

THE HINDU UPSC IAS EDITION HD 07~08~2025  
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## Trump raises U.S. tariffs on Indian imports to 50%

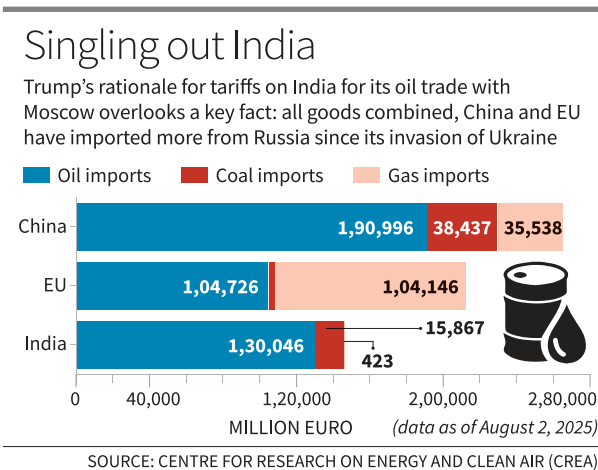
U.S. President signs executive order for 25% tariff on Indian goods on top of the 25% announced on July 31; one part takes effect from today, the other after 21 days; 'extremely unfortunate', says MEA

T.C.A. Sharad Raghavan  
NEW DELHI

U.S. President Donald Trump on Wednesday signed an executive order imposing an additional 25% tariff on imports from India, in response to India “directly or indirectly” importing oil from Russia. This is over and above the 25% tariff on Indian imports that Mr. Trump approved on July 31.

While the initial 25% tariff will come into effect from Thursday, the additional 25% tariff will come into effect after 21 days.

The Ministry of External Affairs (MEA), in response, said it has made its stand clear – through an earlier statement following Mr. Trump's threat of additional tariffs – that these ac-



tions were “unfair, unjustified and unreasonable”. It was “extremely unfortunate” that the U.S. has chosen this course of action, the MEA said.

“To deal with the national emergency described in Executive Order 14066 [relating to Russia's

actions in Ukraine], I determine that it is necessary and appropriate to impose an additional *ad valorem* duty on imports of articles of India, which is directly or indirectly importing Russian Federation oil,” Mr. Trump's executive order said. “Accordingly,

and as consistent with applicable law, articles of India imported into the customs territory of the United States shall be subject to an additional *ad valorem* rate of duty of 25%,” it added. Over the last few days, Mr. Trump has repeatedly threatened additional tariffs on India as a “penalty” for its oil imports from Russia.

In response to one such threat, the MEA on Monday pointed out that, not only did the U.S. encourage such trade previously, both the European Union and the U.S. actively trade other items with Russia in excess of the amount that India pays for Russian oil.

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'ECONOMIC BLACKMAIL'  
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## SC sets aside Madras HC order limiting State scheme names

Krishnadas Rajagopal  
NEW DELHI

The Supreme Court on Wednesday dismissed as “misconceived” and an “abuse of law” a challenge raised by All India Anna Dravida Munnetra Kazhagam (AIADMK) MP C.Ve. Shanmugam to naming a Tamil Nadu government outreach programme, ‘*Ungaludan* Stalin’, after the Chief Minister.

A three-Judge Bench headed by Chief Justice of India B.R. Gavai set aside a Madras High Court order, passed in Mr. Shanmugham's petition, imposing “sweeping restrictions” on the Tamil Nadu government from naming State welfare schemes after “any living personality”.

The DMK had appealed the High Court's July 31 restraining order in the Supreme Court.

Senior advocates Mukul Rohatgi and P. Wilson, ap-

pearing for the DMK, argued the High Court order had operated as a “*de facto* injunction” on the elected government in Tamil Nadu from formulating and implementing public welfare schemes. Senior advocate A.M. Singhvi appeared for the State government in a separate petition.

The Bench dismissed the pending case instituted by Mr. Shanmugham in the High Court with costs of ₹10 lakh. The MP has to pay the costs to the State government to be used in welfare programmes.

Mr. Shanmugam's side, represented by senior advocate Maninder Singh and advocate Balaji Srinivasan, challenged the implementation and publicity of ‘*Ungaludan* Stalin (With You, Stalin)’, an outreach programme notified on June 19.

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## SC seeks EC's response on omissions from Bihar draft rolls

### Roll revisions

The table shows the districts in Bihar with the highest and lowest deletions (in %) in the draft SIR roll released on August 1, 2025, compared to the electoral roll released on January 1, 2025



DISTRICTS	Highest deletions (in %)		Lowest deletions (in %)	
	Gopalganj	-14.36	Sheikhpura	-4.34
	Purnia	-10.83	Arwal	-4.95
	Kishanganj	-10.75	Nalanda	-5.21
	Bhagalpur	-9.53	Kaimur (Bhabhua)	-5.32
	Madhubani	-9.37	Paschim Champaran	-5.59

Krishnadas Rajagopal  
NEW DELHI

The Supreme Court on Wednesday asked the Election Commission (EC) to give a detailed response to an application seeking the particulars and reason for each of the 65 lakh voters deleted from the Bihar draft electoral roll.

The draft roll was published on August 1 as part of the special intensive revision (SIR) in the poll-bound State.

A Bench headed by Justice Surya Kant told the poll body to file the particulars by Saturday. A hearing has already been scheduled for August 12. The application, orally mentioned by advocates Prashant Bhushan and Neha Rathi for urgent hearing, said the reasons for deletion of the voters were various, including deaths, permanent shifting out of the State, duplication of names, and untraceability. However, the reason for removing each name is not individually shown, either constituency-wise or

booth-wise, in the draft roll.

“Direct the publication of a full and final Assembly constituency and part/booth wise list of names and details of approximately 65 lakh electors whose enumeration forms were not submitted along with reasons for non-submission against each name,” the application sought.

The applicants have also asked for the publication of lists of electors whose enumeration forms have been marked ‘not recommended by the BLOs [Booth Level Officers]’.

“The list with names of 65 lakh deleted electors curiously fails to disclose the reason for the non-submission of their enumeration forms, an information that the Election Commission evidently possesses,” Mr. Bhushan, for NGO Association for Democratic Reforms, argued.

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## Petrol lobbies behind E20 fuel fear campaign: Gadkari

The Hindu Bureau  
NEW DELHI

Tests show that older vehicles are not damaged in any way by using a new petrol blend with a higher 20% of ethanol, Union Minister for Road Transport and Highways Nitin Gadkari said on Wednesday, blaming the social media outrage against the new E20 blend on a “political conspiracy”, possibly fuelled by petrol lobbies.

Speaking at *The Hindu* MIND event, a conversation series in the national capital, Mr. Gadkari emphasised that making the switch to biofuels helped put the country on the path to self-reliance by cutting oil imports, and also

reduces pollution and saves farmers' lives by ensuring they received a higher value for their crops.

While new E20-tuned vehicles have started rolling out from April 2025, existing owners are concerned about the impact on their older vehicles and a surge in maintenance costs. “Pune-based Automotive Research Association of India has tested old vehicles on a total distance of one lakh kilometres and not found any problems,” the Minister said.

Asked whether the cheaper ethanol variant would result in lower petrol costs for the end user, given that there is also a 5% to 6% drop in mileage, Mr.

Gadkari said that determining petrol prices was not under his domain.

While he acknowledged an impact on vehicle mileage, he enumerated several benefits that accrued to the country due to the transition to E20, a fuel blend that comprises 20% ethanol produced from plant products such as sugarcane, rice, and maize, and 80% gasoline.

He said the transition to blended fuel started in 2001, when Atal Bihari Vajpayee was the Prime Minister. The then Petroleum Minister sent a delegation to Brazil, of which Mr. Gadkari was a part.

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Nistula Hebbar, political editor at *The Hindu*, presenting a book to Union Minister Nitin Gadkari on Wednesday. SHIV KUMAR PUSHPAKAR



Humans and dogs are both suffering. Neither humans nor dogs are safe, said the court. FILE PHOTO

# Stray dogs should be treated with dignity: Delhi HC

**The Hindu Bureau**  
NEW DELHI

Calling dogs “great friends of humans”, the Delhi High Court on Wednesday asked the authorities to treat them properly and ensure minimisation of dog-human conflict in the national capital.

### ‘Give solutions’

Justice Mini Pushkarna also directed the authorities and other parties concerned to give recommendations regarding the rehabilitation of stray dogs.

“Dog is the most loved animal in the world and great friends of humans. It should be ensured that dogs are protected and given dignity,” the court said.

“Either dogs are at home or shelter... not on roads eating garbage. Humans and dogs are both suffering. Neither humans nor dogs are safe,” Justice Pushkarna said.

Upon being informed that sterilisation of around 70% stray dogs would solve the issue,

the judge said the proposed solution has been lingering for the last three decades but nothing changed. “Sterilisation isn’t working at all. It’s not the solution,” the court said.

The court noted that the only proposal that came about in a meeting conducted by the Delhi Chief Secretary was the sterilisation of dogs.

The court said several animal birth control centres and vet hospitals were non-functional in the city.

It asked the Chief Secretary to call a meeting of all stakeholders concerned on steps for removing strays from the streets and rehabilitating them in an institutional shelter.

The court was hearing a plea filed by one Pratima Devi, who had challenged the Municipal Corporation of Delhi’s notice of demolition of a makeshift shelter in Saket, where she looked after more than 200 dogs.

The matter was posted for September 17.

# Clarify land pooling policy: HC to Punjab

Court asks State government whether environmental impact assessment had been carried out before notifying the policy: Aam Aadmi Party govt. submits that the policy, approved by the Cabinet in June, will be put on hold till the next date of hearing

**The Hindu Bureau**  
CHANDIGARH

The Punjab government on Wednesday submitted in the Punjab and Haryana High Court that the recently introduced Land Pooling Policy, 2025, would be kept on hold till the next date of hearing, i.e. Thursday.

