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PCS Special:		07 July
07J7	Jalalabad in U.P.'s Shahjahanpur to be renamed Parshurampuri उत्तर प्रदेश के शाहजहाँपुर का जलालाबाद अब परशुरामपुरी कहलाएगा	
07J7	Saudi Arabia's low-cost carrier Flyadeal makes India debut सऊदी अरब की कम लागत वाली एयरलाइन फ्लायअडील ने भारत में परिचालन शुरू किया	



PCS

Jalalabad in U.P.'s Shahjahanpur to be renamed Parshurampuri

The Uttar Pradesh government in a Cabinet meeting on Monday approved the proposal to rename the town of Jalalabad in Shahjahanpur district as Parshurampuri. The decision will come into effect after the issuance of the notification. Finance Minister Suresh Kumar Khanna said, "The concerned department will complete the necessary administrative and legal formalities relating to the renaming. Thereafter, the name of the town will be changed in all government records and departmental documents in accordance with the prescribed procedure." The State government move seeks to identify the town as the birthplace of Lord Parshuram.



PCS

Saudi Arabia's low-cost carrier Flyadeal makes India debut

Saudi Arabian low-cost carrier Flyadeal on Monday commenced its India operations with the launch of a daily non-stop service between Hyderabad and Riyadh (using Airbus A320 aircraft), making Rajiv Gandhi International Airport its first destination in the country. The Hyderabad-bound flight departs Riyadh at 11.20 p.m. and arrives at 6.50 a.m. the following day while the return service leaves Hyderabad at 7.55 a.m. and reaches Riyadh at 11.05 a.m.

07J7. Jalalabad in U.P.'s Shahjahanpur to be renamed Parshurampuri

उत्तर प्रदेश के शाहजहाँपुर का जलालाबाद अब परशुरामपुरी कहलाएगा

- The **Uttar Pradesh government** in a **Cabinet meeting** on **Monday** approved the proposal to rename the town of **Jalalabad** in **Shahjahanpur district** as **Parshurampuri**.

उत्तर प्रदेश सरकार ने सोमवार को हुई कैबिनेट बैठक में शाहजहाँपुर जिले के जलालाबाद नगर का नाम बदलकर परशुरामपुरी करने के प्रस्ताव को मंजूरी दे दी।

- Thereafter, the **name of the town will be changed in all government records and departmental documents** in accordance with the prescribed procedure."

इसके बाद निर्धारित प्रक्रिया के अनुसार नगर का नाम सभी सरकारी अभिलेखों और विभागीय दस्तावेजों में बदल दिया जाएगा।"

07J7. Saudi Arabia's low-cost carrier Flyadeal makes India debut

सऊदी अरब की कम लागत वाली एयरलाइन फ्लायअडील ने भारत में परिचालन शुरू किया

- Saudi Arabian low-cost carrier Flyadeal** on Monday commenced its **India operations** with the launch of a **daily non-stop service** between **Hyderabad** and **Riyadh** using **Airbus A320 aircraft**, making **Rajiv Gandhi International Airport** its **first destination** in the country.

सऊदी अरब की कम लागत वाली एयरलाइन फ्लायअडील (Flyadeal) ने सोमवार को हैदराबाद और रियाद के बीच एयरबस A320 विमान से दैनिक नॉन-स्टॉप सेवा शुरू कर भारत में अपना परिचालन प्रारंभ किया, जिससे राजीव गांधी अंतरराष्ट्रीय हवाई अड्डा देश में उसका पहला गंतव्य बन गया।

GS Paper 1: Society

07 July 2026

TOPICS COVERED

- 07J7 Form used in Census second phase rehearsal has 'open column' for caste**
जनगणना के दूसरे चरण के पूर्वाभ्यास में प्रयुक्त प्रपत्र में जाति के लिए 'खुला कॉलम' रखा गया है

Form used in Census second phase rehearsal has 'open column' for caste

GS 1: Society

Vijaita Singh
Abhinav Lakshman
NEW DELHI

The questionnaire used in the rehearsal for the second phase of Census, which started in 16 States and Union Territories on Monday, has an "open column" for respondents to record their castes, several officials involved in the exercise told *The Hindu*.

Though this gives an indication of how caste is likely to be enumerated in the country as part of the Population Census 2027, officials said that this was just a "pre-test" and the final methodology will be prepared based on the feedback received during the exercise, which concludes on July 20.

The castes of all residents will be recorded in

the second phase of the Census, named Population Enumeration (PE).

The 2027 Census is the first digital Census and the first to enumerate caste in Independent India.

Until now, only the Scheduled Castes (SCs) and Scheduled Tribes (STs) were enumerated during the Census exercise.

The PE phase will be conducted in February 2027 across the country but in Ladakh and snow-bound areas of Jammu and Kashmir, Uttarakhand and Himachal Pradesh, it will be concluded by September 30. The final questionnaire will be known by September.

Debate continues

The discourse on the methodology of caste enumeration has largely swung bet-



An enumerator takes notes during a door-to-door survey for the Census in New Delhi. SUSHIL KUMAR VERMA

ween either leaving an open column for caste – as in the 2011 Socio-Economic Caste Census (SECC) – or preparing a list of castes for people to pick from, as the Bihar government did in its 2022-23 caste-based survey.

Interestingly, the open column methodology had resulted in the 2011 SECC returning over 46 lakh different "caste names", largely owing to the difference in what people understand by caste.

Significantly, the Prime

Minister Narendra Modi-led government has consistently maintained over the last decade that the 2011 SECC's caste data were unreliable because of "errors" in data collection.

The total number of castes enumerated by the

Census exercise held in 1931 was 4,147.

Meanwhile, the pre-test exercise under way also allowed self-enumeration, and the portal had been accessible from July 1 to 5 only in the specific areas where the rehearsal is being conducted.

In Faridabad, Haryana, the exercise is being conducted in 17 enumeration blocks.

Each block typically has 150 to 180 residential units with a population of 650 to 800 people.

"To evaluate field procedures, digital applications, and operational arrangements ahead of the nationwide population enumeration, a pre-test will be conducted in Ward No. 24 – comprising 17 enumeration blocks – from July 1 to July 20," the office of the

Deputy Commissioner, Faridabad said.

The PE phase in 2011 Census had 29 questions covering demographic, cultural and economic parameters, as well as literacy, migration, marital status, travel to place of work, and fertility.

An official said, "While SC and ST communities will be enumerated as they have always been, with codes for communities in the SC and ST lists, other people will have an open column to fill in their caste and enumerators will enter whatever a resident says their caste is."

This comes even as scholars and experts have been speculating how the government will decide to enumerate castes in India ever since the Union Cabinet approved it in 2025.



07J7. Form used in Census second phase rehearsal has 'open column' for caste

जनगणना के दूसरे चरण के पूर्वाभ्यास में प्रयुक्त प्रपत्र में जाति के लिए 'खुला कॉलम' रखा गया है

- The **castes** of all residents will be recorded in the **second phase** of the Census, named **Population Enumeration (PE)**.
जनगणना के दूसरे चरण, जिसे पॉपुलेशन एन्यूमरेशन (PE) कहा जाता है, में सभी निवासियों की जाति दर्ज की जाएगी।
- Until now, only the **Scheduled Castes (SCs)** and **Scheduled Tribes (STs)** were enumerated during the Census exercise.
अब तक जनगणना के दौरान केवल अनुसूचित जातियों (SCs) और अनुसूचित जनजातियों (STs) की ही गणना की जाती थी।
- Meanwhile, the **pre-test** exercise under way also allowed **self-enumeration**, and the portal had been accessible from **July 1 to 5** only in the specific areas where the rehearsal is being conducted.
इस बीच, चल रहे प्री-टेस्ट अभ्यास में स्वयं-गणना (Self-enumeration) की भी अनुमति दी गई थी और इसका पोर्टल 1 जुलाई से 5 जुलाई तक केवल उन्हीं क्षेत्रों में उपलब्ध था जहाँ पूर्वाभ्यास किया जा रहा है।

GS Paper 1: Geography		07 July 2026
TOPICS COVERED		
07J7	T.N. defends CRZ nod for Mamallan reservoir project तमिलनाडु ने ममल्लन जलाशय परियोजना के लिए सीआरज़ेड मंजूरी का बचाव किया	
07J7	British jets intercept Russian aircraft over Norwegian Sea ब्रिटिश लड़ाकू विमानों ने नॉर्वेजियन सागर के ऊपर रूसी विमान को रोका	



T.N. defends CRZ nod for Mamallan reservoir project

GS I: Geography
 The Hindu Bureau
 CHENNAI

The Tamil Nadu State Coastal Zone Management Authority (TNSCZMA) has defended the Coastal Regulation Zone (CRZ) clearance granted to the proposed Mamallan Reservoir project in Chengalpattu district before the Southern Bench of the National Green Tribunal.

