85	8.50-9.85
Bank of Baroda	8.40-10.65	8.40-10.65	8.40-10.90
Union Bank of India	8.30-10.75	8.30-10.90	8.30-10.90
Punjab National Bank	8.45-10.25	8.40-10.15	8.40-10.15
Bank of India	8.35-10.85	8.35-10.85	8.35-11.10
Canara Bank	8.50-11.25	8.45-11.25	8.40-11.15
UCO Bank	8.45-10.30	8.45-10.30	8.45-10.30
Bank of Maharashtra	8.35-11.15	8.35-11.15	8.35-11.15
Punjab and Sind Bank	8.50-10.00	8.50-10.00	8.50-10.00
Indian Overseas Bank	8.40-10.60	8.40-10.60	8.40-10.60
Indian Bank	8.40-10.30	8.40-10.30	8.40-10.30
Private Sector Banks			
Kotak Mahindra Bank	8.75 #	8.75 #	8.75 #
ICI Bank	8.75 #	8.75 #	8.75 #
Axis Bank	8.75-13.30	8.75-13.30	8.75-9.65
HSBC Bank	8.50 #	8.50 #	8.50 #
South Indian Bank	8.70-11.70	8.70-11.70	8.70-11.70
Karur Vysya Bank	9.00-11.05	9.00-11.05	9.00-11.05

Name of Lender	Loan Amount (Rs.)		
	Upto 30 lakh	Above 30 lakh & upto 75 lakh	Above 75 lakh
(In %)			
Housing Finance Companies (HFCs)			
Karnataka Bank	8.75-10.87	8.75-10.87	8.75-10.87
Federal Bank	8.80 #	8.80 #	8.80 #
Dhanlaxmi Bank	9.35-10.50	9.35-10.50	9.35-10.50
Tamilnad Mercantile Bank	8.60-9.95	8.60-9.95	8.60-9.95
Bandhan Bank	9.16-15.00	9.16-13.33	9.16-13.33
RBL Bank	9.00 #	9.00 #	9.00 #
CSB Bank	10.49-12.34	10.49-12.34	10.49-12.34
HDFC Bank Ltd.	8.75 #	8.75 #	8.75 #
City Union Bank	8.25-9.50	8.50-10.00	8.75-10.50
Housing Finance Companies (HFCs)			
LIC Housing Finance	8.50 #	8.50 #	8.50 #
Bajaj Housing Finance	8.50 #	8.50 #	8.50 #
Tata Capital	8.75 #	8.75 #	8.75 #
PNB Housing Finance	8.50-14.50	8.50-14.50	8.50-11.45
GIC Housing Finance	8.80 #	8.80 #	8.80 #
SMFG India Home Finance	10.00 #	10.00 #	10.00 #
Aditya Birla Capital	8.60 #	8.60 #	8.60 #
ICI Home Finance	9.30 #	9.30 #	9.30 #
Godrej Housing Finance	8.55 #	8.55 #	8.55 #

Onwards Rates as on December 18 Source: Paisabazaar.com

Expanding liability pools for NBFCs



Freedom from shackles: For NBFCs to scale sustainably, they require diversified funding. GETTYIMAGES/ISTOCK

Vijay Deshwal

Over the past decade, the NBFC sector has evolved from being perceived as a 'shadow' of traditional banks to becoming a significant contributor to India's economy, contributing over 12.5% of the country's GDP. The sector's credit share has grown substantially from 15% of the total scheduled commercial bank credit in 2014 to 22.5% in 2024, driven by its pivotal role in making formal credit accessible to MSMEs, retail sectors, and underserved populations.

This growth has been supported by diverse funding sources like bank loans, debentures, commercial papers and other debt instruments, with term loans, and debentures, alone constituting for over 75% of borrowings. In the financial services industry, liabilities actually serve as assets. Hence, diversifying and deepening funding sources, along with establishing a more resilient financial framework, have become crucial for the sustained growth of NBFCs, reducing dependence on banks and enhancing overall financial stability.

Reimagining bond market

The Indian bond market provides a substantial share of about 36% of the debt capital used by NBFCs, but its investor base remains narrow. Presently, large corporate treasuries, family offices, insurance companies, and retirement funds dominate the space, with a notable preference for Central and State government securities, PSUs, and a handful of AAA rated entities. This concentration limits NBFCs' access to a broader investor pool and curbs the depth of corporate bond markets, further exacerbated by removal of indexation benefits on debt mutual funds (MFs) from April 1, 2023, which hugely cut long-term liquidity provided by the MFs.

To address the limitations, stakeholders have made many recommendations. The first involves creating an on-tap issuance facility for NCDs. Secondly, issuers could be allowed to buy back a portion of the NCDs periodically, boosting market liquidity and encouraging retail participation.

SEBI's recent liquidity window facility (LWF) is a step in this direction, introducing a framework that aims at improving the liquidity of corporate bonds. By providing investors with an exit option on predetermined dates, LWF can bridge the gap between public deposits and bond investments.

Investment regulations for insurance and pension funds rightfully focus on stability but leave limited flexibility. Also, developing a robust market for securitised products, bond insurance, and credit default swaps is essential to boost flexibility and returns.

Foreign currency borrowings

For long-term sources of funding, foreign currency borrowing in the form of ECBs and bonds is a large pool. With international interest rates softening, lower hedging costs, and demand for better-rated Indian paper, there is a compelling case to pursue and expand this market. NBFCs are pivotal to India's financial inclusion and growth agenda. To scale sustainably, they require diversified funding.

(The writer is chief strategy officer and head of investor relations, Aditya Birla Capital)

Will satellite broadband services truly be a game-changer?

As the race to provide satellite Internet heats up, questions on cost, pricing, spectrum allocation, viability and potential pop up; back in India, Forrester Research said satcom may be dead by the time it arrives in 2025, stating companies may be hard pressed to compete in terms of pricing

NEWS ANALYSIS

Vallari Sanzgiri

India is 48% lacking in terms of broadband penetration today, even after 25 years of terrestrial mobile services. If we continue to behave the way we are (blocking the entry of new players), we will remain in this state for another 25 years and Viksit Bharat can go out of the window - Debashish Bhattacharya, Senior Deputy Director General, Broadband India Forum (BIF)

"What they want is that existing operators pay for this spectrum through the nose, invest a lot of capex but the new operator should be given a red carpet, free spectrum to start competing. This kind of demand should not have come." - Ravi Gandhi, regulatory executive, Reliance Jio Infocomm Ltd.

The race to provide satellite broadband connectivity in India is leading to some fiery exchanges. Mr. Gandhi and Mr. Bhattacharya were but two of the voices heard during the Telecom Regulator of India's (TRAI) open house discussion in November. The heated discussions centred over spectrum allocation for satellite-based communication (satcom) services.

There are a whole set of other discussions too on satcom starting from cost,



Costly space: Satcom services' price economics can throw spanner in the works. GETTYIMAGES/ISTOCK

pricing, spectrum allocation to even voices asking about if it was really viable.

Answer to digital divide Lt. Gen. A.K. Bhatt (ret'd.), Director General, Indian Space Association (ISpA) takes on the question on the need for satcom. "It can overcome the digital divide in difficult geographies where the cost of putting fibre is too high. Satellites are like fibre in space. In urban areas, it is useful for backhaul services, for additional capacities." Satcom technology connects various points on the Earth using the satellites orbiting in space, able to reach remote hinterlands of the world.

On the issue of spectrum allocation, the feelings run high because of the enormous investments



A KPMG report in the year 2023 stated that satcom had reached a valuation of \$2.23 billion and was predicted to reach \$20 billion by the year 2028

gone in. A KPMG report of 2023 stated satcom had reached a valuation of \$2.23 billion and was predicted to reach \$20 billion by 2028. Even legacy telcos like Bharti Airtel Ltd. referred to the "lakhs of crores of rupees" of investment made by them over the past three decades. It is this investment that made the legacy players push for auction of spectrum, citing concerns of an uneven

playing field and undue advantage to new players like Elon Musk's Starlink or Amazon's Kuiper.

Administrative method

Meanwhile, those against the idea of auction point out that world over spectrum is authorised by the administrative method. For now, it appears the government is leaning in favour of allocating spectrum. Yet, it is worth asking whether the technology deserves all the fanfare considering satcom is to be complementary to existing fibre or wireless connections rather than compete with existing services. Even Sateliot, one of the first satellite operators based in Spain to offer IoT connectivity, has been working since 2018 and is

only hoping to go commercial in 2025.

In the U.S., companies like AT&T state that satellites can complement the existing terrestrial services but not work in isolation. As it explained in an investor call, "For a customer to only use satellite-based service, one needs enough satellites in space that are engineered with that amount of radio frequency. Also, the antenna array of those satellites needs to be large and strong enough to ensure the level of service a customer expects. The cost per bit is also very high currently for satellite-based services to make it operationally viable."

Hence, AT&T plans to offer satellite as a complementary to fiber/wireless service to its customers. This is a company that has so far launched five commercial satellites, called BlueBirds.

Use cases, potential

Back in India, Forrester Research has stuck its neck out and said that satcom may be dead by the time it arrives in 2025, stating while many companies are warming up to the idea of satcom, they will be hard pressed to compete in terms of pricing. The research firm predicted that its use cases in India will be limited to aviation, shipping, connecting remote locations, NDMA.

"Considering the 5G

coverage in India is widespread, the space that we have for satellite coverage to grow is very limited. The second thing, if you look at the space, it is price economics. If you come to retail, things start to fall apart. In Kenya, when Starlink launched, it struggled to get any customers. In one or two years, they got around 4,500 customers. In India, customers are equally pricey. It's very, very difficult for something like this to grow," said Ashutosh Sharma, VP and research director, Forrester.

However, Pranav Roach, president of Hughes Network Systems India Ltd. disagreed stating that even in the U.S., satellites still accounts for 20-25% of the network utilisation.

"From a consumer point of view, availability increases tremendously. So, there will be a significant uptake for satcom. But it will coexist with other technologies. Technical feasibility and cost is a function of the options available and what you need to do in case of an emergency.

"Right now, we're still waiting for rules from TRAI for spectrum allocation. Once that comes out, we can determine the cost and prices," said Mr. Roach. Similarly, Sateliot, said satcom as an affordable solution could prove to be a game-changer for India.