The court was hearing a writ petition that challenged the Punjab government’s land pooling policy introduced in June this year.

The court asked the

State government to clarify whether an Environmental Impact Assessment had been carried out before notifying the Land Pooling Policy, 2025. The court, in its interim order, directed the government to inform the court if there was any provision in the policy for the rehabilitation of the landless labourers and others who do not own any land but are dependent on the land for their sustenance.

Petitioner Gurdeep Singh Gill had submitted that the policy was notified



Punjab CM Bhagwant Mann in New Delhi on Wednesday. ANI

without carrying out the necessary environmental and social impact assessment, which is an essential prerequisite for the acquisition of land under Sections

4 to 8 of the Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation and Resettlement Act, 2013.

The petitioner, a resident of Phagla village in Ludhiana district, owns 6 acres of land, which was allotted to his father as a displaced person in lieu of their land in Lyallpur district in Pakistan.

The petitioner argued that they have invested and have made improvements to the land, which is now fertile but has been included in the policy. Mr. Gill al-

so contended that there is no provision for providing compensation at the time of acquisition, and only an annual meagre livelihood allowance would be paid.

The ruling Aam Aadmi Party (AAP) has hit out at the Opposition parties for spreading “misleading propaganda” against the State government’s policy, with party leaders describing it as “farmer-friendly”.

The Punjab Cabinet in June gave its nod to the policy and asserted that not a single yard will be forcibly acquired from the owners.



King of the hill



**Perched atop:** A red-eared slider (*Trachemys scripta elegans*), a semi-aquatic turtle, basking in the sun at a pond in the Jayamahal Park in Bengaluru on Wednesday. J. ALLEN EGENUSE Join FREE Telegram Channelchat.whatsapp.com/HDvqPnxvwWb3Agy98nValQ





## Sleeping disasters

Governments must monitor silt accumulation at vulnerable points

The disaster in Uttarkashi district of Uttarakhand serves as a reminder of the permanent risk of destabilisation in the Himalayas. At least four persons were killed and at least 60 people are feared washed away after a mass of water, debris and muck triggered by torrential rain hit the Kheer Ganga river on Tuesday afternoon. The flood hit hotels and residential buildings in Dharali town, situated 8,600 feet above sea level, where video footage recorded by residents showed giant waves of water gushing through the area, engulfing people and homes. Several Indian Army personnel are also feared dead, according to preliminary reports.

The proximate cause of the disaster is the extremely heavy rainfall from August 3 to 5, with some parts of the district reporting nearly 30 cm of rainfall over a single day due to the monsoon and its active phase over North India. The fury and the volume of the water that gushed through the town seemed to suggest that this was a sudden event, prompting State officials to categorise it as a ‘cloudburst’. However, this has a very specific meaning in how the India Meteorological Department (IMD), the official forecaster, defines it. A large volume of rain, of at least 10 centimetres in an hour over 10 square kilometres, is what usually qualifies as a cloudburst. The lack of weather radars at those altitudes means that the IMD is incapable of such a computation. Therefore, it could very well be that continuous heavy rain over the past 48 hours may have loosened the soil and combined with the craggy, undulating terrain, unleashed large volumes of silt along with copious amounts of water. Whether it was a sudden event or the result of a gradual build-up might seem only of academic interest, given the loss of life, livelihood and property. The knee-jerk categorisation as a ‘cloudburst’ allows state authorities to claim helplessness. Once it is projected as a freak phenomenon, the event only elicits social media commiseration from public authorities in the form of ‘prayers’ and ‘deep sadness’ and a pre-defined token sum as disbursement. The recent past shows that these are anything but outliers. Climate change has increased the probability of extreme rainfall events and, therefore, the numerous infrastructure projects undertaken in the hills and the resulting debris act as latent explosives that are triggered from such rainfall. Following relief operations, the State government must – as soon as conditions are conducive – review debris and silt accumulation at critical points in the State to buffer the inevitable damage from climate change.

The exodus of over 300 Chinese engineers from Foxconn’s pivotal iPhone 17 manufacturing facilities in Tamil Nadu and Karnataka – a recent move ostensibly executed under corporate directive – is far more than an administrative recalibration. It is a meticulously calibrated stratagem, designed to arrest India’s burgeoning manufacturing ambitions and to perpetuate a “unipolar Asia” under Beijing’s overarching economic hegemony.

### A geo-economic move

This calculated withdrawal is not simply a logistical reshuffling. It is a subtle, yet potent, geo-economic manoeuvre by a rival apprehensive of a rising India. The recall of these highly specialised technicians, possessed of invaluable expertise in establishing sophisticated production lines, optimising operational efficiencies, and troubleshooting the labyrinthine complexities of modern manufacturing, represents a deliberate impediment to the crucial transfer of technology. Such knowledge is the bedrock upon which India seeks to construct its edifice of advanced electronics manufacturing, and its withholding strikes at the very heart of India’s aspirational ascent.

In addition, China has leveraged its dominance in rare earth production and processing by restricting exports of rare earths (which include elements such as gallium, germanium, graphite), and rare earth magnets, which are crucial for electric vehicles and electronics, to India. China has also imposed curbs on the export of other critical minerals that are vital for various high-tech industries. There have also been informal trade restrictions on the export of capital equipment from China to India, including high-end manufacturing equipment for electronics assembly and other sectors, heavy-duty boring machines and solar equipment, severely impacting India’s ability to set up and expand its own manufacturing facilities.

The broader implication of these actions, particularly the recall of engineers and restrictions on specialised equipment, is a deliberate attempt to limit the transfer of advanced manufacturing technology and know-how to India. This aims to keep India dependent on Chinese inputs and prevent it from developing a truly self-reliant high-value manufacturing base. Crucially, many of these restrictions are not formalised bans but are implemented through verbal instructions and administrative delays. This makes them harder to directly challenge but equally effective in disrupting supply chains, increasing costs, and creating uncertainty for Indian manufacturers.

In essence, China’s strategy is multi-pronged, leveraging its control over crucial raw materials, manufacturing equipment, and even human capital to impede India’s manufacturing ascent, especially in the high-stakes electronics and emerging technology sectors. These actions, when viewed through the prism of Beijing’s anxieties concerning India’s emergence as a potentially formidable manufacturing competitor

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Shashi Tharoor

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China’s determined moves to target India are part of a meticulously calibrated plan to safeguard its core economic interests and its internal stability

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# Decoding China — the lessons for a vulnerable India

in an era of “friend-shoring” by the West, align perfectly with its broader strategic calculus. China’s economic success is increasingly predicated upon maintaining robust export revenues.

Consequently, any nation daring to challenge its pre-eminence in global manufacturing, particularly in high-value sectors such as electronics, is inevitably perceived not merely as a competitor but also as an existential threat. The withdrawal of these engineers, therefore, constitutes a potent stratagem to disrupt India’s trajectory and safeguard China’s long-entrenched export market share and economic primacy in the region and beyond. India’s ambition to transform itself into a globally competitive manufacturing hub is seen in Beijing as a direct challenge to China’s long-term stability.

### The reality in China

Consider the demographic exigencies currently confronting China: an ageing and progressively shrinking populace, an unfortunate legacy of the protracted one-child policy, coupled with a palpable erosion of wealth occasioned by an enduring property crisis – even as local satraps exceed production targets in their zeal to impress Beijing. This widening structural imbalance between an excessive production capacity and faltering domestic consumption increasingly compels China to lean heavily on export revenues to underwrite its fiscal outlays and maintain a semblance of economic progress. As its social welfare and pension liabilities burgeon exponentially, the Chinese government finds itself under mounting fiscal duress. Any reduction of export revenues would directly impinge upon Beijing’s capacity to fund critical domains such as domestic security and military expenditure, potentially precipitating an undesirable degree of social instability.

China’s formidable trade surplus, now on the cusp of a trillion dollars, is not solely a testament to its industrial prowess but also a stark manifestation of weak internal consumption and persistent industrial overcapacity. The People’s Bank of China’s repeated interest rate reductions on savings accounts have largely failed to ignite internal demand. This chronic overcapacity, therefore, constrains Chinese enterprises to aggressively depress prices and inundate international markets in a desperate bid to remain solvent – a strategy that has, perhaps ironically, severely eroded profitability across a plethora of sectors. As a result, China’s determined endeavours to stymie competition are not merely a reflection of simple geopolitical rivalry. Rather, they are an undeniable reflection of profound domestic compulsions. Should India, by dint of astute policy and diligent execution, succeed in getting its house in order and convincingly demonstrate the potential to compete comprehensively in the global manufacturing landscape, Beijing is highly likely to escalate its countermeasures. These could range from the insidious pressures of economic coercion to outright military posturing, all in a relentless quest to safeguard its core economic interests and, by extension, its internal stability.

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However, the news of the U.S. raising India’s tariffs to 50%, even while China enjoys a 90-day exemption from punitive tariffs despite buying more Russian oil and gas than India does, makes India less of a threat to China. While India has been seen as a key partner in western efforts to diversify supply chains away from China, the imposition of the new U.S. tariffs serves as a reminder that all alignments carry their own fragilities, and underscores the need for India to build true strategic autonomy. The Indian Prime Minister’s forthcoming visit to Beijing comes against this complex backdrop.

### An appraisal of India’s strengths, shadows

China’s industrial pre-eminence is not fortuitous or trivial; it is a systemic dominance that spans critical and emerging sectors, from the esoteric realms of Artificial Intelligence and quantum computing to the cutting-edge frontiers of 6G telecommunications and electric vehicles. We need to understand that China does not merely export goods; it orchestrates and largely controls global supply chains in these advanced technologies. Even its overcapacity, otherwise a sign of economic infirmity, is being deftly weaponised as a strategic instrument for price suppression and audacious market capture. The aggressive pricing strategies employed by behemoths such as BYD in the electric vehicle segment are a quintessential illustration: by flooding global markets with irresistibly priced goods, China effectively stifles nascent competition and inexorably solidifies its global market share. This is economic statecraft in action.