It argued that the project complies with the CRZ Notification, 2011, and was subjected to multiple levels of technical scrutiny. It also has stringent environmental safeguards.

In its counter-affidavit, the authority sought the dismissal of a petition, filed by K. Saravanan, challenging the CRZ clearance issued in December 2025 for the proposed reservoir in the Kovalam sub-basin. The site falls between the East Coast Road and the Old Mahabalipuram Road.

According to the authority, the proposed Phase-I reservoir will cover 1,770.5 hectares (4,375 acres) and have a storage capacity of 1.655 thousand million cubic feet (tmc ft) to address the recurring drinking water shortage in the southern parts of the Chennai Metropolitan Area. It said the reservoir would cater to around 50,000 residents in villages, including Nemmeli, Krishnankaranai, Pattipulam, Paiyanur, Kalavakkam, Thiruporur, Thiruvandanthai and Mamallapuram, besides mitigating floods and sea-

While govt. says the project will address water shortage and floods, fishermen say it will affect their livelihood

water intrusion.

The counter-affidavit said the proposal was examined by the Chengalpattu District Coastal Zone Management Authority (DCZMA), the Technical Expert Committee, the State Expert Appraisal Committee, the IIT-Madras and the TNSCZMA before the CRZ clearance was granted.

The project does not involve reclamation of the sea, estuary, or tidal waters, but is proposed on inland floodplain *poromboke* land, it said.

Dissent note

The project, however, has drawn sustained opposition from fishing communities and environmental experts.

Fishing community's representatives from villages along the Nemmeli-Kovalam backwaters have alleged that they were not consulted before the project was approved and have said the reservoir will affect the livelihoods of thousands of inland and marine fishermen dependent on the brackish water ecosystem. They have also contended that converting the tidal marsh into a freshwater reservoir could increase flood risks to neighbouring villages.

07J7. T.N. defends CRZ nod for Mamallan reservoir project

तमिलनाडु ने ममल्लन जलाशय परियोजना के लिए सीआरज़ेड मंजूरी का बचाव किया

• The Tamil Nadu State Coastal Zone Management Authority (TNSCZMA) has defended the Coastal Regulation Zone (CRZ) clearance granted to the proposed Mamallan Reservoir project in Chengalpattu district before the Southern Bench of the National Green Tribunal.

तमिलनाडु राज्य तटीय क्षेत्र प्रबंधन प्राधिकरण (TNSCZMA) ने राष्ट्रीय हरित अधिकरण (NGT) की दक्षिणी पीठ के समक्ष चेंगलपट्टु जिले में प्रस्तावित ममल्लन जलाशय परियोजना को दी गई तटीय विनियमन क्षेत्र (CRZ) मंजूरी का बचाव किया है।

• Fishing community representatives from villages along the Nemmeli-Kovalam backwaters have alleged that they were not consulted before the project was approved and have said the reservoir will affect the livelihoods of thousands of inland and marine fishermen dependent on the brackish water ecosystem.

नेम्मेली-कोवलम बैकवॉटर क्षेत्र के गांवों के मछुआरा समुदाय के प्रतिनिधियों ने आरोप लगाया है कि परियोजना को मंजूरी देने से पहले उनसे परामर्श नहीं किया गया तथा उनका कहना है कि यह जलाशय खारे पानी के पारिस्थितिकी तंत्र पर निर्भर हजारों अंतर्देशीय और समुद्री मछुआरों की आजीविका को प्रभावित करेगा।

British jets intercept Russian aircraft over Norwegian Sea

GS I: Geography
Sriram Lakshman
LONDON

British F-35 jets, on Monday, escorted a Bear-F Russian aircraft that "repeatedly approached" the U.K.'s Carrier Strike Group in the Norwegian Sea and dropped sonobuoys near the aircraft carrier, according to the U.K.'s Ministry of Defence (MoD).

The incident occurred on the eve of the North Atlantic Treaty Organization's (NATO) military alliance's annual summit, scheduled to be held from July 7-8 in Türkiye's capital Ankara.

The Bear-F passed at "low altitude and unnecessarily close" to HMS Prince of Wales (part of the fleet), dropping a large number of sonobuoys in "close proximity" to the carrier, according to the U.K. MoD.



Air incident: A British Royal Navy F-35B fighter plane intercepts a Russian Tupolev 'Bear-F' aircraft over the Norwegian Sea. AFP

"The Russian aircraft was intercepted and escorted by two U.K. F-35 jets from HMS Prince of Wales until it left the area," the statement said.

Sonobuoys are devices using sonar to detect submarines.

NATO's Arctic Sentry
The Carrier Strike Group is deployed in the region as part of NATO's Arctic Sen-

try, part of the alliance's military posture in the Arctic and High North.

U.K. Defence Secretary Dan Jarvis and Iceland's Foreign Minister, Thorgerdur Katrin Gunnarsdottir, had visited HMS Prince of Wales over the weekend.

Mr. Jarvis is reportedly hoping to stay on in his post if Andy Burnham takes the reins at No.10 Downing Street.

07J7. British jets intercept Russian aircraft over Norwegian Sea

ब्रिटिश लड़ाकू विमानों ने नॉर्वेजियन सागर के ऊपर रूसी विमान को रोका

• British F-35 jets, on Monday, escorted a Bear-F Russian aircraft that "repeatedly approached" the U.K.'s Carrier Strike Group in the Norwegian Sea and dropped sonobuoys near the aircraft carrier, according to the U.K. Ministry of Defence (MoD).

ब्रिटेन के F-35 लड़ाकू विमानों ने सोमवार को नॉर्वेजियन सागर में यू.के. के कैरियर स्ट्राइक ग्रुप के पास बार-बार आने वाले रूस के Bear-F विमान को एस्कॉर्ट किया। यू.के. रक्षा मंत्रालय (MoD) के अनुसार, इस विमान ने विमानवाहक पोत के निकट सोनोबॉय (Sonobuoys) भी गिराए।

• The Bear-F passed at low altitude and unnecessarily close to HMS Prince of Wales, which is part of the fleet,

dropping a large number of sonobuoys in close proximity to the carrier, according to the U.K. MoD.

यू.के. रक्षा मंत्रालय के अनुसार, Bear-F विमान कम ऊँचाई पर उड़ते हुए बड़े का हिस्सा HMS Prince of Wales के अत्यधिक निकट से गुज़रा और विमानवाहक पोत के पास बड़ी संख्या में सोनोबॉय गिराए।

GS Paper II: Polity		07 July 2026
TOPICS COVERED		
07J7	In India, voting cannot remain merely a statutory right भारत में मतदान केवल एक वैधानिक अधिकार नहीं रह सकता	
07J7	Can Bar Associations refuse to represent an accused? क्या बार एसोसिएशन किसी आरोपी का प्रतिनिधित्व करने से इनकार कर सकती हैं?	



In India, voting cannot remain merely a statutory right

GS II: Polity

Recently, a Congress leader revived an old constitutional debate by demanding that voting should be recognised as a fundamental right. At first sight, the demand appears unexceptionable. In a democracy, what could be more fundamental than a citizen's right to choose those who govern? Yet, for more than seven decades, the Supreme Court of India has consistently held that the right to vote is not a fundamental right but merely a statutory right.

This judicial position, though well established, has become increasingly difficult to reconcile with the Court's own evolving jurisprudence. In a series of landmark decisions, the Court has gradually transformed the voter from a passive statutory creature into an active constitutional actor.

The result is a curious paradox: while the act of voting itself continues to be described as statutory, many of its essential facets have already acquired constitutional protection.

The traditional position dates back to *N.P. Ponnuswami vs Returning Officer* (1952), where the Court held that the right to vote and the right to contest elections are not common law rights but rights created by statute. The principle was reaffirmed in *Jyoti Basu & Others vs Debi Ghosal & Others* (1982), where Justice O. Chinnappa Reddy observed that the right to elect, "fundamental though it is to democracy", is neither a fundamental right nor a common law right, but "purely a statutory right". A Constitution Bench reiterated this position in *Kuldip Nayar vs Union of India* (2006), holding that while democracy forms part of the basic structure of the Constitution, the individual right to vote flows from legislation, principally the Representation of the People Acts.

The logic behind this approach is understandable. The Constitution does not expressly enumerate the right to vote among the fundamental rights contained in Part III. Parliament, therefore, enjoys considerable latitude in prescribing qualifications, disqualifications and procedures governing elections.

However, the story does not end there.