(The writer is with The Hindu businessline)

Look out for trade wars, nationalism, sachet SIPs

Shiv Shivakumar

2025 will be an unpredictable year globally as leaders across the big countries get transactional. Inflation will stay down, interest rates will go down to spur growth, all big countries will practice their version of 'nationalism.' Trade wars will replace physical wars. The Indian stock market has turned hot on digital options and 'sachet' SIP. Sensex should touch 85,000.

My 2024 predictions were spot on, I said the Sensex will cross 80,000, The Indian economy will grow around 6% and the global economy at 3%. I mentioned politicians and marketers will offer more freebies, Indians will get more abusive in social media, and the job market will

be tough. All came true.

What do I see for 2025? I think six trends will shape India and the world:

1) One leader, Donald Trump will determine the slope and shape of the global economy and that of the top 10 economies. Four Ts will hold centre stage - Temperamental, Transactional, Tariffs and Threats. Making America great again will mean making the world weak to make America great at negotiation. This will hold if the U.S. economy grows around 2%. Politics will look inwards everywhere, "nationalism" will bloom more, non-American allies and friendships will thrive. Convenience and political expediency will rule vs. policy and alliances.

India will grow between 5.5% and 6.5%, as govern-



One man army: Trump will fix the shape of global economy and that of the top 10 economies. GETTYIMAGES/ISTOCK

ment spending slows.

Three I's

2) Three I's had a significant impact on the big elections of 2024 - Inflation, Immigration and Interest rates. I think interest rates will come down as leaders choose growth. The big countries will get

tougher on immigration.

This is not a good sign for India which could be the global talent provider by 2030. Inflation will stay down in most countries; dollar will get stronger and talk of an alternative reserve currency will be talk.

3) Time as a monetisable variable is working in

India. It started with Domino's Pizza years ago with its 30-minute delivery challenge. Q.com will impact all categories sooner or later, we see big impact in food, in fresh, convenience-led categories.

This will hurt legacy distribution partners.

E-commerce companies need to rethink their existing business model. Q.com will impact traditional retailers, it will push all industries to reimagine consumer experience in the physical world.

4) The Indian stock market and ecosystem is on steroids due to digital innovation and SIP investments as low as \$3. The Indian stock market in the last five years, returned 80% in dollar terms vs. 6% in emerging markets. That's staggering. In China, the market

declined 15%. Today, 20% of Indian households have some investment in the stock market compared with 7% five years ago.

We have more investors than I-T taxpayers. Investment in stock market is the new avenue for surplus salary/earnings, beating traditional investment instruments like real estate, gold and bank deposits. First time investors haven't seen a drop, but it will come.

5) AI is being used more by consumers vs. corporates. About 75% of Open AI's revenue is consumer revenue. The AI promise is big, the delivery is slow!

6) Well-being and mental health will replace work-life balance.

(Shiv Shivakumar is operating partner at Advent International and former chief of PepsiCo India)

Why green deposits failed to take-off in India

Piyush Shukla

Considering the threat that climate change poses globally, the Reserve Bank of India (RBI) in April last year issued a comprehensive framework for lenders to accept green deposits. The regulator's intent was noble: to enable lenders and customers to further the green cause. However, more than 20 months after the framework has been issued, lenders have made little to no progress in garnering green deposits.

What is green deposit?

Green deposits are essentially interest-bearing deposits, received by the lenders for a fixed period and the proceeds of which are earmarked for being allocated towards green financing. Lenders shall issue cumulative/non-cumulative deposits. On maturity, the deposits would be renewed or withdrawn at the option of the depositor. The deposits shall be denominated only in Indian rupees as per RBI norms.

Capital raised via green deposits can be used in funding projects related to solar, wind, biomass, and hydropower energy projects that integrate energy generation and storage. Further, the funds can be used in sectors which enable energy efficiency, clean transportation, climate change adaptation and sustainable water and waste management. Green deposits also can be used for funding green buildings, projects relating to coastal and marine environments,

certified organic farming, among others. To ensure compliance, the regulator said that allocation of funds raised through green deposits during a financial year shall be subject to an independent third-party audit done on an annual basis.



No so green: Despite noble intentions, green deposits have failed to take off due to many reasons. GETTYIMAGES/ISTOCK

"Philosophically somebody should align. As we go forward, people are trying to create awareness but currently the attraction is not there.

Green deposits at our bank currently is less than ₹100 crore. I think we need to see various ways of engaging with the GenZ on this product," he said.

HDFC Bank, meanwhile, has not even raised green deposits on or after June 1, 2023 based on the RBI's framework for the acceptance of green deposits, according to its FY24 annual report.

While most public sector banks have started accepting green deposits, private banks are slow adopters to such deposits.

During the SBI Banking & Economics Conclave last

month, Department of Financial Services (DFS) Secretary M. Nagaraju was asked about steps the government is taking to promote green deposits.

Challenges ahead

He responded by saying demand is not lower just for green deposits, but for a country the size of India, bond issuances too have minimal volumes. Accordingly, mobilising higher green deposits is "some time away", he said.

"We need a framework about measuring which industry and activity is green, and how to account for that. These are the questions which we need to finalise. Before that, we also have our own priorities, every year we have about millions of people

coming for jobs, small and medium businesses also need funds. I think we need to prioritise our lending," he said.

Another core challenge bankers face in mobilising green deposits is lower rate of interest. For instance, SBI offers 7% for general public on 2-3 year tenor retail domestic term deposit, whereas if a customer opts for green deposit at a similar tenor, they get 6.65%.

"Customers usually do not consider the nature of deposit, they need higher returns," says a senior official at a mid-sized bank. The bank is yet to launch a comprehensive green deposit product.

Bankers say a reduction in cash reserve ratio (CRR) requirement for green deposit will help them garner

more customers. "We have asked (the regulator) for a reduction in CRR for green deposits and second, if at all as a policy it can be incorporated," former SBI Chairman Dinesh Khara had said earlier this year.

Besides, more customer awareness is required to boost volumes.

"All large corporate have medium to long term environmental, social and governance (ESG) commitments to fulfil.

"By parking ESG funds in green deposits with banks, lenders can on-lend to green field projects which will further the green cause, and help corporates meet ESG requirements," according to a senior public sector banker.

(The writer is with The Hindu businessline)

PALM ISLAND

Trump threatens to retake Panama Canal unless a deal is reached



Incoming U.S. President Donald Trump slammed "unfair fees" for U.S. ships passing through the Panama Canal and threatened to demand that control of the waterway be returned to Washington. He also hinted at China's growing influence around the canal that allows to move goods between the Atlantic and Pacific oceans. AFP

SAO PAULO

At least nine killed, 15 injured as a small plane crashes in Brazil



At least nine persons were killed when a small plane crashed on Sunday morning in Gramado, in southern Brazil, slamming into a commercial area of the tourist city. The aircraft crashed into the chimney of a building. At least 15 people were taken to the hospital. It was not clear how many people were on the plane. AFP

MAPUTO

One lakh homes ruined, 94 dead in Mozambique after Cyclone Chido



Cyclone Chido killed at least 94 people in Mozambique in its deadly rampage through the Indian Ocean last week, raising a previous death toll of 76. The cyclone, which devastated the French island territory of Mayotte before hitting the African mainland, also destroyed 1,10,000 homes in Mozambique. AFP

ANKARA

Helicopter crashes into Turkish hospital, killing four persons



Four persons died when a helicopter crashed into a hospital in southwestern Turkey on Sunday, the provincial governor said, blaming the accident on thick fog. Two pilots, a doctor and an employee on board the vehicle were killed. The helicopter was flying from a hospital in Mugla and en route to Antalya. AFP

Israeli strikes land on school, near hospital complex in Gaza, killing 28

Four children among eight casualties reported from school, which was repurposed as a shelter for Palestinians displaced by the war; Pope denounces Israel's cruelty, highlighting attacks on schools and hospitals for the second time in two days

Agence France-Presse
GAZA STRIP

Gaza's civil defence agency said on Sunday Israeli strikes killed at least 28 Palestinians, as the director of one of two hospitals still operating in the territory's north reported bombardment nearby.

More than 14 months into the Israel-Hamas war, there was no let-up in the violence in the Gaza Strip even as Palestinian groups involved in the fighting said a ceasefire deal was "closer than ever".

Pope Francis denounced on Sunday the



Looking for life: A youth searches for survivors at the site of an Israeli strike in Deir el-Balah on Sunday. AFP

"cruelty" of Israel's bombardment, highlighting the deaths of children and attacks on schools and hospitals in Gaza for the second

time in two days, while Israel accused the pontiff of "double standards".

On the ground in Gaza, civil agency spokesman

Mahmud Bassal said that at least 13 persons were killed in an air strike on a house in central Gaza's Deir el-Balah belonging to the Abu Samra family.

There was no comment from the Israeli military, which has confirmed a separate strike further north, directed at a school in Gaza City.

Mr. Bassal said that eight persons including four children were killed in the attack on the school, which had been repurposed as a shelter for Palestinians displaced by the war.

Mr. Bassal said in a statement that an overnight

strike killed three persons in Rafah, in the south.

And a drone strike early on Sunday hit a car in Gaza City, killing four persons, the spokesman added.

Hospital at risk

Meanwhile a hospital director in northern Gaza said Israeli forces were bombing buildings near the facility.

Hossam Abu Safia, director of Kamal Adwan hospital, said in a statement that the facility's generators were hit and that "the Army is attempting to target the fuel tank, which is full of fuel and poses a significant fire risk."

Putin vows revenge as Ukraine strikes deep into Russia

Agence France-Presse
MOSCOW

Russian President Vladimir Putin on Sunday vowed to bring more "destruction" to Ukraine in retaliation for a drone attack on the central Russian city of Kazan a day earlier.

Russia accused Ukraine of a "massive" drone attack that hit a luxury apartment block in the city, some 1,000 km from the frontier. "Whoever, and however much they try to destroy, they will face many times more destruction themselves and will regret what they are trying to do in our country," Mr. Putin said on Sunday.

The latest threat comes as Russia claimed fresh ad-



Vladimir Putin

vances on the battlefield in east Ukraine.

The Defence Ministry said its troops had "liberated" the villages of Lozova in the northeastern Khariv region and Krasnoye. The latter is close to the resource hub of Kurakhove, which Russia has almost encircled and would be a key prize for Moscow.

