

## Comic Con kicks off with inspiring cosplay workshop in Hyderabad

Hyderabad: Comic Con India brought the excitement early with an unforgettable cosplay workshop hosted by noted illustrator and Indian Cosplay Champion of 2024 Saurabh Singh Rawat and Zohair Khan (aka Kiwi Lemon Sorbet), held at Aaromale Café, Film Nagar. Saurabh Singh Rawat, whose expertise spans over a decade in the entertainment industry and working with top global brands, delivered a presentation on the art of cosplay. With his unique blend of traditional artistry and modern pop culture, Saurabh shared valuable insights into the creative process behind his incredible designs.

Joining him was Hyderabad's very own cosplay veteran, Zohair Khan, who is one of the admins of The Hyderabad Cosplayers Club and is well known for his remarkable ability to bring fictional characters to life. The duo led an interactive session that inspired aspiring cosplayers in attendance. During the hands-on demonstration, they showed the audience how to create intricate costumes using simple materials such as foam, fabric, glue, and scissors. Attendees were not only wowed by the simplicity of their hacks but were also thrilled by the encouragement and practical advice shared by Saurabh and Zohair.



## Telangana govt awards Musi Riverfront consultancy to controversial Meinhardt

Hyderabad: Despite mounting public outrage and criticism from the Opposition, the State government is moving forward with the Musi Riverfront Development Project and has awarded the consultancy contract to a consortium led by Meinhardt Singapore Private Limited. The selection of this firm, which has been embroiled in several controversies, has raised serious concerns about transparency and accountability in the execution of the Rs 1.5 lakh crore project. In an official order issued on October 4, Principal Secretary for Municipal Administration and Urban Development, M Dana Kishore, confirmed the awarding of the contract for "aggregate master planning" to a consortium that includes Meinhardt Singapore, Cushman & Wakefield India and RIOS Design Studios. The consultancy fee is set at Rs.166 crore, agreed upon at a "negotiated offer price" – a move that has drawn sharp criticism for the lack of transparency in the tendering process.

The government's decision to bypass global tenders for such a high-profile project has added fuel to the fire. The order raised eyebrows as it did not clarify the criteria used for selecting the Meinhardt-led consortium or the justification for the

"negotiated offer price". The absence of global tenders for such a massive project has only fueled further suspicion. "Why was there no open tender for a project of this magnitude? What criteria were used to select this particular consortium?" questioned a senior BRS leader.

The controversy is further amplified by Meinhardt's troubled track record. The firm is currently under investigation in multiple countries for its involvement in various scams. In India, the Anti-Corruption Bureau of Jharkhand is probing irregularities in the appointment of Meinhardt as a consultant for the Ranchi sewerage-drainage project, dating back to 2005. The Comptroller and Auditor General (CAG) also had flagged anomalies in Meinhardt's work on that project, while courts questioned the firm's eligibility.

Meinhardt was also entangled in Pakistan's infamous Creek Marina scam. In 2023, Pakistan's Federal Investigation Agency (FIA) registered a case against Meinhardt's owners and senior officials for their alleged role in a multi-billion-rupee residential project scandal. The firm had partnered with Pakistan's Defence Housing Authority to develop Creek Marina, a luxury housing project, but failed to deliver



the flats to buyers after 19 years, allegedly embezzling over Rs.30 billion. Media reports from Pakistan reveal that the FIA's investigation has implicated several top executives of Meinhardt, including Omar Shahzad, who met with Chief Minister A Revanth Reddy in February this year to express interest in the Musi project. The timing of the partnership between the Congress government here and Meinhardt has

raised eyebrows, especially given the firm's history. Shortly after the meeting, the estimated cost of the Musi Riverfront Development Project, initially put at Rs.50,000 crore, has ballooned to Rs.1.5 lakh crore. The BRS has been critical of the State's handling of the project. "Chief Minister Revanth Reddy is pushing forward with a tainted company that has left a trail of financial scandals across South Asia.



# Gurmeet Ram Rahim Singh and a travesty of justice

Gurmeet Ram Rahim Singh, the leader of the sect Dera Sacha Sauda, who is a convicted rapist and murderer, was released on parole before the Haryana Assembly elections. He was released on parole in the run-up to the Punjab Assembly elections in 2022 and the Rajasthan Assembly elections in 2023 as well. Singh has come out on parole 15 times, with several of these occasions coinciding with some election. In all, Singh has spent more than 250 days of his sentence outside jail. The ostensible reason for his release is that, as a leader of a sect, he commands pockets of support and influence beyond Haryana and Punjab, in Rajasthan, Himachal Pradesh, and Uttar Pradesh, in an estimated 30 Assembly constituencies. His political clout aside, the fact that he has been convicted for raping two female disciples and also for murder by a special Central Bureau of Investigation court needs to be reiterated.

It is a travesty that such special treatment is made available to convicts such as him, especially since journalist Ramchander Chhatrapati had put his life in danger by exposing Singh and his crimes. Chhatrapati's newspaper, *Poora Sach* (The Whole Truth), had carried an anonymous letter by a Dera follower, who had accused Singh of rape. In 2002, Chhatrapati was shot dead at his residence. It was only in 2019 that Singh was convicted for his role in the murder. This means that it took nearly 17 years for Chhatrapati's son, Anshul Chhatrapati, to battle several odds to obtain justice. That the bureaucracy-political class nexus has gone out of its way to facilitate a murder and rape convict after all these years of struggle is a poor reflection of our society and raises disturbing questions.

The first question relates to the role of political parties. The incumbent Bharatiya Janata Party (BJP) regime in Haryana has been unapologetic and brazen about the decision to grant parole. It seems to suggest that due procedure has been followed for the parole to be granted and that is all that matters. While the Congress in the Opposition objected to the grant of parole, the sad reality is that the previous Congress leadership's views on the matter were no different from the views of the current regime. These parties must take their cue from former Prime Ministers, Atal Bihari Vajpayee and Manmohan Singh, who showed courage in allowing the rule of law to take its course on the matter of conviction. Parties should not stoop so low as to seek political support through someone who has been convicted of heinous crimes such as murder and rape. The role of the Election Commission of India (ECI) also comes under scrutiny. Mr. Anshul Chhatrapati had sought the intervention of the ECI, urging it to direct the Haryana government to cancel the parole application. He had insisted that the granting of parole ahead of the Assembly elections would be a violation of democratic values. It is hard to believe that the ECI has not taken note of the curious pattern of paroles given to Singh before specific elections.