Constitutionalising the poll process

Beginning in the early years of this century, the Court embarked upon a process of constitutionalising the electoral process. In *Union of India vs Association for Democratic Reforms* (2002), the Court held that voters have a right to know the criminal antecedents, educational qualifications and financial assets of candidates. This right was located squarely in Article 19(1)(a), the fundamental right to freedom of speech and expression. The Court reasoned that meaningful participation in democracy is impossible unless voters are adequately informed.



S.Y. Quraishi

Former Chief Election Commissioner of India and author of 'An Undocumented Wonder: The Making of the Great Indian Election'

The right not to vote enjoys constitutional protection; paradoxically, the right to vote does not

A year later, in *People's Union of Civil Liberties vs Union of India* (2003), the Court drew an important distinction. While reiterating that the right to vote is statutory, it held that the freedom of voting – that is, the freedom to make an informed choice – is a fundamental right protected by Article 19(1)(a).

The most intriguing development came in the 2013 *NOTA* judgment. Recognising the option of "None of the Above", the Court held that a voter's decision to reject all candidates is a form of political expression protected by Article 19(1)(a). The Court further held that secrecy of the ballot must extend even to those who choose not to vote for any candidate.

This produces an extraordinary constitutional anomaly. The Court has effectively held that the right to know is fundamental, the freedom to make an informed choice is fundamental, the secrecy of the ballot is fundamental, and even the right to reject all candidates is constitutionally protected. Yet, the act of voting itself continues to be treated as a mere statutory entitlement.

One is tempted to ask: if the Constitution protects the right to reject all candidates, why does it not protect the right to choose one?

Recent constitutional jurisprudence also points in this direction. In *Anoop Baramwal vs Union of India* (2023), Justice Ajay Rastogi, in his separate opinion, expressly favoured recognising voting as a fundamental right. Although this view did not command a majority, the Constitution Bench repeatedly referred to voting as a constitutional right rather than merely a statutory one. This marks an important shift in judicial understanding. The Court may not yet have elevated voting to the status of a fundamental right, but it has undoubtedly moved beyond the narrow statutory conception that dominated earlier decisions.

The anomaly becomes even more striking when viewed through the prism of the basic structure doctrine. Since *Kesavananda Bharati vs State of Kerala* (1973), the Court has repeatedly held that democracy forms part of the Constitution's basic structure. In *Indira Nehru Gandhi vs Shri Raj Narain & Anr.* (1975), the Court underscored that free and fair elections are an essential feature of democracy. Subsequent decisions have consistently reaffirmed this principle.

Democracy begins with votes

But democracy does not exist in the abstract. It operates through elections, and elections derive their legitimacy from the participation of citizens through the ballot. The vote is the very instrument through which popular sovereignty is exercised. It is through the vote that "We, the People" periodically renew the legitimacy of the state and hold governments accountable.

If democracy is a part of the Constitution's

basic structure, and if free and fair elections are indispensable to democracy, it is difficult to explain why the citizen's right to vote should remain outside the constitutional core. To say that democracy is basic to the Constitution while the citizen's vote is merely a statutory right appears incongruous. A democracy without voters is inconceivable.

This does not necessarily mean that every aspect of voting should be elevated into an absolute fundamental right immune from regulation. Parliament must continue to prescribe qualifications, disqualifications and procedures necessary for the conduct of elections. Age requirements, electoral rolls, residency conditions, disqualifications for corrupt practices and other regulatory provisions are indispensable for orderly elections.

What requires constitutional recognition is not every procedural detail but the core right of every eligible citizen to participate in the democratic process.

This becomes particularly evident when one examines Article 326 of the Constitution. The Article mandates that elections to the Lok Sabha and State Legislative Assemblies shall be based on universal adult suffrage. Every citizen above the age of 18 is constitutionally entitled to be registered as an elector, subject only to narrowly defined disqualifications. The source of this entitlement is not legislation but the Constitution itself. The Representation of the People Acts merely operationalise that constitutional command.

Thus, while the mechanics of voting may be statutory, the citizen's entitlement to be a voter flows directly from the Constitution. Exclusion from the electoral roll, except in accordance with constitutionally permissible limitations, therefore, strikes at a constitutional guarantee.

A matter for the Court to revisit

The distinction between statutory and constitutional rights may have served a useful purpose in the early years of the Republic, when electoral jurisprudence was still in its infancy. But the Court's own decisions have steadily blurred that distinction by progressively constitutionalising various facets of voting.

Perhaps the time has come for the Court to revisit an old doctrine. In a Constitution where democracy and free and fair elections constitute the basic structure, the citizen's vote cannot remain a constitutional orphan. The ballot is not merely a statutory privilege conferred by Parliament. It is the instrument through which popular sovereignty is expressed and the Republic periodically renews its democratic legitimacy.

After all, if the Constitution protects the right to reject every candidate, it can scarcely deny protection to the right to choose one.

07J7. In India, voting cannot remain merely a statutory right

भारत में मतदान केवल एक वैधानिक अधिकार नहीं रह सकता

- The traditional position dates back to **N.P. Ponnuswami vs Returning Officer (1952)**, where the Court held that the right to vote and the right to contest elections are not common law rights but rights created by statute.

पारंपरिक दृष्टिकोण एन.पी. पोन्नस्वामी बनाम रिटर्निंग ऑफिसर (1952) मामले से जुड़ा है, जहाँ न्यायालय ने माना कि मतदान का अधिकार और चुनाव लड़ने का अधिकार सामान्य विधि अधिकार नहीं हैं बल्कि कानून द्वारा निर्मित अधिकार हैं।

- The principle was reaffirmed in **Jyoti Basu & Others vs Debi Ghosal & Others (1982)**, where Justice O. Chinnappa Reddy observed that the right to elect, "fundamental though it is to democracy", is neither a fundamental right nor a common law right, but "purely a statutory right".

इस सिद्धांत की पुनः पुष्टि ज्योति बसु एवं अन्य बनाम देबी घोषाल एवं अन्य (1982) मामले में हुई, जहाँ न्यायमूर्ति ओ. चिन्नप्पा रेड्डी ने कहा कि चुनाव करने का अधिकार, "लोकतंत्र के लिए मौलिक होने के



बावजूद", न तो मौलिक अधिकार है और न ही सामान्य विधि अधिकार, बल्कि "पूरी तरह से एक वैधानिक अधिकार" है।

- A Constitution Bench reiterated this position in **Kuldip Nayar vs Union of India (2006)**, holding that while democracy forms part of the basic structure of the Constitution, the **individual right to vote flows from legislation, principally the Representation of the People Acts**.
एक संविधान पीठ ने **कुलदीप नैयर बनाम भारत संघ (2006)** मामले में इस स्थिति को दोहराया और कहा कि यद्यपि लोकतंत्र संविधान की मूल संरचना का हिस्सा है, लेकिन व्यक्ति का मतदान अधिकार कानून, मुख्य रूप से जन प्रतिनिधित्व अधिनियमों से उत्पन्न होता है।
- The **Constitution does not expressly enumerate the right to vote among the fundamental rights contained in Part III**.
संविधान भाग III में शामिल **मौलिक अधिकारों** के अंतर्गत मतदान के अधिकार को स्पष्ट रूप से सूचीबद्ध नहीं करता है।
- **Parliament, therefore, enjoys considerable latitude in prescribing qualifications, disqualifications and procedures governing elections**.
इसलिए संसद को चुनावों से संबंधित योग्यताओं, अयोग्यताओं और प्रक्रियाओं को निर्धारित करने में पर्याप्त स्वतंत्रता प्राप्त है।
- In **Union of India vs Association for Democratic Reforms (2002)**, the Court held that **voters have a right to know the criminal antecedents, educational qualifications and financial assets of candidates**.
यूनियन ऑफ इंडिया बनाम एसोसिएशन फॉर डेमोक्रेटिक रिफॉर्म्स (2002) में, न्यायालय ने कहा कि मतदाताओं को उम्मीदवारों के आपराधिक इतिहास, शैक्षणिक योग्यताओं और वित्तीय संपत्तियों को जानने का अधिकार है।
- **This right was located squarely in Article 19(1)(a), the fundamental right to freedom of speech and expression**.
इस अधिकार को स्पष्ट रूप से **अनुच्छेद 19(1)(a)** के अंतर्गत रखा गया, जो अभिव्यक्ति और वाक् स्वतंत्रता का मौलिक अधिकार है।
- The **Court reasoned that meaningful participation in democracy is impossible unless voters are adequately informed**.
न्यायालय ने तर्क दिया कि जब तक मतदाता पर्याप्त रूप से सूचित नहीं होते, तब तक लोकतंत्र में **सार्वजनिक भागीदारी** असंभव है।
- A year later, in **People's Union of Civil Liberties vs Union of India (2003)**, the Court drew an important distinction.
एक वर्ष बाद, **पीपुल्स यूनियन ऑफ सिविल लिबर्टीज बनाम यूनियन ऑफ इंडिया (2003)** में, न्यायालय ने एक महत्वपूर्ण अंतर स्पष्ट किया।
- **While reiterating that the right to vote is statutory, it held that the freedom of voting — that is, the freedom to make an informed choice — is a fundamental right protected by Article 19(1)(a)**.
मतदान के अधिकार को वैधानिक बताते हुए न्यायालय ने कहा कि **मतदान की स्वतंत्रता** — अर्थात् सूचित विकल्प चुनने की स्वतंत्रता — अनुच्छेद 19(1)(a) द्वारा संरक्षित एक मौलिक अधिकार है।
- The **most intriguing development came in the 2013 NOTA judgment**.
सबसे रोचक विकास **2013 के NOTA निर्णय** में सामने आया।
- **Recognising the option of "None of the Above", the Court held that a voter's decision to reject all candidates is a form of political expression protected by Article 19(1)(a)**.
"इनमें से कोई नहीं (NOTA)" विकल्प को मान्यता देते हुए न्यायालय ने कहा कि सभी उम्मीदवारों को अस्वीकार करने का मतदाता का निर्णय अनुच्छेद 19(1)(a) द्वारा संरक्षित **राजनीतिक अभिव्यक्ति** का एक रूप है।