Finland PM calls Russia a 'permanent' threat to EU

Agence France-Presse
HELSINKI

Finland's Prime Minister Petteri Orpo said on Sunday that Russia was a "permanent and dangerous threat" to the European Union, and stressed the need for increased defence spending and support for Ukraine. Mr. Orpo hosted a summit on security with EU foreign policy chief Kaja Kallas, Swedish Prime Minister Ulf Kristersson, Italian PM Giorgia Meloni and Greek Prime Minister Kyriakos Mitsotakis.

Ms. Kallas concurred, saying "Russia poses a direct threat to European security," while noting that "security comprises of different elements."

U.S. 'playing with fire', says China, following latest aid for Taiwan

Associated Press
BEIJING

The Chinese government protested on Sunday the latest American announcements of military sales and assistance to Taiwan, warning the United States that it is "playing with fire."

U.S. President Joe Biden authorised on Saturday the provision of up to \$571 million in Defense Department material and services and in military education and training for self-ruled Taiwan, which Beijing claims as its territory and says must come under its control. Separately, the Defence Department said on Friday that \$295 million in military sales had been approved.

A Chinese Foreign Ministry statement urged the U.S. to stop arming Taiwan and stop what it called

Biden approved up to \$571 million in equipment, while State Department granted \$295 million

"dangerous moves that undermine peace and stability in the Taiwan Strait."

U.S. military sales and assistance aim to help Taiwan defend itself and deter China from launching an attack.

Multiple packages

The \$571 million in military assistance comes on top of Mr. Biden's authorisation of \$567 million for the same purposes in late September.

The military sales include \$265 million for about 300 tactical radio systems and \$30 million for 16 gun mounts.

Discontent in Belgrade



Serbian citizens attend a protest in Belgrade on Sunday against President Aleksandar Vucic and his government's policies, corruption and the negligence which they blame for the deaths of the 15 victims in the Novi Sad railway station disaster in November. REUTERS

Germany pledges security inquest into market attack

Agence France-Presse
BERLIN

The German government pledged on Sunday to fully investigate whether there were security lapses before the Christmas market car-ramping attack that killed five persons and injured over 200.

Political pressure has built on the question of potential missed warnings about Saudi suspect Taleb al-Abdulmohsen, a 50-year-old psychiatrist who had made online death threats and previously had trouble with the law.

Interior Minister Nancy Faeser and the heads of Germany's domestic and foreign intelligence services are due to answer questions at parliamentary committee hearings on December 30, a senior lawmaker said.

Ms. Faeser vowed on Sunday that "no stone will be left unturned" in shedding light on what information had been available to security services ahead of last Friday's bloody attack in the eastern city of Magdeburg.

She stressed that the attacker did "not fit any previous pattern" because "he acted like an Islamist terrorist although ideologically

he was clearly an enemy of Islam".

Abdulmohsen has in the past called himself a "Saudi atheist" who helped women flee Gulf countries and charged Germany was doing too little to help them.

In online posts, he also strongly criticised Germany for allowing in too many Muslim refugees and backed far-right conspiracy theories about the "Islamisation" of Europe.

In one post, he wrote: "Is there a path to justice in Germany without blowing up a German embassy or randomly slaughtering German citizens?... If anyone knows it, please let me know."

News magazine Der Spiegel, citing security sources, said the Saudi secret service had warned Germany's spy agency BND a year ago about a tweet in which Abdulmohsen threatened Germany would pay a "price" for how it treated Saudi refugees.

Die Welt daily reported, also citing security sources, that German state and federal police had carried out a "risk assessment" on Abdulmohsen last year but concluded that he posed "no specific danger".

Syria's new leader vows not to negatively interfere in Lebanon

Agence France-Presse
DAMASCUS

Two weeks after seizing power in a sweeping offensive, Syria's new leader Muhammad al-Jolani (Ahmed al-Sharaa) has stepped up regional contacts, vowing in a meeting on Sunday not to "negatively" interfere in neighbouring Lebanon.

Jolani also met with Turkish Foreign Minister Hakan Fidan, video released by the Anadolu state news agency showed, after Ankara-backed militants played a key role in supporting his Islamist group Hayat Tahrir al-Sham (HTS), which seized Damascus on December 8 and ousted longtime ruler Bashar al-Assad.

Turkiye's Foreign Ministry released no details of where the meeting took place in the Syrian capital.

Turkiye has maintained strong ties with Syria's new leaders, and Ankara's intelligence chief Ibrahim Kalin was in Damascus just four days after Mr. Assad fell.

Regional powerhouse Saudi Arabia is also in direct contact with Syria's new authorities, having supported the opposition to Mr. Assad for years during Syria's civil war, and will send a delegation to the country soon, Syria's Ambassador in Riyadh said.

During his meeting with visiting Lebanese Druze chiefs Walid and Taymur Jumblatt, Jolani said Syria will no longer exert "nega-



Forging ties: Turkish Foreign Minister Hakan Fidan, left, meets Muhammad al-Jolani in Damascus on Sunday. AP

tive interference in Lebanon at all".

'Equal distance'

He added that Damascus "respects Lebanon's sovereignty, the unity of its territories, the independence

of its decisions and its security stability".

Syria "will stay at equal distance from all" in Lebanon, Jolani added, acknowledging that Syria has been a "source of fear and anxiety" for the country.

Walid Jumblatt, long a fierce critic of Mr. Assad and his father Hafez who ruled Syria before him, arrived in Damascus Sunday at the head of a delegation of lawmakers from his parliamentary bloc and Druze religious figures.

The Druze religious minority is spread across Lebanon, Syria and Israel.

He met with Jolani at the presidential palace, where the new Syrian leader wore a suit and tie instead of the olive-green military shirt he sported just days ago.

Walid Jumblatt's grudge

Walid Jumblatt accuses the former Syrian authorities of having assassinated his father in 1977 during Lebanon's civil war.

The Syrian Army en-

tered Lebanon in 1976, only leaving in 2005 after enormous pressure following the assassination of former prime minister Rafic Hariri, a killing attributed to Damascus and its ally, Lebanon's Iran-backed Hezbollah group.

'Insecurity'

Mr. Assad was an adherent of the Alawite offshoot of Shia Islam and projected himself as a protector of the country's religious and ethnic minorities.

The seizure of power by the Sunni Islamists of HTS – proscribed as a terrorist organisation by many governments including the U.S. – has sparked concern, though the group has recently sought to moderate its rhetoric.



In memoriam: A woman pays tribute to victims of the 'Alter Markt' Christmas market in Magdeburg on Sunday. REUTERS

CROWNED CHAMPION

India beats Bangladesh to clinch inaugural U-19 T20 Asia Cup



X@ACCMEDIA1

India scored a 41-run win over Bangladesh and emerged champion in the inaugural Women's T20 U-19 Asia Cup in Kuala Lumpur on Sunday. **The scores:** India 117/7 in 20 overs (Trisha 52; Easmin 4/32) bt Bangladesh 76 in 18.3 overs (Ayushi 3/17); **Toss:** Bangladesh; **PoM:** Trisha.

STUNNER

Atletico picks Barca's pocket and the top spot in LaLiga



AFP

Atletico Madrid beat Barcelona 2-1 to top LaLiga. **The results:** **LaLiga:** Barcelona 1 (Pedri 30) lost to Atletico 2 (De Paul 60, Sorloth 90+6); Real 4 (Mbappe 10, Valverde 20, Rodrygo 34, Diaz 53) bt Sevilla 2 (Romero 35, Lukebakio 85). **Bundesliga:** Bayer Leverkusen 5 (Schick 45+1, 67, 74, 77, Wirtz 51) bt Freiburg 1 (Grifo 55).

SANTOSH TROPHY

Meghalaya advances; honours even between TN and Odisha



SPECIAL ARRANGEMENT

Meghalaya entered the quarterfinals of the 78th Santosh Trophy senior National football championship with a 1-0 win over Goa while Tamil Nadu and Odisha were locked in a 1-1 draw in Hyderabad on Sunday. **The results:** Meghalaya 1 (Chyne 89) bt Goa 0; TN 1 (Romaria Jesuraj 68) drew with Odisha 1 (Mukhi 75).

FACILE WINS

Steelers get the better of Mumba; Thalaivas overcome Bulls



SPECIAL ARRANGEMENT

Haryana Steelers beat U Mumba 47-30 to cement its position at the top of the Pro Kabaddi League Season 11 table at the Balewadi Sports Complex in Pune on Sunday night. Earlier, Tamil Thalaivas registered its eighth win of the season by beating bottom-placed Bengaluru Bulls 42-32.

Team India hits the nets with full intensity at the MCG

False alarm as skipper Rohit and Akash are struck on their limbs while facing throwdowns; pacer says no major concern over injury scare; batters have a long stint; Bumrah and Siraj prepare in right earnest for the fourth Test

INDIA IN AUS

K.C. Vijaya Kumar
MELBOURNE

A couple of false alarms rang through the Indian team nets session at the Melbourne Cricket Ground (MCG) here on Sunday. Rohit Sharma and Akash Deep, were both struck on their limbs while countering throwdowns in the outdoor practice arena.

While Rohit dealt with a sore left knee and iced it for a while, Akash was hit on his hand but made light of the bruise.

The skipper spent some time sitting with one leg stretched on a chair. He chatted with bowling coach Morne Morkel for a while before gingerly standing up. Later he ambled along, having a word with the last set of batters busy in the nets.

Loud cheer

Earlier, when he walked into bat, a loud cheer emanated from the fans, who had gathered on the mezzanine floor and were gazing at the Indian players. Akash, meanwhile,



Looking ahead: Skipper Rohit will be eyeing a reversal of fortunes in the next two Tests. AFP

flexed his hands a bit, briefly placed an ice-bag and later told the media: "The practice pitch is probably meant for white-ball cricket, the ball kept low at times. As for these

minor injuries, these things happen at training, and there are no major concerns because of that. I am fine."

If the climax of the training stint raised these injury

worries, the beginning was all about fielding drills inside the MCG.

The usual catches in the slips and high ones in the deep, were all practised, before the players moved

to the nets outside. K.L. Rahul, Yashasvi Jaiswal, Shubman Gill, Virat Kohli, Rohit and Rishabh Pant were the first set of batters and all had a long stint even as the blow on the knee forced the Indian captain to seek rest.