The courts had played an important role in bringing justice in cases related to Singh — from taking suo moto cognisance of the letters by anonymous victims to ensuring that the cases were properly heard



and punishment meted out. The hope is that the judiciary will again take a proactive role in preventing this travesty of justice being played out in the form of paroles being handed out liberally to Singh. My fa-

ther, Narendra Dabholkar, a rationalist who lost his life in fighting against forces promoting superstition, used to emphasise that the war against superstition, irrational practices, and crimes had to be waged not over decades but over centuries. As Singh's

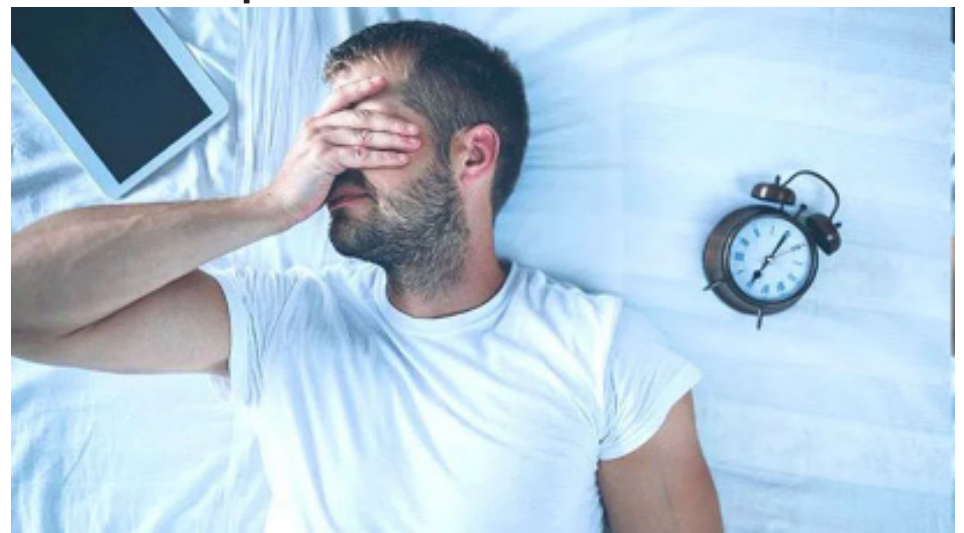
saga — the crimes committed by him and the punishment meted out to him — completes nearly a quarter of a century, we need to show solidarity and wish more power to those in the fight such as Mr. Anshul Chhatrapati.

## Struggling to sleep? study links high blood levels of PFAs to sleep issues, disease risk

New Delhi: High levels of per- and polyfluoroalkyl substances (PFAS) also known as “forever chemicals” in your blood can make it difficult for you to sleep properly, which can act as a precursor to several diseases, finds a study.

Previous studies have shown that the “forever chemicals” have contaminated water, food, and people through products such as Teflon pans, waterproof clothing, stain-resistant carpets and fabrics, and food packaging. Studies have also shown their role in cancers of the breast, ovary, skin, and uterus in women, among other diseases. The new research led by the University of South California (USC) linked higher levels of four specific types of PFAS in the blood with disruptions to a fundamental pillar of health — sleep. PFAS enter the body through contact with consumer items and are even ingested with food and water. They don't break down easily and can persist in the environment for decades. Sleep is an essential component of good health. A person must sleep 7-8 hours of sleep daily. Prolonged poor sleep may raise chronic health issues, including diabetes and Alzheimer's disease.

In the study, published in the journal *Environmental Advances*, the team collected blood samples and information about sleep from 144 participants, ages 19 to 24. Out of seven types of PFAS examined, four were significantly associated with less sleep or worse quality of sleep — PFDA, PFHxS, PFOA, and PFOS. The



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young adults with higher levels of these toxic chemicals in the blood had 80 fewer minutes of sleep at night. They also had trouble falling asleep, staying asleep, waking up, or feeling tired during waking hours. All four forever chemicals — some of which are associated with cancer and neurological disorders from ADHD to Alzheimer's disease — are considered “legacy PFAS.” In the study, the team also looked at the overlap between genes af-

ected by the four forever chemicals and genes related to sleep disorders. Out of 600-plus candidate genes, seven activated by PFAS seemed to influence sleep. This included HSD11B1 — which helps produce the hormone cortisol that plays an important role in regulating the rhythm of sleep and wakefulness. Another gene was *cathepsin B* — related to cognitive function and memory. Disruption in this gene was linked to Alzheimer's.



# OPPO India celebrates Diwali with a new brand campaign #VishwasKaDeep

This Diwali, OPPO India ignites the festive spirit with its new campaign #VishwasKaDeep. Through a captivating film and a series of engaging digital experiences, the campaign explores the unique Diwali celebrations across India, capturing the essence of unity in diversity. The message, "Har Diwali Vishwas Ka Deep Jalati Hai", celebrates the deep-rooted trust and hope that connect people and communities during this festive season. The heartwarming ad film—live on OPPO India's YouTube and Instagram, OTT platforms and cinemas—takes viewers on a vivid journey across regions. It begins in the sand-dusted lands of Rajasthan, where a young man travels to his hometown of Jodhpur amidst a fierce sandstorm. Guided by a Diwali lamp lit by his mother on the rooftop, the film captures the essence of "Thar ki Diwali", featuring the mesmerising Kathputli art form. The journey continues to Himachal Pradesh's serene hills, where the age-old tradition of Budhi Diwali—celebrated almost a month later in several communities—comes alive with midnight bonfires, Nati folk dances and music. Finally, the film heads to the coastal city of Goa, showcasing the vibrant Narak Chaturdashi celebrations, where effigies of Narkasur are paraded and burnt at dawn amidst fireworks to mark the beginning of Diwali festivities.

To deepen the experience, OPPO India has introduced an interactive microsite where users can explore unique Diwali traditions—from Delhi, Uttar Pradesh, Punjab, Gujarat, Maharashtra, West Bengal, Assam, Karnataka, Kerala, Tamil Nadu, Andhra Pradesh etc—and create their AI-driven Diwali postcards (Templates enclosed).

The campaign features OPPO India's latest lineup—the Reno12 Pro 5G, F27 Pro+ 5G, and A3 Pro 5G—proving their durability and reliability in capturing cherished moments while withstanding extreme situations. "With #VishwasKaDeep, we are bringing together the diverse cultural essence of



Diwali, and how the light of trust and hope unites families, friends, and communities. We have also created an interactive microsite that allows smartphone users to

explore Diwali from various regions and create their AI-driven festive postcards." said Karan Dua, Head of Brand Marketing, OPPO India. "The sentiment of trust and

resilience aligns with OPPO India's commitment to delivering premium user experiences through durable and reliable smartphones."