In stark contrast, India’s manufacturing ecosystem, despite its vibrant aspirations, remains undeniably nascent. The cherished dream of transforming into a global “manufacturing hub” frequently founders upon a litany of formidable hurdles, including persistent infrastructure lacunae and the pervasive sclerosis of bureaucratic red tape. We remain regrettably reliant on imports for a pantheon of crucial components – ranging from sophisticated chips and engines to semiconductors and sensors – even for the foundational “screwdriver technology” indispensable for basic assembly. This profound reliance on external sources underscores the considerable ground India must traverse to genuinely metamorphose into a self-sufficient manufacturing powerhouse. “Make in India” still needs help from outside India.

From Beijing’s vantage point, China has nothing to worry about yet; its actions against India are an effort to neutralise potential “noise” within its immediate periphery while it assiduously scales up its economic and political corridors with key strategic partners across the sprawling geographies of Pakistan, the Association of Southeast Asian Nations (ASEAN), Africa, and Latin America. India’s narrative of offering an alternative to the Chinese behemoth falters on our own dependence. If India genuinely harbours the ambition to “compete” on the global stage, it needs a laser-like focus on its own foundational development. That is what China’s behaviour has taught India: The onus is on us Indians.

# Mumbai train blasts, an exoneration, the questions

The Bombay High Court’s exoneration of all those convicted in the Mumbai train blast case of July 2006, has come as a rude shock for the families of the 189 people killed and around 800 people who were injured. The High Court has ripped apart the investigation, calling witnesses untrustworthy, deeming confessions gained as under duress, terming identification parades faulty and citing forensic evidence custody as not foolproof. It is a shocker because it was based on the same evidence that the trial court, in 2015, sentenced five of the accused to death and seven to life imprisonment.

### A long wait, lapses

Who will answer for the inordinately long incarceration of the accused since 2006? The police, the prosecution, lawyers or the courts? Or all of them, that is the criminal justice system? It takes years for trials in courts. One of the defence lawyers said that the charge sheet filed by the Anti-Terrorist Squad (ATS) had 20,000 pages, while much lesser numbers would suffice. It is like schoolchildren taking their examinations and filling pages with answers, hoping to impress the teacher with volume rather than quality. But the nine years taken by the Special Court and 10 years by the High Court for their decisions make the waiting period so agonising to the point of being meaningless for the accused. Nineteen years is a lifetime and almost like a sentence itself.

Admitted there is tremendous pressure on investigating teams and the police chief in a terrorist or any high-profile case. The government gets unsettled with the Opposition’s relentless attacks and demand to arrest the accused within minutes. It impacts investigation severely, pushing investigating officers into a corner, taking hasty decisions and bypassing protocol and procedures.

But some of the issues referred to by the High



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The Bombay High Court’s exoneration of all those convicted in the 2006 case is a reminder that every element in the criminal justice system needs to be reformed

Court raise concerns. Despite two confessions taken by two different deputy commissioners of police, they appear to be not similar but actually the same, with even the ellipsis matching. The witnesses became untrustworthy because, on cross-examination, they did not remain true to their original statements. Guess no one can after a lapse of so many years. It was surprising that the drawer of the sketches of the accused was not called as a witness.

The test identification parade became suspect because the special executive officer who conducted it was not authorised to do so. Strange, because the magistrate who conducted it should have known whether he was the right person to undertake the TIP.

The investigation, however, is truly flawed if the forensic evidence purity and chain of custody cannot be vouched for faithfully. It is troubling to hear that even in such critical cases there could be lapses on this count.

### The use of RTI filings

Perhaps the biggest message from this trial is how the Right to Information (RTI) Act, known as the sunshine legislation, enacted 20 years ago, has stood the test of time, bringing transparency and accountability in government functioning. Hundreds of RTIs were filed by the accused and the defence lawyers to elicit information from the police, hospitals, and the Mahanagar Telephone Nigam Limited to build up their case and cross-examine the prosecution witnesses and prove them wrong on various counts. In one instance, it was the name of a non-existent person in a hospital, named by the prosecution witness or the shift in which one person was working was proven wrong. It is the noblest use of RTI, perhaps, if it is used to defend oneself. This is a fundamental aspect of free trial and constitution under Article 20(3).

Perhaps most embarrassing for the Mumbai

police would have been the discovery of an Indian Mujahideen (IM) module, busted by the crime branch Mumbai in 2008, which accepted its role in the series of blasts in Ahmedabad, Delhi and Jaipur between 2005 to 2008. The gang led by Sadiq Israr Sheikh also claimed responsibility for the series of blasts in suburban trains on that day in Mumbai at around 6.30 p.m. The charge sheet in the July 11, 2006 Mumbai train blast case had already been filed by then, and the Anti-Terrorist Squad (ATS) had announced it as the handiwork of the Students Islamic Movement of India (SIMI).

In fact, in 2008, the top man of SIMI, Safdar Nagori, general secretary, was arrested along with his associates in March 2008 in Indore, Madhya Pradesh, and was awarded life term in 2017. But how does this make any sense to the families of the victims of 7/11 or to a common man? How does it matter whether the police, the prosecution or the criminal justice system failed him? What matters is that 19 years later, he has no closure. For the accused who were incarcerated for 19 years, it is already a sentence served without proven guilty. They seek justice too.

### Reform must begin

There are too many questions unanswered. The only way to answer them is to put the criminal justice system on track on a war footing. Formatting a new criminal law by changing a few old laws here and there is not enough. Every element of the criminal justice system should be reformed. Nineteen years for a decision is meaningless because the punishment has already been given. A prosecution overlooking basic issues is meaningless and an investigation overlooking the simplest of things is not worth it. Reform of the police, the judiciary, the prosecution and prisons cannot wait – we are sitting on a time bomb of people’s expectations and frustrations, which may explode anytime.



# Quranic justice is restorative, not retributive

The case of the Malayali nurse Nimisha Priya in Yemen has spotlighted the legal and moral complexities of retributive justice in Muslim countries. Nimisha has been in prison since 2017 for the murder of her business associate, Talal Abdo Mahdi. While the Houthi Supreme Political Council dismissed her appeal in November 2023, the appeal court left open a path to clemency through the payment of blood money (*diyyah*) to the victim’s family, as provided for under Shariah law.

The concept of *diyyah* finds mention in verse 4:92 of the Quran, which states that in cases when a believer kills another believer by mistake (*khata’an*), then, as compensation, the killer must free a believing slave, and also pay blood-money (*diyyah*) to the family of the slain. The Quran also talks about legal retribution (*qisaas*) for murder and violent assault as a life-preserving deterrent (*lakum fil qisaasi hayaatun*) to curb criminal behaviour. (2:178-179 & 194, 5:45)

### Restorative approach

It is essential to recognise that many of the Quranic injunctions concerning homicide and bodily harm were not retributive – they were fundamentally restorative.

Legal retribution (*lex talionis*) and compensation for murder and bodily harm had existed centuries before the advent of Islam. The Book of Exodus in the Hebrew Bible upheld capital punishment for intentional murder, exile for unintentional homicide, and either financial compensation or retaliatory injury for physical harm (Exodus 21:12-36).

Similar provisions are found in even earlier laws, such as the Sumerian and Babylonian codes. In *Law Collections from Mesopotamia and Asia Minor*, Martha Roth cites an edict from the Hittite Kingdom (1650-1180 BCE), which stipulates that in cases of murder, the decision regarding the offender’s fate rested solely with the victim’s heir.

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A. Faizur Rahman

Secretary-General of the Chennai-based Islamic Forum for the Promotion of Moderate Thought

The Quran made a reformative switch from this sort of retributive punishment to restorative justice, inviting all those impacted by an offence to jointly determine how best to address its consequences and shape future relations. In 2:178, it asked the legal heirs of the victim to pardon (*faman ufiya lahu*) the killer, even while instructing the killer to offer fair compensation to the family out of sincere gratitude.

The same message is repeated in 5:45 with a compassionate appeal to the victim’s family: “If anyone remits the retaliation by way of generosity, it would be an act of atonement (*kaffaara*) for him.”

What is remarkable about this exhortation is its paradigm shift from retribution to the spiritual healing of the aggrieved party. It introduces a mechanism that not only fosters genuine remorse in the offender but also promotes social harmony and quiet dignity among all parties involved.

This is in keeping with the Quran’s moral dictum (in 64:14) that God is forgiving and merciful to those who “pardon, overlook and forgive” (*in ta’fu wa tasfahu was taghfiru*). The prophet echoed this in a hadith found in Abu Dawud, encouraging Muslims to practice mercy on ‘earth’ so that mercy may be shown to them from ‘the heavens’.

### Implications for Nimisha

It may be noted that the Quran’s appeal to give up retaliation pertains to intentional murder.

For non-premeditated killing without malice aforethought (*qatl khata’*), the Quran prescribes only blood money, not a retaliatory death penalty, as stated in 4:92 above.

This carries serious implications for Nimisha. If, as reported, she did not sedate Mahdi with the intent to kill him – and this can be proven – then, under the Quranic injunctions in 4:92, his family would not have the right to demand the death penalty.

Media reports suggest that Nimisha administered the sedative only to retrieve her passport, which Mahdi had allegedly confiscated unlawfully, and that his death was the result of an accidental overdose. Besides, if Mahdi had previously served time for criminal offences, as alleged, the claim of his complete innocence is open to challenge.

Therefore, for justice to be served in Nimisha’s case, the Quranic law must prevail.

However, what reigns in most Muslim societies in its name is sectarian jurisprudence, which views Islam not as a moral order in which justice and rational logic are intrinsic, but a dogmatic ‘religion’ defined and dominated by male authority.