Bowling with gusto

Importantly, Jasprit Bumrah and Mohammed Siraj linked up with their fellow seamers and bowled with gusto.

The batters were always informed if the ball was new or old, and imaginary field settings were revealed.

Gill was muscling his shots, Rohit tried to pull a few and one such endeavour had him missing the line and the ball hit the side of his left knee.

While the visiting captain rested, most of the others in the squad had their stints with the bat, including the tail. And it was Akash's turn to suffer a niggles but he seemed fine.

After a weekend of training, the Indian team will rest on Monday while Pat Cummins and his men will commence their preparation for the fourth Test here from December 26.

I was thinking of contributing, Akash on his defiant knock at Gabba

K.C. Vijaya Kumar
MELBOURNE

A massive 9,417 kilometres split Bihar's Dehri from Melbourne. It is an aerial distance meant to be traversed over multiple flights. Not difficult in this modern age but to get here, Akash Deep had to work his way up over the years.

From Bihar, he shifted to Bengal, dealt with personal tragedies, and kept running in hard. His is a story of sweat and a big heart. The kind he revealed at Brisbane's Gabba, where along with Jasprit Bumrah, he helped India avoid the follow-on.

If Rohit Sharma's men are placed at 1-1 in the current Border-Gavaskar Trophy series, a large credit is due to the way Akash performed at the Gabba. The numbers, though, may never tell the entire tale. Just like Javagal Srinath in the 1991-92 tour of Australia, Akash became this Indian speedster who bowled well but without luck. Hopefully that will change.

At the Melbourne Cricket Ground here on Sunday afternoon, Akash met reporters and answered all their queries. Looking back at his life, he said: "When I began playing



Akash. ANI

cricket, I never thought I would be giving an interview to you all one day in Australia. The place where I come from and the place I am in right now, because of that (growth) children are playing cricket (back home) and parents have begun to support their kids. That makes me feel good and proud."

Gaining confidence

Talk veered towards his 47-run last-wicket partnership with Bumrah at the Gabba, and he responded: "Honestly, when we come down to bat, when some 20 to 25 runs were required, I was thinking of contributing and that day, I wasn't thinking of avoiding a follow-on, I just wanted to stay unbeaten and by god's grace we avoided the follow-on. When you save a Test from that position, it

gives everyone confidence. Everybody was enjoying that moment (in the dressing room)."

Having played his first five Tests in India and just a lone one Down Under in the current tour, Akash was aware of the challenges lurking on these surfaces: "Before this I have played in India where there's not much help for us (pacers). We can keep our lengths short here as there is some help, especially with the new ball. We also feel like we can bowl a lot fuller thinking we can beat the batters. Then there is a chance of leaking runs too. As a fast bowler, irrespective of conditions, maintaining discipline is very important."

Bumrah's guidance has helped Akash and the seamer expressed his gratitude: "This is my first time in Australia and Jassibhai told me these little things that have helped a lot. You can trust him because of the way he has bowled here or anywhere else. He keeps telling you small things like not getting too excited by the bounce and to bowl like how you have been bowling on Indian pitches." And as for his philosophy, Akash stressed: "Whenever I get my chance I have to be ready."



Passionate: R. Ashwin...he did not play cricket, he lived in it. EMMANUAL YOGINI

The Encyclopedist

Gideon Haigh

John Arlott said of the great English seamer Maurice Tate that he did not play cricket; he lived in it. The same might be said of Ravi Ashwin, who has retired, somewhat unexpectedly, aged thirty-eight.

He was born into the game – his parents Ravichandran and Chitra were obsessed with his career. He married the game – his wife now runs his cricket academy, Gen Next, and media company, Carrom Ball Media. He covers the world on his YouTube Channel, and is a compulsive communicator on Instagram. In amongst all this, he has harvested 765 international wickets and nearly 5000 runs.

Sometimes cricketers and their cricket are readily separable. Yet it was hard to imagine a conversation with this proud Madrasite that did not circle back to his passion and obsession. He did have other interests, I know. He liked movies, with a special affinity for the cult classic *Chennai 6000028*. It is, of course, about cricket.

To an outsider, this might make him sound a little...narrow? But there is what you're interested in, and how you're interested

in it. Few cricketers can have explored the game to such a minute level. Sometimes you wonder whether Australia's top players see cricket as getting in the way of their golf; they fondly nicknamed Mike Hussey, Ashwin's Chennai Super Kings colleague, 'Mr. Cricket'.

Life's intelligent study

But Ashwin's encyclopedism kind of makes you feel a little proud of cricket, that it could be subjected to a life's intelligent study, and protective of it too. After all, nobody ever said to Einstein: 'Gosh, Albert, do you reckon we could talk about something other than physics?' Or of Steve Jobs: 'Steve could be a really fun guy if he wasn't so obsessed with the graphic user interface.'

The argument then becomes whether it is possible to be a genius in such a seemingly esoteric realm. To which the straight-forwardest retort is: cricket in India is anything but trivial. And even if it may be of lesser importance than the fate of nations, then, as Hazlitt observed in his immortal essay on Cavanagh the fives player, what of it?

"It may be said that there are things of more importance than striking a

ball against a wall – there are things, indeed, that make more noise and do as little good, such as making war and peace, making speeches and answering them, making verses and blotting them, making money and throwing it away. But the game of fives is what no one despises who has ever played it."

I commend the appreciations of Ashwin by Kartikeya Date, Jarrod Kimber and his amanuensis Sid Monga, while there has been an impressive range of tributes from CSK past players, and I liked the gesture by Pat Cummins' Australians too.

Different memoir

But what has really enhanced my appreciation of Ashwin in recent times has been reading the coming-of-age memoir he published this year with Sid, *I Have The Streets*. By convention, cricket memoirs dispose of early life perfunctorily – usually in a chapter called 'Early Life' – with rites of passage like the first century, the first five-for etc. That's not for Ashwin.

He takes you right back to his gully cricket days in Ramakrishnapuram 1st Street, where, for instance, he developed his batting

technique of staying leg side of the ball, because he had no pads, and his aptitude for the pull shot, because there were windows straight. He executed his first Mankad, he tells us, aged twelve. Nobody blinked. No wonder he took a hard line later.

Ashwin was also twelve when he suffered his first career-threatening injury – a slipped left hip disc, entailing excruciating treatment. Rather than overstrain the hip, he learned to bat left-handed.

He had an unusual, stork-like physique: a short torso, long legs. To adapt, he found a yoga guru. Not a naturally gainy fielder, he spent time teaching himself to slide in the outfield.

The book is particularly instructive in the matter of Ashwin's coaches. They were tough, ruthless even. In a modern culture when coaches are combinations of friends, companions, sounding boards, enablers, constantly careful not to compromise a player's individuality, it is fascinating to read of this quite different pedagogy at work.

At the same time, it never curbed Ashwin's own propensity for experimentation and imitation: 'So-

metimes I copy Harbhajan Singh's bowling action, whom I consider a hero after he single-handed beat Australia in 2000-1, sometimes Romesh Powar. Sometimes I bowl off spin; on the odd occasion I bowl legs-in with the same action, but I invariably get wickets.'

Ashwin maintained this characteristic throughout his career. He was restlessly tireless, tirelessly restful, immersed in his own game, but also in everyone else's. Rahul Dravid has a pleasing glimpse of him in his introduction.

"I have seen Paras Mhambrey, our bowling coach, occasionally try to impress something upon him. Ash will verbally duel with him, and it never appears that Paras has been able to fully convince him. And yet, two days later, we will see Ash trying the same thing in the nets all my myself. Then we just look at each other, smile and nod: look, he is actually trying to find out why you asked him to do a certain thing."

Why the departure?

So why now? Why would a player so steeped in the game step down from its international pedestal? I suspect it was not the play-

ing that finally stretched Ashwin thin, but the not playing – the sense of not being guaranteed a place overseas because of India's dual objectives of lengthening its batting and packing an extra seamer.

Since the last Border-Gavaskar Trophy here four years ago, he had played only nine away Tests, and was unlikely to form part of India's first-choice XI in England next year.

Sunil Gavaskar thinks Ashwin lacks the mental wherewithal to go on in these circumstances, while admitting that it is 'a bit surprising'.

Still, I'm not sure we should underestimate the toll of fifteen years at the very top of the very top of cricket – membership of the Indian cricket team.

In *The Tao of Cricket*, Ashis Nandy reflected on the extraordinary burden of cricketers in his country – 'how eleven players with an average age less than thirty and mostly innocent of politics and culture' must 'recover the self-esteem of all India.' It's a tribute to Ashwin that he made it look like this was what he was born for.

(with permission from *Cricket Et Al*)

IN BRIEF



Ariv and Sakshya claim under-11 table tennis titles

Ariv Dutta and Sakshya Santosh (*in pic*) won the youth under-11 boys' and girls' titles in the UTT National ranking table tennis championship in Bengaluru on Sunday.

The results: Finals: U-11: Youth Boys: Ariv Dutta (NCOE) bt Gem Mahalanabish (WB) 11-8, 11-4, 11-5. **Youth Girls:** Sakshya Santosh (Kar) bt Divija Paul (Asm) 13-11, 11-9, 10-12, 11-5.

Anahat wins women's PSA Challenger title

Anahat Singh continued her dominance with a 3-0 (11-8, 11-8, 11-8) win over top seed Akanksha Salunkhe in an all-Indian women's final of the 79th Western India Slam – a \$9,000 Professional Squash Association (PSA) Challenger event.

Other result: Men: Ameeshraj Chandaran (Mas) bt Viktor Byrtus (Cze) 3-1 (15-13, 6-11, 11-5, 11-3).

Sub-junior basketball: UP boys and TN girls triumph

Uttar Pradesh boys and Tamil Nadu girls emerged champions in the 49th sub-junior National basketball at the Saroornagar Indoor Stadium here on Sunday.

The scores: Boys: UP 56 (Jatin 18) bt Delhi 49 (Yadav 11). **Third place:** MP 65 bt TN 51. **Girls:** Tamil Nadu 68 (Mercy 15, Kavishi 13, Swathika 10) bt Maharashtra 46 (Anusha 17, Nyla 12). **Third place:** Kerala bt Telangana 71-26.