## ICICI Bank partners with PhonePe to offer instant credit on UPI

ICICI Bank today announced that it has partnered with PhonePe to offer instant credit on UPI to its pre-approved customers on the app of the digital payments company. The partnership enables millions of pre-approved customers of ICICI Bank to activate short term credit line instantly on the PhonePe app, and use it for UPI transactions in a seamless and secure manner. The Bank offers credit line on UPI for up to ₹2 lakh with a repayment period of 45 days. The facility is announced during the festive season to empower customers to purchase high ticket items like electronics, travel and hotel bookings, bill payments, and much more. Mr. Niraj Tralshawala, Product Head- Payment Solutions, ICICI

Bank said, "We at ICICI Bank are delighted to partner with PhonePe to provide seamless and easy access of credit to millions of customers. At the anvil of the festive season, the pre-approved customers of ICICI Bank can activate the credit line instantly to make payments for their festive shopping needs on PhonePe. Aimed at providing seamless digital credit, this offering is likely to play an important role in the personal banking experience of our customers."

Commenting on the partnership, Mr. Deep Agrawal, Head of Payments at PhonePe said, "We are excited to partner with ICICI Bank to extend the credit line on UPI offering to pre-approved ICICI Bank

customers on our platform. This partnership will enable customers to avail flexible short-term credit through a fully digital user experience from within the PhonePe app instantly. Credit Line on UPI is yet another innovative product offering that will unlock and revolutionize access and use of credit in the country. At PhonePe, we are focussed on maximizing the reach and availability of this product and this partnership with ICICI Bank is a key milestone in that journey." This credit line is interoperable across various UPI payment applications and provides customers the facility of transacting using any UPI payment app.

Steps to activate credit line on PhonePe:



- Login to your PhonePe app
- Click on the credit activation banner shown on the app
- Check the product features, charges and proceed for activation
- Complete all authentication steps
- Once the credit line has been approved, the customer can link it UPI, set up a UPI Pin and use it for UPI transactions.



# 100 days completed, but the work has just begun

With great responsibility comes an obligation to deliver what is best for our youth and to ensure their futures are bright, productive, and successful. In just 100 days, our government is well on its way to fulfilling its responsibility of making India a global skilling hub and setting an example of excellence at scale through our comprehensive skilling roadmap. I am fortunate to have the additional responsibility of being a Minister of State for Education, and the synergies between education and skilling for livelihoods are significant. There have been many highlights over the last 100 days, but from our nation's perspective, the work of being a skilling superpower has just begun. In many ways, the Union Budget announcement, which gave tremendous support and responsibility to our Ministry, with the Prime Minister's clarion call for how skilling and India are integrated and synonymous with India's growth story during his 15th August address, have been encouraging and humbling. I am tasked not just with ensuring our children receive the best education and life skills that our government can offer, but also ensure that they are prepared for successful careers through a comprehensive skilling platform that we are putting in place.

Education and skill development have always been the twin pillars of any nation's progress. Together, they bridge the gap between the dreams of youth and the reality of a prosperous, self-reliant India. Since assuming charge, the learning curve has been steep. However, one thing became clear early on: government reports, numbers, and policies alone cannot capture the full picture. We need to understand lived experiences and learn from them to understand the impact and opportunity within the National Education Policy 2020 and other Central Schemes. To do so, it was essential to step beyond the confines of the written word and spend extensive time with the key stakeholders and beneficiaries. I have enjoyed and learned from my engagement with students, teachers, and industry leaders alike. A glimpse of this impact was witnessed in schools like the PM Shri Kendriya Vidyalaya, Gomtinagar, Lucknow, where students were excelling not only academically but also in extracurricular activities. For example, Ashish Pandey, an extraordinary artist who aspires to be a 3D artist. His portrait of my grandfather, former Prime Minister Shri Chaudhary Charan Singhji, felt lifelike as if he were present in the room. Similarly, my visit to JNV Palghar was highly personalised, as I was accompanied by the MP, who is an alumnus of the institution. One student, Akshita, brilliantly balanced tradition and modernity in her paintings, embodying what India's education system aims to foster — an appreciation for heritage while embracing the future.

This narrative of success extends beyond classrooms to the realm of skill development, where young Indians are shaping industries. At the National Skill Training Institute in Noida, two young women who had completed training in Ar-



tificial Intelligence (AI) developed a chatbot. Their achievement demonstrated the immense potential of India's youth, and their dedication to mentoring others was a testament to the transformative power of skill development. Education goes beyond academics; it is about preparing youth to engage with the world, to think critically, and to solve problems creatively. Likewise, skill development is more than technical training — it is about empowerment and ensuring that young people have the tools they need to adapt and thrive in a rapidly changing global landscape. This is the time to identify and support high-impact sectors such as sports among others, from school to skilling to livelihoods, and having these benefit the personal development of individuals. In skill development, significant strides have been made. One of the highlights was India's participation in the WorldSkills competition in Lyon, France, where I watched proudly as 60 of our most skilled participants competed across 50 disciplines. Their remarkable performance showcased India's potential to become the skill capital of the world. The vision is to see India rise to the top of the WorldSkills leaderboard and perhaps be engaged beyond just as a participant. Another key milestone was revamping the Model Skill Loan Scheme. In alignment with the goals of the 2024-25 Budget, the loan limit for skilling was increased to ₹7.5 lakh, up from ₹1.5 lakh, with a broader lending network that now includes small finance banks and additional courses. An industry-driven approach has been central to all these efforts. New partnerships are set to enhance our outreach and, partnering with countries such as our recent collaboration with Malaysia aims to strengthen workforce development and expertise exchange. The future of India's youth lies in the meeting of education and skill development, where

schools nurture creativity and values, and skill programmes prepare young professionals to lead in emerging industries such as AI, robotics, and renewable energy. The work ahead is critical but we have reason to be optimistic. Reflecting on such stories of resilience, talent, and determination

evokes a deep sense of responsibility. These encounters have left a profound impact, renewing the commitment to serve with even greater dedication. Let us continue our work to build a nation where every dream has the chance to flourish, and every talent is given the opportunity to shine.

## Why is salt pan land being used for homes? | Explained

The story so far: The Maharashtra government has issued a GR (Government Resolution) allocating 255.9 acres of salt pan land, distributed over three land parcels in Mumbai's eastern suburbs, for the construction of rental houses in the Dharavi Redevelopment Project through a lease agreement.