This internal subversion coincided with the rise of post-Prophetic schools of religious thought during the height of Muslim imperial expansion, when a convenient alliance developed between theologians and the ruling elite: rulers sought religious legitimacy for their authoritarian regimes, while theologians wanted the latitude to impose patriarchal structures.

It was the consolidation of this power dynamic that brought about Islam’s shift from Quranic *deen* – a rational, justice-oriented ethical framework – to *mazhab* - a rigid, clerically dominated theology. Consequently, Islam ceased to be what is plainly stated in the Arabic text of the Quran and the Prophetic understanding of it.

This structural transformation remains one of the most significant and unresolved crises in Muslim history, reshaping the course of Islamic thought. Nowhere is this more evident than in criminal law, which often paints Islam as a harsh faith.

If Muslim theologians truly believe in the Quran’s opening statement that the Islamic god is “most Gracious” (*Al-Rahman*) and “most Merciful” (*Al-Raheem*), then they must allow the merciful *deen* of Islam to prevail over their rigid juristic schools.

# More women than men deleted from Bihar’s electoral rolls

It is concerning that more women have been deleted from the rolls, given that men out-migrate more from the State

### DATA POINT

Sambavi Parthasarathy  
Srinivasan Ramani  
Vignesh Radhakrishnan

An analysis of Bihar’s draft electoral rolls released on August 1, prepared after the completion of the special intensive revision (SIR) exercise, shows that more women than men have been deleted from the rolls.

A total of 3.82 crore male electors are part of the latest electoral rolls – about 25 lakh male electors fewer than the rolls prepared in January this year. A total of 3.41 crore female electors are part of the latest electoral rolls – about 31 lakh female electors fewer than the rolls prepared in January. **Chart 1** shows the gender-wise number of electors in the January and August rolls.

In fact, in 37 out of Bihar’s 38 districts, more women electors have been deleted from the rolls than men. In Gopalganj, the number of women electors fell from over 10 lakh in January to about 8.21 lakh in August – a 17.8% decline. In comparison, male electors in Gopalganj declined from over 10.37 lakh to 9.23 lakh – a drop of 11%. This means that deletions among women were 6.8 percentage points more than those among men (17.8% minus 11%) in the Gopalganj rolls. This was the highest among all districts. **Map 2** depicts the district-wise gender-gap in deletion rates.

The gender-divide in deletions raises many concerning questions. According to the Election Commission, the electors who are not part of the August list have either died, or are registered in multiple locations, or have permanently migrated out of Bihar, or are untraceable.

Death rates between men and women are generally similar. **Chart 3** shows male and female death rates in Bihar over the past five years. Except during the pandemic – when male death rates

briefly spiked above those for women – the trend has largely remained nearly equal. The number of deletions due to duplicate entries or untraceable addresses is likely to be relatively smaller.

This leaves one other major factor: out-migration from Bihar. Both anecdotal evidence and data suggest that when it comes to migrating out, men vastly outnumber women. **Chart 4** shows that, in 2020-21, for every 100 male migrants in India, 31.4 had migrated from another State and 65.6 within the same State. In contrast, among 100 female migrants, only 7.2 had migrated from another State, while 92.6 moved within their home State. This pattern holds true for Bihar as well and perhaps it is even more stark for men from the State.

If men outnumber women in out-migration by this huge a margin, then why did more women get deleted than men in the post-SIR rolls? Given that deaths, the other major factor, cannot explain such a variance. A plausible explanation is a gender gap in the submission of enumeration forms during the SIR exercise. As of 2019-21, only 55% of women in Bihar were estimated to be literate – the lowest female literacy rate in the country – compared to over 76% among men. Could such low literacy levels have hindered women from properly filling out and submitting the forms?

In yesterday’s Data Point, we found that more deletions occurred in districts where more women than men turned out to vote in absolute numbers, even though there were more registered male electors. We had suggested that these districts had higher out-migration of men. But deletions have been more among women. This suggests that the method of self-enumeration could have affected women, among whom there is a lower literacy rate, leading to their higher deletion rates.

More analysis of the SIR exercise will follow in these columns.

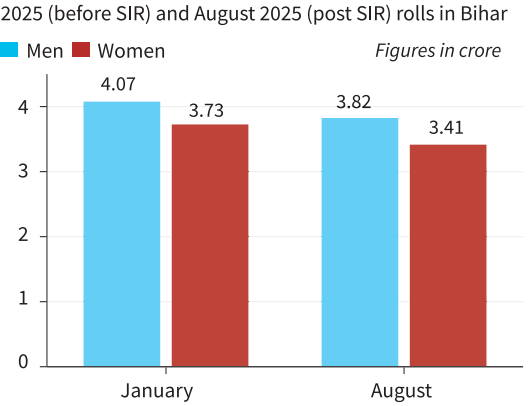
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## Gender disparity in deletions

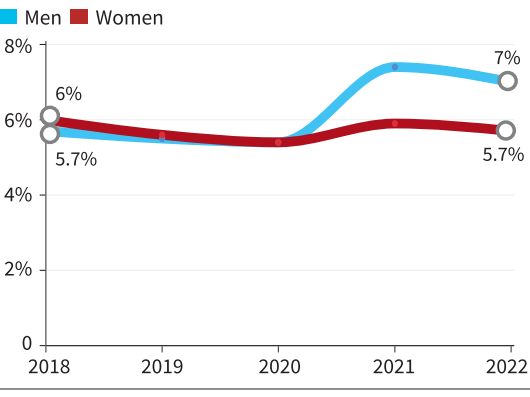
The data for the charts were sourced from the Election Commission of India, Sample Registration System (SRS) Bulletins, and Migration in India 2020-2021



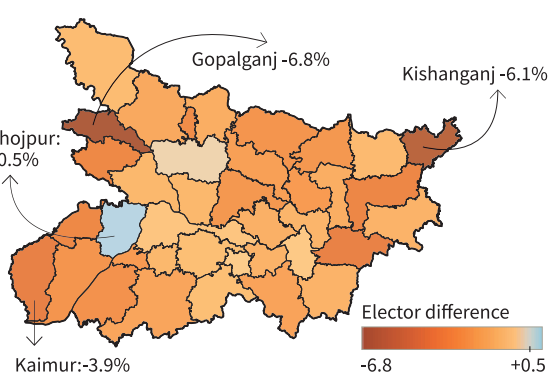
**Chart 1:** The gender-wise number of electors in the January 2025 (before SIR) and August 2025 (post SIR) rolls in Bihar



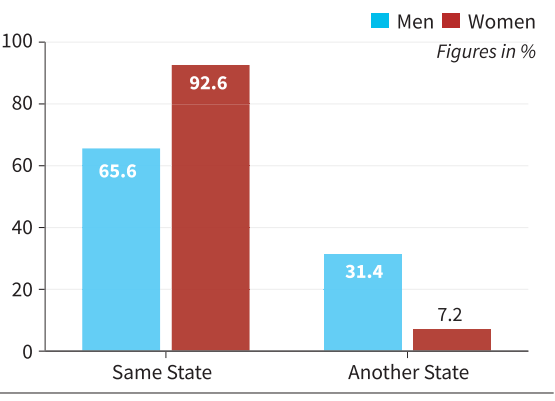
**Chart 3:** Male and female death rates in Bihar over the past five years. Death rate is defined as the number of deaths per thousand population in a given region and time period



**Map 2:** The district-wise gender-gap (male minus female) in deletion rates in the latest rolls, compared to January rolls



**Chart 4:** Percentage distribution of migrants by location of their last usual place of residence being the “same State” or from “another State” as recorded in PLFS 2020-21





# Text & Context

NEWS IN NUMBERS

Public buildings made accessible by Sugamya Bharat Abhiyan

**1,835** In a written reply to the Rajya Sabha, the Minister of State for Social Justice and Empowerment B.L.Verma said ₹564.5 crore had been released to States and Union territories for retrofitting government buildings to make them accessible. PTT

Amount cleared by Italy for world’s longest suspension bridge

**13.5** In billion euros. The Messina Bridge will link Sicily Island to mainland Italy, aiming to boost jobs and trade in the south. The government says the bridge includes features to withstand strong winds and seismic activity in a tectonically active region. AFP

The economic toll of natural disasters in the first half of this year

**135** In \$ billion. Wildfires near Los Angeles accounted for \$40 billion in insured losses, followed by \$31 billion from severe thunderstorms. A deadly earthquake in Myanmar and other disasters added to the toll. Insured losses alone hit \$80 billion which is double the 10-year average. AFP

## What is the potential of biochar?

What are the byproducts of biochar production and how can they generate additional electricity and fuels? How can biochar help the construction sector? Why does biochar remain underrepresented in carbon credit systems? How should one enable large-scale adoption of biochar?

EXPLAINER

Harishankar Kopperi Suresh N.S.

The story so far:

With the Indian carbon market set to be launched in 2026, CO2 removal technologies such as biochar are expected to play a crucial role. Biochar is a type of charcoal rich in carbon and is produced from agricultural residue and organic municipal solid waste. It offers a sustainable alternative to manage waste and capture carbon. However, to truly serve as a scalable pathway for negative emissions across sectors, biochar requires participation and support from multiple stakeholders.

What is biochar’s potential?

India generates over 600 million metric tonnes of agricultural residue and over 60 million tonnes of municipal solid waste every year. A significant portion of both is burnt openly or dumped in landfills, leading to air pollution from particulate matter and greenhouse gases such as methane, nitrous oxide, and CO2.

By using 30% to 50% of surplus waste, India can produce 15-26 million tonnes of biochar and remove 0.1 gigatonnes of CO2-equivalent annually. Byproducts of biochar production, such as syngas (20-30 million tonnes) and bio-oil (24-40 million tonnes), can generate additional electricity and fuels. Theoretically, utilising syngas could generate around 8-13 TWh of power, equivalent to 0.5-0.7% of India’s annual electricity generation, replacing 0.4-0.7 million tonnes of coal per year. Bio-oil can likewise potentially offset 12-19 million tonnes (or 8%) of diesel or kerosene production annually, leading to lower crude oil imports and reducing more than 2% of India’s total fossil-fuel-based emissions.

