

40-MINUTE SLOT FOR TALKS ON SCO SUMMIT SIDELINES

# Modi and Xi meet today as India, China move to restore ties, one step at a time

Hopeful of fruitful meeting, says Chinese diplomat; Delhi views China military remarks as a positive signal

EXPRESS AT SCO

SHUBHAJIT ROY  
TIANJIN, AUGUST 30

AS THEIR countries move to repair ties after a five-year military standoff along the Line of Actual Control in eastern Ladakh, Prime Minister Narendra Modi will meet Chinese President Xi Jinping around noon local time Sunday, before the summit of the Shanghai Cooperation Organisation in Tianjin, 120 km away from Beijing.

The meeting of the two leaders within 10 months — Modi and Xi last met in the Russian city of Kazan in October 2024 on the sidelines of the BRICS summit — is a signal that the two sides are going to give a special thrust to bilateral ties, and Delhi will be keen to push for a “step-by-step” stabilisation of the relationship.

A time slot of about 40 minutes has been scheduled for the talks. A senior Chinese diplomat told *The Indian Express* that he was “hopeful of a fruitful meeting”.

The two leaders are expected to give their stamp of approval on a calendar of activities to be organised to mark the 75th anniversary of bilateral relations — last-minute diplomatic talks

CONTINUED ON PAGE 2

---

BEHIND INVESTMENT BY JAPAN, MESSAGE TO TRUMP [PAGE 6](#)



Prime Minister Narendra Modi arrives in Tianjin, China, for the SCO summit on Saturday. PMO/India

AHEAD OF MODI'S TALKS WITH PUTIN

## Zelenskyy speaks to PM, says India ready to deliver signal to Russia

DIVYAA  
NEW DELHI, AUGUST 30

AS PRIME Minister Narendra Modi reached Tianjin for the Shanghai Cooperation Organisation summit where he will be meeting, among other leaders, Russian President Vladimir Putin, Ukraine's President Volodymyr Zelenskyy spoke to Modi and said “the end of this (Ukraine) war must begin with an immediate ceasefire” and “India is ready to make the necessary efforts and to deliver the appropriate signal to Russia and other leaders” at the summit.

Modi, in a post on X, thanked



Informed (Modi) about talks with President Trump in Washington: Zelenskyy

Zelenskyy for the phone call. “We exchanged views on the ongoing conflict, its humanitarian aspect, and efforts to restore

CONTINUED ON PAGE 2

## Legal challenges cloud Trump’s powers as India faces 50% tariff

RAVI DUTTA MISHRA  
NEW DELHI, AUGUST 30

DAYS AFTER the steep 50 per cent US tariffs on India came into effect, a US appeals court on Friday ruled that a majority of US President Donald Trump's tariffs derived from powers under the International Emergency Economic Powers Act (IEEPA) is illegal. The tariffs will, however, continue to remain in place until October 14, the court said, giving the Trump administration a window to appeal in the US Supreme Court.

Reacting to the court order, Trump posted on social media platform Truth Social all tariffs

CONTINUED ON PAGE 2

EXPLAINED

E

Imperative to talk, negotiate

FOR INDIA, the ruling offers a sliver of hope, but it is crucial to remain engaged with the Trump administration to wrap up a trade deal. Given that it's not just a trade deal, but a larger strategic relationship that needs to be protected, New Delhi will likely pick the gauntlet and aim to get Washington back on table.

NYT: TRUMP MAY NOT VISIT INDIA [PAGE 6](#)

### INDIAN EXPRESS UPSC IAS EDITION HD 31~08~2025

-:FOR UPSC IAS ASPIRANTS:-

"AVOID POLITICAL & IRRELEVANT ARTICLES"

Please Try To Read This Completely in 40 Minutes If You

Can't So Then You Have To Increase Your Efforts

All the topics of this UPSC IAS Edition are directly or indirectly important for the prelims & main examination. There are some topics which can be coded in answer writing of other topics in the main exam.

# Study shows how fireflies mark a forest’s health, why darkness matters

PAGE 1  
ANCHOR

ARUN JANARDHANAN  
CHENNAI, AUGUST 30

ON HUMID summer nights in Tamil Nadu’s Anamalai Tiger Reserve (ATR), the forest canopy begins to pulse. First one flicker, then hundreds, then thousands — until entire trees appear to breathe with light. To stand in that darkness is to watch the forest write its own rhythm: a synchronous dance of fireflies, signalling across the night sky in bursts of yellow and green.

For decades, villagers and vis-

itors have been surprised at these congregations. But only recently have scientists begun to systematically catalogue the species that compose this living constellation, and to understand what their presence means for a forest under pressure from human activity. A study by the Tamil Nadu Forest Department, with a year-long survey documented in a state-sanctioned report, reveals both the diversity of fireflies in the reserve and the fragility of the conditions that allow them to thrive.

The Advanced Institute for Wildlife Conservation (AIWC), based in Vandalur, carried out a meticulous survey between April 2024 and March 2025.

Researchers K Ragavendran and his team scoured 10 locations — from the forest hamlets of Kozhikamuthi and Varagalayar to the agro-ecosystems of Saralapathi — collecting larvae and adult flies under the guidance of scientists M Gabriel Paulraj, S Siva Ranjani, and S Selvakumar.

In the end, eight distinct species were identified: *Abscondita perplexa*, *Abscondita terminalis*, *Asymmetricata humeralis*, three species of *Curtos*, *Lamprigera* sp., and *Pyrocoelia* sp. DNA barcoding confirmed the taxonomy, and accession numbers were deposited in global databases. Each site yielded its own ecological



The survey was originally inspired by photographic work by Coimbatore-based Sriram Murali

fingerprint. Saralapathi, with its calm nights and cultivated fields, produced the highest count, dominated by *A. terminalis*. Manthirimattam and Varagalayar were strongholds of *A. perplexa*, their males and females carefully tallied along transect lines.

The study also measured environmental variables — temperature, humidity, light intensity, wind speed — capturing the atmospheric stage on which these beetles play out their nocturnal drama.

When asked about the study methods used in a dangerous forest region, especially in the dark, A Udhayan, Principal Chief Conservator of Forests and

Director of AIWC, told *The Indian Express* that their team spent evenings and nights across different parts of the reserve, looking not only at the flashing displays but also at the forest floor, where larvae develop before emerging as adults.

“Fireflies are not active throughout the year — during and after the rains they perform, while the rest of the time they remain in the soil, growing until they become full-fledged insects. We carried out extensive DNA studies and larval collections to understand these life stages,” he said.

The Anamalai Tiger Reserve is best known for its elephants,

CONTINUED ON PAGE 2



●Zelenskyy

peace and stability. India extends full support to all efforts in this direction,” he said.

In a statement, the Prime Minister’s Office said, “Prime Minister (Modi) thanked President Zelenskyy and reaffirmed India’s steadfast and consistent position for peaceful settlement of the conflict and support for efforts aimed at earliest restoration of peace.”

President Zelenskyy shared his perspective on the recent developments related to Ukraine, said the statement, in the wake of Putin and US President Donald Trump’s August 15 meeting in Alaska, and the subsequent meeting of Trump with Zelenskyy and other European leaders in Washington.

On August 18, three days after he met Trump in Alaska, Putin had also called up Modi and “shared his insights” on the meeting. This came hours before Trump’s meeting with Zelenskyy and European leaders. The PMO said Putin shared with Modi his assessment of his meeting with Trump.

Earlier, on August 9, in the run-up to the Alaska talks amid the strain in Delhi’s ties with Washington after Trump doubled the tariff on India over its purchase of Russian oil, Modi and Putin had a phone conversation during which they discussed “the latest developments on Ukraine” and reaffirmed their “commitment to further deepen the India-Russia Special and Privileged Strategic Partnership”. Russia had criticised Trump’s tariff action and backed India’s right to choose its trading partners.

Earlier this week, Peter Navarro, Trump’s trade advisor, described the Russia-Ukraine war as “Modi’s war”, and said “the road to peace runs, at least partly, right through New Delhi”, adding, “everybody in America loses because of what India is doing.”

●Study on fireflies

tigers, and lion-tailed macaques. But the fireflies offer another register of ecological wealth — smaller, quieter, but no less urgent. For researchers, there was an element of risk too. Udhayan said the fieldwork that lasted for about one year, mostly in the dark, always carried an element of risk. “But with the support of experienced forest watchers who know the terrain well, we managed safely and without incident,” he said.

The study was originally inspired by earlier photographic work by Coimbatore-based Sriram Murali, whose study, in fact, triggered further research by the state government.

Fireflies do not glow for aesthetic pleasure. Their light is a coded language of courtship. If the world literature about fireflies are mostly about metaphors, their light is both pragmatic — a sexual signal, and transcendent — a reminder of impermanence. Philosophers have long used fireflies as symbols — of fleeting beauty, of memory, of the limits of human dominion over nature — or credited them for teaching us to think with time.

Scientist Paulraj, who guided the study, said both male and female fireflies possess light organs, “but in males, the organ is stronger as it extends across two segments.”

When a male signals, among the hundreds and thousands of fireflies, the female responds with her own light. In this exchange, the frequency and intensity of the flashes vary, allowing the female to recognise exactly which male is courting her — this is what scientists call a mating signal.

Synchrony, the phenomenon where thousands flash in unison,

India has maintained a firm stand on its strategic autonomy. Vinay Kumar, Indian ambassador to Russia, told the TASS news agency: “Indian companies will continue buying (oil) from wherever they get the best deal”.

Putin is slated to visit India in December this year, according to a statement by the Kremlin Friday.

In their call Saturday, Modi and Zelenskyy also “reviewed progress in the India-Ukraine bilateral partnership and discussed ways to further enhance cooperation in all areas of mutual interest.”

In a detailed post on X, Zelenskyy said he reaffirmed Ukraine’s “readiness for a meeting with the head of Russia”.

“I informed (Modi) about the talks with President Trump in Washington with the participation of European leaders. It was a productive and important conversation, a shared vision among partners on how to achieve real peace,” he said.

Almost two weeks have passed (since the Alaska talks), and while he said that strikes from Russia continue, he thanked Modi for “his words of condolences to the families and loved ones of the victims”.

“We coordinated our positions ahead of the Shanghai Cooperation Organisation summit,” he said.

“The end of this war must begin with an immediate ceasefire, with the necessary silence,” Zelenskyy said, adding “India is ready to make the necessary efforts and to deliver the appropriate signal to Russia and other leaders during the meetings on the sidelines of the summit.”