What are salt pans?

Salt pan lands are ecologically important salt marshlands. They are low-lying areas around the shore that are used for salt cultivation. They act as holding ponds and work as a sponge for the absorption of rain. They are a coastal area's natural defence against flooding. They help intertidal activity, and are home to diverse flora and fauna.

What does the decision entail?

The government has allocated 255.9 acres of salt pan land distributed over three land parcels — 120.5 acres of Arthur Salt Works land at Kanjur, 76.9 acres of Jenkins Salt Works land at Kanjur and Bhandup, and 58.5 acres of Jamsap Salt Works land at Mulund — to Dharavi residents. Maharashtra has almost 13,000 acres of salt pan land, of which over 5,000 acres are in Mumbai. The DCPR-2034 (Devel-

opment Control and Promotion Regulations) document says 1,781 acres of that land can be developed. The land parcels allocated for rental housing for the Dharavi project are under the ownership of the Central government. After the Maharashtra government sought these parcels from the Centre, the Union Cabinet approved the proposal in September 2024.

What are the terms for allocation of land? Four conditions have been put forth for the allocation of the land which will be given at a concessional rate of 25% of the prevailing rate. The State government will collect the land revenue from the Dharavi Redevelopment Project Private Limited (DRPPL), the special purpose vehicle (SPV), and pay it to the Central government. The DRPPL will bear the cost of resettlement of the labourers working on the land, and other incidental costs for the acquisition of the land. But the court cases and other legal matters will be handled through the Dharavi Redevelopment Project (DRP), a government body. The land will be used for rental housing, slum rehabilitation, and affordable housing for economically weaker sections. The DRPPL is an SPV in which an Adani Group entity holds 80% stake and the State government has a 20% stake.



# What special status is Ladakh seeking?

The story so far: Climate activist Sonam Wangchuk was detained on the Delhi border on Monday night as he led a group of protesters to petition the Central government for the inclusion of Ladakh in the Sixth Schedule of the Constitution among other demands for autonomy to the region. Similar demands have been raised in Arunachal Pradesh and Manipur. These discussions relate to special provisions for various ethnic groups in the Constitution.

What is asymmetrical federalism?

The Indian Constitution follows 'asymmetrical' federalism. Asymmetrical federalism is where some States and areas have more autonomy than others. A classical federation like the U.S. or Australia is a symmetrical federation as all States enjoy the same set of powers and autonomy. In India, there are a few States/ areas that enjoy more autonomy or have special provisions under the Constitution than others.

What is the history of the Fifth and Sixth Schedules?

Tribal populations were never fully subjugated by earlier Mughal and Sultanate rulers before the British. They did not intervene in tribal customary laws or their lifestyles. Till the entry of the British, the tribals were the masters of their forests and ancestral lands. However, the initial British laws and their forest policies affected the tribal way of life. Their traditional rights over forest lands were not recognised and their movement inside forests became restricted. This discontentment resulted in various tribal rebellions like the Kol rebellion (1831-32), Santhal revolt (1855-56), Munda Rebellion (1899-1900) and Bastar rebellion (1910). These rebellions culminated in the British policy of 'isolation' towards the tribals, and the creation of 'excluded' and 'partially excluded' areas under the Government of India Act, 1935. The 'excluded' areas mainly consisted of hilly regions in the northeast. In these areas, the power of legislation was in the hands of the Governor. 'Partially excluded' areas consisted of tribal tracts in present day Bihar, Bengal, Orissa, Madhya Pradesh, Uttar Pradesh and Maharashtra. In these areas, central and provincial legislature laws were applicable but with modifications or exceptions as decided by the Governors. The Fifth and Sixth Schedules have been modelled on the basis of these provisions which allowed 'partially excluded' and 'excluded' areas under the Government of India Act, 1935. The Fifth Schedule is applicable to what are officially called 'scheduled areas' that are declared by the President. The guiding norms for declaring an area as a 'scheduled area' include preponderance of tribal populations, compactness of area, a viable administrative unit like a district or block, and economic backwardness. At present 10 States have such 'scheduled areas.' There are Tribes Advisory Councils (TAC) that are set up in these States, consisting of not more than 20 members, of which three-fourths shall be tribal MLAs from the State. The TAC provides advice pertaining to welfare and advancement of the Scheduled Tribes (ST) in these States. The Governor, subject to the approval of the Central government, shall make regulations for the allotment and transfer of lands among the members of the STs. The Governor shall also regulate the businesses of



money-lenders in 'scheduled areas.' The Governor may direct that a particular act of Parliament or State legislature shall not apply or apply with modifications to such 'scheduled areas.' The Sixth Schedule is applicable to what are officially called as 'tribal areas' in the States of Assam, Meghalaya, Mizoram and Tripura. There are 10 such 'tribal areas' at present in these four States. Autonomous District Councils (ADC) are formed in these 'tribal areas.' These ADCs shall consist of 30 members, where not more than four are nominated by the Governor of the State and the rest are elected by the people. The ADC shall have powers to make laws with respect to the use and management of land, regulate shifting cultivation, inheritance of property, marriage and divorce, social customs etc. These laws take effect after being approved by the Governor. For all such matters, the laws by the State legislature will not be applicable in these 'tribal areas' unless extended by the ADC. The ADCs are empowered to establish and manage primary schools, dispensaries, roads and waterways in the districts. They can assess and collect land revenue and impose taxes on profession, trade etc. They can grant licences or leases for the extraction of minerals. The ADCs are empowered to constitute village and district council courts for the trial of suits and cases where the parties to the dispute belong to STs within the district. Thus, the 'tribal areas' included within the Sixth Schedule enjoy greater autonomy through the ADC with more executive, legislative, judicial and financial powers than the 'scheduled areas' of the Fifth Schedule. However, both these areas are aimed at protecting the indigenous culture and interests of STs while integrating them with the mainstream through various developmental policies.

What are special provisions for north-eastern States?

Apart from the Fifth and Sixth Schedules, there are special provisions applicable to many of the northeastern States

under Part XXI of the Constitution. These are contained in Articles 371A (Nagaland), 371B (Assam), 371C (Manipur), 371F (Sikkim), 371G (Mizoram) and 371H (Arunachal Pradesh). They provide for the protection of local customary laws and practices with respect to Nagaland and Mizoram; mandates committees of MLAs from 'Tribal Areas' and 'Hill areas' in Assam and Manipur respectively; and lists out special responsibilities of the Governors of Sikkim and Arunachal Pradesh for the development and maintenance of law and order. Are further reforms needed?