- The Court further held that secrecy of the ballot must extend even to those who choose not to vote for any candidate.
न्यायालय ने आगे कहा कि मतपत्र की गोपनीयता उन लोगों तक भी विस्तारित होनी चाहिए जो किसी भी उम्मीदवार को वोट नहीं देने का विकल्प चुनते हैं।
- This produces an extraordinary constitutional anomaly.
यह एक असाधारण संवैधानिक विसंगति उत्पन्न करता है।
- The Court has effectively held that the right to know is fundamental, the freedom to make an informed choice is fundamental, the secrecy of the ballot is fundamental, and even the right to reject all candidates is constitutionally protected.
न्यायालय ने प्रभावी रूप से माना है कि जानने का अधिकार मौलिक है, सूचित विकल्प चुनने की स्वतंत्रता मौलिक है, मतपत्र की गोपनीयता मौलिक है और यहाँ तक कि सभी उम्मीदवारों को अस्वीकार करने का अधिकार भी संवैधानिक रूप से संरक्षित है।
- Yet, the act of voting itself continues to be treated as a mere statutory entitlement.
फिर भी, मतदान की क्रिया को अभी भी केवल एक वैधानिक अधिकार के रूप में माना जाता है।
- In **Anoop Baranwal vs Union of India (2023)**, Justice Ajay Rastogi, in his separate opinion, expressly favoured recognising voting as a fundamental right.
अनूप बरनवाल बनाम यूनियन ऑफ इंडिया (2023) में, न्यायमूर्ति अजय रस्तोगी ने अपनी अलग राय में मतदान को मौलिक अधिकार के रूप में मान्यता देने का स्पष्ट समर्थन किया।
- Although this view did not command a majority, the Constitution Bench repeatedly referred to voting as a constitutional right rather than merely a statutory one.
यद्यपि इस दृष्टिकोण को बहुमत का समर्थन नहीं मिला, संविधान पीठ ने बार-बार मतदान को केवल वैधानिक अधिकार के बजाय संवैधानिक अधिकार के रूप में संदर्भित किया।
- Since **Kesavananda Bharati vs State of Kerala (1973)**, the Court has repeatedly held that democracy forms part of the Constitution's basic structure.
केशवानंद भारती बनाम केरल राज्य (1973) के बाद से, न्यायालय ने बार-बार कहा है कि लोकतंत्र संविधान की मूल संरचना का हिस्सा है।
- In **Indira Nehru Gandhi vs Shri Raj Narain & Anr. (1975)**, the Court underscored that free and fair elections are an essential feature of democracy.
इंदिरा नेहरू गांधी बनाम श्री राज नारायण एवं अन्य (1975) में, न्यायालय ने रेखांकित किया कि स्वतंत्र और निष्पक्ष चुनाव लोकतंत्र की एक आवश्यक विशेषता हैं।
- It operates through elections, and elections derive their legitimacy from the participation of citizens through the ballot.
यह चुनावों के माध्यम से संचालित होता है, और चुनाव अपनी वैधता नागरिकों की मतपत्र के माध्यम से भागीदारी से प्राप्त करते हैं।
- The vote is the very instrument through which popular sovereignty is exercised.
मत वह प्रमुख साधन है जिसके माध्यम से लोकप्रिय संप्रभुता का प्रयोग किया जाता है।
- It is through the vote that "We, the People" periodically renew the legitimacy of the state and hold governments accountable.
मत के माध्यम से ही "हम, भारत के लोग" समय-समय पर राज्य की वैधता को नवीनीकृत करते हैं और सरकारों को जवाबदेह बनाते हैं।
- Age requirements, electoral rolls, residency conditions, disqualifications for corrupt practices and other regulatory provisions are indispensable for orderly elections.
आयु संबंधी आवश्यकताएँ, मतदाता सूची, निवास संबंधी शर्तें, भ्रष्ट आचरण के लिए अयोग्यताएँ और अन्य नियामक प्रावधान व्यवस्थित चुनावों के लिए अनिवार्य हैं।
- This becomes particularly evident when one examines Article 326 of the Constitution.
यह विशेष रूप से तब स्पष्ट होता है जब कोई संविधान के अनुच्छेद 326 का अध्ययन करता है।
- The Representation of the People Acts merely operationalise that constitutional command.
जन प्रतिनिधित्व अधिनियम केवल उस संवैधानिक निर्देश को क्रियान्वित करते हैं।



- Thus, while the mechanics of voting may be statutory, the citizen's entitlement to be a voter flows directly from the Constitution.
इस प्रकार, भले ही मतदान की प्रक्रिया वैधानिक हो सकती है, लेकिन नागरिक का मतदाता बनने का अधिकार सीधे संविधान से उत्पन्न होता है।

Can Bar Associations refuse to represent an accused?

What has the Supreme Court said about Bar resolutions denying legal representation?

GS II: Polity
LETTER & SPIRIT

Rizmi Lia M.

The story so far:

The Faizabad Bar Association's resolution to not represent the accused in the Ayodhya Ram Temple embezzlement case has prompted the question of whether a Bar Association could collectively decide not to represent a particular accused.

What is the Supreme Court's take?
The Supreme Court has consistently held that every accused has the right to fair trial and legal representation and it is illegal, unconstitutional and contrary to professional ethics to deny that right.

In a Supreme Court judgment in 2010, *A.S. Mohammed Rafi v. State of Tamil Nadu*, the case arose out of a confrontation between lawyers and police personnel in Coimbatore.

Following the incident, a local Bar Association passed a resolution that none of its members would represent the accused police personnel. A Division Bench of Justices Markandey Katju and Gyan Sudha Misra held that such resolutions by Bar bodies were "wholly illegal, against all traditions and professional ethics".

The court declared in the judgment that "all such resolutions of Bar Associations in India are null and void and the right-minded lawyers should ignore and defy such resolutions if they want democracy and rule of law to be upheld in this country".

What is the accused's right to be defended?

Article 22(1) of the Constitution guarantees that no arrested person shall be denied the right "to consult, and to be defended by, a legal practitioner of his choice". Article 14 provides for equality before the law and equal protection of the

laws within the territory of India.

The Supreme Court has recognised the right to a fair trial as an integral part of the right to life and personal liberty under Article 21.

Article 39A, a Directive Principle of State Policy, further requires the State to ensure that the legal system promotes justice on the basis of equal opportunity and that no citizen is denied access to justice because of economic or other disabilities, including through free legal aid.

What do the Bar Council of India Rules say?

The 'Standards of Professional Conduct and Etiquette' chapter of the Bar Council of India Rules says that "an advocate is bound to accept any brief in the Courts or Tribunals or before any other authorities in or before which he proposes to practise at a fee consistent with his standing at the Bar and the nature of the case. Special circumstances may justify his refusal to

accept a particular brief."

However, the Uttarakhand High Court in *Kuldeep Agarwal v. State Of Uttarakhand And Others* (2019) clarified that "special circumstances mentioned in Clause II, justifying refusal of an advocate to accept a particular brief, refers, by the use of the word "his", to the advocate in his individual capacity, and not to the Bar Association whose members are advocates".

Have such resolutions been passed before?

Yes. Following the 2008 Mumbai terror attacks, a Bar resolution opposed legal representation for arrested terrorist, Ajmal Kasab. The legal aid lawyer initially assigned to him declined to appear, while another advocate who agreed to defend him faced political threats before a lawyer was eventually appointed under police protection.