He also indicated a possible meeting between him and Modi “in the near future”. Last year, Modi had travelled to Moscow and Kyiv and announced that “solutions can’t be found on the battlefield”, and that India was ready to support peace efforts. He had also invited Zelenskyy to India.

is not mere spectacle. It is an ecological marker, an indicator of habitat health. Yet this fragile communication system is increasingly interrupted. Artificial light in buffer zones — headlamps, floodlights from religious festivities, even the glow of mobile phones — confuses their signals. “Artificial light disrupts this delicate process. When background illumination is high, males are forced to expend unprecedented energy to outshine the disturbance, altering their natural behaviour. In our study, areas with abundant fireflies were those free from artificial light. To test their preferences, we developed a phototactic movement device in the shape of a cross — one arm left in darkness and the others lit in different colours. Consistently, the fireflies chose the darkened arm, demonstrating their strong preference for darkness,” he said.

The scientific findings also capture local knowledge. In a questionnaire survey across Malasar and Irula settlements inside the reserve, 97 per cent of respondents reported awareness of fireflies and a sense of their decline. Older residents often blame pesticides in surrounding farms and the contamination of streams that once ran clear. For them, the shrinking of these summer light shows is not an abstract loss of biodiversity — it is a tangible diminishment of seasonal life.

The study also gives a prescription: protect darkness. The AIWC report urges minimising light pollution around forests. Fireflies, scientists note, could serve as “indicator species” for the wider impacts of artificial lighting on nocturnal wildlife.

# FROM PAGE ONE

FULL REPORTS ON  
WWW.INDIANEXPRESS.COM

## Modi and Xi meet today

were underway Saturday.

The Prime Minister flew into Tianjin from Japan — this is his first to China in seven years — for the SCO summit from August 31 to September 1. “Landed in Tianjin, China. Looking forward to deliberations at the SCO Summit and meeting various world leaders,” Modi said in a post on X, also indicating the focus was the multilateral summit.

Indian officials have been cautious about the meeting with Xi being framed as a major bilateral meeting. For Delhi, this is a visit for a multilateral summit and a bilateral with the host leader is not unusual.

But the global situation, especially the strain in ties between Delhi and Washington following US President Donald Trump’s announcement of 50 per cent tariffs on India, and his administration’s daily diatribe over India’s import of Russian oil, has complicated the situation for Delhi.

It is against this backdrop that Delhi has come to Tianjin and hopes that the exercise to repair

India-China ties is carried forward.

Ahead of the meeting of the two leaders, the Chinese military said China and India should jointly safeguard peace and tranquility in their border areas after the recent “positive” and “constructive” round of border talks between them during which a 10-point consensus was reached.

The Special Representatives, NSA Ajit Doval and Chinese Foreign Minister Wang Yi, held the 24th Round of Talks on the India-China Boundary Question on August 19 in Delhi.

During the talks, a 10-point consensus was reached, and the two sides agreed to utilise the border management and control mechanisms through diplomatic and military channels, China’s Defence Spokesperson Zhang Xiaogang said, commenting for the first time on the outcome of the dialogue.

During the talks, the two sides had a candid and in-depth exchange of views on the China-India boundary question in a positive and constructive spirit,

●Legal challenges

are still in effect and the “US will no longer tolerate enormous trade deficits” and unfair tariffs and non-tariff trade barriers imposed by other countries, “friend or foe”, that undermine US manufacturers and farmers.

“The core Congressional power to impose taxes such as tariffs is vested exclusively in the legislative branch by the Constitution. Tariffs are a core Congressional power. It seems unlikely that Congress intended, in enacting IEEPA, to depart from its past practice and grant the President unlimited authority to impose tariffs,” the US Court of Appeals said.

The ruling affects the 25 per cent reciprocal tariffs imposed by the US on India, as well as the additional 25 per cent tariffs for imports of Russian oil, as Trump announced these under IEEPA. However, sectoral tariffs such as the 50 per cent duty on steel and aluminium where Trump has used Section 232 of the Trade Expansion Act of 1962, face no legal challenges.

In his post, Trump said, “Today a highly partisan appeals court incorrectly said that our tariffs should be removed, but they know the US will win in the end. If these tariffs ever went away, it would be a total disaster for the country. It would make us financially weak, and we have to be strong.”

“We should all remember that tariffs are the best tool to help our workers, and support companies

that produce great made-in-America products. For many years, tariffs were allowed to be used against us by our uncaring and unwise politicians. Now, with the help of the United States Supreme Court, we will use them to the benefit of our nation, and make America rich, strong, and powerful again,” he said.

The ruling came in response to two lawsuits filed by small businesses and a coalition of US states after Trump’s executive orders in April. In May, the Court of International Trade had also declared the tariffs unlawful. That decision was put on hold during the appeal process.

Arguing before another court in May, US Secretary of Commerce Howard Lutnick had stressed the limitations of other legal tools available to the Trump administration to tackle rising trade deficits, particularly with countries like China.

Lutnick explained to the Court of International Trade that alternatives—such as Section 232 of the Trade Expansion Act of 1962 and Section 301 of the Trade Act of 1974—are not designed for national emergencies, are procedurally time-consuming, and do not permit immediate action.

“Under Section 232, the Department of Commerce has up to 270 days to conduct an investigation and submit a report to the President, who then has up to 90 additional days to decide whether to act, and a further 15 days to implement any action. Similarly, under Section 301, the United States Trade Representative must com-

pleting an investigation within 12 months, with additional time for enforcement. IEEPA is different—it allows the President to act immediately to protect national interests, provided all conditions under IEEPA are satisfied,” Lutnick told the court.

Without this tool, the President’s ability to formulate foreign policy would be severely constrained, and national security would be at risk, he said.

New Delhi-based think tank Global Trade Research Initiative (GTRI) said the US Supreme Court will decide whether tariffs will remain a matter of Congressional law-making or an instrument of presidential geopolitics.

At the centre is Trump’s reliance on IEEPA, a 1977 law crafted for sanctions and financial controls in times of foreign emergencies, GTRI said, adding that the statute grants presidents broad powers to regulate transactions and block property, but it does not mention tariffs or taxation.

Trump invoked it in 2019 and again in 2025, declaring the US trade deficit and allegedentanyl inflows from China, Canada, and Mexico as national emergencies to justify sweeping duties. The appeals court rejected this, stressing that Congress—not the President—holds tariff authority, and that any delegation must be explicit and narrow. Multiple lawsuits from states and businesses reinforced this constitutional challenge.

“By declaring trade deficit a ‘national emergency’ in April and linkingentanyl inflows to tariffs

are being discussed between the two sides.

The Modi-Xi meeting in Kazan in October 2024 resulted in disengagement of troops from two key friction points in eastern Ladakh, followed by talks leading to the resumption of the Kailash Mansarovar Yatra, Indian visas for Chinese tourists and steps for revival of direct flights between the two countries.

These efforts to repair ties did take a hit in May when India came across evidence of active Chinese assistance to the Pakistan military during the hostilities that followed Operation Sindoor. On August 19, Wang Yi met Modi in Delhi and handed him an invitation from Xi to attend the SCO.

The difficult issue of de-escalation in eastern Ladakh still remains and the two sides have agreed to move forward on that as well. An estimated 50,000 to 60,000 troops are stationed on either side of the LAC in the region. Sources said the leaders are expected to discuss ways to end the standoff.

on China, Canada, and Mexico in February, Trump sought to stretch IEEPA beyond its intended scope. The court rejected this interpretation, warning that Congress never intended to grant presidents unlimited tariff powers. Multiple lawsuits—from states and small businesses—reinforced this constitutional challenge. Thus, beyond tariff relief, the ruling reasserts the principle that executive emergency powers cannot override Congress’s core trade and taxation authority,” GTRI said.

Markus Wagner, Professor of International and Comparative Law at the University of Wollongong, Australia, said on social media that IEEPA was “never the right vehicle” and that Trump administration lawyers were likely fully aware that its use would be found unlawful.

“But that was likely never the point — basing US measures on IEEPA bought the Trump administration time. That time isn’t over yet, as it’s safe to predict that the Court of International Trade (CIT) decision will a) be appealed and b) any implementation of the decision, should it stand, will be delayed as much as legally possible,” Wagner said in May after the Court of International Trade ruled against Trump’s tariffs.

The underlying strategies or goals have not changed, he said. “The bigger question is what other countries will do—whether to uphold some of the existing rules or find ways to mitigate the damage the Trump administration has done and will likely continue to do,” he said.



# Delhi set to get two new plants to treat biomedical waste

EXPRESSNEWS SERVICE  
NEW DELHI, AUGUST 30

ENVIRONMENT MINISTER Manjinder Singh Sirsa on Saturday directed the Delhi Pollution Control Committee (DPCC) to initiate work on two new biomedical waste (BMW) treatment plants in the Capital.

According to an official statement issued by the minister's office, DPCC has been asked to conduct a feasibility study for fast-tracking site selection, technology evaluation and capacity planning. At present, there are only two half-acre plants that together process about 40 tonnes of biomedical waste in a day from nearly 10,000 healthcare institutions, the statement said.

"Biomedical waste piles pose a great threat to public health and air quality if left untreated. Our current two half-acre units cannot be expected to shoulder the entire city's 40 MT daily load," the statement quoted Sirsa as saying.

He added that neighbouring Haryana, with a population of 3.16 crore, runs 11 BMW plants, while Delhi has just two. "Additional plants were long due; Delhi is bridging legacy gaps with inventive solutions for a cleaner, healthier city," Sirsa said.

Officials said Delhi's population of over three crore and its healthcare network already outstrip its existing BMW capacity.

According to the statement, "DPCC's study will assess land availability, transport logistics, technology options and environmental safeguards to ensure optimum, future-proof operations. Simultaneously, the Health Department and DPCC have been asked to submit daily status briefs covering waste generation, transport scheduling and plant utilisation."



# 6 GOVT & POLITICS

TOKYO UPS INVESTMENT TARGET FROM USD 34 BILLION TO USD 68 BILLION

## Behind Japan investment numbers, message to US amid tariff tension

SHUBHAJIT ROY  
NEW DELHI, AUGUST 30

AT A TIME when the US administration has come down hard on the Indian economy by imposing tariffs and President Donald Trump described it as a “dead economy”, Japan has increased its investment target from 5 trillion Yen (USD 34 billion) to 10 trillion Yen (USD 68 billion), in what is being seen as a vote of confidence for New Delhi. Prime Minister Narendra Modi, who was in Japan for two days, wrapped up his visit on Saturday with a ride on the bullet train with Japan Prime Minister Shigeru Ishiba.