**How can biochar be a carbon sink?** Biochar can hold carbon in the soil for



**Removing emissions:** A biochar pit and graded sticks. GETTY IMAGES  
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100-1,000 years due to its strong and stable characteristics, making it an effective long-term carbon sink. Its application across different sectors provides scalable opportunities for reducing emissions.

In agriculture, applying biochar can improve water retention, particularly in semi-dry and nutrient-depleted soils. This, in turn, can abate nitrous oxide emissions by 30-50%. Notably, nitrous oxide is a greenhouse gas with 273-times the warming potential of CO2, making its mitigation a crucial benefit of biochar.

Biochar can also enhance soil organic carbon, helping restore degraded soils.

In carbon capture applications, modified biochar can adsorb CO2 from industrial exhaust gases. However, its carbon removal efficiency is currently lower than that of conventional methods.

In the construction sector, biochar can be explored as a low-carbon alternative to

building materials. Adding 2-5% of biochar to concrete can improve mechanical strength, increase heat resistance by 20%, and capture 115 kg of CO2 per cubic metre, making building materials a stable carbon sink.

In wastewater treatment, biochar offers a low-cost and effective option to reduce pollution. India generates more than 70 billion litres of wastewater every day, of which 72% is left untreated. A kilogram of biochar, along with other substances, can treat 200-500 litres of wastewater, implying a biochar demand potential of 2.5-6.3 million tonnes.

What hinders biochar’s application?

Despite its theoretically substantial potential to capture carbon, biochar remains underrepresented in carbon credit systems due to the absence of standardised feedstock markets and consistent carbon accounting methods,

which undermine investor confidence.

While research confirms biochar’s technical feasibility for applications across sectors, deployments are hindered by barriers such as limited resources, evolving technologies, market uncertainties, and insufficient policy support. Viable business models are yet to emerge for large-scale adoption. Market development is further constrained by limited awareness among stakeholders, weak ‘monitoring, reporting, verification’ frameworks, and a lack of coordination across areas such as agriculture, energy, and climate policy.

To enable large-scale adoption, sustained support for R&D is essential to create region-specific feedstock standards and to optimise biomass utilisation rates based on agro-climatic zones and crop types. Further, biochar should be systematically integrated into existing and upcoming frameworks, including crop residue management schemes, bioenergy initiatives in both urban and rural contexts, and state-level climate strategies under the State Action Plans on Climate Change. Recognising biochar as a verifiable carbon removal pathway within the Indian carbon market will generate additional income for investors and farmers through carbon credits.

Deploying biochar production equipment at the village level has the potential to create approximately 5.2 lakh rural jobs, linking climate action with inclusive economic development. The additional benefits of biochar, such as better soil health, lower fertilizer requirement (by 10-20%), and higher crop yield (by 10-25%), should be systematically integrated into policy and market frameworks to fully realise its potential.

In sum, although biochar is not a silver bullet, it offers a science-backed multisectoral pathway for India to achieve its climate and development goals.

Harishankar Kopperi is a senior associate and Suresh N.S. is a senior research scientist in the Strategic Initiatives group at Center for Study of Science Technology and Policy.

THE GIST

By using 30% to 50% of surplus waste, India can produce 15-26 million tonnes of biochar and remove 0.1 gigatonnes of CO2-equivalent annually.

Biochar can hold carbon in the soil for 100-1,000 years due to its strong and stable characteristics, making it an effective long-term carbon sink.

While research confirms biochar’s technical feasibility for applications across sectors, deployments are hindered by barriers such as limited resources, evolving technologies, market uncertainties, and insufficient policy support.



From Page One

Trump raises tariff on Indian imports to 50%

“We have already made clear our position on these issues, including the fact that our imports are based on market factors and done with the overall objective of ensuring the energy security of 1.4 billion people of India,” the MEA statement said on Wednesday. “It is therefore extremely unfortunate that the U.S. should choose to impose additional tariffs on India for actions that several other countries are also taking in their own national interest.”

This latest escalation by Mr. Trump is a “severe setback” for Indian exports, said S.C. Ralhan, president of the Federation of Indian Export Organisations (FIEO).  
Negotiators from the U.S. and India are currently engaged in finalising the first tranche of a Bilateral Trade Agreement (BTA) by fall of this year.

SC seeks EC’s reply on Bihar rolls omissions

“In other words, it fails to provide any explanation as to why these names were not included in the draft electoral rolls whether for reason of having been deceased, permanently migrated out of Bihar, being untraceable or on the ground of duplicate entry,” Mr. Bhushan added.  
“The EC’s concealment of reason for deletion seems to be an attempt to obviate the public from ascertaining whether or not electors whose names figure in the list, are indeed dead or permanently migrated. It is to be noted that as per the EC, those whose names do not figure in the draft roll stand do not enjoy the right to routine legal remedies (notice, personal hearing and appeals) available under Section 21A of the Registration of Voters Rules,” the application said.

SC rejects AIADMK MP’s plea on scheme names

Mr. Shanmugham had urged the High Court to direct the Election Commission to take action against the DMK under Paragraph 16A of the Election Symbols (Reservation and Allotment) Order of 1968. It had also wanted the Content Regulation Committee on Government Advertising (CCRGa) to interdict the Tamil Nadu government from using the name ‘Stalin’ in the programme.  
The Supreme Court did not agree with both submissions. It questioned why the petitioner had focussed on one particular political party, DMK, and not challenged the actions of other political outfits using their leaders’ names to brand programmes.  
“Time and again, we have observed that political battles should be settled before the electoral roll and courts should not be used for this... Schemes in the name of political leaders is a phenomenon followed across the country. When such schemes are floated..., we do not appreciate the anxiety of the petitioner to choose only one political party and one political leader... If the petitioner was so concerned about the misuse of political funds, the petitioner could have made a challenge to all such schemes. However, singling out only one political leader shows the intentions of the petitioner,” the court observed.

‘Petrol lobbies behind E20 fuel fear campaign’

“From an economic point of view, the country spends ₹22 lakh crore on fossil fuel imports and the automotive industry is growing and imports are too. There are also concerns over rising levels of pollution. Thirdly, our push for alternative fuels and bio fuels places the country on the path to *Atmanirbharta* [self-reliance].”

**‘No vested interest’**  
Allegations have also been made on social media about the Minister’s “vested interest” in promoting ethanol blending because of his family’s ownership of sugarcane companies such as the Purti Group.  
“This is a deliberate misinformation campaign. We have identified an organisation that is dialing phones and talking to people [to write posts on X]. It is possible that this is a political conspiracy. It is common in politics,” Mr. Gadkari said emphatically. “Vajpayee *ji* started ethanol blending in 2001. Did he do it at my behest?” he asked.  
He said that his family-owned companies are running at an annual loss of ₹30 crore, claiming that despite advice to shut them down, he continues to remain invested because of his passion. These firms only generate a mere 1.3 lakh litres of ethanol, which is too small a quantity, he said.  
“If I promote electric or hydrogen or flex engine car, does it mean I manufacture those? I promote various alternative and biofuels so that import and pollution goes down, farmers don’t commit suicide, and we fulfil the dream of the Prime Minister, of *atmanirbharta* [self reliance].” Mr. Gadkari said. “When we used corn to produce ethanol, its market price rose from ₹1,200 to ₹2,600..., and farmers also benefitted from the higher value.”  
On whether vehicle owners could choose between E20 and E5 – as in the case of Brazil, the Minister said that India was still at a nascent stage of its transition to biofuels unlike Brazil, which has over 80 years of experience. It will take another seven to eight years for stability, he said.

Doval to visit Moscow, as Trump imposes additional tariffs on India

The National Security Adviser’s visit is intended to prepare details for Russian President Vladimir Putin’s visit to Delhi later this year; however, President Trump’s latest action is expected to dominate talks; agenda includes supply of Russian oil

Suhasini Haidar  
NEW DELHI

National Security Adviser Ajit Doval will hold meetings with senior Russian officials in Moscow on Thursday, just a day after the U.S. decided to impose an additional 25% penalty tariffs on India for its import of Russian oil.

According to sources, Mr. Doval’s visit is intended to prepare details for Russian President Vladimir Putin’s visit to Delhi later this year. However, U.S. President Donald Trump’s latest action, which the government called “extremely unfortunate”, is expected to dominate talks. India is the second largest buyer of Russian crude oil after China.

Although the visit had been scheduled weeks earlier, the government’s decision to go ahead with the NSA’s travel appears to underline its intention to defy the U.S. actions.

“The current escalation of the geopolitical situation will also be discussed.



**Seeking clarity:** Ajit Doval during a meeting with Vladimir Putin in St Petersburg, Russia in September 2024. PTI  
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Apart from that, the topics will include such pressing matters as supplies of Russian oil [to India],” Russia’s official TASS agency reported.

Ahead of the NSA’s visit, Indian Ambassador to Russia Vinay Kumar met with Russia’s Deputy Defence Minister Colonel General Aleksandr Fomin for talks, the Russian MFA said, that focused on “further strengthening the specialised cooperation in the form of a particularly privileged strategic partnership”

Among talks on defence

cooperation, Mr. Doval is also expected to speak about the delivery of the remaining S-400 missile systems, that played an important role during the India-Pakistan conflict and Operation Sindoor in May this year. This is the NSA’s first visit to Moscow since Operation Sindoor, although he attended the SCO NSA meeting in Beijing in June, and met with Mr. Shoigu’s deputy, Russia’s Security Council Deputy Secretary Aleksandr Venediktov there. In addition, Russia’s recent decision to

grant recognition to the Taliban regime in Afghanistan is also expected to come up.