After the December 16, 2012 Delhi gangrape case, lawyers at the Saket courts passed a similar resolution refusing to represent the accused. Likewise, lawyers declined to defend the accused in the 2019 Hyderabad veterinary doctor's rape and murder case.

How have courts dealt with such resolutions?

The Uttarakhand High Court had in 2019 declared null and void a resolution passed by the Kotdwar Bar Association

threatening to terminate the membership of any lawyer who represented an accused in the murder of an advocate.

In 2020, the Karnataka High Court criticised the Hubballi Bar Association after lawyers objected to advocates representing Kashmiri students accused of raising pro-Pakistan slogans. The Bench described the conduct of lawyers on the Dharwad court premises who prevented advocates from filing bail applications as "sheer militancy". It also indicated that such resolutions could amount to criminal contempt.

More recently, the Madras High Court in *Manikandan Nair v. State of Tamil Nadu* in 2025 reiterated that Bar Associations cannot formally or informally prevent advocates from appearing for any accused.

In the case of *J. Jayalitha v. State of Karnataka* (2014), the Supreme Court observed that "fair trial is the main object of criminal procedure and such fairness should not be hampered or threatened in any manner. Fair trial entails the interests of the accused, the victim and the society. Thus, fair trial must be accorded to every accused in the spirit of the right to life and personal liberty and the accused must get a free and fair, just and reasonable trial on the charge imputed in a criminal case".

Thus, the Supreme Court has consistently held that the right to legal representation is a core feature of a fair trial.

07J7. Can Bar Associations refuse to represent an accused?

क्या बार एसोसिएशन किसी आरोपी का प्रतिनिधित्व करने से इनकार कर सकती हैं?

- In a Supreme Court judgment in 2010, *A.S. Mohammed Rafi v. State of Tamil Nadu*, the case arose out of a confrontation between lawyers and police personnel in Coimbatore.
2010 के सर्वोच्च न्यायालय के निर्णय ए.एस. मोहम्मद रफी बनाम तमिलनाडु राज्य में, यह मामला कोयंबटूर में वकीलों और पुलिस कर्मियों के बीच हुए टकराव से उत्पन्न हुआ था।
- A Division Bench of Justices **Markandey Katju and Gyan Sudha Misra** held that such resolutions by Bar bodies were "wholly illegal, against all traditions and professional ethics".
न्यायमूर्ति मार्कंडेय काटजू और ग्यान सुधा मिश्रा की खंडपीठ ने कहा कि बार निकायों द्वारा ऐसे प्रस्ताव "पूरी तरह अवैध, सभी परंपराओं और पेशेवर नैतिकता के विरुद्ध" हैं।

What is the accused's right to be defended?

आरोपी का बचाव पाने का अधिकार क्या है?

- Article 22(1)** of the Constitution guarantees that no arrested person shall be denied the right "to consult, and to be defended by, a legal practitioner of his choice".
संविधान का अनुच्छेद 22(1) यह सुनिश्चित करता है कि किसी भी गिरफ्तार व्यक्ति को "अपनी पसंद के विधि व्यवसायी से परामर्श करने और उसके द्वारा बचाव प्राप्त करने" के अधिकार से वंचित नहीं किया जाएगा।
- Article 14** provides for equality before the law and equal protection of the laws within the territory of India.
अनुच्छेद 14 भारत के क्षेत्र के भीतर कानून के समक्ष समानता और कानूनों के समान संरक्षण का प्रावधान करता है।
- The Supreme Court has recognised the **right to a fair trial** as an integral part of the right to life and personal liberty under **Article 21**.



सर्वोच्च न्यायालय ने निष्पक्ष सुनवाई के अधिकार को अनुच्छेद 21 के तहत जीवन और व्यक्तिगत स्वतंत्रता के अधिकार का अभिन्न हिस्सा माना है।

- **Article 39A**, a Directive Principle of State Policy, further requires the State to ensure that the legal system promotes justice on the basis of equal opportunity and that no citizen is denied access to justice because of economic or other disabilities, including through free legal aid. राज्य के नीति निदेशक तत्वों में शामिल अनुच्छेद 39A राज्य से यह सुनिश्चित करने की अपेक्षा करता है कि कानूनी व्यवस्था समान अवसर के आधार पर न्याय को बढ़ावा दे और कोई भी नागरिक आर्थिक या अन्य अक्षमताओं के कारण न्याय प्राप्त करने से वंचित न रहे, जिसमें निःशुल्क कानूनी सहायता भी शामिल है।

What do the Bar Council of India Rules say? भारतीय बार काउंसिल के नियम क्या कहते हैं?

- The 'Standards of Professional Conduct and Etiquette' chapter of the Bar Council of India Rules says that "an advocate is bound to accept any brief in the Courts or Tribunals or before any other authorities in or before which he proposes to practise at a fee consistent with his standing at the Bar and the nature of the case." भारतीय बार काउंसिल नियमों के 'व्यावसायिक आचरण और शिष्टाचार के मानक' अध्याय में कहा गया है कि "एक अधिवक्ता न्यायालयों या न्यायाधिकरणों या किसी अन्य प्राधिकरण के समक्ष, जहाँ वह अभ्यास करना चाहता है, अपनी बार में स्थिति और मामले की प्रकृति के अनुरूप शुल्क पर किसी भी मामले को स्वीकार करने के लिए बाध्य है।

Have such resolutions been passed before? क्या ऐसे प्रस्ताव पहले भी पारित किए गए हैं?

- Yes. Following the **2008 Mumbai terror attacks**, a Bar resolution opposed legal representation for arrested terrorist, Ajmal Kasab. हाँ। 2008 मुंबई आतंकवादी हमलों के बाद, एक बार प्रस्ताव ने गिरफ्तार आतंकवादी अजमल कसाब को कानूनी प्रतिनिधित्व देने का विरोध किया।
- After the **December 16, 2012 Delhi gangrape case**, lawyers at the Saket courts passed a similar resolution refusing to represent the accused. 16 दिसंबर 2012 दिल्ली सामूहिक दुष्कर्म मामले के बाद, साकेत न्यायालयों के वकीलों ने आरोपियों का प्रतिनिधित्व करने से इनकार करते हुए ऐसा ही प्रस्ताव पारित किया।
- In the case of **J. Jayalalitha v. State of Karnataka (2014)**, the Supreme Court observed that "fair trial is the main object of criminal procedure and such fairness should not be hampered or threatened in any manner." जे. जयललिता बनाम कर्नाटक राज्य (2014) मामले में, सर्वोच्च न्यायालय ने कहा कि "निष्पक्ष सुनवाई आपराधिक प्रक्रिया का मुख्य उद्देश्य है और ऐसी निष्पक्षता को किसी भी प्रकार से बाधित या खतरे में नहीं डाला जाना चाहिए।

GS Paper II: International Relations		07 July 2026
TOPICS COVERED		
07J7	Pahalgam attack: NIA files charges against LeT chief पहलगाम हमला: एनआईए ने लश्कर-ए-तैयबा प्रमुख के खिलाफ आरोपपत्र दायर किया	
07J7	Modi begins three-nation trip, starts with Indonesia to boost strategic ties मोदी ने तीन देशों की यात्रा शुरू की, रणनीतिक संबंधों को मजबूत करने के लिए पहला पड़ाव इंडोनेशिया	
07J7	Jaishankar gearing up to lead India's campaign for non-permanent UNSC seat जयशंकर संयुक्त राष्ट्र सुरक्षा परिषद की अस्थायी सदस्यता के लिए भारत के अभियान का नेतृत्व करने की	



	तैयारी में
07J7	BRICS nations call for stronger ties to curb drug trafficking ब्रिक्स देशों ने मादक पदार्थों की तस्करी पर रोक के लिए मजबूत सहयोग का आह्वान किया
07J7	NATO push to raise defence spending strains European members' budgets रक्षा व्यय बढ़ाने की नाटो की पहल से यूरोपीय सदस्य देशों के बजट पर बढ़ा दबाव
07J7	Questions surrounding the Quad's future क्वाड के भविष्य से जुड़े प्रश्न

Pahalgam attack: NIA files charges against LeT chief

Supplementary chargesheet provides details of Pakistan's conspiracy, Saeed's role, and supporting evidence collected by the agency; LeT, TRF charged as legal entities for their role in the attack

GS II: IR
The Hindu Bureau
SRINAGAR

The National Investigation Agency (NIA) on Monday filed charges against Hafiz Saeed, chief and founder of the Pakistan-based terrorist organisation Lashkar-e-Taiba (LeT) and its proxy The Resistance Front (TRF), in the Pahalgam terror attack case.

Twenty-six civilians were killed in the attack on April 22, 2025.