Behind the headline number are Japan's investments in India that have continued to accelerate, in a strong signal of confidence.

The two sides had set a target of 5 trillion Yen for public and private investments and financing by 2026. That, sources said, had already been achieved in 2025, and the target was increased to 10 trillion Yen.

Over 170 MoUs signed in two years represent more than USD 13 billion in committed investments, said sources.

According to sources, Nippon Steel has invested Rs 15 billion (USD 170 million) in Gujarat and Rs 56 billion (USD 635 million) on an integrated steel plant in Andhra Pradesh.

Suzuki Motor has invested Rs 350 billion (USD 3.97 billion) for a new Gujarat plant; Rs 32 billion (USD 363 million) to expand production lines.

Toyota Kirloskar has invested Rs 33 billion (USD 374 million) for expansion in Karnataka and Rs 200 billion (USD 2.26 billion) for new plant in Maharashtra; Sumitomo Realty has made USD 4.76 billion investments in real estate; JFE Steel has made Rs 445 billion (USD 5 billion) to strengthen electrical steel production, Osaka Gas has invested to produce 400 MW renewables, with future green hydrogen initiatives, and Astroscale had done first Japanese commercial satellite launches using ISRO's PSLV.

“This spread of investment across steel, automotive, renewables, semiconductors, real estate and aerospace cements Japan's confidence in India's long-term economic potential,” a source said.

The second element in Japanese investments is providing benefits to Indian SMEs. Sources said Japanese industry partnerships are pulling Indian SMEs into global supply chains. A few examples:

Tokyo Electron & Fujifilm with Tata Electronics is building a semiconductor ecosystem, with Indian SMEs becoming suppliers for high-value components.

Toyota and Suzuki value chains will integrate hundreds of Tier-2/3 Indian SMEs. Fujitsu is recruiting 9,000



PM Narendra Modi and Japan PM Shigeru Ishiba travel on a bullet train, in Japan. PTI

### BOOST TO TIES, VISION FOR FUTURE

India-Japan pacts are building the bridge to a new era of cooperation. Some key elements of the partnership

#### INVESTMENT PLEDGE:

Over 170 MoUs signed in two years represent more than USD 13 billion in committed investments

#### FOCUS ON SMEs:

Japanese industry partnerships are enabling Indian SMEs enter global supply chains

#### FARMING & SUSTAINABLE DEVELOPMENT:

Japanese cooperation is directly empowering India's rural economy through green energy projects

#### TALENT MOBILITY, KNOWLEDGE EXCHANGE:

Target is 5 lakh Indians & Japanese exchanges in 5 yrs via study abroad, internships, employment

#### EXPORT BOOST:

Exports & manufacturing with Japanese joint ventures and know-how also unlocks India's export growth

#### N-E DEVELOPMENT:

The Assam-ASEAN Holdings MoU focuses on investment in industrial infra, logistics, & agro-based industries in the NE region

#### 'MAKE IN INDIA, MAKE FOR WORLD':

Vision being realised with India-Japan partnership shaping not just economies but also regional security

export growth, and cited a few examples:

■ Nippon Steel's projects will boost specialty steel exports to auto and energy markets.

■ Toyota and Suzuki have Hybrid/EVs made in India, which are to be exported to Africa, Middle East and South East Asia.

■ Fujifilm and Tata are strengthening India's position in global chip supply chains.

■ Osaka Gas renewables is adding India to global clean energy value flows.

This ensures “Make in India with Japan, export to the world.”

The fifth element is about human resources and knowledge exchange. “This area is rapidly expanding under the India-Japan Talent Bridge programme and METI initiatives,” the source said.

According to sources, the talent exchange target is 5 lakh Indians and Japanese exchanges in 5 years via study abroad, internships and employment.

There will be a sectoral focus on semiconductors, AI, IT, robotics and clean energy.

There will be career events at eight leading Indian universities (IIT Guwahati, IIT Kharagpur, IIT Kanpur, IIT Gandhinagar, BITS Pilani, University of Delhi, IISc Bangalore and Anna University).

There will also be internships in India, Japan, and online, lowering barriers for students.

Japan tours will be organised where professors and students would be invited for company visits, university roundtables and networking with Japanese firms.

Professional career events (TechSparks, NASSCOM, online job fairs) will also be organised for mid-career Indian professionals.

There will be Talent Market Reports to help Japanese firms better understand Indian labor dynamics.

In this context, a few Japanese Companies are involved:

■ Nidec: Building a global software development centre in Bengaluru; hiring Indian engineers for motors, appliances and EVs.

■ Musashi Seimitsu: Developing e-Axles for two-wheeler EVs with India-Africa focus, hiring Indian graduates for R&D.

■ Dai-ichi Life Techno Cross: Recruiting bilingual Indian IT engineers.

■ Money Forward India: Expanding financial tech platforms with Indian engineers.

■ Beyond Next Ventures: Funding Indian deep-tech start-ups, offering research internships.

According to Japanese government's initiatives, a budget of 15 billion Yen for skill and HR cooperation has been earmarked and that would be spent on five key programmes: Japanese company missions to India for partnerships, job fairs for Indian youth, subsidies for Japanese firms hosting Indian IT/technical interns, Japanese language training for Indians headed to Japan and sending Japanese instructors to India for manufacturing skill transfer.

This dual approach — academic and corporate — will solve Japan's labour shortages while giving Indian youth global exposure and high-skill pathways.

The sixth element is Assam-ASEAN Holdings MoU. A notable MoU was signed between the Government of Assam and M/s ASEAN Holdings, highlighting Japan's commitment to India's northeast.

Its focus is investment in industrial infrastructure, logistics, and agro-based industries. This also dovetails with Japan's longstanding interest in Act East Policy and development of India's northeast, sources said.

The seventh element is ‘Make in India, make for the world’. The vision now extends beyond bilateral ties as at the Japan-India-Africa Forum and recently held 9th TICAD Summit in Tokyo, India emerged as an anchor country for connectivity and industrial corridors.

Its priorities are mineral security (rare earths, lithium, cobalt), supply chain resilience in semiconductors and EVs, export markets in Africa and Middle East for Made-in-India goods with Japanese technology.

This ensures that “Make in India, Make for the World” is realised, with India-Japan partnership shaping not just economies but also regional security and resilience.

From steel plants in Gujarat to biogas projects in rural India, from Assam's gateway role to Tokyo's advanced R&D labs, from farmers in rural India to AI engineers in Bangalore and Tokyo, from semiconductor fabs to academic exchanges, sources said the India-Japan pacts are building the bridge to a new era of cooperation. With “Make in India, Make for the World” as the guiding vision, this partnership is set to reshape industrial, agricultural and human capital landscapes, not only for the two nations but for the whole region and the world at large.

“Together, the two nations are investing not only in industries and supply chains, but in people, knowledge, and shared futures,” the source said.

## NYT: Trump may not visit India for Quad meet this yr

DIVYAA  
NEW DELHI, AUGUST 30

NEW DELHI had in June said that US President Donald Trump had accepted Prime Minister Narendra Modi's invitation to visit India for the Quad Leaders' Summit later this year, but according to a *New York Times* report Trump may not be visiting India this fall. There is, however, no confirmation from New Delhi or Washington on the proposed visit.

Both countries were expected to complete the negotiations over the bilateral trade agreement and wrap up the deal during Trump's visit to India. India was one of the first countries to start discussions over a trade deal with the US way back in February, but President Trump has taken exception to India's purchase of Russian oil and levied an extra 25 per cent tariff on top of the reciprocal tariff of 25 per cent imposed on India.

US halted talks and held back from sending its team to New Delhi for another round of negotiations scheduled on August 25. Sources in the Commerce and Industry Ministry in New Delhi too said it was not practical to hold trade talks with the additional 25 per cent tariffs being imposed on India's exports to the US.

As per a NYT report on Saturday, which cited people aware of the President's schedule, “After telling (Indian Prime Minister Narendra) Mr Modi that he would travel to India later this year for the Quad summit, Mr. Trump no longer has plans

to visit in the fall, according to people familiar with the president's schedule.”

The report also claims that it was the June 17 phone call between Modi and Trump, after the US President made a hasty exit from the G7 Summit in Canada's Kananaskis, which soured things between them. President Trump had asked Modi if he would come to the US on his way back from Canada, but the Prime Minister cited his inability to do so citing prior engagements.

In the days after the ceasefire in hostilities between India and Pakistan on May 10, President Trump had made repeated claims about having “solved” the war.

New Delhi had repeatedly set the record straight, with the Ministry of External Affairs (MEA) saying that it was after a call from the Pakistan DGMO to the Indian side, that the cessation of military action was announced.

However, President Trump repeated his claims publicly on many occasions, despite New Delhi's statement, even claiming he threatened both India and Pakistan over trade, which forced them to stop the war.

“During a phone call on June 17, Trump brought it up again, saying how proud he was of ending the military escalation,” says the NYT report, “He mentioned that Pakistan was going to nominate him for the Nobel Peace Prize, an honour for which he had been openly campaigning. The not-so-subtle implication, according to people familiar with the call, was that Modi

should do the same.”

As per a statement by Foreign Secretary Vikram Misri after the 35-minute phone call on June 17 which he said was the “first” between the two leaders since April 22, “Prime Minister Modi clearly conveyed to President Trump that at no point during this entire sequence of events was there any discussion, at any level, on an India-US Trade Deal, or any proposal for a mediation by the US between India and Pakistan. The discussion to cease military action took place directly between India and Pakistan through the existing channels of communication between the two armed forces, and it was initiated at Pakistan's request.”

Misri said, “Prime Minister Modi firmly stated that India does not and will never accept mediation. There is complete political consensus in India on this matter.” The statement however, said, Vice President JD Vance had made a phone call to Prime Minister Modi on May 9, conveying that Pakistan may launch a major attack on India. “Prime Minister Modi had conveyed to him in clear terms that if such an action were to occur, India would respond with an even stronger response,” Misri said.

The dispute has played out against the backdrop of the ongoing trade talks. The NYT report also claims that “his (the Indian Prime Minister's) officials were scandalized that Mr. Trump might try to force their leader into a handshake with Pakistan's army chief, who had also been invited to the White House for lunch around the same time.”