Despite these provisions enshrined in the Constitution, there are still further reforms that are required. First, the autonomy of the Fifth and Sixth Schedule areas are more on paper than in actual practice. The regulations made by the Governor in 'scheduled areas' are subject to approval by the Central government. Similarly, the laws made by ADCs in 'tribal areas' are subject to the approval of the Governor of the State. When different parties are in power at the Centre, State as well as ADC, political differences affect the autonomy of these areas. Clear guidelines need to be laid down and followed to uphold the spirit behind the provisions of the Fifth and Sixth schedule. Second, there are numerous ST habitations across the country — both within

the 10 States under the Fifth Schedule and other States — that are not notified as 'scheduled areas', thereby denying these areas constitutional rights and protection. These need to be notified as 'scheduled areas' after due diligence. Third, the 125th Constitutional amendment bill (2019) introduced and pending in Rajya Sabha aims to grant more financial, executive and administrative powers to the existing 10 ADCs. The Union government has agreed to form a committee headed by the Minister of State for Home Affairs to resolve the issues that have been holding up the passage of this bill. This process needs to be expedited to the satisfaction of all stakeholders. Fourth, the Arunachal Pradesh Assembly and the Manipur Hill Area Committee for the 'Hill areas' in the State have passed resolutions in recent years for their inclusion in the Sixth Schedule. There is a growing demand for the inclusion of the Union territory of Ladakh as well in the Sixth Schedule. These demands have to be examined promptly and necessary decisions taken at the earliest to protect the interests of the tribals in these areas. Finally, the recognition and vesting of forest rights to tribals under the Forest Rights Act, 2006 should be ensured throughout the country including in the Fifth and Sixth schedule areas.

## GHMC to establish Integrated Command and Control Center for waste management in Hyd

Hyderabad: The Greater Hyderabad Municipal Corporation (GHMC) is making significant strides in enhancing the city's cleanliness by addressing critical waste management challenges. As part of its efforts to develop a cutting-edge Integrated Command and Control Center (ICCC) for Solid Waste Management (SWM), the Greater Hyderabad Municipal Corporation (GHMC) on Tuesday held a meeting with operators to explore innovative solutions

for establishing and operationalising the ICCC. The ICCC for waste management will be equipped with state-of-the-art technology to improve operational efficiency and service deliveries like street sweeping, garbage collection, address citizen grievances and provide comprehensive monitoring of all related services. During the meeting, 11 companies/operators presented their strategies and technologies aimed at improving waste management efficiency and sustainability.



# A three-tier war with no endgame

In an essay in Foreign Affairs magazine in October 2023, U.S. National Security Adviser Jake Sullivan wrote, "...Although the Middle East remains beset with perennial challenges, the region is quieter than it has been for decades... The Israeli-Palestinian situation is tense, particularly in the West Bank, but in the face of serious frictions, we have de-escalated crises in Gaza." A few days after the piece was sent to press, on October 7, Hamas launched its deadliest attack in Israel, killing at least 1,200 people and taking some 250 people hostage, triggering the latest spell of war in the Israel-Palestine conflict. A year later, West Asia (or the Middle East, as Mr. Sullivan calls it) is deadlier today than it has been in decades. Mr. Sullivan's October 2023 prognosis was not entirely unfounded if the region is seen from an American perspective. The Abraham Accords, signed in 2020 by Israel, the UAE, Bahrain, and Morocco, announced a new age of Arab-Israel partnership. Saudi Arabia was in an advanced stage of normalising ties with Israel, as Crown Prince Mohammed bin Salman himself put it. At the G20 Summit in Delhi in September 2023, U.S. President Joe Biden announced an ambitious economic corridor that sought to connect India's western coast to Europe through the Persian Gulf, Jordan, and Israel. But what Mr. Sullivan, the Arabs, and the Israelis overlooked was the Palestine question.

Israel believed that it had established a new status quo — occupation without consequences. The Arabs believed that the Palestine issue had lost its geopolitical currency and that they could go ahead with formalising their decades-long back-room relationship with Israel. The U.S. wanted to bring the Sunni Arabs and the Israelis, two pillars of its West Asia strategy, closer in its bid to reshape West Asia and isolate Iran. But by carrying out a murderous attack in Israel, Hamas not only torpedoed this status quo, but also triggered a chain of events that led to a wider regional conflict, reinforcing the old argument that there will not be peace and stability in West Asia unless the Palestine question is addressed. But Israel has a different narrative. It has always sought to delink Palestinian militarism from its occupation of the Palestinian territories. Before October 7, Israel had been treating Palestinian violence as a security nuisance. But after the Hamas attack, the first large-scale one in Israel proper since 1948, the narrative shifted. Now, Israel is fighting an "existential war" against terror. Israel marched to Gaza with fire and fury. Over the past 12 months, the Israel Defence Forces (IDF) have killed more than 41,000 Palestinians (more than 110 every day) and injured nearly 1,00,000 Palestinians. Nearly the whole population of Gaza (2.3 million) has been displaced.

As the onslaught on Gaza began, Hezbollah, the Iran-backed Lebanese militia group, opened a "support front" in Israel's north. Israel expanded the war, defying pressure from the U.S., by doubling down on its assault on Hezbollah and taking the war to Iran by attacking its embassy complex in Damascus. In retaliation, Iran launched direct attacks against Israel. Now, Israel is fighting a three-tier regional war in West Asia. Israel has different objectives at each tier, which collectively make for its



strategy to alter the balance of power in West Asia to further its advantage. At the bottom tier, Israel went to Gaza with two declared objectives — to destroy Hamas and secure the release of hostages. In the middle, it wants to push Hezbollah from the border region of Lebanon and stop the Shia militia from launching rockets into Israel so that the displaced residents of the Upper Galilee region can return to their homes. At the top, it wants to weaken Iran, its main regional rival. Israel sees the conflict, as the former Prime Minister Naftali Bennett put it, as a war against a rival octopus. Iran is the head of the octopus and the militias (Hamas, Hezbollah, Houthis, Hashad al-Shabi, etc.) are the tentacles. In the three-tier war, Israel wants to destroy or degrade the tentacles and weaken the octopus and thereby reshape West Asia. Is this an achievable goal?