Usyk wins by unanimous decision against Fury

Oleksandr Usyk won his heavyweight championship rematch against Tyson Fury by unanimous decision (116-112) on Saturday to stay unbeaten across two divisions. Usyk's win takes him to 23-0 with 14 knockouts and extends one of the all-time best careers that includes Olympic gold and undisputed champion at cruiserweight.

VJLAY HAZARE TROPHY: SECOND-ROUND FIXTURES

Group-A: Jaipur: Assam vs Odisha, Goa vs Haryana, Jharkhand vs Manipur, Gujarat vs Uttarakhand. **B: Mumbai:** Andhra vs Rajasthan, Maharashtra vs Services, Himachal Pradesh vs Sikkim. **Navi Mumbai:** Meghalaya vs Railways. **C: Ahmedabad:** Arunachal Pradesh vs Saurashtra, Hyderabad vs Mumbai, Nagaland vs Punjab, Pondicherry vs Karnataka. **D: Vizianagaram:** Chandigarh vs Chhattisgarh, Jammu & Kashmir vs Vidarbha. **Visakhapatnam:** Mizoram vs Uttar Pradesh. **E: Hyderabad:** Baroda vs Kerala, Bihar vs Tripura, Delhi vs Madhya Pradesh. *All matches begin at 9 a.m.*

Smriti, Renuka excel in India's huge win

After piling up 314, home team bowlers bundle out West Indies women for 103; Zaida shines for the visitor with a five-wicket haul

WI IN IND
Shavan Acharya
VADODARA

There's no stopping Smriti Mandhana. Despite a quick turnaround time after a hectic T20I series, she swiftly changed formats and continued her fine form with a classy 91 (102b, 13x4) as India piled up 314 for nine – its second-highest total in ODIs – before Renuka Singh Thakur's maiden fifer (5 for 29) powered India to a 211-run win against the West Indies in the series

opener. As the Kotambi Stadium hosted its maiden international fixture on Sunday, Smriti set the platform and forged a 110-run opening stand with debutant Pratika Rawal on a sluggish black soil surface. While it took Pratika 33 deliveries to hit her first boundary, Smriti was at her fluent best as she kept the scoreboard ticking. With Smriti taking the pressure off with a few boundaries, Pratika could slowly build her innings and stitch a steady partnership. Smriti hammered a delivery from Afy Fletcher

past mid-wicket to bring up her 28th ODI fifty – fifth consecutive across formats – and looked in fine touch. West Indies captain Hayley Matthews ended Pratika's stay with a sharp return catch, but India did not stutter as Smriti built another 50-run stand with Harleen Deol before being trapped leg before by Zaida James (5 for 45). Though Zaida impressed, listless bowling from the other end and sloppy fielding let West Indies down, and making most of the opportunity, India could build regular partnerships en route to

the 300-run mark. Negating the dew factor, Renuka's fiery opening spell and some tight bowling by Titas Sadhu meant West Indies was never in the chase. While Qiana Joseph was run out on the first ball, Renuka added to Windies' woes with a few unplayable in-swingers. As the top-order crumbled, the visiting team was reeling at 34 for 6, before being bundled out for 103. **The scores:** India 314/9 in 50 overs (Smriti 91, Harleen 44, Pratika 40; Zaida 5/45) bt West Indies 103 in 26.2 overs (Renuka 5/29); **Toss:** West Indies. **PoM:** Renuka.



On a roll: Smriti continued her fine form. VIJAY SONEJI

Renuka "feeling good" after maiden five-wicket haul in ODIs

Shavan Acharya
VADODARA

Renuka Singh Thakur loves bowling in-swingers, and since her early days, she has been working hard to master the craft. At the Kotambi Stadium on Sunday, Renuka bowled delivered some unplayable in-swingers en route her maiden five-wicket haul in women's ODI, and the Indian fast bowler was glad that her hard work paid off.

"It really feels good to claim a maiden fifer in the ODIs because it's hard to get wickets in this format," Renuka said, after starring in India's 211-run win against the West Indies in the series opener.

"I have worked hard on my in-swing since my early days and I constantly hone my skills so that I can enjoy more success..." On the eve of the game, India head coach Amol



On target: Renuka's incisive spell derailed the West Indies chase. VIJAY SONEJI

Muzumdar said that dew will play a factor in the series, but Renuka and Titas Sadhu bowled spells to negate the dew factor. "Our plan was to bowl

stump-to-stump and that helped us. "Since it got a bit cold in the evening and dew was settling in, it helped us," Renuka said.

Blasters back to winning ways after thrashing Mohammedan

ISL

Stan Rayan
KOCHI

With their head coach Mikael Stahre and his assistants sacked, the last few days had been tough ones for Kerala Blasters. But the Kochi side recovered well and found its winning touch, thrashing the bottom-placed Mohammedan SC 3-0 in the ISL at the Nehru Stadium here on Sunday.

The victory, which came after three straight losses, helped KBFC climb a rung and move to the 10th spot in the 13-team league table while Mohammedan remained in the last place.

The Blasters began well, working their way up through the left flank and Noah Sadaoui and Adrian Luna sent plenty of crosses into the box but Kwame Pe-



First blood: Luna and Peprah celebrate Blasters' first goal. X@KERALABLASTER

prah could not utilise the chances well. Mohammedan also put up a strong defence and held its fort well for nearly an hour, and frequently relied on counter attacks to advance. But things turned dramatically after that. The Blasters' lead came through Mohammedan goalkeeper Bhaskar Roy's blunder in the 62nd minute. Roy tried to punch away Luna's corner kick but, to his horror, found

himself only pushing the ball into his own goal. The Blasters grew in confidence after that. Noah Sadaoui increased the lead with a nice header in the 80th minute, following a cross from Korou Singh, and substitute Alexander Coeff made it 3-0 in the dying minutes of the match as the fans roared in joy. **The result:** Kerala Blasters 3 (Bhaskar Roy 62-og; Sadaoui 80, Alexander Coeff 90) bt Mohammedan SC 0.

Tasnim in last four; defending champion Anmol ousted

N. Sudarshan
BENGALURU

Tasnim Mir produced two power-packed performances on Sunday to enter the women's singles semifinals at the 2024 Senior National Badminton Championship at the KBA courts here.

In the morning, the 19-year-old from Gujarat ousted top seed Aakarshi Kashyap 21-19, 21-17 in the pre-quarters before returning late afternoon to send the

seventh seed from Assam Isharani Baruah home, 21-16, 21-18. The contest against Baruah was neck and neck for most part, but in both games, Tasnim – coached by former National champion Arvind Bhat – found a higher gear towards the home stretch. She impressed with her defence and covered every inch of the court. And when in position, she finished off points with powerful smashes and drives, one of which from the fore-

hand side gave her the match. On the day, seven of the remaining top-eight women's seeds in the main draw, including defending champion Anmol Kharb, crashed out across the last-16 and last-eight stages. Among men, top seed K. Sathish Kumar from Tamil Nadu eased into the semifinals while Ayush Shetty, the second seed from Railways, went out in the round-of-16.

The results (quarterfinals): Men: K. Sathish Kumar (TN) bt Kaushal Dharmamer (Rly) 21-11, 21-12; Rounak Chouhan (Chg) bt Alap Mishra (MP) 21-10, 21-16; Mithun Manjunath (Rly) bt Sanskar Saraswat (Raj) 21-9, 21-9; M. Raghu (Kar) bt Rohan Gurbani (Mah) 21-17, 21-13.

Women: Tasnim Mir (Guj) bt Isharani Baruah (Asm) 21-16, 21-18; Devika Sihag (Har) bt Rujula Ramu (Kar) 17-21, 21-19, 21-16; N.B. Adarshini Shri (TN) bt Shreya Lele (Guj) 23-21, 21-12; Shriyanshi Valishetty (Tel) bt Sakshi Phogat (Raj) 21-13, 21-14.



Purple patch: Tasnim had a day to remember. K. MURALI KUMAR

'Need to have better incentives for top players to participate in Senior Nationals'

N. Sudarshan
BENGALURU

Chief National coach P. Gopi Chand stated that there needed to be more incentives for the nation's top players to participate in the Senior Nationals.

"It is always a challenge when athletes have to play two circuits, international and national, or national and state," he said here on Sunday. "Time for off-season or a training block becomes very limited. Ideally, there should be one calendar, not two. "A three-day Nationals, with the top-eight participating, could change things. But in some states, national participation gives you a job somewhere or a university seat. Aligning all these interests needs considerable debate." Gopi Chand felt that



Challenges: Gopi Chand pointed out that competing in two circuits gave players very limited time for training. K. MURALI KUMAR

making it mandatory would not be fool-proof. "Players may just come, lose a match and walk off. That's not the purpose. Either the prize money needs to be motivating or certain other things [have to be]. Even as he praised India's talent pool, the 51-year-old raised concerns about the nation's coaching

capacity. "We've grown like Bangalore City, right? Very fast and then you are trying to figure out where the drainage has to go," he said, eliciting many a smile. "How do you produce and motivate the next bunch of coaches? I could have said this six years back too, and that's a big cause of concern because in this period we have not converted that

talent into results. "Coaches also need a level of comfort and safety. I had an All-England trophy; I had a Dronacharya [award] very early and enough family support. But for a young coach who is 25 or 30, this comfort is not there," he added. Gopi Chand, though, was happy to see P. Kashyap, Guru Sai Dutt et al. in coaching roles, adding to the pool that already contains the likes of Arvind Bhat and Anup Sridhar. "If we give coaches a platform, and the freedom and responsibility to work, Indian badminton will figure itself out. Last year, we had Sai Praneeth go to the United States to coach. I don't want that. We have big centres and enough students. We should give them [coaches] enough salaries to stay back".

England names squad for India tour

Press Trust of India
LONDON

Joe Root's return to 50-over format after more than a year headlined England's squad announcement for the ODI tour to India and the ICC Champions Trophy.