## Trump pushing Delhi towards Beijing, says ex-NSA Sullivan

EXPRESS NEWS SERVICE  
NEW DELHI, AUGUST 30

FORMER US National Security Adviser Jake Sullivan has hit out at President Donald Trump for imposing a “massive trade offensive” against India, saying the Republican President is pushing New Delhi towards China.

The statement comes on a day PM Narendra Modi is visiting China, after a gap of seven years, to attend the SCO Summit, where he will also hold bilaterals with President Xi Jinping and Russian President Vladimir Putin. A day before arriving in Tianjin, Modi had said that stable and amicable relations between the two neighbours are crucial for a multi-polar Asia and a multi-polar world.

Sullivan, a top aide in ex-President Joe Biden's administration, told Tim Miller in *The Bulwark Podcast*: “When I go to these places now and I talk to leaders, they are talking about de-risking from the US. They now see the US as the big disruptor, the country that can't be counted on.” While China is looking like a re-



Jake Sullivan was a top aide in the Biden administration

sponsible player at a global stage, “the US brand is in the toilet”, he said.

“We were working to try to build a deeper, sustainable relationship with India, and the China challenge loomed large in that. President Trump executed a massive trade offensive against them, and the Indians are saying, ‘I guess, maybe we have to go show up in Beijing and sit with the Chinese because we've got a hedge against America’,” he said.

Two days ago, the Democrats on the United States House Foreign Affairs Committee had

criticised President Trump for “singling out India with tariffs, and sabotaging the US-India relationship”. They too had flagged how China, one of the largest importers of Russian oil, was not facing a similar penalty, and said that “it was not about Ukraine at all”.

Meanwhile, responding to President Trump's trade adviser Peter Navarro describing the Russia-Ukraine war as “Modi's war”, the American Jewish Committee, a global advocacy organisation, expressed concern over the comments and called for a reset in India-US ties.

“AJC is mystified, and deeply troubled, by the chorus of attacks on India by US officials — the latest being a White House advisor's scurrilous charge that Russia's brutal aggression against Ukraine is ‘Modi's war’,” it said on X. “We regret energy-hungry India's reliance on Russian oil — but India isn't responsible for Putin's war crimes, is a sister democracy and an increasingly important strategic partner of the US, and has a crucial role to play in Great Power competition. It's time to reset this vital relationship,” it said.



# Govt plans to cut down on imports of pharma agents, biofuel enzymes

**ANONNA DUTT**  
NEW DELHI, AUGUST 30

FROM ACTIVE pharmaceutical agents for making key medicines to enzymes needed for developing biofuels, and reagents needed for manufacturing biofertilizers — the government under its BioE3 policy plans to set up around 16 biomanufacturing hubs across the country to ensure that India starts making the components for which it is largely dependent on imports. The government has already listed 1,000 such products for which there is a need to develop indigenous manufacturing facilities, which will be put on a website soon.

There has been a push towards manufacturing within the country since Covid-19 pandemic, with government policies such as performance-linked financial incentives to drug manufacturers.

The department has been somewhat successful in scaling-up manufacturing of some of the drugs, but fermentation-based products still remain a challenge for the country.

With plans of setting up large fermenters of around 500 litres or 1,000 litres, these hubs can help push the manufacturing of not just fermentation-based medicines but also other products such as biofuels. “Creating these hubs helps pool the resources; meaning start-ups and small companies do not have to make big capital investments initially,” said an official from the department, on condition of anonymity.

These biomanufacturing hubs, in addition, will also look at scaling up innovative solutions such as novel monoclonal antibody treatments, new technologies for carbon capture, or smart proteins to improve nutrition developed under the programme from proof of

concept to market ready products.

The Department of Biotechnology has already supported a set up of six biofoundries — a specialised facility that helps to develop and conduct the initial tests on such novel projects — at National Agri-Food and Bio-manufacturing Institute (NABI), Mohali (for sustainable food and nutrition), Tata Memorial Centre (for new drugs), International Centre for Genetic Engineering and Biotechnology (ICGEB), New Delhi (for synthetic biology to make microbial cells for manufacturing enzymes, testing new biofuels, enhancing carbon capture efficiency), Translational Health Science and Technology Institute (THSTI), Faridabad (for monoclonal antibody therapies), Institute of Pesticide Formulation Technology (IPFT), Gurugram (for biopesticides), and National Centre For Cell Science (NCCS), Pune (for enzymes and metabolites).

“Once a proof of concept has been developed and tested at the biofoundries, it can be taken for manufacturing at these biomanufacturing hubs,” the official added.

The biomanufacturing hubs will be set up in research institutes, private companies that specialise in a particular form of manufacturing, or near existing knowledge hubs for specific industries.

The facilities can be accessed by government and private research institutes, universities, and colleges, along with start-ups and other companies. While the private companies will be charged, mainly to cover the cost of consumables, human resources, and other overhead charges.

As per its policy, the start-ups will be charged a maximum of 5% over the actual costs while companies may be charged up to 15% over the cost. The policy also states that the facility will not claim any intellectual property rights.

**EXPLAINED**  
**E** BioE3 policy push

WITH THE biomanufacturing hubs under the programme, critical ingredients for medicines, reagents needed for various products such as biofuels, bioproteins, and other chemicals for which India depends on imports, will be manufactured within the country. The Department of Biotechnology has undertaken a survey to finalise a list of 1,000 such products, which start-ups and companies may develop processes to manufacture within the country.

## Police can’t exercise ‘unbridled power’ to curtail citizens’ freedom, says HC

**MANISH SAHU**  
LUCKNOW, AUGUST 30

DIRECTING THE closure of a history-sheet opened against a man booked under the Uttar Pradesh Prevention of Cow Slaughter Act eight years ago, the Allahabad High Court observed that the police cannot exercise “unbridled and uncanalised power” to curtail fundamental freedoms guaranteed to citizens.

The court further held that police do not have an unfettered licence to arbitrarily enter names of persons, merely based on personal likes or dislikes, in the surveillance register.

The HC made the observations while hearing a writ petition filed by Mohammad Wajir. The petitioner had approached the court seeking a writ of certiorari to quash an order dated June 23, in which the SP, Siddharth Nagar, rejected his representation for the closure of history-sheet No. 18-A (Category).

The application was rejected based on reports submitted by the Circle Officer and the SHO, Bhawaniganj, Siddharth Nagar, which mentioned provisions of the UP Police Regulations, particularly paragraphs 228 and 240. “We have to examine the case based on facts and circumstances. We are of the considered view that Regulation 228 and 240 do not give an unbridled, uncanalised power to the police to use it in such a way which has the necessary consequence of squeezing out the fundamental freedom of the citizen,” the court observed.

It added, “... Evidently, police do not possess a licence to enter the names of whoever they like or dislike in the surveillance register. Ordinarily, the names of persons with a previous criminal record alone are entered in the surveillance register... In addition, names of persons who are reasonably believed to be habitual offenders or receivers of

stolen property, whether they have been convicted or not, can be categorised and entered in the surveillance register under the Police Regulation.”

Contending the case, the petitioner’s counsel submitted that Mohammad Wajir is not a habitual offender and that only one case — filed under Sections 3/5/7 of the Prevention of Cow Slaughter Act — was registered against him in 2016.

The counsel said the investigation has concluded, a chargesheet has been filed, and the petitioner is out on bail. Except for this case, the counsel said, no FIR, NCR (non-cognizable report), or complaint has been registered against Wajir.

It was argued that the police authority has illegally and arbitrarily opened the history-sheet against the petitioner, in violation of paragraphs 228, 229, 231, 233 and other relevant provisions of the UP Police Regulations. The counsel contended that the purpose of opening a history-sheet is to enable the police to maintain surveillance over persons habitually involved in criminal activities. But in the present case the history-sheet was opened merely based on a case registered eight years ago.

The court stated in its order, “(After) a close perusal of the order of the SP... it transpires that while rejecting the representation of the petitioner and justifying opening of the history-sheet, he has referred to Police Regulation 228 (1) and... 240, which are enabling provisions for opening a history-sheet of a person. We are conscious of the Police Regulations, but the said provisions provide that a history-sheet can be opened only against such persons who are dacoits, burglars, cattle thieves, railway goods wagon thieves, and abettors of such offence... Regulation 240 enables the police to open a history sheet based on suspicion or on conviction or acquittal.”

## Telangana to amend Panchayat Act for 42% BC reservation in local body polls

**NIKHILA HENRY**  
HYDERABAD, AUGUST 30

TELANGANA CHIEF Minister A Revanth Reddy’s Cabinet has decided to amend the state’s Panchayat Raj Act of 2018 to allow the state to exceed the 50 per cent cap on overall reservations in rural local body polls. The polls are scheduled to be held in September.

Speaking at a media conference after the cabinet meeting held on Saturday BC welfare minister Ponnam Prabhakar said “The Congress government has been committed to implementing 42 per cent reservation for Backward Classes (BCs). As the High Court has demanded that the local body election should be held shortly, we have decided to amend the Panchayat Raj Act of 2018 by virtue of a government order”.

In the 2018 Act, BRS government, which was in power in the state from 2014 to 2023, had capped reservation at 50 percent in line with the Supreme Court’s overall cap over reservation. In July this year Revanth Reddy government passed two Bills and issued an Ordinance to breach this ceiling and sent it to the governor of the state.

The governor’s office then forwarded the ordinance and the bills for President’s assent. Since then, the Bills and the Ordinance which seek 42 per cent reservation for BCs in local bodies, are pending with the President.

The decision to implement the reservation through a Government Order has come as a breather for the state’s BC political leaders who have been demanding the 42 percent reservation for BCs in local body polls. The Bills pending with the President also allows 42 percent

reservation for BCs in educational institutions and government jobs.

Prabhakar added: “The Congress government has been committed to implementing 42 percent reservation for BCs because we take our social justice commitments rather seriously. In the Kamareddy Declaration of the Congress party we had promised this reservation and we are keen on implementing it”.

Earlier in August, Ponnam Prabhakar and MLAs and MPs of the Congress party had staged a protest in Delhi demanding the Central government to support 42 percent reservation. “We have tried all the ways to implement the reservation,” Prabhakar said.

In another cabinet decision, former cricketer Mohammed Azharuddin, who’s been Azharuddin a supporter of BC reservation, was nominated to Telangana’s Legislative Council.