After 12 months of fighting in Gaza, which has been under an Israeli blockade since 2007 and has been besieged by Israel since October 7, 2023, Israel is yet to meet its objectives in the 365 sq. km enclave, sandwiched between the Mediterranean Sea and Israel proper. Prime Minister Benjamin Netanyahu wants to obliterate Hamas, but now even the IDF says this is not an achievable objective. More than 100 hostages, many of them believed to be dead, are still in Hamas's captivity. Hezbollah says it will not stop firing rockets into Israel unless Israel ceases fire in Gaza. Israel cannot do this unless it meets its goals in Gaza. Mr. Netanyahu chose to expand the war to Lebanon not because he is achieving his objectives, but because he is far from doing so. Granted that Israel's back-to-back attacks on Hezbollah, including its killing of Hassan Nasrallah, perhaps the second most influential figure in Iran's axis after Ayatollah Khamenei, was a huge setback for both Hezbollah and Iran. When Hezbollah was in shock after the killing of its leader, Israel launched a ground invasion of Lebanon. Here, Israel faces two questions. First, will the decapitation of

Hezbollah's leadership help Israel finish the war in Gaza? Second, will the decapitation of Hezbollah's leadership help Israel defeat Hezbollah in Lebanon? The answer to the first question is an outright no. The second question will be answered in the coming weeks, months, or years. History suggests decapitation hardly works in destroying or deterring militias. Nasrallah took over Hezbollah after Israel killed the group's co-founder, Abbas al-Musawi. That did not stop Hezbollah from becoming what it is today: the most powerful non-state militia in the region. Israel killed two of Hamas's founding leaders in 2004. But that did not stop Hamas from driving the Israelis out of the enclave in 2005, capturing the territory in 2007, and carrying out the cross-border attack on October 7 last year. If Israel has not destroyed Hamas in the besieged Gaza in 12 months, how is it going to stop Hezbollah from firing rockets from Lebanon? After Nasrallah was killed, Hezbollah has launched hundreds of rockets into Israel.

This takes us to the third problem: Iran. The IDF has great firepower. Israel has proved in the past that it can carry out pin-

pointed attacks inside Iran, which shows the deep penetration of its intelligence in the Islamic Republic. Israel is set to carry out a decisive attack in Iran, in retaliation for the October 1 ballistic missile attacks by the Iranians. But will that deter Iran from launching another attack or supporting the axis? If it doesn't, what Israel, Iran, and the region as a whole will get is a shooting match between the two most powerful actors of West Asia. If Iran's already porous deterrence is weakened further in the shooting match, there is a high possibility that Iran will change its nuclear doctrine. Israel does not have a clear endgame vis-à-vis Iran, unless there is a regime change in Tehran. This is a conflict loop where no side is deterring its rival. With no way to break out of the loop, Israel chose to climb up the escalation ladder. To dial down the heat in the region, there has to first be a ceasefire in Gaza. For long-term stability, the Palestine question needs to be addressed. Israel is ready for neither at this point. Instead, it is seeking to reshape West Asia in its favour. The last time a country tried to do so was the U.S. And the world's most powerful nation failed.

## Hanamkonda industrialist duped of Rs.28.5 lakh by cyber criminals posing as CBI officers

Warangal: Cyber cheats duped a prominent industrialist from Hanamkonda of Rs. 28.50 lakh by masquerading as members of a CBI team probing money laundering. The incident came to light after the industrialist lodged a complaint with the local cybercrime officials. According to reports, the industrialist received a call from a woman on October 2, who introduced herself as an official from the Telecom Regulatory Authority of India (TRAI) and told him that his Aadhar card was not linked to his mobile phone number. She said that her superiors would talk to him and hung

up the phone. After a while, another woman called and introduced herself as a CBI Mumbai branch officer and made a WhatsApp video call and showed the setting similar to the CBI office to prove that she was not a fraud and that she was calling from the probe agency. She said that the industrialist was involved in money laundering and the CBI had registered a case against him. A person named Naresh Goyal had told the CBI that he paid a commission of Rs. 18.16 lakh to him for laundering Rs. 6.8 crore, she said, adding that the CBI officers would reach his office at Hanamkonda anytime and arrest him.



# Scientists are working on a way to detect cancer with ultrasound waves

Scientists have developed a new technique to detect cancers. The method uses ultrasound to turn a small part of our body's tissue into droplets that are released into the blood. These bubbles contain molecules like RNA, DNA, and proteins that allow the scientists to identify particular types of cancer. Roger Zemp, associate professor of electrical and computer engineering at the University of Alberta, Canada, led a recent study describing such a technique. He presented his team's findings at the joint meeting of the Acoustical Society of America and the Canadian Acoustical Association at Shaw Centre in Canada on May 13. A summary of the findings was also published in the *Journal of the Acoustical Society of America* earlier this year. Break-off, blood, biomarker

Doctors have been using ultrasound to take pictures of internal organs. The technology converts the sound waves reflected by surfaces inside the body to an image, just the way bats use ultrasound to sense their surroundings. This said, the gold standard to detect many cancers is a biopsy. Doctors extract a small piece of tissue or cells using a large needle from the part of the body where cancer is suspected to be present. In vitro tests can confirm if the tissue/cells are cancerous and, if so, what kind of cancer it is. Now, Zemp and his colleagues at the university are figuring out a way to use ultrasound to perhaps someday replace biopsies, which are cumbersome, painful, and potentially injurious. They have found that high-energy ultrasound (at frequencies greater than those used in ultrasound scans) can break off a small piece of cancerous tissue into droplets and release their contents into the bloodstream. The team could then test the blood for biomarkers — certain biomolecules like DNA, RNA or proteins — specific to cancer. "Ultrasound can enhance the levels of these genetic and vesicle biomarkers in blood samples by over a 100-times," Zemp said in a press release. This method could allow clinicians to use blood samples to detect specific cancer types and even the mutations they contain, which is currently undetectable in blood. He estimated the technique could help clinicians avoid nearly half of all biopsies. 'New kind of readout'