An NIA spokesperson said a supplementary chargesheet was filed before the NIA Special Court in Jammu.

"The accused has been charged under various sections of Bharatiya Nyaya Sanhita (BNS), 2023 and the Unlawful Activities (Prevention) Act, 1967. NIA

Terror trail

Hafiz Saeed (76) is the chief and founder of Pakistan-based terrorist organisation Lashkar-e-Taiba (LeT)

■ He is believed to be behind the 2000 Red Fort attack, 2001 Parliament attack, 2002 Akshardham Temple attack and the Mumbai train bombings in 2006

■ India termed Saeed the mastermind of 2008 Mumbai terror attacks and sought his extradition multiple times

■ In 2008, he was designated as a Specially Designated Global Terrorist by the United States



has also invoked the penal section against the accused for waging war against India and hatching a conspiracy from across the border in the chargesheet," the NIA said.

The latest chargesheet, filed in continuation of the original 1,597-page char-

gesheet, provides details of Pakistan's conspiracy, Saeed's role, and supporting evidence collected by the NIA in the case "through meticulous scientific investigation and on-ground examination".

The NIA had filed the original chargesheet on

December 15, 2025. It had then charged Pakistani terrorist handler Sajid Jatt as an accused along with three terrorists, who were killed by the security forces during Operation Mahadev in July 2025.

Besides, two arrested accused, civilians who allegedly provided logistics to the attackers, were named in the previous chargesheet.

The NIA has charged the LeT and the TRF as legal entities for their "role in planning, facilitating, and executing the Pahalgam terror attack".

"The NIA continues to probe the case to unravel the complete conspiracy by Pakistan, which has been actively sponsoring terrorism on Indian soil from across the border," the central agency said.

07J7. Pahalgam attack: NIA files charges against LeT chief

पहलगाम हमला: एनआईए ने लश्कर-ए-तैयबा प्रमुख के खिलाफ आरोपपत्र दायर किया

- The **National Investigation Agency (NIA)** on Monday filed charges against **Hafiz Saeed**, chief and founder of the Pakistan-based terrorist organisation **Lashkar-e-Taiba (LeT)** and its proxy **The Resistance Front (TRF)**, in the **Pahalgam terror attack** case.
राष्ट्रीय जांच एजेंसी (NIA) ने सोमवार को हाफिज सईद, जो पाकिस्तान स्थित आतंकवादी संगठन लश्कर-ए-तैयबा (LeT) का प्रमुख और संस्थापक है, तथा उसके प्रॉक्सि संगठन द रेजिस्टेंस फ्रंट (TRF) के विरुद्ध पहलगाम आतंकी हमले के मामले में आरोप दायर किए।
- "The accused has been charged under various sections of **Bharatiya Nyaya Sanhita (BNS), 2023** and the **Unlawful Activities (Prevention) Act, 1967**."

“आरोपी पर भारतीय न्याय संहिता (BNS), 2023 तथा गैरकानूनी गतिविधियाँ (रोकथाम) अधिनियम, 1967 की विभिन्न धाराओं के तहत आरोप लगाए गए हैं।

Modi begins three-nation trip, starts with Indonesia to boost strategic ties

Prime Minister set to hold discussions with Indonesian President Subianto to add 'momentum to this partnership across diverse sectors'; he will travel to Australia and New Zealand next as part of efforts to promote a free and open Indo-Pacific

GS II: IR
Press Trust of India
JAKARTA

P rime Minister Narendra Modi arrived in Indonesia on Monday, on the first leg of his three-nation tour, aimed at further strengthening India's Act East Policy, MAHASAGAR Vision and its commitment to a free, open and inclusive Indo-Pacific.

In a special gesture, Mr. Modi was received at the airport by Indonesian President Prabowo Subianto. In addition, four Ministers were also present to receive the Prime Minister, who was accorded a traditional ceremonial welcome and a Guard of Honour.

"Landed in Jakarta. I'm touched by President Prabowo Subianto's gesture of welcoming me at the air-



Grand welcome: Prime Minister Narendra Modi with Indonesian President Prabowo Subianto upon arrival in Jakarta on Monday. PTI

port," Mr. Modi said in a social media post.

This is Mr. Modi's first bilateral visit to Indonesia since the elevation of ties to a Comprehensive Strategic Partnership in 2018.

Mr. Modi said he will hold discussions with Mr.

Subianto "aimed at adding even more momentum to this partnership across diverse sectors."

"President Prabowo and I will visit the Prambanan Temple complex in Yogyakarta. This will ensure closer cultural linkages bet-

ween our nations. While in Indonesia, I also look forward to interacting with the Indian community," he added. The centuries-old temple, located approximately 17 km northeast of Yogyakarta city, is considered Indonesia's largest Hindu temple.

Mr. Modi witnessed a performance of Wayang Kulit, Indonesia's treasured shadow puppetry tradition, bringing the timeless story of the Ramayana to life. "It was a moving reminder of how our shared civilisational heritage has travelled across seas and generations, taking on beautiful local expressions while preserving its eternal values," he said.

Ahead of his departure from New Delhi, Mr. Modi said his visit to Indonesia,

Australia and New Zealand would further strengthen India's Act East Policy, MAHASAGAR Vision as well as "our outlook towards a free and open Indo-Pacific." MAHASAGAR, or Mutual and Holistic Advancement for Security Across the Regions, is India's vision of security and growth for all regions.

Mr. Modi's visit comes after Mr. Prabowo's State visit to India as the chief guest at the Republic Day celebrations in January 2025.

From Indonesia, Mr. Modi will travel to Melbourne at the invitation of Australian Prime Minister Anthony Albanese. The final leg of the tour will take him to Auckland at the invitation of New Zealand Prime Minister Christopher Luxon.

07J7. Modi begins three-nation trip, starts with Indonesia to boost strategic ties

मोदी ने तीन देशों की यात्रा शुरू की, रणनीतिक संबंधों को मजबूत करने के लिए पहला पड़ाव इंडोनेशिया

- **The Prime Minister** set to hold discussions with **Indonesian President Prabowo Subianto** to add 'momentum' to this partnership across diverse sectors. He will travel to **Australia and New Zealand** next as part of efforts to promote a **free and open Indo-Pacific**.

प्रधानमंत्री इंडोनेशिया के राष्ट्रपति प्रबोवो सुबियांतो के साथ विभिन्न क्षेत्रों में साझेदारी को नया 'गति' देने के उद्देश्य से वार्ता करेंगे। इसके बाद वह **ऑस्ट्रेलिया और न्यूज़ीलैंड** की यात्रा करेंगे, जो **स्वतंत्र और खुले इंडो-पैसिफिक** को बढ़ावा देने के प्रयासों का हिस्सा है।

- **Prime Minister Narendra Modi** arrived in **Indonesia** on Monday, on the first leg of his **three-nation tour**, aimed at further strengthening **India's Act East Policy, MAHASAGAR Vision** and its commitment to a **free, open and inclusive Indo-Pacific**.

प्रधानमंत्री नरेंद्र मोदी सोमवार को अपनी तीन देशों की यात्रा के पहले चरण में **इंडोनेशिया** पहुँचे। इस यात्रा का उद्देश्य **भारत की एकट ईस्ट नीति, महासागर (MAHASAGAR) विज़न तथा स्वतंत्र, खुले और समावेशी इंडो-पैसिफिक** के प्रति भारत की प्रतिबद्धता को और मजबूत करना है।

- **This is Mr. Modi's first bilateral visit to Indonesia** since the elevation of ties to a **Comprehensive Strategic Partnership in 2018**.

2018 में संबंधों को व्यापक रणनीतिक साझेदारी (Comprehensive Strategic Partnership) का दर्जा दिए जाने के बाद यह **इंडोनेशिया की श्री मोदी की पहली द्विपक्षीय यात्रा** है।

- **The centuries-old temple, located approximately 17 km northeast of Yogyakarta city, is considered Indonesia's largest Hindu temple.**



योग्याकर्ता शहर से लगभग 17 किलोमीटर उत्तर-पूर्व में स्थित यह सदियों पुराना मंदिर इंडोनेशिया का सबसे बड़ा हिंदू मंदिर माना जाता है।

- Mr. Modi witnessed a performance of **Wayang Kulit**, Indonesia's treasured **shadow puppetry tradition**, bringing the timeless story of the **Ramayana** to life.
श्री मोदी ने वायांग कुलित, जो इंडोनेशिया की प्रसिद्ध छाया कठपुतली परंपरा है, का प्रदर्शन देखा जिसमें रामायण की अमर कथा प्रस्तुत की गई।
- MAHASAGAR**, or **Mutual and Holistic Advancement for Security Across the Regions**, is India's vision of **security and growth** for all regions.
MAHASAGAR, अर्थात् **Mutual and Holistic Advancement for Security Across the Regions**, सभी क्षेत्रों के लिए सुरक्षा और विकास का भारत का दृष्टिकोण है।
- Mr. Modi's visit comes after **Mr. Prabowo's State visit to India as the Chief Guest at the Republic Day celebrations in January 2025**.
श्री मोदी की यह यात्रा जनवरी 2025 में गणतंत्र दिवस समारोह में मुख्य अतिथि के रूप में प्रबोवो सुबियांतो की भारत यात्रा के बाद हो रही है।

Jaishankar gearing up to lead India's campaign for non-permanent UNSC seat

GS II: IR

Kallol Bhattacharjee
NEW DELHI



S. Jaishankar

India on July 13 will launch the official campaign for a non-permanent seat at the UN Security Council during 2028-29. According to a press note by the Ministry of External Affairs, the launch will be made by External Affairs Minister S. Jaishankar who is currently travelling in the Gulf region and will reach New York city on July 10 for the official ceremony that will be crucial from the point of view of India's leadership position in the Global South.