UTTARAKHAND

## Animal sacrifice for Nanda Devi festival can take place at nearby abattoir: HC

**AISWARYA RAJ**  
DEHRADUN, AUGUST 30

HEARING A public interest litigation seeking a temporary slaughterhouse for performing “animal sacrifice” as part of the Nanda Devi festival, the High Court of Uttarakhand has ordered that the sacrifice be performed at an abattoir near the temple.

The petition, filed by a man named Pawan Jatav, sought that since the Nanda Devi festival was one of the “most ancient and culturally significant festivals of Kumaon”, particularly in Nainital, celebrated annually from August 28 to September 5, the performance of sacrificial rituals be allowed. He said that the people of Nainital and adjoining areas have deep religious faith associated with these sacrificial rituals, and they believe that the offering symbolises devotion and fulfilment of vows made to the goddess. Jatav prayed that a slaughterhouse be arranged temporarily, where the goats could be slaughtered after puja at the temple.

In 2011, the court had banned the sacrifice of animals on the temple premises, highlighting concerns of hygiene and the need for an adequate number of slaughterhouses. In 2016, the court reiterated that no sacrificial ritual should be performed on the Nanda Devi Temple premises. The petitioner said that the ban is being followed.

The petitioner said that he had submitted a representation to the District Magistrate in July, requesting that a suitable alternative be designated for such sacrificial rituals, suggesting that a slaughterhouse near the temple is a safe and appropriate place, but the authorities allegedly did not respond. He sought that the court direct the government and the municipality of Nainital to set up a temporary place for the performance of sacrificial rituals.

The counsel for the municipality submitted that the effluent treatment plant is functional and working, and the Pollution Control Board has been informed.

The court said that the officer of the PCB shall proceed to the slaughterhouse and, after inspection, permit the activities to be resumed. “An interim order of this nature is passed in view of the fact that the festival is commencing today, and the learned Chief Standing Counsel for the State submits that if this offering to the deity is prevented, it may lead to law and order issues,” the court said, directing the municipality to ensure compliance.

An officer at the municipality said that the slaughterhouse had a few shortcomings, impeding it from getting all the approvals. “However, all these have been resolved and we have an NOC to open it for the next five days,” he said. The slaughterhouse will remain open following that, he added.

## Kerala govt to bring ‘game changer’ Bill to legalise lease farming

**SHAJU PHILIP**  
THIRUVANANTHAPURAM, AUGUST 30

THE KERALA government is all set to introduce a Bill to give legal sanctity to lease farming — a move that officials expect will be a game changer for a state where large tracts of land remain fallow.

According to officials, lease farming will give a big boost to agriculture start-ups, which need large tracts of land for hi-tech and scientific farming. Mechanisation of agriculture will also get a fillip once large tracts of land are available for commercial cultivation.

“The Kerala Bill will be modelled after Andhra Pradesh’s tenant farmer bill, which was passed in 2019 as Andhra Pradesh Crop Cultivator Rights Act,” one official said. Tenant farming is a system in which landowners lease out their land to those who don’t own them. The terms of lease farming include that a tenant pays the landowner for cultivating the land for a period agreed between them.

According to sources, the state currently has 1,03,334 hectares of fallow land, of which 49,420 ha are permanently fallow. The remaining 53,914 ha have been classified under ‘current fallow’, or lying unused in recent times.

“In Kerala, 35 percent of horticulture and vegetable production is through tenant farming, though such practices violate the provi-

sions of Kerala Land Reforms Act. At present, tenant farming is done according to an agreement between a land owner and a tenant for a particular period. By legalising this contract, tenant farmers will be able to access bank loans, crop insurance and other benefits,” the official said, calling it a “win-win” for both sides.

The official added: “Banks and financial lenders in Kerala have been demanding a legal stamp for tenant farming for better credit flow to the agriculture sector”.

Kerala, according to one official, has vast tracts of land due to various reasons — migration of youths, labour shortage and declining agricultural income.

“Many expatriates have left their land fallow in Kerala as they cannot run the routine farm works. Aged farmers also find it difficult to keep farming going on. Once legal provisions for lease farming are in place, such people will be ready to hand over their land for lease farming even as the ownership on land remains intact,” one official said, adding that cultivable land is also available with various departments.

Kerala is introducing a Bill for tenant farming nine years after the NITI Aayog released the Model Land Leasing Act in 2016. It was meant to give a legal framework for lease farming. Subsequently, states such as MP, UP, Uttarakhand, and Andhra Pradesh framed lease farming laws.

# Catfish named Nikhil: In Karnataka, hobby and discovery is just a new species away

**ARNAV CHANDRASEKHAR**  
BENGALURU, AUGUST 30

NEARLY 14 years ago, fish hobbyist Nikhil Sood, 43, the owner of a Bengaluru-based aquarium shop, stood next to his friend Benjamin Harink, 45, at a Valapattanam river stream in south Karnataka.

It was here that Sood, who had started breeding shell dwelling cichlids from Africa’s Lake Tanganyika to supply to sellers in Chennai when he was just 18, and Harink made a remarkable discovery — a micro-predatory fish, Dario urops.

The first fish from its genus to be scientifically described from South India, the only clue to its existence was a specimen collected over a 100 years ago. This, despite the fish’s more well-known relatives in the aquarium trade, like the colourful Dario dario (scarlet badis), being native to North-East India and West Bengal.

While Sood has been a part

of nearly a dozen similar discoveries, one that bears his name — Nikhil’s torrent catfish (*Amblyceps accari*) — was discovered near the Kudremukh mountain range in Chikkamagaluru. At another location in Karnataka, a group comprising hobbyists and ichthyologists (scientists who study fish) Dr Ralf Britz of UK’s Natural History Museum and Dr Rajeev Raghavan of the Kerala University’s Fisheries and Ocean Studies, discovered the dwarf freshwater puffer fish (*Carinotetraodon imitator*) in the wild for the first time. Before this excursion, the fish had only been seen in one London aquarium shop, with its true origins shrouded in mystery.

Over the years, hobbyists like Sood, many of them associated with the Aquarium Society of Karnataka, have trekked the Western Ghats or scoured local rivers, often discovering new aquatic species.

Not just this, these hobbyists also double as amateur chemists

and veterinarians by necessity — they ensure that a particular species is in filtered pH-appropriate water and are always on guard against diseases.

R Nayak, 55, a hobbyist since the 1980s, recalls how a trip to a local fish store led to a discovery in 2010. “We spotted a new type of danio. The owner gave us a general idea of where it had come from. We went looking for it. A few trips later, we found it at a secluded spot near Agumbe village (in Karnataka’s Shivamogga district),” he said.

The species went on to be named *Betadevario ramachandrani*, to commemorate hobbyist Beta Mahatvaraj’s efforts.

Discoveries aside, Karnataka’s hobbyists also play a role in the conservation of these species.

Sood, a former evaluator for the The International Union for Conservation of Nature (IUCN) in South Asia, said, “The number of fish taken for the aquarium trade compared to those caught for consumption is less than half



Beta Mahatvaraj

**Dario urops is a micro-predatory fish.**

of 1%. Conservation, trade and this hobby are different sides of the same coin. Many fish in South and Central America are alive today only because of aquarium trade. In the absence of the trade’s interest in many of these species, there might not have been as many resources available in the field of ichthyology.”

Since India’s contribution is less than 1% of the total aquar-



**The habitat of Dario urops at a Valapattanam river stream in Karnataka. Nikhil Sood**

ium trade, it can’t have a significant impact on the conservation of species overall, he said, adding, “The Denison barb (*Sahyadria denisonii*, popularly known as the Miss Kerala Fish) was thought to have become endangered because of the trade. It was registered as critically endangered under the IUCN, with the description stating that it was native to just one river system in Kerala. However, it is found even in Karnataka’s

Netravati river, and other waterways in Kerala and Karnataka. The idea that the aquarium trade has a negative impact on conservation can be a low-hanging fruit.”

Some hobbyists have taken their passion a step further. Mangaluru’s Maclean Antony Santos, 23, initially kept ornamental shrimp strains before transitioning to native Karnataka species.

“I wanted to study and spread

awareness about these lesser-known species, but had difficulty finding collaborators since research on freshwater shrimps in India is scarce,” he said.

A citizen scientist, Santos now writes articles and conducts webinars alongside his mentors, Dr S Prakash, an associate professor, and K Kunjulakshmi, a PhD research scholar from Chennai’s Sathyabama Institute of Science and Technology.

Santos’s first collaborative research project resulted in the discovery of a new shrimp species, *Macrobrachium irwini*, named in honour of wildlife conservationist Steve Irwin.

However, not all is hunky dory with the state of aquatic species. Kunjulakshmi, the lead author of the research paper, said, “Many species in the Western Ghats exhibit high levels of endemism (showing exclusive geographic location) and might go extinct before they are even discovered, leading to significant conservation chal-

lenges.”

She is not wrong. A few years after Sood’s discovery, the Dario urops’s habitat was reportedly damaged due to road and bridge construction that affected the flow and height of water. It took several years for the habitat to recover, he said.

Since Santos started pursuing his passion eight years ago, he said he has observed a decline in the population of wild shrimp.

“Some key problems include expansion of residential and agricultural areas, plus untreated sewage waste. Compared to fish, shrimps are more sensitive. The third, and often overlooked issue, is dam construction.”

Stating that certain shrimps are amphidromous (a life cycle in both freshwater and saltwater environments at different stages), he explains, “The larvae require brackish (salty) water, but adults are found in freshwater. Because of dams, they are unable to complete their life cycle.”



History  
**HEADLINE**  
VIKASPATHAK



# From Gandhi to Modi: A new shade of Swadeshi

DAYS BEFORE the 50% “Trump tariffs” kicked in on an array of Indian exports, PM Narendra Modi repeated his message of “aatmanirbhar Bharat” and “swadeshi”. In India, these words date back to the freedom struggle. Before Mahatma Gandhi burst on to the political scene, swadeshi (from one’s own land) rose as a powerful idea in 1905, when Indians protested against the Partition of Bengal by the British.

However, swadeshi acquired greater intensity from 1920 onwards under Gandhi, who identified it as not just a cultural metaphor for Indianness against colonial culture, but also as a powerful form of resistance against British colonialism.

The riches of the British Empire were built on cotton taken from India to the textile factories of Manchester, just as the Industrial Revolution was taking off. Raw cotton would be taken at throwaway prices from India to England via ships, processed into mass-produced clothes, shipped back to India and circulated via the Railways.