In the most advanced use of the technique, Zemp and his colleagues detected the presence of a single cancer cell circulating in the blood. When cancer progresses and spreads, cancer cells move to parts of the body other than their original site via the blood. But scientists and clinicians have struggled to spot these cells in the blood because they're very small in number. A few tests are still sensitive enough to detect them but they're expensive. For example the 'CellSearch' test costs \$10,000 (Rs 8.4 lakh). But Zemp & co. were able to detect a cancer cell in the blood samples of a prostate cancer patient using their technique. The team passed ultrasound waves through blood samples isolated from the cancer patients. The waves shredded the circulating cancer cells and released the biomarkers they contained into the blood. The team looked for



and confirmed the presence of these biomarkers. Zemp estimated this version of the test would cost a hundred-times less, around \$100 (Rs 8,400). The researchers are now trying to expand their findings to other types of cancer, particularly breast cancer and melanoma. "We hope our ultrasound technologies will benefit patients by providing clinicians a new kind of molecular readout of cells and tissues with minimal discomfort," Zemp said in the same release. Needed: large cohorts Himanshu Shekhar, assistant professor of electrical engineering, and Karla Mercado-Shekhar, assistant professor of biological sciences and engineering, both at IIT Gandhinagar, said the effort was promising and considerably more advanced than previous work in this field. "The ability to perform ultrasound-aided detection using drawn blood samples is most exciting because of the simplicity of this approach. The main advantage of this approach is its non-invasiveness, which will prevent patient discomfort," Shekhar said. Mercado-Shekhar said the approach could be extended to monitoring cancer progression and treatment response. However, she cautioned more studies in a large cohort of patients would be required before doctors start using this tool in the clinic. Clinical trials with large cohorts of patients with different types of cancer and healthy people across different ethnic groups and geographies are important to ensure the technique can produce accurate results for different cancer types and prove that it's sensitive to their varying biomarker thresholds. About five years Brian Tysinger, a research assistant professor of public policy, and Jakub Hlavka, associate professor of population and public health sciences, both at the University of Southern California, underscored this point in an article published by the US National Academies Press in May 2022: "Lack of representative studies on screening for cancer or cardiometabolic

disease may lead to recommendations that fail to consider earlier ages or lower biomarker thresholds to start screening that might be warranted in some populations." There has been a push of late for more accessible and affordable cancer screening methods. The U.S. National Cancer Institute recently launched its 'Cancer Screening Research Network'. In 2025, the network will start a pilot study to evaluate a battery of screening tests to spot cancer early and accurately with a cohort of

24,000 people. The study is expected to be completed in four years. The network may later support similar trials for screening methods developed by individual research groups, potentially including the ultrasound-based one. "If results of clinical trials are favourable, the researchers will likely pursue regulatory approval in collaboration with industry partners, and subsequently, this technique could be available commercially in about five years," Mercado-Shekhar said.

## NASA's Europa Clipper Mission delayed by hurricane Milton, posing threats to Florida

New Delhi: NASA's Europa Clipper mission that aims to search for life on Jupiter's icy moon Europa has been stalled due to hurricane Milton, expected to pose "life-threatening hazards" for parts of Florida in the US, the space agency informed on Monday. Europa Clipper was set to launch its first mission to conduct a detailed science investigation of Jupiter's icy moon Europa aboard SpaceX's Falcon Heavy rocket from NASA Kennedy's Launch Complex 39A in Florida on October 10. Even as hurricane Milton barrels towards the already-ravaged Gulf Coast, a state of emergency has been declared in parts of Florida, delaying the mission.

"NASA and SpaceX are standing down from the October 10 launch attempt of the agency's Europa Clipper mission due to anticipated hurricane conditions in the area," NASA said in a post on social media platform X. "Once the storm passes, recovery teams will assess the safety of the spaceport and the launch processing fa-

cilities for damage before personnel return to work," it added. While NASA has not confirmed a new launch date, the launch window is open till November 6, the US space agency said. "The safety of launch team personnel is our highest priority, and all precautions will be taken to protect the Europa Clipper spacecraft," said Tim Dunn, senior launch director at NASA's Launch Services Programme, in a blog post.

On October 4, the Europa Clipper spacecraft was transported from the Payload Hazardous Servicing Facility at NASA's Kennedy Space Center to the SpaceX Falcon Heavy rocket in the hangar as part of final launch preparations ahead of launch. Europa Clipper is slated to travel 2.6 billion kilometers to reach the Jupiter system, where it will arrive in 2030. Meanwhile, hurricane Milton is expected to move from the Gulf of Mexico this week moving east to the Space Coast. High winds and heavy rain are expected in the Cape Canaveral and Merritt Island regions on Florida's east coast.



# Fostering the urban jungle of Bengaluru

Renee M. Borges often hears the distinct high-pitched calls of slender lorises from the canopy above her while driving home from the Indian Institute of Science. "There is the Central Power Research Institute on one side of the road and the IISc campus on the other," says the evolutionary ecologist from IISc's Centre for Ecological Sciences. "I can hear a loris above the road, crossing (from one campus to the other) through the trees." If the trees were not connected, it would be devastating to these animals, she says, at a recent lecture titled "Fostering the Urban Jungle" held at Science Gallery Bengaluru. In that scenario, these beautiful, insectivorous animals, among the oldest living primates in the world, would be unable to survive in the city. "I want to emphasise that the slender loris will only survive if there are connections between trees," she says about these shy, arboreal creatures, listed as 'Endangered' in the IUCN Red List.

There are good reasons for Borges' concern for these animals. Slender lorises, as well as many other urban-dwelling animals, cannot survive if their populations — already small and limited to a few patches of trees in the city — become isolated because they will not be able to move from one place to another either to hunt prey or escape predators. She expands on the concept of landscape resistance, a measure of "how much a landscape resists movement of organisms from one patch to another" and its effect on small animals in cities. "They will find it very difficult, and their populations will be restricted based on the impervious, cemented landscapes that prevent them from moving from one area to another," she warns. There is yet another consequence of fragmented landscapes for animals like lorises: loss of genetic diversity, which is crucial for their survival. "If you are not able to mix easily, then your genetics becomes very localised or very specific to a locality because you are not able to share genes with individuals that are farther away," says Borges. "These are very well-understood consequences of fragmentation that happens because of urbanisation."

At the talk, Borges makes a broader point about urbanisation and its consequences on plant and animal life. She shares a map that offers a global perspective into the evolution of urban life and points to a scattering of organisms on the map that live in close proximity to humans, including pigeons, bedbugs, lice, fleas and rats. "There has been a sort of two-way interaction," she says. "Humans have also influenced these organisms, and these organisms, in turn, have influenced humans." While the co-evolution of humans and these animals has occurred over several millennia, the dramatic increase in urbanisation in the past few decades is affecting the evolution of plants and animals significantly. Take, for instance, herring gulls: large, rather noisy shorebirds found in the northern hemisphere.