The two sides will also possibly discuss the latest moves for talks between Russia and Ukraine, after the Kremlin said on Tuesday that U.S. Special envoy Steve Witkoff would be in Moscow to meet Mr. Putin.

Announcing the upcoming visit of Mr. Witkoff on Tuesday, Mr. Putin’s Presidential aide Dmitry Peskov said Mr. Putin was prepared to meet Ukraine’s President Volodymyr Zelenskyy after expert-level talks but gave no timeline for the meeting.

When asked about Mr. Trump’s threats against India, Mr. Peskov said Russia believes “sovereign countries must have, and do have, the right to choose their trade partners on their own, and independently determine those modes of trade and economic cooperation that suit the interests of a country in question”.

Later this month, External Affairs Minister S. Jaishankar

will also visit Moscow for talks on the visit, which has been delayed for several years due to the Ukraine conflict which began in February 2022. Prime Minister Narendra Modi had visited Moscow last July, reviving the summit after a gap of three years.

Since 2022, India increased its oil imports from Russia multi-fold, defying pleas from European countries to stop increasing Russian revenues, from procuring less than a per cent of its imports from Russia, to nearly 40% of its oil at its peak.

After the U.S. announced plans for penalty tariffs on India last week, many Indian oil importers have reduced their demand, although the government said it would not submit to the tariffs by the U.S. and sanctions by the European Union.

In its statement on Monday, the Ministry of External Affairs (MEA) had also pointed out that the U.S. and the EU continue to trade on other goods with Russia.

Modi to meet Japanese PM as part of East Asia outreach

The Hindu Bureau  
NEW DELHI

Against the backdrop of growing uncertainty in India-U.S. ties, Prime Minister Narendra Modi is expected to reach out to East Asia in the coming weeks. As part of that initiative, Mr. Modi is likely to travel to Japan to meet his Japanese counterpart, Shigeru Ishiba, by the end of August. The visit to Japan is significant, as both countries are part of the Quad initiative that was launched by Australia, India, Japan, and the United States in 2017.

As the United States reorients its trade priorities, the resultant dynamics are expected to spill over to platforms where India and the U.S. cooperate on a number of issues.

Around this time, global attention will also be focused on the upcoming summit of the Shanghai Cooperation Organisation (SCO) in China, where leaders of the SCO member states are expected to be present. However, there is no official confirmation of Mr. Modi’s participation in the SCO summit during August 31-September 1.

Parliament passes legislation to modernise India’s maritime laws

The Hindu Bureau  
NEW DELHI

The Carriage of Goods by Sea Bill, 2025 was passed by the Rajya Sabha on Wednesday even as the Opposition continued loud protests against the special intensive revision (SIR) of electoral rolls in Bihar. The Lok Sabha passed another maritime legislation, the Merchant Shipping Bill, 2024.

Amid the din in the Upper House, Finance Minister Nirmala Sitharaman also tabled the Demands for Grants for Manipur for 2025-26. Manipur has been under President’s Rule since February 13.

The Rajya Sabha was earlier adjourned, soon after the tabling of papers and obituary references at



**Large backing:** The Bill marks a significant step towards aligning India’s maritime legal framework with global standards. REUTERS

11 a.m. When the House reassembled at 2 p.m., Bhubaneswar Kalita, who was in the Chair, called for taking up the Carriage of Goods by Sea Bill, 2025, even as Opposition members continued to protest and trooped into the Well of the House. The Bill was

approved by a voice vote amid the din. It had been passed by the Lok Sabha earlier.

Union Minister of Ports, Shipping and Waterways Sarbananda Sonowal said, “Today, with the passage of the Bills, the Modi government’s push for India’s

modern shipping gets double endorsement from Parliament.”

The Merchant Shipping Bill, 2024 is meant to be progressive, future-ready legislation that replaces the outdated Merchant Shipping Act of 1958. The Bill marks a significant step towards aligning India’s maritime legal framework with global standards and strengthening the country’s position as a trusted maritime trade hub.

The Carriage of Goods by Sea Bill, 2025, repealed the Indian Carriage of Goods by Sea Act, 1925.

The legislation is expected to simplify maritime trade laws, reduce litigation risks, and enhance transparency and commercial efficiency in cargo movement by sea.

# Work together to make India third largest economy: Modi

Prime Minister inaugurates Kartavya Bhavan 3, says policies of the future will be formulated in the building; landmark infrastructure projects are a reflection of India's global vision, he adds

**The Hindu Bureau**  
NEW DELHI

Prime Minister Narendra Modi on Wednesday urged all stakeholders to work together to make India the world's third largest economy and scale up national productivity.

Addressing a programme to inaugurate Kartavya Bhavan 3 in the national capital, Mr Modi encouraged all Indians to contribute to the success stories of government initiatives such as Make in India and Atmanirbhar Bharat. Strengthening India's capabilities must become a shared pursuit and personal mission, he said.

India is witnessing key achievements associated with the making of a modern country, Mr. Modi said, listing recently built infrastructure landmarks such as Kartavya Path, the new Parliament Building, the new Defence Offices Complex, Bharat Mandapam, Yashobhoomi, and the National War Memorial dedi-



**Grand opening:** Prime Minister Narendra Modi watering a sapling during the inauguration of Kartavya Bhavan 3 in New Delhi. PTI

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cated to the martyrs. He emphasised that these were not merely buildings or regular infrastructure, pointing out that policies shaping a developed India would be formulated in these very structures. In the coming decades, the nation's trajectory would be determined from these institutions, he said.

For decades after Independence, India's administrative machinery had operated from buildings constructed during the

currently operate from 50 locations across Delhi, many of which are rented buildings. He underlined that the annual expenditure on rental costs alone was a staggering ₹1,500 crore.

**'Global vision'**

"The grand Kartavya Bhavan and other major infrastructure projects, including the new Defence Complexes, are not only a testament to India's pace but also a reflection of its global vision," the Prime Minister said.

The Kartavya Bhavans, the new Central Secretariat buildings which will house all Ministries and departments of the Centre, embody the resolve to fulfil the nation's dreams and will guide the policies and direction of a developed India, he added.

He said that his government was engaged in nation-building with a holistic vision, and asserted that no part of the country was untouched by the stream of development today.



# Aadhaar face ID can ensure exam ‘transparency’: Centre

Staff Selection Commission and Railway Recruitment Board already authorised to use Aadhaar face recognition to authenticate examinees; it builds trust among aspirants, says IT Ministry

**Aroon Deep**  
NEW DELHI

Aadhaar face authentication will help enhance transparency of competitive examinations, build trust among aspirants, and strengthen administrative accountability, the Electronics and Information Technology Ministry told Parliament on Wednesday.

In a written response to a question endorsed by eight Lok Sabha members, the Ministry said the Staff Selection Commission and the Railway Recruitment Board were already authorised to use Aadhaar facial recognition to authenticate examinees.

Using the “liveness” factor with phone cameras, Aadhaar face authentication matches people with the photo they took when enrolling for Aadhaar, and the feature has seen increased interest among government bodies. For instance, the Employment Provident Fund Organisation (EPFO) said in a circular last month that universal account numbers, the main identifying number for salaried employees and

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**Unique identity:** Aadhaar authentication in general requires approval from the IT Ministry. REUTERS

retirees with PF accounts, would be generated henceforth only with this feature.

The feature has seen increased interest in view of Aadhaar authentication failures due to worn-out biometrics among labourers and elderly people.

In a separate response to DMK MP A. Raja, the Ministry said the Unique Identification Authority of India (UIDAI) was undertaking “promotion of face and iris authentication for residents with worn fingerprints” to cater to people who could not use their fingerprints.

The India Post Payments Bank, under the Department of Posts, introduced Aadhaar face authentication this month. The feature “is aligned with Digital India and Financial Inclusion missions of the Government of India”, the bank said, adding that its use empowers “values of equity, access, and empowerment”.

Aadhaar authentication in general – not just facial recognition authentication – requires approval from the IT Ministry.

In the Aadhaar Authentication for Good Governance (Social Welfare, In-

novation, Knowledge) Amendment Rules, 2025 notified in January, the Ministry laid out a framework where private entities as well as government organisations could submit authentication proposals to the IT Ministry, which would have them vetted by the UIDAI.

The IT Ministry has set up a Social Welfare, Innovation, Knowledge (SWIK) portal where such proposals can be submitted. A review of the portal shows that up to half a dozen (or as little as one or two) proposals a month are being approved every month.

On Monday, the Sports Authority of India was authorised to use Aadhaar authentication to “verify the identity of athletes, coaches, and staff during registration, attendance marking, and DBT processing under schemes such as *Khelo* India, Target Olympic Podium Scheme (TOPS), and National Centres of Excellence (NCOEs)”.

As many as 312 Union and State government organisations have received approvals under SWIK rules since 2020.

# Fishing gear a major source of ‘microplastic’ contamination along Indian coasts: Minister

**Jacob Koshy**  
NEW DELHI

The major sources of ‘microplastic’ pollution along India’s coasts are “riverine inputs” and abandoned, lost, and discarded fishing gear, Union Minister of State for Science and Technology Jitendra Singh said in a written response to a question in the Lok Sabha on Wednesday.

The Ministry of Earth Sciences (MoES), through the National Centre for Coastal Research (NCCR), conducted field surveys along India’s coastline between 2022 and 2025 to assess microplastic and marine debris levels. Assessment of microplastics in both water and sediment has been carried out along the east and west coasts of India. On the west coast, 19 transects were

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Plastic waste washed ashore after flowing into the sea in Visakhapatnam.

surveyed from Porbandar (Gujarat) to Kanniyakumari (Tamil Nadu), while on the east coast, around 25 transects were sampled from Puri (Odisha) to Thoothukudi (Tamil Nadu). The findings indicated that the predominant sources of microplastic pollution are riverine inputs and abandoned, lost, and discarded fishing gear (ALDFG), he said.