The squads: ODI: Jos Buttler (Capt.), Jofra Archer, Gus Atkinson, Jacob Bethell, Harry Brook, Brydon Carse, Ben Duckett, Jamie Overton, Jamie Smith, Liam Livingstone, Adil Rashid, Joe Root, Saqib Mahmood, Phil Salt, Mark Wood. **T20:** Buttler (Capt.), Rehan Ahmed, Archer, Atkinson, Bethell, Brook, Carse, Duckett, Overton, Smith, Livingstone, Rashid, Saqib, Salt, Wood. **India vs. England Schedule: T20Is:** 1: Jan. 22 (Kolkata); 2: Jan. 25 (Chennai); 3: Jan. 28 (Rajkot); 4: Jan. 31 (Pune); 5: Feb. 2 (Mumbai). **ODIs:** 1: Feb. 6 (Nagpur); 2: Feb. 9 (Cuttack); 3: Feb. 12 (Ahmedabad).

Raiza and Bhavtegh take the lead in the skeet competition

SHOOTING

Kamesh Srinivasan
NEW DELHI

Razia Dhillon was in top form as she shot 74 to lead the women's field on the first day of skeet competition in the 67th National shooting at the Dr. Karni Singh Range on Sunday. The 20-year-old Razia shot rounds of 25, 25 and 24 to take a four-point lead over Ganemut Sekhon. Zahra Deesawala and Shivani Raikwar were in third place with 68 after three rounds, one point ahead of Darshna Rathore, Kartiki Shaktawat, Vanshika Tiwari and Yashasvi Rathore. Maheshwari Chauhan had a tough time with rounds of 23, 18 and 20, as she slipped to the 19th spot



Good show: Raiza led the women's field in skeet in the National shooting championship on Sunday. KAMESH SRINIVASAN

with a total of 61. Bhavtegh Singh Gill shot 74 (25, 24, 25) in the men's field of 58 shooters. He was followed one point behind by Divyaraj Singh, Fatehbir Singh Shergill, Rituraj Bundela, Munek Battula and Mairaj Ahmad Khan. Angad Vir Singh Bajwa, Smit Singh, Arjun Thakur and Zorawar Singh Bedi

shot 72. Anantjeet Singh Naruka had rounds of 24, 23 and 24 for a total of 71, the same as Amrinder Singh Cheema, Man Singh and Abahy Singh Sekhon. Two more rounds will be shot on Monday, and all the finals, including the ones for juniors will be held on Tuesday.

Akash Deep, the unassuming trendsetter

He is almost two different people on and off the field — Akash the person is self effacing and almost apologetic while receiving accolades, but the man on the pitch is stubborn and obdurate, someone who carried India past a possible follow-on at the Gabba after coming in to bat at No. 11



AFP

R. Kaushik

Pass him by on the streets, and you won't give him a second glance, because there is nothing compelling about Akash Deep. He doesn't have the swagger of a superstar, he doesn't have a bulked-up presence that will stand out, he doesn't do anything outlandish to draw attention to himself. But put him on a cricket field, and you can't miss Akash Deep.

Not so much Dr Jekyll and Mr Hyde, but Akash is almost two different people. Not that he has white-line fever, not that he is so consumed by passion that he loses control of his emotions. Just that he wears his sleeve when out in the park, leaving nothing behind, straining every sinew for his team and his teammates.

Last week at the Gabba, where he finally got to play a Test in Australia, Akash was the toast of his colleagues. He received the accolades shyly if not apologetically, wearing a sheepish smile as he was greeted with a crescendo of cheers and unchecked back-thumps when he made his way back towards the change room. It was day four of the third Test and Akash had played a stellar role in keeping India very much in the series. Not with the ball, as you would expect, but with the bat.

Perhaps he felt slighted that he came in, last man, at No. 11, behind Mohammed Siraj and Jasprit Bumrah. Maybe he felt driven to show his captain and his coach that he deserved better. Or maybe he just loves the scent of a battle. No matter, India benefited from his stubbornness and obduracy, managing to save a follow on which, combined with the forecast for terrible weather on the fifth day, translated to getting out of jail in the middle Test of the series in Brisbane.

A familiar top-order collapse, only briefly arrested by the class of KL Rahul and the phlegmatic approach of Ravindra Jadeja, had left India gasping at 213 for nine, still needing 33 to make Australia bat again.

As Akash walked out to join Bumrah in the middle, Rahul and Yashasvi Jaiswal were mentally ticking off the boxes. Abdomen guard. Check. Leg guards. Check. Inner gloves. Check. Batting gloves. Check. Helmet. Check. Elbow guard. Check. They were reasonably sure it was only a matter of time before one of Ten or Jack was dismissed, before Pat Cummins stuck India in, if only because it

was the only thing to do.

As they were going through the mental routine, the two openers willed themselves to watch their fast-bowling duo defy the Aussies. With pluck and courage, with a technique that only the tailenders can consider passable, with a determination that was commendable, with a desire that was grim and evidently visible. Cummins and Mitchell Starc came charging in though they ought to have known that they were only trying to add to their own workload if they separated the last pair quickly enough. But you don't pause to think about such mundane things in the middle of a Test match, do you?

Courageous or foolhardy?

Before and in the lead-up to the game, Cummins had left the door to bouncing the tail out and bowling from round the stumps, well open. So, Australia's captain went round the stumps and banged the ball in short to the best bowler in the world right now. It was a courageous or foolhardy move, depending on how you viewed it. He might get a wicket, sure, but he was also tempting payback. Never mind.

Here comes Cummins in, all intent and purpose, fresh off that line of attack which fetched him five wickets in the second innings of the previous Test, in Adelaide. Short but clambering only till about chest height, if that. Bumrah went back and hooked it. Superbly. The contact was perfect, the left leg slightly raised with the pivot, the sweet spot taking the ball way beyond the long-leg boundary ropes.

As Bumrah turned to admire his handiwork, Cummins' followthrough ended abruptly. He wheeled around, walked back, changed his angle of attack. Bodyline was shelved. For the time being. Akash smiled, he punched his partner's glove. Then knuckled down. There was still work to do, even after he punished Starc for going short and wide with a cut behind point for four.

Suddenly, hope sprang in the dugout, in the dressing room. Jaiswal and Rahul brought their minds back to the present, the new-ball challenge be damned. Let's watch these guys, they seemed to say.

"These guys" didn't disappoint. After that six, Bumrah retreated into his shell, offering a barndoor defence that pace and spin couldn't break down. Akash became the run-getter, slowly, with a nudge here, a push there. Australia's strange fields helped, but you couldn't blame Cummins

too much. No. 10 and No. 11, a false shot was inevitable, right?

Wrong. There was only a spectacular flourish of a drive from Akash that flew to fine-leg off the inside-edge. On another day, curtains. This day, just a warning shot across the bows. Akash heeded that, and when he finally slashed Cummins to square third-man for four to haul India to 246 for nine, mission accomplished, the dressing room erupted.

Virat Kohli, standing in one spot all along, smashed Gautam Gambhir's hand in a violent high-five, reprised that feat with assistant coach Abhishek Nayar. Rohit Sharma, chuffed and smiling but perhaps a touch embarrassed, offered a low five. Out in the middle, Akash punched his heart with his fist. Repeatedly. Bumrah hammered his partner's glove. The Gabba erupted. Oh, the theatre.

Two balls later, Akash vented his pent up emotions with the most spectacular tonk, a resounding thud emanating from his bat as he mowed Cummins over long-on. Way, way over long-on. It was brutal. It was beautiful.

Maybe Akash's batting doesn't merit so much attention because, hey, isn't he a quick bowler? Who had to wait till the last ball of the first innings for his only success, and that too because Alex Carey was on the lookout for quick runs? Maybe it doesn't, but what's life without a feelgood?

The journey

Because that's what Akash's life is finally starting to embrace. He comes from Sasaram in Bihar, where they practically shunned cricket three decades ago, and where even when he was growing up, it was frowned upon. He left for Durgapur in West Bengal in 2010 when just 14, apparently in search of a job, but one of his uncles helped him join a cricket academy and he started to be noticed. Then, tragedy struck in 2015 when his father and his brother passed away within a few months of each other, and Akash suddenly was the sole breadwinner.

Cricket took a back seat for three years until he came roaring back, making it to the Bengal Under-23 team and the state side not long thereafter. He grew in stature and started to stack up a reputation for being a skiddy customer with no little pace, and the riches came gradually through representative cricket for his state, and a contract with Royal Challengers Bangalore.

Akash had been a net bowler with the Bengaluru franchise in 2021 and they procured his services for his base price of ₹20 lakh the following year. Earlier this month, Lucknow Super Giants shelled out ₹8 crore after RCB let him go. It was impossible not to feel delighted for the unassuming 28-year-old with a ready smile and a humble, shy demeanour.

Akash is thrilled with his cricketing journey as it is now — six Tests, with plenty to look ahead to — but more than the wickets and the money and the fame that, you suspect, he isn't too comfortable with, it's the path he has carved that thrills him the most. "When I began playing cricket, I never thought I would be talking to you all one day in Australia," he said, disarmingly, on the Melbourne Cricket Ground outfield, just about coming to terms with the fact that he will be playing a Test match at the 'G' in a couple of days' time.

Inspiring the young

"The place where I come from and the place I am in right now, because of that, makes me feel good and feel proud of myself. So many kids with so much talent wanted to play but they couldn't because they didn't have their parents' support. Now, there is a lot of support for those who want to pursue cricket."

It's the tale of the trailblazer that is most heartwarming. Mahendra Singh Dhoni, initially of Bihar and then of Jharkhand once the new State was formed in 2000, became the poster boy for those from cricketing outposts, inspiring millions in the hinterlands with his hair-rising climb up the ranks to become the cricket world's biggest name. Akash may not reach the unparalleled Dhoni heights but in his own way, he is a trendsetter. He will have greater fortune going forward and pick up more wickets — he was sensational in Australia's first innings at the Gabba, reducing Steve Smith to a blubbing wreck, but the wickets just wouldn't come until the last ball of the innings — and while that will undoubtedly make him happy, satisfaction and contentment will stem from how he has helped change mindsets and pave the way for starry-eyed kids to dare to dream. His name is a curious admix — the untouched heights of the sky, and a depth, you believe, of character. The sky truly is the limit for Akash Deep.