"If you track the mutations in a rural population of herring gulls compared to an urban population or in a steel town, you can see that the rates of mutation increase because of pollution in urban populations," she says, drawing from a recent study about genetic mutations, the raw material for evolutionary change, in these birds. She points

out that this indicates "a clear kind of relationship that tells us how urbanisation is affecting the evolution of these animals. Because mutations are an index of evolution." Similar findings have been reported in mice, lizards and plants. Borges also talks about the interconnection between the urban landscape and ecological processes, offering examples from all over the world, including bumblebees in Berlin, water fleas in Belgium and red-rust bryozoans in Sydney to drive home this point. Aspects like body size, mobility, salt and heat tolerance, biomass and metabolism seem to be affected by urban phenomena, including climate change, urban heat islands, landscape fragmentation, pollution and contaminants. "Different species are affected differently by urbanisation," she reiterates.

Borges displays two images of the Taj Mahal: a recent photograph and an older one when it was still surrounded by the verdant Timurid-style greenery supposed to represent the gardens of Paradise, the original vision for the Taj before Lord Curzon ordered its restoration in the early 1900s. "You wonder what must have been the biodiversity around this beautiful structure and, therefore, what we have lost," she says. Closer home in Bengaluru, rampant urbanisation has drastically changed the landscape in the last few decades. "You get very, very, very small pockets of remotely viable areas where some amount of biodiversity could survive," she says. These include the relatively greener cantonment areas, military areas, and old university campuses, which are very important areas that have been preserving biological diversity, she says. She also talks about the lakes in the city and the various valleys like Arkavathi and Vrishabhavathi, the areas around which were once teeming with amphibians. "Those of us who are older residents of Bangalore will remember the calls of the frogs around the lakes," she says. "But we don't hear them anymore."

So what has happened to Bangalore in the last few decades, she asks, sharing a chart that traces the city's built-up area versus its green (parks, woodlands and gardens) and blue infrastructure (rivers, lakes and canals) between 1973 and 2023. "What this picture shows is quite obvious. The lakes have shrunk, the buildings and privatisation have taken over," she remarks ruefully before commenting on how even the way we build has changed. Take, for instance, the glass buildings that already dot the city and continue mushrooming across it. "It's very disconcerting for any ecologist or anybody with common sense," she says, pointing out that it makes no sense to import a technology suitable for a Scandinavian country where people want to get in as much sun as possible into a tropical one. "I believe that our architects and engineers have failed us because they have imported and imposed a culture on us that is not ecologically viable," she says. "Most inappropriate design and technology have been imposed on us." The result of this? The proliferation of urban heat islands or urban centres that experience higher temperatures than the surrounding less built-up areas. Using a satellite image that maps how land surface temperature is impacted by vegetation, she states, "You can clearly see that the satellites are tell-

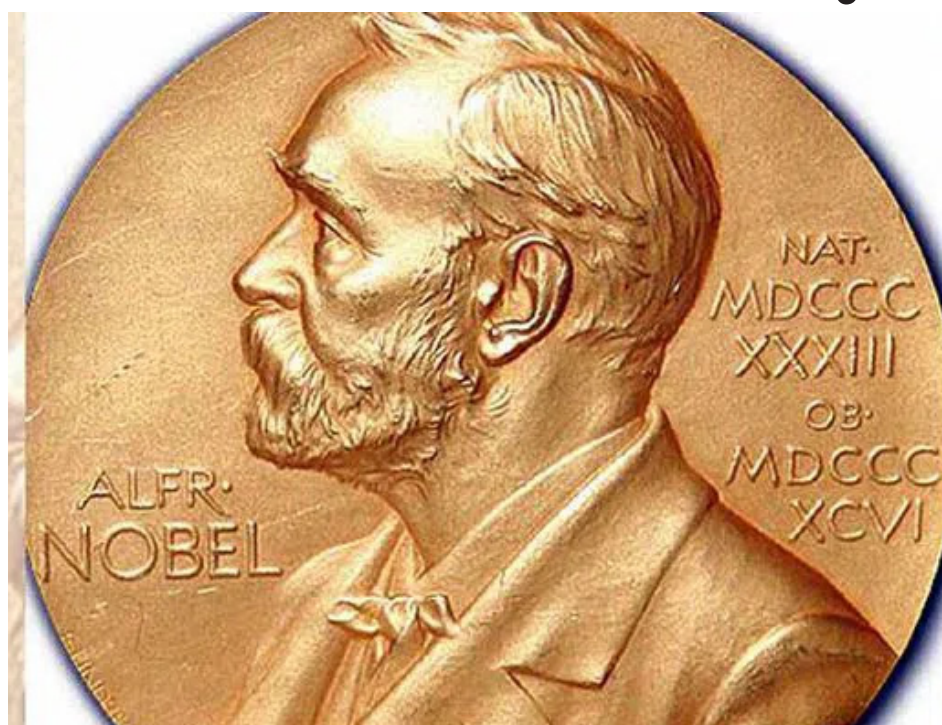


ing us that the coolest areas are around where green and blue infrastructure exists." Yet another neglected consequence of urbanisation is light pollution, which Borges believes is hurting biodiversity of all kinds. Firefly populations, for example, are declining because there is too much light, while migratory birds who fly at night are often confused by artificial light because they mistake it for celestial cues that they use to find their way. Moreover, light has always been a very important part of our evolution, affecting our circadian rhythms from time immemorial. "Sleep is important because of all the growth and repair and memory consolidation that happens when we sleep," she says. Today, however, thanks to multiple artificial light sources, sleep patterns of "all animals, whether it be cows or rodents or crows or fish," are gravely affected, she

says.

Biodiversity and the city urbanisation has also impacted Bengaluru's biodiversity, be it on the bees, including the quality and quantity of honey they make, or on sandalwood trees. She also highlights how rapid urbanisation has led to an increase in the number of feral dogs and invasive plants like lantana, which in turn have deleterious consequences on the local flora and fauna. "As an ecologist, I am concerned about what these dogs do to our migratory land-dwelling birds like the pitta," she says. Borges shares a series of striking photographs of some of the city's other residents: ant-mimicking spiders, the Indian laburnum, the Bengaluru burrowing frog, the Brahminy blind snake and a few garden snails. "These are the citizens of Bangalore. So we need to celebrate them, protect them and provide for them."

## Nobel Prize award season begins



Stockholm: The Nobel prizes award season began on Monday with the announcement by a panel at the Karolinska Institute in Stockholm of the winner of this year's medicine award. Last year, the Nobel Prize in Physiology or Medicine went

to Hungarian-American Katalin Karikó and American Drew Weissman for discoveries that enabled the creation of mRNA vaccines against Covid-19 that were critical in slowing the pandemic. The medicine prize has been awarded 114 times to a total of 227 laureates — the title given to winners.