The bid will also require substantial diplomatic mobilisation by India as Tajikistan will be the other candidate for the seat meant for the Asia-Pacific region. While India has received support from coun-

tries such as Fiji, United States, Austria and Sri Lanka, it will have to do considerable diplomatic heavy lifting as Tajikistan has already secured the support of the OIC bloc that consists of 57 member-states of the United Nations. That apart, both countries are members of the SCO that will hold the next summit meeting in Kyrgyzstan, adding a special significance to the summit from the point of view of UNSC am-

bitions of India and Tajikistan.

Evolving equation

Mr. Jaishankar has been to various countries over the past months with an eye to the evolving equation at the United Nations because of India's plans for the 2028-29 UNSC non-permanent membership.

He will reach New York city for extensive consultations with India's partners at the UN. While India has been advocating a reform at the UNSC and also has been championing the needs of the Global South, recent trends however have not gone according to the plans. Earlier in May, India postponed the India-Africa Forum Summit that was to be held during May 28-31 citing the Ebola outbreak in Africa.

07J7. Jaishankar gearing up to lead India's campaign for non-permanent UNSC seat

जयशंकर संयुक्त राष्ट्र सुरक्षा परिषद की अस्थायी सदस्यता के लिए भारत के अभियान का नेतृत्व करने की तैयारी में

- India on July 13 will launch the official campaign for a **non-permanent seat at the UN Security Council (UNSC)** during 2028-29.

भारत 13 जुलाई को 2028-29 के लिए संयुक्त राष्ट्र सुरक्षा परिषद (UNSC) की अस्थायी सदस्यता हेतु अपना आधिकारिक अभियान शुरू करेगा।

- The bid will also require substantial **diplomatic mobilisation** by India as **Tajikistan** will be the other candidate for the seat meant for the **Asia-Pacific region**.

इस प्रयास के लिए भारत को व्यापक कूटनीतिक समर्थन जुटाना होगा क्योंकि ताजिकिस्तान भी एशिया-प्रशांत क्षेत्र के लिए निर्धारित इस सीट का दूसरा उम्मीदवार है।

- While India has received support from countries such as **Fiji, United States, Austria and Sri Lanka**, it will have to do considerable diplomatic heavy lifting as **Tajikistan** has already secured the support of the **OIC bloc**, which consists of **57 member states** of the **United Nations**.

यद्यपि भारत को फिजी, संयुक्त राज्य अमेरिका, ऑस्ट्रिया और श्रीलंका जैसे देशों का समर्थन प्राप्त है, फिर भी उसे व्यापक कूटनीतिक प्रयास करने होंगे क्योंकि ताजिकिस्तान पहले ही ओआईसी (OIC) समूह का समर्थन प्राप्त कर चुका है, जिसमें संयुक्त राष्ट्र के 57 सदस्य देश शामिल हैं।



- That apart, both countries are members of the **Shanghai Cooperation Organisation (SCO)**, which will hold the next **summit in Kyrgyzstan**, adding special significance to the meeting from the point of view of the **UNSC** ambitions of **India** and **Tajikistan**.
इसके अतिरिक्त, दोनों देश शंघाई सहयोग संगठन (SCO) के सदस्य हैं, जिसकी अगली शिखर बैठक किर्गिस्तान में होगी। इससे भारत और ताजिकिस्तान की UNSC सदस्यता की महत्वाकांक्षाओं के संदर्भ में इस बैठक का विशेष महत्व बढ़ गया है।
- Earlier in **May**, **India** postponed the **India-Africa Forum Summit**, which was to be held during **May 28-31**, citing the **Ebola outbreak in Africa**.
इससे पहले मई में भारत ने 28-31 मई के दौरान आयोजित होने वाले भारत-अफ्रीका फोरम शिखर सम्मेलन को अफ्रीका में इबोला प्रकोप का हवाला देते हुए स्थगित कर दिया था।

BRICS nations call for stronger ties to curb drug trafficking

GS II: IR

The Hindu Bureau
GUWAHATI

Representatives of member countries, who converged in Guwahati for the two-day BRICS Heads of Anti-Drug Agencies' Meeting, 2026, on Monday emphasised the need for stronger international cooperation to combat drug trafficking.

An intergovernmental organisation of major emerging markets and developing countries, BRICS initially comprised Brazil, Russia, India, China, and South Africa. It expanded to include Egypt, Ethiopia, Iran, Saudi Arabia, the UAE, and Indonesia.

These countries represent almost half the global population, and more than 40% of the world's Gross Domestic Product.

Lucas Barbosa of Brazil's Ministry of Foreign Affairs lauded India for hosting the event. "The BRICS anti-drug working group has a long history of cooperation, and we intend to strengthen collaboration in law enforcement and intelligence sharing further. Drug trafficking is a transnational threat that requires coordinated action by all member countries,"



National flags of the BRICS countries. AP

he told journalists.

Anurag Garg, Director-General of the Narcotics Control Bureau (NCB), said the impact of drug abuse was a factor behind India hosting the heads of anti-drug agencies from the BRICS nations for the first time.

International scourge

"Drugs have become an international scourge. Our youth is getting involved in drugs, and it is a problem that different nations have to fight together," he said, adding that the delegates would focus on emerging challenges in narcotics enforcement, including dark-net marketplaces, cryptocurrencies for illicit transactions, and maritime routes for drug trafficking.

07J7. BRICS nations call for stronger ties to curb drug trafficking

ब्रिक्स देशों ने मादक पदार्थों की तस्करी पर रोक के लिए मजबूत सहयोग का आह्वान किया

- Representatives of member countries, who converged in **Guwahati for the two-day BRICS Heads of Anti-Drug Agencies' Meeting, 2026**, on Monday emphasised the need for **stronger international cooperation to combat drug trafficking**.

सदस्य देशों के प्रतिनिधियों ने सोमवार को गुवाहाटी में आयोजित दो दिवसीय ब्रिक्स एंटी-ड्रग एजेंसियों के प्रमुखों की बैठक, 2026 में मादक पदार्थों की तस्करी से निपटने के लिए मजबूत अंतरराष्ट्रीय सहयोग की आवश्यकता पर जोर दिया।

- An **intergovernmental organisation of major emerging markets and developing countries, BRICS** initially comprised **Brazil, Russia, India, China, and South Africa**.

उभरते बाजारों और विकासशील देशों का एक अंतर-सरकारी संगठन, ब्रिक्स (BRICS) प्रारंभ में ब्राज़ील, रूस, भारत, चीन और दक्षिण अफ्रीका से मिलकर बना था।

- It expanded to include **Egypt, Ethiopia, Iran, Saudi Arabia, the UAE, and Indonesia**.

बाद में इसका विस्तार होकर इसमें मिस्र, इथियोपिया, ईरान, सऊदी अरब, संयुक्त अरब अमीरात (UAE) और इंडोनेशिया भी शामिल हो गए।

- These countries represent almost **half the global population, and more than 40% of the world's Gross Domestic Product (GDP)**.

ये देश मिलकर विश्व की लगभग आधी आबादी तथा विश्व के सकल घरेलू उत्पाद (GDP) का 40% से अधिक प्रतिनिधित्व करते हैं।

- Anurag Garg, Director-General of the Narcotics Control Bureau (NCB)**, said the impact of **drug abuse** was a factor behind **India** hosting the heads of anti-drug agencies from the **BRICS nations** for the first time.