A 70%-80% duty was imposed on Indian cotton textiles to help Manchester, without which, according to British historian H H Wilson, “even the power of steam would not have helped the British city compete”. Even as the prohibitive tariffs kept down the demand for Indian textiles, machine-made ones from the UK, which were cheaper, took over the Indian market.

In his book *Inglorious Empire*, Shashi Tharoor writes that the move wiped out 25% of India’s share of global trade in textiles, even as British exports of cotton goods soared from 60 million yards in 1830 to 968 million yards in 1858, and 1 billion yards in 1870. “(Indian) Master weavers became beggars,” Tharoor writes.

Then, the Independence movement adopted the concept of swadeshi, and called for the boycott of all things foreign. By 1936, 62% of the cloth sold in India was made by Indians, Tharoor writes, with the figure jumping to 76% in 1945.

Gandhi’s push for the *charkha* (spinning wheel), on which people could spin their own yarn, took the swadeshi concept one step further — challenging colonialism in a simple language while also striking deep at its core economic logic. The imagery of the rough khadi also struck a chord with rural India, which for the first time saw leaders who dressed like them.

In *India’s Struggle for Independence*, historian Bipan Chandra recounted an



Cotton merchants in Bombay in the late 1800s.  
Francis Frith/Wikipedia

episode from 1921, when Gandhi was addressing a student gathering in Madurai. Some students complained that khadi was too expensive, Chandra wrote. Gandhi replied that the answer lay not in wearing foreign clothes but wearing fewer clothes, and announced that he was discarding the *dhoti* and *kurta* and would now wear only a “*langot* (loin cloth)”. Until his assassination in 1948, he stuck to this vow.

The idea of *aatmanirbharta* (self-reliance) was one of the defining features of a newly independent India in the Jawaharlal Nehru years. In his paper, ‘A Brief Economic History of Swadeshi’, published in *Indian Public Policy Review* in 2021, Nitin Pai writes that, for Nehru, “the context of the Great Depression of the 1930s and the decline in foreign trade resulted in ...the urge towards self-sufficiency”. Political scientist Ashwini K Ray pointed out that India’s preference for “non-alignment” during the Cold War-era was a sign of a “resurgent post-colonial nationalism”.

The Nehru years saw a commanding role for the public sector within a mixed economy, apart from building of top-notch public institutions such as the IITs and AIIMS. Large dams came up, as did many large PSUs. These moves were later criticised by critics as slowing down India’s growth.

Trying to find her feet in the shadow cast by her father, Indira Gandhi turned to redistribution as her economic priority framework, coming up with the slogan of poverty alleviation. The tensions with the US, seen as pro-Pakistan, also made her government lean towards the Soviet Union.

An added rush of the swadeshi pitch was brought by George Fernandes as Industry Minister when the Janata Party came to power in 1977, after the Emergency. He famously threw out Coca

Cola and IBM from India for refusing to reduce their stakes in their local partners. The 1980s saw some liberalisation measures in export-import policy, fiscal policy and foreign investment — signifying that the grip of swadeshi as an idea of national policy was loosening. But even as imports shot up in the late 1980s, this wasn’t matched by a rise in exports.

It eventually led to the grave foreign exchange crisis of 1991, persuading India under Congress PM P V Narasimha Rao to approach the World Bank and IMF, and to open up its economy. What followed was ‘LPG (liberalisation, privatisation, globalisation)’, steered by Rao and his Finance Minister Manmohan Singh.

With globalisation and liberalisation becoming State policy, swadeshi became the mantra of the Opposition. Thus was born the Swadeshi Jagran Manch, finding a corner under the umbrella of the Sangh Parivar. On the other end of the spectrum, the Left opposed the policy shift as bringing in evils of “neoliberalism”.

The renewed focus on swadeshi and aatmanirbhar Bharat by PM Modi now reflects both the tight corner the US administration has put India in, as well as his own government’s muscular nationalistic imagination of itself. As the CM of Gujarat, he prided himself on his ‘Vibrant Gujarat Summits’, which showcased investment into the country. As PM, the ambition of his government was becoming “Vishwaguru”, a destination the world would make a beeline to.

As he has repeatedly said, Modi’s Swadeshi means production in India with Indian labour, even if the capital comes from abroad.

*The author is Deputy Associate Editor, The Indian Express*



# Zelenskyy seeks talks with Trump, EU leaders on slow peace efforts

**HANNA ARHIROVA**  
KYIV, AUGUST 30

**UKRAINIAN PRESIDENT**  
Volodymyr Zelenskyy said Friday that Ukrainian officials want to meet with US President Donald Trump and European leaders next week to discuss recent developments in efforts to end the three-year war with Russia.

The proposed meetings appeared designed to add momentum to the push for peace, as Zelenskyy expressed frustration with what he called Russia's lack of constructive engagement in the process while it continues to launch devastating aerial attacks on civilian areas.

Trump has bristled at Russian leader Vladimir Putin's stalling on an US proposal for direct peace talks with Zelenskyy, and said a week ago he expected to decide on next steps in two weeks if direct talks aren't scheduled.

## Zelenskyy's adviser meets Trump's envoy

Andriy Yermak, the head of Ukraine's presidential office, met on Friday in New York with Trump's special envoy Steve Witkoff to discuss preparations for upcoming meetings.

"The key priority is to push forward real diplomacy and ensure the implementation of all the agreements reached at the Washington summit," Yermak said in a social media post. "We are coordinating our efforts."

Yermak said he had briefed Witkoff on Russia's latest attacks on Ukraine and lamented that Putin had shown no willingness

## EX-PARLIAMENTARY SPEAKER SHOT DEAD

**Lviv:** Ukrainian former parliamentary speaker Andriy Parubiy was shot dead in the western city of Lviv on Saturday and a search was under way for the killer. The Prosecutor General's office said a gunman had fired several shots at Parubiy, killing him on the spot. The attacker fled and a manhunt was launched, it said. Officials gave no immediate indication whether the murder had any direct link to Russia's war in Ukraine.

to engage in peace efforts despite his meeting with Trump in Alaska this month.

## Russian attack

Russia launched a mass attack on southern Ukraine, local officials said, two days after a rare airstrike on central Kyiv killed 23 and damaged European Union diplomatic offices as U.S.-led efforts to end Moscow's three-year war on its neighbor staggered.

The assault overnight into Saturday killed at least one civilian and wounded 28 people, including children, in the Zaporizhzhia region, Gov. Ivan Fedorov reported, where a five-story residential building was struck. Russia launched 53 strike drones and decoys, as well as 45 missiles, according to Ukraine's Air Force. Ukrainian forces shot down or neutralized 510 drones and decoys, and 38 missiles, the force reported. **AP**

## NEPAL

## PM Oli objects to India-China deal on 'Nepali land'

**Kathmandu:** Prime Minister KP Sharma Oli has raised objections over the India-China deal to build a road through Lipulekh, during his meeting with President Xi Jinping in Tianjin, Nepal's Foreign Secretary Amrit Bahadur Rai said today. Oli's objection comes in the wake of an understanding between China's Foreign Minister Wang Yi and India's National Security Advisor Ajit Doval, to build a road connecting Uttarakhand and Tibet through Lipulekh, a territory that both India and Nepal claim to be their own but is administered by India.

**YUBARAJ GHIMIRE**

at Google, where he worked for more than a decade.

Hinton is among a growing number of prominent tech figures who speak of AI using language once reserved for the divine. OpenAI CEO Sam Altman has referred to his company's technology as a "magic intelligence in the sky," while Peter Thiel, the co-founder of PayPal and Palantir, has even argued that AI could help bring about the Antichrist.

There are plenty of skeptics who doubt the technology merits this kind of fear, including Dylan Baker, a former Google employee and lead research engineer at the Distributed AI Research Institute, which stud-

ies the harmful impacts of AI.

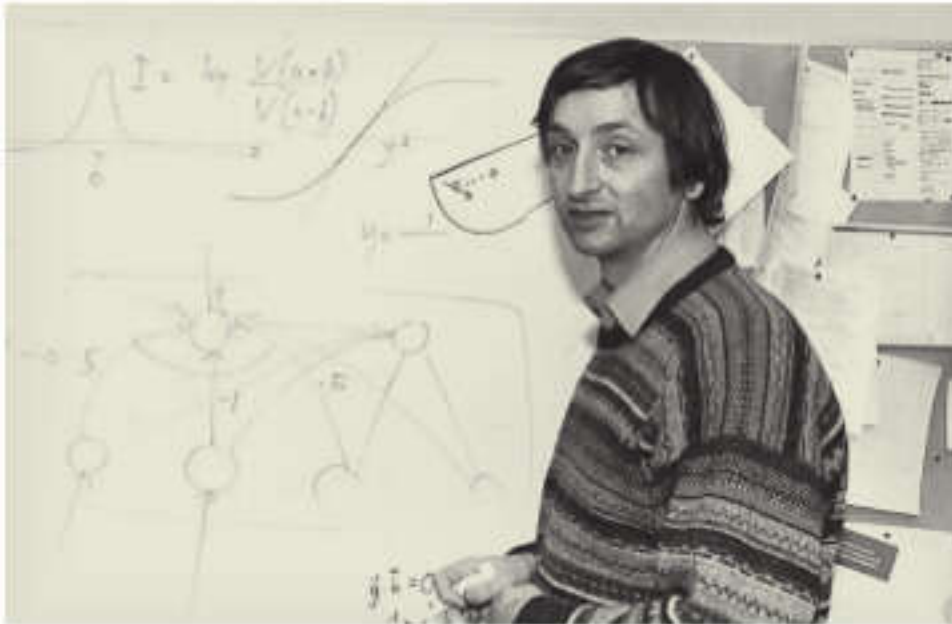
"I think oftentimes they're operating from magical fantastical thinking informed by a lot of sci-fi that presumably they got in their formative years," Baker said.

"They're really detached from reality." Although chatbots like ChatGPT only recently penetrated the zeitgeist, certain Silicon Valley circles have prophesied of AI's power for decades.

"We're trying to wake people up," Hinton said. "To get the public to understand the risks so that the public pressures politicians to do something about it."

## Visions of apocalypse

Despite Thiel's explicit invo-



Computer scientist Geoffrey Hinton at the Canadian Institute for Advanced Research in Toronto in 1980s. AFP

cation of language from the Book of Revelation, the positive visions of an AI future are more “apocalyptic” in the historical sense of the word.