THE GIST

▼ Akash Deep's life is finally starting to embrace the feelgood

▼ His path has been riddled with obstacles — moving from Sasaram in Bihar to Durgapur in West Bengal at the age of 14, in search of a job

▼ Tragedy struck five years later, when he lost his father and brother in quick succession, making him the sole breadwinner

▼ Cricket took a back seat for three years until he came roaring back — the most heartwarming kind of a trailblazing tale

▼ Akash is most happy with his cricketing journey as it is now. But more than the wickets and the money and fame, it's the path he has carved that thrills him the most

WEST BENGAL



Farmers in Nayagram block of West Bengal have started an all-woman producer organisation, Aamon, cultivating indigenous and organic varieties of paddy. SHIV SAHAY SINGH

The women who took on organic rice growing – and patriarchy

Thousands of women in West Bengal's Jhargram district have set up a farmer producer company, Aamon, cultivating indigenous varieties of paddy without using lab-made fertilizers. The enterprise has made them economically stable, and has given them the power to make decisions on agriculture and on matters at home. Now, **Shiv Sahay Singh** reports, it has given them a new confidence

Panchabati Baske, 50, does not mind snakes in paddy fields. “These are non-poisonous and there are many of them around,” she dismisses them, as she walks through her fields, as a snake slithers through. “See this crop of Kerala Sundari? Some of it has fallen in the recent Cyclone Dana but look at the yield. Will someone believe that no [lab-made] fertilizers have been used while cultivating this?” Baske says. She is standing amid a dense lush yellow crop of paddy, at Damodarpur village in Nayagram block of West Bengal's Jhargram district located almost 200 km from Kolkata.

Baske is convinced that organic varieties yield more grains of paddy per stalk. “I have counted. Kerala Sundari has about 350 to 400 grains in every stalk, whereas Swana (a regular variety of rice cultivated using fertilizers) has about 250 grains,” she says.

For the past several years, Baske has been cultivating indigenous varieties of rice without using any store-bought pesticides. She is a cultivator associated with Aamon, a farmer producer company, which was registered in October 2020. Aamon in Bengali is a reference to the June-July period of rice sowing.

Aamon is an all-woman initiative that has about 8,000 farmers across 106 villages in Nayagram block, which is located in the State's south-western part that is arid. The company started with 350 women. In the financial year 2023-24, they produced about 800 tonnes of six indigenous varieties of paddy that got them a turnover of about ₹2.2 crore. Each woman is a shareholder in the company that retails under the brand name Ecomust locally and under Aamon online.

Baske and other women associated with Aamon feel their aspirations have taken wing. The company has not only given economic freedom to the women farmers associated with it, but also added to their confidence and social standing.

Coming out of home

A few hundred metres away from the field, Baske has cultivated black rice. “This crop is taller than you. Those who have not seen black rice ask how this crop looks. It is not black; it is just like any other variety of paddy,” she says.

Not far from the paddy fields is Baske's thatched home. Here, she has set up an elaborate vermicompost arrangement which she uses in the organic farming processes, to improve soil health and crop yields. “I had bought 500 earthworms for ₹1 a piece to start with,” she says. Under the Central government's Paramparagat Krishi Vikas Yojana (PKVY), farmers get assistance to construct pits to produce organic manure through vermicomposting.

“This traditional method of cultivation is what we followed for generations. It is only in the past few decades that we have been using chemicals, which are entering the food chain,” she says.

The idea of Aamon came through self-help groups (SHG) of women who were promoting organic farming in the region. Once a hotbed of the banned Communist Party of India (Maoist) that led to the area being violence-ridden, coming out of home for community work was a challenge.

“I was the first to come out of my village and be associated with Jaiba Dal (an SHG promoting organic crops) and later Aamon,” Baske says. She



We have been able to break the barriers of patriarchy and are recognised and respected for our work. It is not that we are doing something new, but our labour was never appreciated until we started our own enterprise

REKHA SINH
Organic farmer,
Biriberia village,
Nayagram block

speaks about how difficult it was for women to go out. “Often people would ask my family members, including my husband, why I was out for such long hours, what kind of work I did, and why I was out so late. This would result in fights at home,” she says.

Building connections

About 50 km from Baske's house is Kharikamathani, a town in the heart of Nayagram block. On a Sunday afternoon, she and about 10 other women arrive at the office of PRADAN (Professional Assistance for Development Action), a non-governmental organisation that helps organise collectives and is aimed at eliminating rural poverty. The office of the NGO is located above a motor garage and has meeting rooms. On one of the walls there are photographs of women farmers, honoured for best practices by the NGO.

One such photograph is of Swarnaphabha Mahato, a farmer in her 20s, planting paddy seedlings in a muddy field. “This is me a few years ago,” Mahato says, smiling at the photograph. She says cultivating indigenous varieties of rice is not enough. Along with other women in cultivation, she has been attending several village fairs and festivals familiarising people with indigenous varieties of rice.

“We used to cook rice and make *payesh* (rice pudding) and urge people to taste it just to promote these varieties,” says Mahato. Though most of the organic rice they cultivate is exported and sold in cities, the women feel it is important to find a local market for their produce.

All the farmers at the PRADAN office dress in similar-looking sarees: green with red borders. The women usually wear these at governing body and executive body meetings. They sit in a circle on the floor of one of the rooms where they hold the meeting to take stock of the yearly and seasonal production of paddy. Some farmers have a dual role of purchase officers, and keep a record of how much paddy is produced.

Prabhati Das, 47, one of the women at the meeting, says the challenge has not been so much about farming, but about convincing men that women could cultivate on their own using the seeds and method they want. “They (the men) used to crack jokes and discourage us. ‘What do the women know? They will not be able to do anything.’ We were repeatedly told this,” she says.

Das talks about how her husband gave her on-

ly three *cottahs* of land (about 720 square feet). “It was in 2016 when I first cultivated on this land. My husband told me that if it did not work, I would have to go back to my parents' house,” she says. It worked.

In the financial year 2023-2024, her village, Nagripada, cultivated organic paddy on 77 acres. “There are 118 women farmers here who are growing organic paddy,” she says.

Freedom from control

Rekha Sinh, 42, a farmer who has been instrumental in getting 102 women farmers at her village, Biriberia, to join Aamon, says organic farming has been about breaking barriers. “Our husbands did not believe that we could achieve something. When we rode bicycles to hold meetings in and around villages, neighbours would pass comments,” she says. Now, many women hold driving licences for cars.

Sinh tells a story which the farmers often repeat to convince other women to join them and take up organic farming. In a village, a person has three sons: one sells seeds, another lab-made fertilizers and pesticides, the third is a doctor. The people go to the same family for everything, because after eating the harmful chemicals they visit a doctor.

The women explain that by cultivating organic varieties they have been able to come out of the clutches of traders who sell both seeds and fertilizers. “Once you start buying from these local traders, often the same shops give you seeds on credit and then fertilizers on credit, but when the crops are harvested the farmers have to sell it to the trad-



If a farmer has to spend ₹7,000 to cultivate one bigha of commercial paddy, we can do it for only ₹700 because we do not have to buy anything

PRATIBHA DAS
Organic farmer, Nagripada village,
Nayagram block

er,” Sinh says.

For farmers of Aamon, 80% of their produce is bought by the company. There are various varieties of paddy that the women cultivate, such as Kerala Sundari, Shatia, Mallifullo, black and brown rice. They preserve seeds of these indigenous varieties from their annual harvest and use them every year, controlling seed quality.

“If a farmer has to spend ₹7,000 to cultivate one bigha of commercial paddy, we can do it for only ₹700, because we do not have to buy anything,” Das says. This, despite the fact that the soil is not free of the fertilizers and pesticides used for many years before, and the neighbouring fields may be using these that then seep into their produce, besides contaminating the groundwater.

Breaking boundaries

The movement around organic farming has given the women more than just economic freedom. “We have been able to break the barriers of patriarchy and are recognised and respected for our work. It is not that we are doing something new, but our labour was never appreciated until we started our own enterprise,” Sinh says.

Studies have shown that the female participa-

tion of women in agriculture in West Bengal is higher than men. In West Bengal, 57.12% of women are involved in agriculture, compared to 50.02% of men, says an essay in the *INSEE Journal* of the Indian Society for Ecological Economics. One of the reasons is men's migration to other States.

However, despite a high female workforce in agriculture, women do not own much land in West Bengal. Among the dozen women at the PRADAN office, none of them have ownership of the land they cultivate. That is usually in the name of fathers, husbands, and sons.

Despite that, the women of Aamon speak eagerly about the joy of riding a bicycle, participating in rural fairs, and travelling to Kolkata and Delhi to speak about their successes. Some like Krishna Bhunia, from Chandrasekharpur village, are happy they could get their daughters married after they turned adult, and not as children, for want of resources.

They also operate a rice mill at Murakati village in Nayagram block, with a large nameplate and the words, Aamon Mahila Samiti in bold Bengali letters. Sacks of rice husk are stacked outside the mill. Inside, there is some husked black rice, which Baske eagerly picks up to show.

The farmers sing a song while opening the rice mill or attending the general body meetings of Aamon. The lyrics go: “*Keetnasake desh bhasalo; Ebar jaiba saare kore chaasi dhan go; Akaler bachao poran* (The country is laced with pesticides; O farmer, now cultivate paddy using organic fertilizer; Let us save lives).”

A home with her name

Sourangshu Banerjee, the team coordinator of PRADAN, says there are many farmer producer companies, but Aamon is unique because it is run by women and promotes organic farming. PRADAN was working with the conventional practices of agriculture until experts like Banerjee realised that fertilizers were not giving the desired results. They convinced the women farmers to shift to organic farming. “Aamon is now diversifying into cash crops like mustard and turmeric,” he says.

The State government had initiated Usharmukti, a water management programme to rejuvenate seven major rivers, across 54 blocks in the deprived Jangalmahal region. Though the initiative has suffered because the 100-day Mahatma Gandhi National Rural Employment Guarantee scheme has come to a halt in West Bengal since December 2021, efforts are on to implement Usharmukti through other government programmes.

Another challenge for farmers in Nayagram is the herds of wild elephants that often destroy their crops. The fragmented forests of Jangalmahal have, over the past few years, become home to 180 to 200 elephants. It has emerged as one of the hotspots of human-elephant conflict.

Das says her village, Nagripada, is located close to the West Bengal-Odisha border. “If you want to witness more varieties of organic paddy and wild elephants, you can come to our village,” she says, adding that the way to find her house is not to ask for her husband or son's name. “Ask for Prabhati Das's house.”