Microplastics are tiny

plastic particles, ranging in size from 1 micrometre to 5 millimetres. They can be either primary microplastics, manufactured at that size, or secondary microplastics, formed from the breakdown of larger plastic items. The major concern for microplastics is that they are being increasingly linked to tumours, and are said to be poisonous to marine and aquatic life.

The Food Safety and Standards Authority of India commissioned a project to assess microplastic contamination in food products and develop methods for its detection. The environmental research organisation Toxics Link tested 10 types of salt that claimed to reveal the presence of microplastics in all salt and sugar samples, in various forms, including fibre, pellets and films.



# MPC holds repo rate at 5.5%, maintains GDP growth at 6.5%

Headwinds emanating from prolonged geopolitical tensions, volatility in global financial markets posing risks to growth outlook, says committee

**Lalatendu Mishra**  
MUMBAI

The Monetary Policy Committee (MPC) of the Reserve Bank of India (RBI) on Wednesday voted to maintain the policy repo rate at 5.50% and continue with its neutral stance after assessing the current and evolving macroeconomic situation.

Consequently, the standing deposit facility (SDF) rate under the liquidity adjustment facility (LAF) remains unchanged at 5.25% and the marginal standing facility (MSF) rate and the bank rate at 5.75%.

This decision is towards achieving the medium-term target for consumer price index (CPI) inflation of 4% within a band of +/- 2%, while supporting growth. The MPC took note that the global environment continues to be challenging. Global growth, though revised upwards by the IMF, remains muted. The pace of disinflation is slowing down, with some advanced economies even witnessing an uptick in inflation, it noted.

In this backdrop, the domestic growth remains resilient and is broadly evolving along the lines of our assessment, it stated.

However, the prospects of external demand remain uncertain amid ongoing tariff announcements and



**Policy matters:** RBI Governor Sanjay Malhotra delivering the monetary policy statement on Wednesday. PTI  
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trade negotiations. The headwinds emanating from prolonged geopolitical tensions, persisting global uncertainties, and volatility in global financial markets pose risks to the growth outlook, it observed. Taking various factors into account, the projection for real GDP growth for 2025-26 has been retained at 6.5%, with Q1 at 6.5%, Q2 at 6.7%, Q3 at 6.6% , and Q4 at 6.3%.

Real GDP growth for Q1:2026-27 is projected at 6.6%. The risks are evenly balanced.

Stating that CPI headline inflation declined for the eighth consecutive month to a 77-month low of 2.1% (y-o-y) in June 2025, the MPC observed that this was driven primarily by a sharp decline in food inflation led by improved agricultural activity and various supply side

measures. However, core inflation, which remained within a narrow range of 4.1-4.2% during February-May, increased to 4.4% in June, driven partly by a continued increase in gold prices, it stated adding that the inflation outlook for 2025-26 had become more benign than expected in June.

Considering various factors, CPI inflation for 2025-26 has been projected at 3.1% [as compared with 3.7% previously] with Q2 at 2.1%; Q3 at 3.1% ; and Q4 at 4.4%. CPI inflation for Q1:2026-27 is projected at 4.9%. The risks are evenly balanced.

“Despite a challenging external environment, the Indian economy is navigating a steady growth path with price stability,” RBI Governor Sanjay Malhotra said in his Monetary Policy statement.

## ‘India is doing better than the U.S., has robust growth rate’

**Lalatendu Mishra**  
MUMBAI

The impact of the global uncertainties emanating from the tariff war have already been factored in in the revised growth forecast, and it would be very difficult to predict the likely impact now, Reserve Bank of India Governor Sanjay Malhotra said at the post Monetary Policy Committee meeting press conference on Wednesday.

When asked by *The Hindu* for his comment on U.S. President Donald Trump’s remark that India’s is a dead economy, he said India is doing better than the U.S. “I am not the right person to react to the President. But yes, you are all aware that we have a very robust growth rate of 6.5%. And in fact, as per IMF, it is 6.4% and 3% growth rate of the world if you look at,” Mr. Malhotra said.

“We are contributing about 18% which is more than the US whose contribution would be much lesser, I think 11% or some. So we are doing very well and we will continue for further improvement,” he added. He said the RBI would maintain a close vigil on the incoming data and take appropriate measures as per need. “On the growth, we have already reduced our forecast which was earlier at 6.7% to 6.5%. Some of the global uncertainties have already been factored in.

However, there are still lot of uncertainties. It is very difficult to predict as to what the impact would be

**The governor said amid uncertainties, the RBI had already reduced repo rate by 100 basis points**

going forward,” he said.

“We will maintain a close vigil on the incoming data and take a call. As of now we do not have sufficient data to revise our GDP forecast,” he added.

He said amid the uncertainties, the RBI had already reduced repo rate by 100 basis points and the policy transmission was happening. “We will continue to do whatever is required to facilitate good growth while maintaining price stability,” he emphasised. On whether external factors like the tariff war would have any impact on inflation, he replied in the negative. “We are less dependant on outside so far inflation is concerned. We do not see any major impact unless we have retaliatory tariff. The impact of the outside factor on inflation will be very very limited,” he asserted.

Since the U.S. is forcing India to stop buying crude oil from Russia and in the likely event of India stopping it, there would be no impact on inflation despite crude oil having significant bearing on it, he said.

Mr. Malhotra clarified that UPI users will not have to pay for the transaction to banks as reported in some sections as the government is subsidising the cost of transaction to promote digital payments.



# Putin holds ‘constructive’ talks with U.S. envoy ahead of sanctions deadline

Agence France-Presse  
MOSCOW

Russian President Vladimir Putin held “constructive” talks with U.S. envoy Steve Witkoff in Moscow on Wednesday, the Kremlin said, two days ahead of a U.S. deadline for Russia to halt its Ukraine offensive or face fresh sanctions.

U.S. President Donald Trump, who had boasted he could end the conflict within 24 hours of taking office, has given Russia until Friday to make progress towards peace or face new penalties.

But three rounds of Russia-Ukraine talks in Istanbul have failed to make headway on a ceasefire, with the two sides far apart in their demands.

Russia has escalated drone and missile attacks against its pro-Western neighbour to a record high and accelerated its advance on the ground.



**New leaf:** Vladimir Putin, left, and U.S. President Donald Trump's special envoy Steve Witkoff meet in Moscow on Wednesday. AP Join FREE Telegram Channel chat.whatsapp.com/HDvqPnxvwWb3Agy98nVaIQ

“A quite useful and constructive conversation took place,” Mr. Putin's aide Yuri Ushakov told journalists after the three hour meeting.

Mr. Putin and Mr. Witkoff exchanged “signals” on their positions, Mr. Ushakov said, without elaborating.

The Kremlin released video of Mr. Putin shaking hands with Mr. Witkoff at

the start of the meeting. Ahead of the talks, Ukrainian President Volodymyr Zelenskyy urged Washington to increase its pressure on Moscow to agree to a ceasefire.

**Sanctions threat** The White House has not outlined what action it would take against Russia, but Mr. Trump has previously threatened to im-

pose “secondary tariffs” targeting Russia's key trade partners, such as China and India.

The move would aim to stifle Russian exports, but would risk significant international disruption.

Mr. Trump said on Tuesday that he would await the outcome of the Moscow talks before ordering any economic sanctions.

“We are going to see what happens,” he told reporters. “We will make that determination at that time.”

Without explicitly naming Mr. Trump, the Kremlin on Tuesday slammed “threats” to hike tariffs on Russia's trading partners as “illegitimate”.

Russia's campaign against Ukraine since February 2022 has killed tens of thousands of people, destroyed swathes of the country and forced millions of people to flee their homes.



## SCIENCE

# ‘It’s like writing a poem’: maths prize winner Rajula Srivastava

Rajula Srivastava has won the Maryam Mirzakhani New Frontiers Prize for her work in harmonic analysis and analytic number theory. She discovered her love of maths in school, and then went on to major at the National Institute of Science Education and Research, Bhubaneswar

**Rohini Subrahmanyam**

When Rajula Srivastava was first notified about a prestigious prize, she was quick to dismiss it. All she got was a cryptic email from the personal email address of mathematician Terence Tao asking if she was free for a chat. Tao, a professor at the University of California, Los Angeles, is widely considered one of the most gifted mathematicians of our time. Srivastava couldn’t think of a reason why he would want to talk to her.

“I obviously thought it was a scam,” she said.

But then she got a second email from him ten minutes later, asking to Zoom. After ascertaining that the email was not fake, she proceeded to cautiously respond. During their chat, Tao broke the news that she had won the Maryam Mirzakhani New Frontiers Prize, an initiative of the Breakthrough Prize in Mathematics, for her work in harmonic analysis and analytic number theory. She couldn’t believe it.

“I told him I thought it was a scam, and he found that very funny, [saying] ‘maybe I want to scam a theorem out of you or something,’” she said with a laugh. “It was surreal, the way [the call] went.”

## A fondness for puzzles

Srivastava, a Hirzebruch Research Instructor at the University of Bonn and the Max Planck Institute for Mathematics in Germany, grew up in a science-loving family.

In school, mathematics happened to be the subject she enjoyed the most among all the sciences: because it involved the least amount of memorisation. “Once you understand the logic behind things, you don’t have to memorize a lot of things ... beyond the multiplication tables in kindergarten,” she said.

She also realised she didn’t like doing lab work, but she did enjoy solving puzzles. At the age of 15, she decided she wanted to be a mathematician and went on to do an integrated master’s degree at the National Institute of Science Education and Research (NISER), Bhubaneswar, where she majored in maths.

She then wrote her master’s thesis in harmonic analysis, the study of functions and how they can be represented in terms of their frequencies – a topic she had begun to like. For her PhD, she chose to go to the University of Wisconsin-Madison mainly because of its big harmonic analysis group.