"In the ancient world, apocalyptic is not negative," explains Domenico Agostini, a professor at the University of Naples L'Orientale who studies ancient apocalyptic literature. "We've completely changed the semantics of this word."

The term “apocalypse” comes from the Greek word “apokalypsis,” meaning “revelation.” Although often associated today with the end of the world, apocalypses in ancient Jewish and Christian thought were a

source of encouragement in times of hardship or persecution.

One factor in the growing cult of AI is profitability.

"Twenty years ago, that fantasy, true or not, wasn't really generating a lot of money," Geraci said. Now, though, "there's a financial incentive to Sam Altman saying AGI is right around the corner."

But Geraci, who argues ChatGPT “isn’t even remotely, vaguely, plausibly conscious,” believes there may be more driving this phenomenon.

Not every Silicon Valley CEO has been converted — even if they want in on the tech.

"When people in the tech industry talk about building this one true AI, it's almost as if they think they're creating God or something," Meta CEO Mark Zuckerberg said on a podcast last year as he promoted his company's own venture into AI.

Although transhumanist theories like Kurzweil's have become more widespread, they are still not ubiquitous within Silicon Valley.

“The scientific case for that is in no way stronger than the case for a religious afterlife,” argues Max Tegmark, a physicist and machine learning researcher at the Massachusetts Institute of Technology. **AP**



15

ECONOMY

# Banks’ non-food credit growth slows to 9.9% in July

ENSECONOMICBUREAU  
NEW DELHI, AUGUST 30

THE OVERALL growth in non-food bank credit slowed to 9.9 per cent to Rs 184.45 lakh crore as of July 2025, compared to a rise of 13.6 per cent in July 2024, the Reserve Bank of India (RBI) data showed.

The slower growth in non-food credit was largely on account of weaker growth in loans to agriculture and allied activities and industry sectors.

The growth in credit to personal loans decelerated year-on-year (y-o-y) to 11.9 per cent, compared with a 14 per cent growth a year ago, largely due to moderation in growth of other personal loans (8.1 per cent vs 12.7 per cent), vehicle loans (8.9 per cent vs 14.6 per cent).

Total growth in credit card outstanding declined to 5.6 per cent to Rs 2.91 lakh crore in July 2025, as against a growth of 22 per cent in the year-ago period, the data showed. Housing loans grew by 9.6 per cent to Rs 30.81 lakh crore in the reporting month, compared to a growth of 12.8 per cent in the year-ago period.

In July, advances to agriculture and allied activities registered a growth of 7.3 per cent at Rs 23.14 lakh crore, as against a growth of

**Total growth in credit card outstanding declined to 5.6% to ₹2.91 lakh crore in July 2025, compared with a growth of 22% in the year-ago period**

18.1 per cent at Rs 22.87 lakh crore during the same period a year ago.

The growth in credit to industry moderated to 6 per cent at Rs 39.38 lakh crore as on July 2025, compared to a growth of 10.2 per cent in July 2024. Credit to micro and small, and medium industries continued to grow at a robust pace of 21 per cent and 14.7 per cent, respectively in the reporting month.

Among major industries, outstanding credit to all engineering, vehicles, vehicle parts and transport equipment, rubber, plastic and their products and gems and jewellery recorded healthy year-on-year growth, the RBI data showed. The services sector recorded a credit growth of 10.6 per cent y-o-y as against a 14.5 per cent rise last year. Growth in credit to non-banking financial companies (NBFCs) decelerated to 2.6 per cent from 12.7 per cent growth registered in the year-ago period, RBI data showed.

**India to become world’s third largest economy soon: RBI Guv**

Indore: Reserve Bank of India (RBI) Governor Sanjay Malhotra on Saturday said India will become the world’s third largest economy soon, and credited the Pradhan Mantri Jan Dhan Yojana for boosting the country’s growth.

His remark came at a time when India’s GDP grew 7.8 per cent in the April-June quarter of the current fiscal, the highest in five quarters before the imposition of heavy tariff on the country by the United States.

Addressing a government banks’ financial inclusion campaign “Santripati Shivar” at Rangwasa village in Indore, Malhotra said the central government and the RBI had launched the Jan Dhan Yojana in collaboration with banks 11 years ago, leading to development across the nation.

“Today, India is counted among the five most developed countries in the world and very soon the country will become the third largest economy,” he said.

The RBI governor said 55 crore accounts have been opened under the scheme to ensure participation of people from all sections in the country’s growth journey, providing them with savings, pension, insurance, credit and other services. **PTI**

# Department of Posts, MapmyIndia partner to promote DIGIPIN

New Delhi: The Department of Posts (DoP), under the Ministry of Communications, on Friday inked a Memorandum of Understanding (MoU) with geospatial solutions provider MapmyIndia - Mappls at Dak Bhawan. The agreement is aimed at utilising the company’s mapping platform and products to support DIGIPIN.

Under the MoU, MapmyIndia will support the Know Your DIGIPIN application by providing base maps for integration allowing visibility and accurate DIGIPIN generation, according to an official statement by the Department of Posts. DIGIPIN will also be incorporated into the Mappls application to enhance searchability and navigation usign the utility. Existting addresses in the MapmyIndia database will be allocated DIGIPIN

in a boost for location-based services and to promote DIGIPIN adoption across platforms.

Speaking on the occasion, Harpreet Singh, Member (Operations), DoP, said, “This partnership will significantly enhance DIGIPIN’s reach and accessibility. By integrating with MapmyIndia’s mapping platform, we are creating a standardized digital addressing system that will benefit millions of citizens and strengthen India’s digital infrastructure for efficient service delivery.”

Rakesh Verma, co-founder and CMD, MapmyIndia Mappls said, “The MapmyIndia Mappls suite of APIs and SDKs once integrated into the Department of Posts’ DIGIPIN applications will empower billions of Indian citizens and businesses by the creation of various services.” **ENS**

**‘On track to achieve fiscal deficit target of 4.4% for FY26’**

New Delhi: Dispelling fears that the government may miss its ambitious fiscal deficit target of 4.4 per cent for the current financial year, Economic Affairs Secretary Anuradha Thakur on Saturday said the government is on track to meet the goal set in the Budget despite temporary mismatches which may have been exhibited in the latest monthly numbers.


The statement assumes significance in the light of Centre’s fiscal deficit rising to 29.9 per cent of the full-year target at the end of July as against just 17.2 per cent of the Budget Estimates in the same period of FY25.

“I would like to say that quarter-by-quarter or month-by-month assessments of fiscal deficit numbers may not give a correct picture because of temporal mismatches, which may come in on the receipt and expenditure side,” Thakur said. **PTI**





SUGAR-FREE LIFE



Dr V MOHAN

Why your fasting blood sugar is high

You need small moves to get aligned with your body's natural rhythm

ONE OF my patients, Ganesh, is what we would call a very disciplined patient, doing everything to keep his blood sugar levels in range. "My morning readings are not going down at all. I eat protein and vegetables. I have less than 70 gm carbs a day (70 gm of carbohydrates contain 280 calories). I drink a lot of water. I take all my medicines on time and track my blood sugar levels regularly. But my fasting blood sugar level does not come down below 140 mg/dL (normal is less than 100 mg/dL)," he told me.

Sometimes your fasting sugar levels can spiral out of control even with a strict diet, routine and medicines. What triggers such spikes?

**The dawn phenomenon**

This condition is called the dawn phenomenon. The body's blood sugar levels spike between 4 am and 8 am because the body releases hormones like cortisol, which sets your body up for a new day. As a result, the liver releases glucose early in the morning. But in people with diabetes, the pancreas may not produce enough insulin to counteract the increased glucose production by the liver, leading to high blood sugar. So fasting sugar goes high.



**FACT OF THE MATTER**

To prevent dawn phenomenon, have a protein bar, half-a-cup of legume salad or two egg whites before bed time

**Did my patient do anything wrong with his drug protocol?**

Not at all, his body was just responding strongly to early morning glucose response. Now this is affected by many factors like stress, poor quality of sleep or even minor changes in medication timing. For example, the type and timing of your long-acting insulin or tablets can be adjusted to factor in your metabolism to counteract the dawn phenomenon.

**Why a post-meal walk matters**

Continuous glucose monitoring (CGM) can be helpful in managing this situation. It gives you a complete picture of your glucose trends in real time over 24 hours. So your medication, meals and exercises can be adjusted based on your CGM report. You can also try taking a post-meal walk for 15 minutes. This helps your body use glucose more efficiently and improve insulin sensitivity. In the long run, this helps reduce your fasting sugars as well.

**Check your fasting sugar**

If it is very high or too low, check your 3 am blood sugar. If your 3 am blood sugar is lower than 70mg/dl, your fasting blood sugar may rise in response to the low levels. Low sugar might have occurred because of an overdose of night-time insulin or tablet. It might also be due to low food intake at dinner.

Your body reacts in response by releasing stress hormones like adrenaline and cortisol, elevating sugar in the morning. In this scenario, a night dose of insulin or tablet can be reduced after getting a consent from your doctor.

In order to prevent the dawn phenomenon, you could have a light protein snack like protein bar, half-a-cup of legume salad or two egg whites before bed time. Dawn phenomenon is just your body's natural response. Your numbers need a bit of small moves to get aligned with your body's natural rhythm.

(Dr Mohan is Chairman, Dr Mohan's Diabetes Specialities Centre, Chennai)

# Stress, genes, poor lifestyle: What's driving up BP in young Indians?

For Indians, genetically prone to heart disease early in life, ideal BP should be below 120/80 mm Hg, say doctors

Rinku Ghosh

SHE PORES over the prints of the black-and-white photographs of Delhi from the 1950s for the wall art posters she retails online. An alert beeps on the phone; it's time to take a break and do 10 minutes of incline-walking on a treadmill at her studio in Delhi's Safdarjung Enclave. "This one thing in between work has helped me keep my blood pressure (BP) in check. Now I have a consistent normal reading of 118-120/72 mm Hg," says 29-year-old Ria, who has been battling hypertension over the last two years, which seemed stubbornly stuck at 145/105 mm Hg. "Yes, I was just 27 then and I found that all of it was triggered by my lifestyle because I had latent risk with a family history of hypertension. I realised my health was not in a good place and turned my life around," she adds.