Aamon has women farmers from about 100 villages of Nayagram block located in remote south-western West Bengal. SPECIAL ARRANGEMENT

ANDHRA PRADESH



For equal justice: Foreign Medical Graduates protesting in front of the NTR Health University in Vijayawada on December 9, urging the A.P. Medical Council to grant them Permanent Registrations, as some State Medical Councils did for their counterparts in various States. G.N. RAO

Doctors of a lesser State

While their counterparts from States like Telangana and Rajasthan have begun practising or joined PG courses in India after receiving permanent registrations (PRs), the FMGs belonging to the COVID-19 batches in Andhra Pradesh continue to wait for their PRs even after six months. The foreign medicos' patience wears thin with the State officials insisting on a certificate verification process to rule out fake candidates as per the latest NMC advisory. Worried that they might not be eligible for the soon-approaching NEET-PG counselling, the FMGs seek government intervention in ensuring that their PRs are issued and that they don't lose an academic year over rules that seem to vary from State to State, writes **Nellore Sravani**

Becoming a doctor is a long-cherished dream. For some, like Sai Alekya, a foreign medical graduate (FMG) from Visakhapatnam, it has been a dream since she was all but four. But not all dreams come true, and some take a painfully long time to materialise.

On December 9, as she waited outside the Andhra Pradesh Medical Council (APMC) office located on the premises of Dr. NTR University of Health Sciences in Vijayawada for the Registrar's response on the issuance of Permanent Registration (PR), Dr. Alekya's mind was filled with anxiety, despondency and helplessness.

Dr. Alekya, along with 50 other FMGs, had gathered outside the APMC office to stage a protest highlighting their predicament and to get clarification from the APMC about their PRs.

"Weeks have passed by without a proper response from the APMC on what is causing the delay in granting the PRs," she says.

After completing medical courses equivalent to MBBS (Bachelor of Medicine and Bachelor of Surgery) from other countries, graduates who wish to work or study in India need to clear the Foreign Medical Graduates Examination (FMGE), a screening test, to be eligible for the one-year Compulsory Rotating Medical Internship (CRMI), which Indian medical graduates also undergo. After completing the CRMI, graduates, both foreign and Indian, obtain a PR from the State Medical Council.

The FMGE, conducted by the National Board of Examinations in Medical Sciences, is held twice a year, in June and December. Considered one of the toughest, the pass percentage in 2023, when 10,261 out of 61,616 graduates appeared for the exam, was 16.65%. In 2022, the passing percentage for the exam was 23.35%.

In Andhra Pradesh, 73 FMGs wrote the FMGE in December 2022. They completed their internship in May 2024 and have been waiting for their PRs for six months. They all completed their medical education at universities in Russia, Georgia, Kyrgyzstan, and Kazakhstan.

However, the wait had just begun for Dr. Alekya and her batchmates, who completed their internships in November 2024 since the APMC has put a hold on issuing PRs, citing various factors.

Meanwhile, Dimple Mehta, who graduated from a university in Russia in 2022, said she was in India for nearly a year and went back to write her exams. She cleared the FMGE in January 2023. In June 2023, the Rajasthan Medical Council allotted her a one-year internship. She got her



We have been made to feel lesser than our Indian counterparts because we did not get a rank in the EAMCET and had to leave for other countries to study

SAI ALEKYA
Foreign Medical Graduate

PR on July 11, 2024, and is now working as a medical officer.

States such as Andhra Pradesh, Delhi, Haryana, Jammu and Kashmir, Punjab, Tamil Nadu, and Kerala have denied or withheld permanent registration for FMGs with one year of internship experience. In contrast, States like Gujarat, West Bengal, Rajasthan, Assam, Orissa, Telangana, and Karnataka, amongst others, have issued permanent registration and given post-graduation seats to students.

The problem arose because of the gap in their studies during the COVID-19 pandemic. All these graduates returned to India during the pandemic and continued their studies online during their courses' penultimate and final years. Some returned to their parent universities and wrote the exam offline, while others did not.

NMC notice

The NMC released a public notice on June 7, 2024, stating that FMGs who attended classes online for any duration during their course completion should compulsorily undergo a two-year internship, which led to protests.

Following the outrage, the NMC withdrew the June 7 notice and issued a fresh one on June 19, stating that all students who have sufficiently compensated physical classes instead of online classes and passed an examination equivalent to MBBS should be eligible for one-year internships.

Dr. Alekya (26) graduated from a Russian university in 2021, and she belongs to the batch that was affected by the pandemic. She was in her final year when the pandemic began.

In 2020, after writing her fourth-year final exams, she came to India in June, as usual, for vacation. It was also the peak of the pandemic. The classes for her final year were to begin in October 2020. Her stay at home, meant for three months, was extended till February 2021 due to travel restrictions and the non-availability of flights.

However, she returned to her parent university in Russia, wrote her final exam offline, and practiced there for two more months to compensate for the lost practical sessions.

After returning to India, she wrote the FMGE in June 2023 and was allotted a one-year internship, which she completed in November 2024.

While the wait for PR has just been a little more than a month to date, it has been excruciating for her, burdened as her mind is full of thoughts of uncertainty.

"The students who completed their internships in May 2024 have not yet received the PRs.

What will I do if the process takes as long for us, too? The application process for the NEET PG-2025 exam starts in April. Will I receive my PR by then?" asks Dr. Alekya, her voice cracking.

Raised mostly by her mother, a nurse, Alekya always wanted to become a medical professional. Her father, who has been ill for a long time, does not go to work.

In the EAMCET in Telangana and Andhra Pradesh, she secured a rank under 7,000 and 12,000, respectively, in 2015. According to news reports, 69,840 students appeared for the medical stream in A.P. in 2015. However, she could not secure a seat in the medical colleges in the two Telugu States.

Nevertheless, determined to make her a doctor, Alekya's family decided that she should pursue her studies in Russia. "My parents were supportive because it was not just mine but also my family's dream to see me as a doctor," says Dr. Alekya, who flew to Russia in 2016, at the age of 17.

Like her, many FMGs belonging to the two batches affected by the pandemic are worried.

The protesting foreign medicos say they have given their exams offline and have compensatory certificates, yet they are being denied PR. They add that APMC Registrar I. Ramesh informed them that some have not "sufficiently compensated for their practical sessions" per the NMC guidelines.

When asked about the reasons for the delay in issuance of the PRs in July 2024, the Registrar informed them that the APMC Council members had yet to be elected and nominated and that he



We are sending all the degrees and marks lists to the concerned Indian Embassies. Genuine degree holders will be given a PR as soon as the vetting process is completed

I. RAMESH
Registrar, Andhra Pradesh Medical Council

did not have the power to make decisions in this matter. He also said the FMGs needed to undergo a two-year internship as per the NMC guidelines.

V. Aruna Vanikar, former president of the Undergraduate Medical Education Board, NMC, New Delhi, who signed the two June 7 and 19 circulars, said the decision regarding who is eligible for a PR lies with the State Medical Council (SMC). Despite the June 19 notification, if the SMC feels two years of internships are required, they can allot the same, said Ms. Aruna Vanikar, who was relieved from her duties on September 24.

In Telangana, the Medical Council Vice-Chairperson, Srinivas Gundagani, told *The Hindu* that they followed only one rule when deciding the duration of internships. "All those who took the final year exam offline got one year, and those who did not go back got two-year internships," he said.

Council formation awaited

Six months on, the State government has yet to nominate members to the Council. The 23-member Council, with 13 members elected by doctors, six nominated posts, and four ex-officio mem-

bers, was dissolved when the government changed in June. Director of Medical Education D.S.V.L. Narasimham said the matter is under the government's purview.

To add to the delay, the NMC, on November 19, issued an advisory to the SMCs to "invariably seek confirmation of the medical degrees from the concerned foreign medical college/university through concerned Indian Embassy/ High Commission either before granting Permanent Registration or before recommending them for registration in NMR (National Medical Registrar)".

"What did they do from June to November?" asks Dr. Karthik, who returned to his parent university in Kyrgyzstan to complete the course. He has the compensatory certificate but has yet to get his PR. He says the vetting process should have been done before the allotment of internships to them when a Provisional Registration was issued.

"I have made four visits to the APMC office, along with my daughter, so far. Every time we come, we hear a new reason. We do not think they have sent our degrees to the Embassy," says a distraught father from Kakinada. His daughter cleared the NEET PG but cannot attend counselling without a PR.

However, Dr. Ramesh clarified that the vetting process for certificates takes time. "We are sending all the degrees and marks lists to the concerned Indian Embassies. Genuine degree holders will be given a PR as soon as the vetting process is completed," he assures the medicos. He adds that the process of ruling out fake degrees is for the benefit of society.

The FMGs feel that the main reason for the delay in issuing a PR to them is also the bias against them. "The discrimination against FMGs is not new to us. It is entrenched in the Indian medical system," says Dr. Karthik, who finds it difficult to explain why he is idle at home. "Being jobless at this age and after spending a fortune on studies is hard, to say the least," adds Dr. Karthik, his voice reflecting the angst he is going through.

"We have been made to feel lesser than our Indian counterparts because we did not get a rank in the EAMCET and had to leave for other countries to study," adds Dr. Alekya, who wants to help her mother clear the loans to the tune of ₹40 lakh, and the delay is leading to thoughts of depression.

Indian Medical Association State member S. Dinesh Reddy, who graduated from a Ukrainian university in 2011, says there is a general feeling that education standards in foreign universities are low. "The standards are the same everywhere. But how much we make out of the education at any university depends on an individual," Dr. Dinesh Reddy says, adding that the very purpose of FMGE is to screen the graduates.

Pawan Kalyan's assurance

They met Health Minister Y. Satya Kumar Yadav thrice and Human Resource Development Minister N. Lokesh, but in vain. Fed up, the FMGs now knocked on the doors of Deputy Chief Minister Pawan Kalyan, who had assured them that he would look into the issue.

Last week, the Andhra Pradesh Health Department released a notification for recruitment to the Civil Assistant Surgeon post (280 positions). Although eligible, none of the FMGs can apply without a PR.

"We have not received internship stipends. This is against the NMC rules. Yet, we completed the internship. Now, we should at least be given PRs without much more delay. We have already spent eight years for getting a degree. How many more years should we wait," asks another graduate, Dr. Chandra.

(Names of students changed to protect identity)