Just like music can be broken down into harmonies, signals can be broken down into the frequencies that make them up. “But you need to be able to do it in a sensible way, so that the information you have in this breakdown should be such that you should be able to reconstruct your complicated signal once more from these pieces,” Srivastava explained.

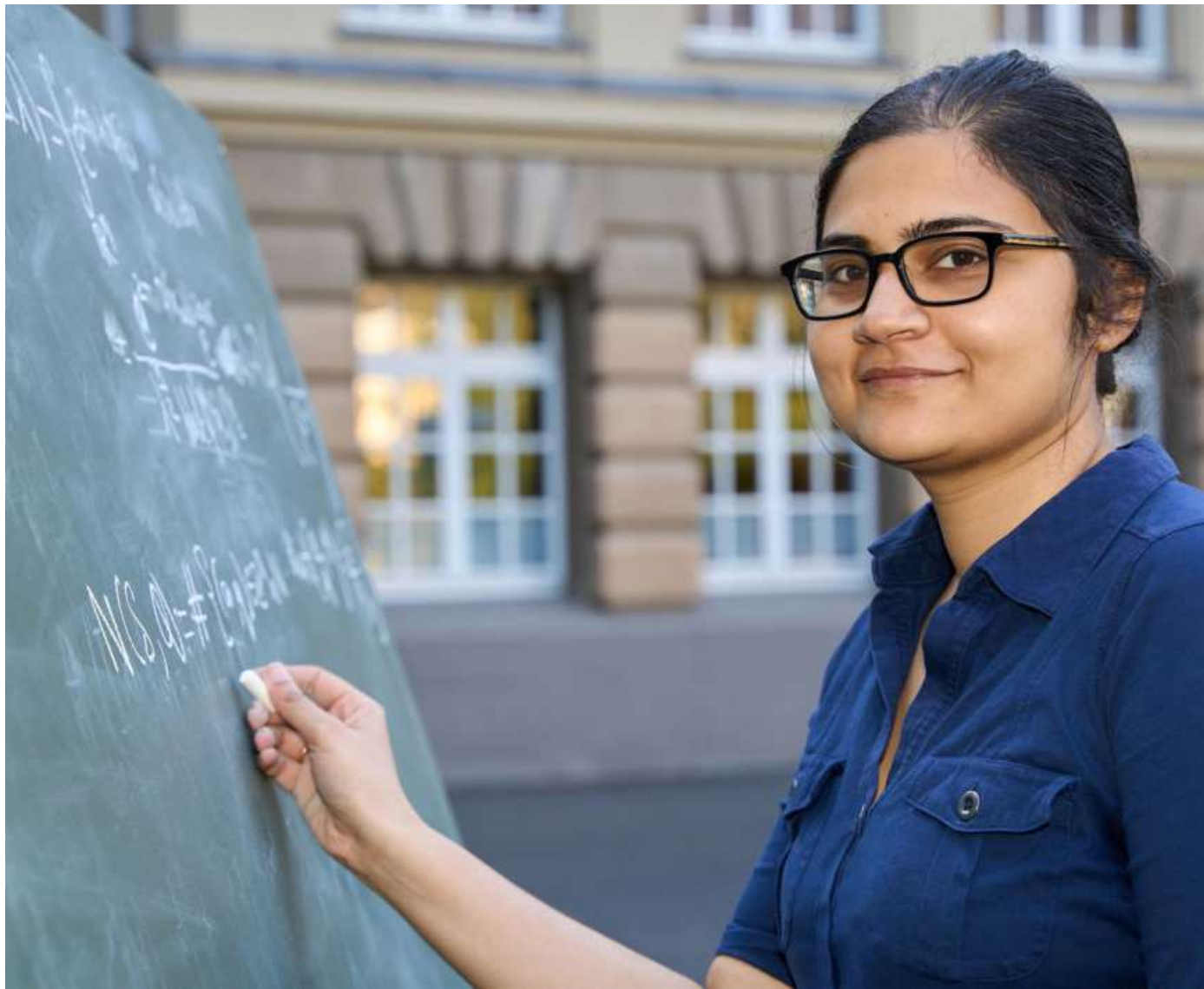
That’s the basic idea of harmonic analysis, where one breaks down functions in terms of their frequencies or “harmonics” using a method called the Fourier transformation. One can imagine these frequencies to lie on a line, but you can also ask these questions in higher dimensions, Srivastava said. “Then it’s also about geometry, about the patterns and the shapes in which these waves are arranged.”

To imagine a three-dimensional wave, picture a sound wave travelling in all directions via the molecules in air, or the ripples from an earthquake as it reverberates through the ground. In each case, there is a point at which the vibration originates, and the emanating waves then form the shape of a sphere. The vibrations travel radially outwards, perpendicular to the expanding wave. Her work mostly focused on waves in three or even higher dimensions.

## Spotting numbers on a line

After her PhD, Srivastava went on to do her postdoctoral research in Germany, accepting a joint position between the mathematics department at the University of Bonn and the Max Planck Institute of Mathematics at Bonn. In her time there, from 2022 to 2024, she started diverging into problems at the interface of harmonic analysis and number theory.

Her husband, who is also a mathematician and a number theorist, first introduced her to counting problems. More than the potential applications of the number theoretical problems, however, Srivastava was motivated by sheer curiosity. With her expertise in harmonic analysis, she knew she had a bag of tools at her disposal. Could she



Rajula Srivastava is grateful for her early education in India and to the many Indian universities, including hers, that invest a lot in their students with scholarships and low fees. GREGOR HÜBL/UNI BONN/SPECIAL ARRANGEMENT  
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now use them to count things?

She offered a simple example. While positioning integers on the number line, we learn that rational numbers have an exact address on the line. Even if it is a fraction, like say  $5/7$ , the number line can be chopped up into smaller and smaller parts until we have an exact location for it. Irrational numbers don’t have an exact address, but one can still make a well-educated guess.

“We can say that it’s between  $1/1,000,000$  and  $2/1,000,000$ , [for example], which is a very tiny part and use those fractions to approximate your point,” she explained. “You’re saying up to this error, it is between these two fractions.”

But she worked on a similar question in higher dimensions. Instead of a line, imagine a three-dimensional shape like a sphere. Now if the point you want to map is somewhere on the manifold of this shape, what can you say about its approximability? “That’s how the geometry comes in,” she said.

In higher dimensions, the fractions lie on a grid or lattice instead of being equally spaced on a one-dimensional number line. “So I have a lattice, and I have a shape inside the lattice. And then I’m asking: how close can points of this lattice get to points on the manifold?”

That’s how the two ideas – of harmonic analysis and counting points in 3D space – converge. “If you know that your waves live on a nice shape, then you know something about those waves or [their] frequencies,” she said. As both the wave frequencies and lattices are periodic, she worked on using the waves’ periodicity to count points on a shape within a lattice. Working on these problems eventually went on to win her



Rajula will soon move back to the University of Wisconsin-Madison and continue working on the intersection of harmonic analysis and number theory. UNIVERSITY OF WISCONSIN-MADISON



In math, you pretty much just need pen and paper. You can be anywhere, and you can just start thinking about the problem

**RAJULA SRIVASTAVA**  
HIRZEBRUCH RESEARCH INSTRUCTOR AT THE UNIVERSITY OF BONN AND THE MAX PLANCK INSTITUTE FOR MATHEMATICS

the Maryam Mirzakhani New Frontiers Prize.

## More conferences in India

Even as one of only two women out of the 25 students doing maths in her department at NISER, she didn’t feel any specific barriers to her progress during her integrated master’s program in India. She was confident, doing well in her exams, and didn’t have the need to constantly prove herself to others. But that changed when she went abroad: now she was not only a woman, but she was also non-white. She eventually formed a community and received support from both men and women, but she still felt some alienation at the start when she moved out of India.

“You feel that you need to prove yourself more. You have less of a community to fall back on because there’s just less of you,” Srivastava said. “Sometimes if you’re the only brown woman in the room, you also somehow feel that you’re scrutinised more. Like, if you’re asking a question, then it better be a good question, not something stupid.” She thinks things are changing now, though, with more women of colour doing maths.

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Srivastava is coming full circle in her own career. Currently a visiting research fellow at the University of Edinburgh, she will soon move back to the University of Wisconsin-Madison and continue working on the intersection of harmonic analysis and number theory. She decided to move abroad long term because her husband is German, and it was logistically easier to move to the US than to India for both of them.

Another reason was more exposure to people and resources and being updated on new research developments, since many of the big conferences don’t happen in India. “I feel like they should do more [conferences] in developing countries, not just India, but also other countries of the Global South,” she said.

Srivastava enjoys being part of a broader community: friends and associates who all speak the common language of maths and whom she was able to meet and collaborate with on problems once she moved out of India. But she’s also grateful for her early education in India and to the many Indian universities, including hers, that invest a lot in their students with scholarships and low fees.

## Like writing a poem

But doing maths can also be very frustrating at times, she said. Like when one spends most of the time researching answers to a problem instead of being able to just sit down and solve it. “Sometimes you have the broad outline, that this is how it should work. But actually implementing all the steps might take time,” she said.

“Sometimes the ideas might come in a week, but just to write things might take months.”

The rewards from small victories, like penning down one small theorem as part of a larger proof, keep her going. She also greatly values the independence of not having immediate deadlines and not needing to rely on expensive resources to work on her research questions. The latter is often the case in other fields like biology. “In math, you pretty much just need pen and paper. You can be anywhere, and you can just start thinking about [the problem],” she said. “Maybe you need a board and chalk, and that’s it.”

On a day-to-day basis, if she’s really focused on a problem, maths is almost like meditation for Srivastava. She described how some think of it like a cross between art and science. “There’s something which is just in your brain and then somehow you prove [it], and then it’s true. Once it’s true, it will always stay,” she said.

“In some ways, it’s like writing a story or a poem. I like the fact that you can create something which lasts in that way.”

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