Ria is among an increasing number of young Indian adults living with hypertension, one of the risk factors for early onset of heart disease, heart attacks and strokes. Hypertension in this age group is rising, with prevalence estimates between 25 per cent and 42 per cent in global studies. Dr Manish Bansal, senior director, Clinical & Preventive Cardiology, Medanta, Gurugram, reports that about 35-45 per cent of India's adult population is hypertensive, reflecting a serious public health concern.

**What triggers the BP spiral?**

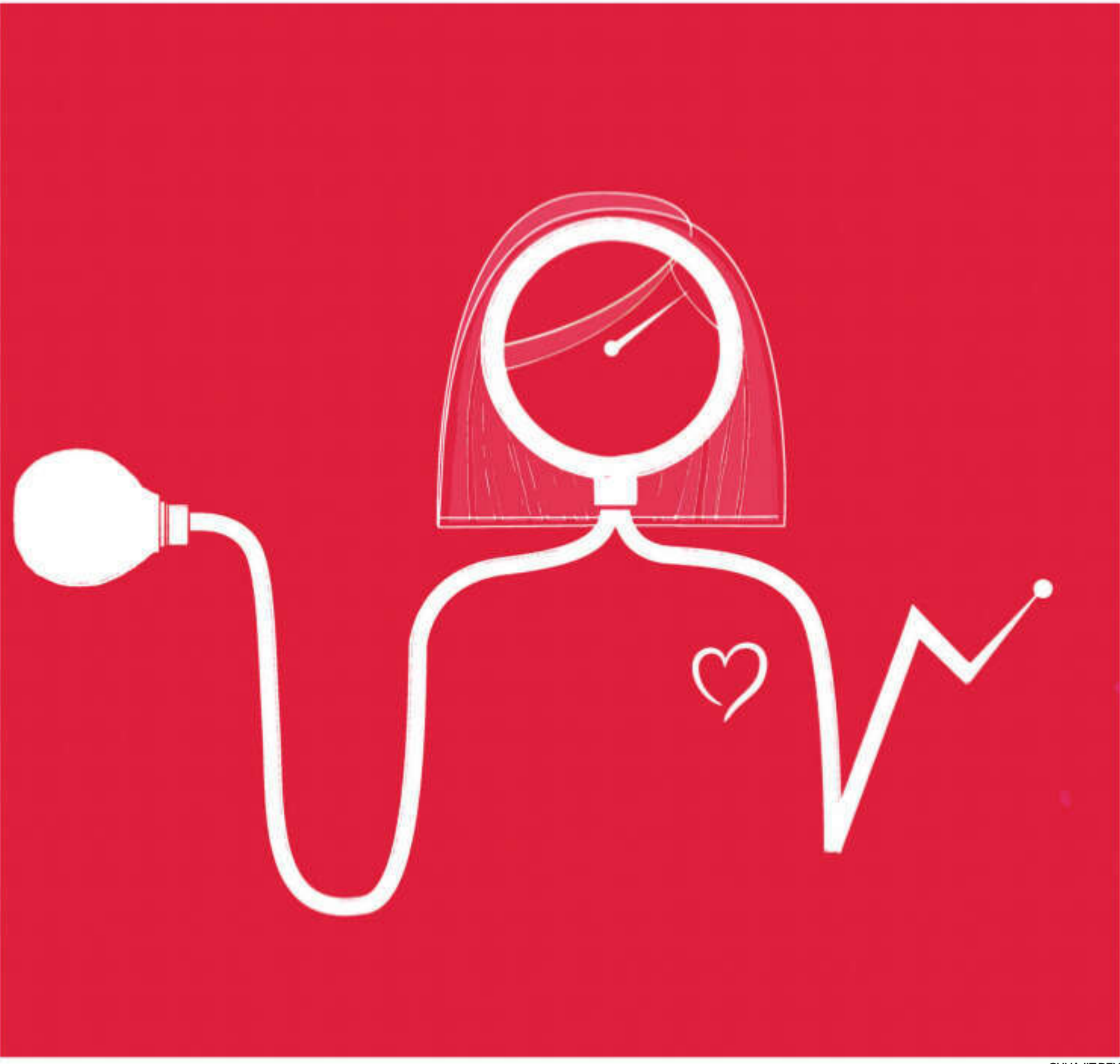
Juggling between a competitive work life, wound-up weekdays and zero relaxation, young Indians are trapped in work stress, poor diet, inactivity, obesity, smoking and alcohol. This pushes up their BP. Yet it is the one easily identifiable and modifiable risk factor that may prevent heart attacks and sudden deaths.

One patient of Dr Bansal, a 38-year-old entrepreneur, had dangerously high readings of 160/100 mm Hg and a racing heart. Damage from high BP led to more than desirable bad cholesterol build-up in his heart vessels, risking an early heart attack. With major lifestyle shifts, he now has normal readings.

For Indians, genetically prone to heart disease early in life, the ideal BP should be below 120/80 mm Hg, says Dr Bansal about the new American Heart Association guidelines. The top reading measures systolic (heart pumping pressure) and the bottom figure diastolic (pressure when the heart relaxes) values.

**Two case histories, one solution**

The lockdown years hit Ria hard. "I lost my aunt and couldn't process the loss. That was the beginning of my stress and anxiety. Both my parents are hypertensive; my mother is diabetic and tends to have a higher heart rate. The restlessness of grief was enough to pace up my heartbeat," she says. She didn't think much of a headache that clawed into her skull till she visited Dr Rommel Tickoo, director, Internal Medicine, Max Healthcare, Delhi, for a routine checkup. "They check heart rate and BP before evaluation; it was 135/95 mm Hg. I thought it was a one-off because of my anxiety. But the doctor insisted that I recheck it again. On three different occasions, the reading continued to be high. Dr Tickoo suggested that I sleep well, begin exercising, clean up my



## LIFE POSITIVE



**NEED TO KNOW**

About 35-45 per cent of India's adult population is hypertensive, reflecting a serious public health concern, says top cardiologist

diet and report figures in four weeks. I added proteins and fibre to my diet, walked but still my BP shot up to 145/105 mm Hg," says Ria.

Given her family history, Dr Tickoo put her on BP medication though she was hesitant about it. "Nobody wants to have drugs lifelong but apart from high BP, her resting heart rate was high too, at 105-plus. She not only needed drugs but an aggressive lifestyle overhaul to keep her levels in check. Since the damage done by BP is progressive and unseen, many do not see it as risky enough to take medicines. This non-adherence is the reason why BP spirals further," he says. Now that her BP has stabilised, Ria measures it after long gaps. "In fact, even if my routine goes slightly off during vacations, I clock 120/75 mm Hg. Also, I had borderline cholesterol which is in range now. I am glad my test report has no bold lines to indicate something is off," she says.

Dr Bansal's entrepreneur patient had neither family history, nor diabetes. His hypertension was driven by work stress, smoking, obesity and a sedentary life. He had normal kidney and liver function. Yet with a high BP of 160/105 mm Hg, he was in a high-risk stage that needed both medication and lifestyle management. "I was very reluctant to take drugs but the doctor told me that uncon-

trolled, my BP could damage every organ system of my body. He told me that dosage could be regulated once I changed everything about my life," he says.

**The changes that yielded results**

All through the lockdown, Ria gained almost 8 to 10 kg as she worked from home and had a more sedentary life. "I would binge-eat as I had not addressed my grief, seeking solace in food. I would order meals at odd times at least four times a week and had turned into a couch potato. I stayed awake till 2 am and slept barely four to five hours. Once I started taking medicines, I realised they would not work if I continued my old life," says Ria.

She stopped eating outside, had home-cooked meals, slept by 11 pm and decided that Friday would be her cheat day. "This was the day I indulged myself in moderation. That leeway was needed or else I would have slipped back. Then I worked out at the gym for four days, walked on an incline and did cardio routines like cycling and the elliptical trainer. This combination I did for 25 minutes. The remaining 20 minutes I did strength training by lifting weights," says Ria.

Dr Tickoo deliberately gave her mixed routines. Cardio, he explains, controls blood pres-



Scan the code to read more health special stories

NEW BP GUIDELINES

- Systolic reading of 130-139 mm Hg should first be managed with lifestyle changes. Start single medication if it doesn't reduce after the changes or your diastolic goes up to 90 mm Hg
- If BP is over 140/90 mm Hg, start with two drugs immediately
- Must-do tests: LFT, KFT, sodium-potassium balance, uric acid, blood sugar, urine albumin-to-creatinine ratio test (to measure kidney health) and aldosterone-to-renin ratio test (to detect a specific hormone-driven type of high blood pressure)
- Limit sodium intake to less than 2,300 mg per day, moving toward an ideal limit of 1,500 mg per day
- Shed at least five per cent of body weight if overweight
- Follow the DASH eating plan, a diet high in vegetables, fruits, whole grains, legumes, nuts, seeds, low-fat dairy, lean meats and poultry, fish and non-tropical oils

(American Heart Association)

sure by strengthening the heart to pump blood more efficiently, which reduces the pressure on blood vessel walls. "Regular cardio improves circulation, widens capillaries for better oxygen delivery, reduces fat and builds muscle. Weights improve the function of blood vessels, strengthen the heart and increase the production of nitric oxide, which relaxes blood vessels. Ria also did mindfulness exercises. The mind and muscle connection makes for a wholesome workout," says Dr Tickoo. She even tracked her BP twice a day to understand patterns and see if her new routines were having an impact.

Meanwhile, Dr Bansal had some difficulties with his entrepreneur-patient. "When he came on his first follow-up, he was taking his medicine regularly but had not followed lifestyle advice. So his BP came down to 135-140/85-90 mm Hg, pulse rate to 75-80/minute. At this point, a CT coronary calcium score was also done which showed a score of 18 (too high for a person of his age). The knowledge that he had already started having significant cholesterol deposition in his coronary arteries had a great impact on him. We put him on statins as well as a lifestyle routine," he says. Since cholesterol piles up quickly in damaged blood vessels, anybody with high BP should take a statin too, insists Dr Bansal. After losing weight and having a diet rich in wholegrains, legumes, fruits, vegetables, nuts, probiotics and lean proteins, the entrepreneur's BP is now 130/80 mm Hg with a pulse rate of 70-75 per minute.

About 10 to 15 years ago, Dr Bansal never saw hypertension in 20- to 35-year-olds. "Now I say, monitor patterns with childhood obesity, annually if you are 20 and more frequently if readings are out of range in any age group."