नारकोटिक्स कंट्रोल ब्यूरो (NCB) के महानिदेशक अनुराग गर्ग ने कहा



कि नशीली दवाओं के दुरुपयोग का बढ़ता प्रभाव ही पहली बार ब्रिक्स देशों की एंटी-ड्रग एजेंसियों के प्रमुखों की बैठक की मेजबानी भारत द्वारा किए जाने का एक प्रमुख कारण था।

NATO push to raise defence spending strains European members' budgets

Under pressure from U.S. President Trump, members of the 32-country military pact had agreed at last year's summit to boost defence spending to 5% of GDP by 2035. But opposing camps have emerged since then of nations with fiscal space to raise spending and those struggling to do the same

SS II IR
LONDON

The Secretary General of the North Atlantic Treaty Organisation (NATO), Mark Rutte, is expected to insist at this week's summit of the military alliance that member states are keeping their promise to boost defence spending. Yet progress has been uneven and the push is already stretching some national budgets.

Under pressure from U.S. President Donald Trump, members of the 32-country military pact agreed at last year's summit to boost defence spending to 5% of GDP by 2035 – just over double the overall level for European states and Canada in 2025.

But since then, two camps have emerged: one is led by Germany and the mostly Nordic and eastern European nations which have found the fiscal space to raise spending; in the other are several big players struggling to do the same.

"The U.K. is not managing, for example. France is not and Italy is not either," Guntram Wolff, senior fellow at the Bruegel economics think tank, said of the three largest economies in Europe behind Germany.

NATO says its European members plus Canada spent an extra \$90 billion on defence in real terms last year compared to 2024 as they seek to raise core



NATO chief Mark Rutte in Ankara, Turkey on Monday ahead of the leaders' summit. REUTERS

military spending to 3.5% of GDP by 2035 with a further 1.5% GDP on security-related items.

New spendings

Before the summit, Mr. Rutte has stressed that last year's new spend amounts to a bigger \$139 billion tally in nominal terms and that there is a "strong commitment" to hit the combined 5% target on time.

Germany will use a rule change exempting defence items from strict borrowing limits to double its spending to over \$228 billion between now and 2030, according to a bud-

get draft seen by Reuters ahead of a cabinet review on Monday.

Poland, Lithuania, and Estonia – countries where the threat posed by Russia is at its sharpest – are already well on their way to making the new targets, with Warsaw notably having devoted 4.3% of GDP to defence last year.

Elsewhere the push faces political and fiscal roadblocks.

Budget challenges

Britain last week announced plans for an extra \$20 of defence spending,

partly funded by cuts elsewhere. But it emerged that one-third was still unfunded, creating an early budget challenge for the likely new Prime Minister Andy Burnham.

More fundamentally, the plan was criticised by Opposition politicians and former military chiefs for failing to set out when defence spending would reach 3% of GDP, on the way to meeting Britain's NATO commitment to spend 3.5% of GDP by 2035.

"Defence spending will likely remain one of the biggest fiscal pressures fac-

ing the U.K. in the medium term," said Max Warner, senior research economist at the Institute for Fiscal Studies, a think tank.

Italian Prime Minister Giorgia Meloni is due to tell the summit that Rome, despite one of Europe's largest debt burdens, will lift core and non-core defence spending to 2.8% of GDP in 2026, roughly 0.71 percentage point higher than last year.

Election pressure

But with higher military spending unpopular with many voters ahead of next year's national elections, most of the increase will come from domestic security spending such as police duties.

Plans detailed by France in April would lift its defence spending to 2.5% of GDP by the end of the decade from about 2% now, even as it attempts to bring its overall deficit into line with euro area rules – a tough budget goal as it heads towards next year's presidential elections.

Spain's socialist government, meanwhile, is not seen budging from its refusal to spend more than 2.1% of GDP on defence, with new resources set to be heavily skewed towards technologies with civil applications. Elsewhere, NATO officials have queried the assertion of three countries – Czech Republic, Slovenia, and Albania – that they had met the old

alliance target of 2% of GDP and asked them to review and re-submit their spending figures.

'Credible commitment'

"For us, the challenge is to ensure that allies remain on the credible path towards that 3.5% commitment, if you keep on bumping along at 2%, then you're not on the credible path," a senior NATO official said.

Bruegel's Mr. Wolff noted that, unlike at last year's summit in the Hague, European leaders can look Mr. Trump in the eye and argue they have stepped up to shoulder the burden of a Ukrainian war effort that has shown it is able to resist Russian advances.

Still, even if European publics may be starting to accept that more money should go on the military, some observers argue that arms suppliers will need to be convinced that government defence spending will remain high before they make the investment needed to increase their capacity.

"There has been a before Trump, and there will be an after Trump, so this 5% target can change any time," said Ana Boata, head of economic research at Alliant Trade. "So I think there is a bit of scepticism from European defence companies to actually ramp up investments in order to ramp up production," she said.

07J7. NATO push to raise defence spending strains European members' budgets

रक्षा व्यय बढ़ाने की नाटो

की पहल से यूरोपीय सदस्य

देशों के बजट पर बढ़ा दबाव

• Under pressure from U.S. President Donald Trump, members of the 32-country NATO military alliance agreed at last year's summit to boost defence spending to 5% of GDP by 2035.

अमेरिकी राष्ट्रपति डोनाल्ड ट्रंप के

दबाव में 32 सदस्यीय नाटो सैन्य

गठबंधन के देशों ने पिछले वर्ष के

शिखर सम्मेलन में 2035 तक

रक्षा व्यय को GDP के 5% तक

बढ़ाने पर सहमति व्यक्त की थी।

- But opposing camps
- The **Secretary General of the North Atlantic Treaty Organization (NATO), Mark Rutte**, is expected to insist at this week's summit that member states are keeping their promise to boost defence spending.

उत्तर अटलांटिक संधि संगठन (NATO) के महासचिव मार्क रुट्टे इस सप्ताह होने वाले शिखर सम्मेलन में सदस्य देशों से रक्षा व्यय बढ़ाने के अपने वादे को पूरा करने पर जोर देने वाले हैं।

- Under pressure from U.S. President Donald Trump, members of the 32-country military pact agreed at last year's summit to boost **defence spending to 5% of GDP by 2035, which is just over double the overall level for European states and Canada in 2025.**

अमेरिकी राष्ट्रपति डोनाल्ड ट्रंप के दबाव में 32 सदस्यीय सैन्य गठबंधन के देशों ने पिछले वर्ष के शिखर सम्मेलन में 2035 तक रक्षा व्यय को GDP के 5% तक बढ़ाने पर सहमति व्यक्त की, जो 2025 में यूरोपीय देशों और कनाडा के औसत स्तर से दोगुने से भी अधिक है।

- They seek to raise core **military spending to 3.5% of GDP by 2035** with a further **1.5% of GDP on security-related items.**

इनका लक्ष्य 2035 तक सैन्य व्यय को GDP के 3.5% तक पहुँचाना तथा अतिरिक्त 1.5% GDP सुरक्षा संबंधी मदों पर खर्च करना है।

- Before the summit, **Mark Rutte** stressed that last year's new spending amounts to **\$139 billion in nominal terms** and that there is a **strong commitment** to achieve the combined 5% target on time.

शिखर सम्मेलन से पहले मार्क रुट्टे ने कहा कि पिछले वर्ष का नया रक्षा व्यय सांकेतिक रूप से 139 अरब डॉलर रहा और 5% लक्ष्य समय पर प्राप्त करने की मजबूत प्रतिबद्धता है।



- **Germany** will use a rule change exempting **defence spending** from strict **borrowing limits** to double its spending to more than **\$228 billion** between now and **2030**, according to a **budget draft**.
बजट मसौदे के अनुसार, जर्मनी ने रक्षा व्यय को कड़े उधार सीमा नियमों से बाहर रखते हुए 2030 तक अपना रक्षा खर्च बढ़ाकर 228 अरब डॉलर से अधिक करने की योजना बनाई है।
- **Poland, Lithuania, and Estonia**, where the perceived **Russian threat** is highest, are already well on their way to meeting the new targets.
पोलैंड, लिथुआनिया और एस्टोनिया, जहाँ रूस से खतरे की भावना सबसे अधिक है, पहले ही नए लक्ष्यों की दिशा में तेजी से आगे बढ़ रहे हैं।
- **Warsaw** devoted **4.3% of GDP** to **defence** last year.
वारसॉ (पोलैंड) ने पिछले वर्ष GDP का 4.3% रक्षा पर खर्च किया।
- **Elsewhere** the push faces **political and fiscal roadblocks**.
अन्य देशों में यह प्रयास राजनीतिक और राजकोषीय बाधाओं का सामना कर रहा है।

Budget challenges

बजटीय चुनौतियाँ

- **Britain** last week announced plans for an extra **\$20 billion** of **defence spending**, partly funded by cuts elsewhere.
ब्रिटेन ने पिछले सप्ताह अतिरिक्त 20 अरब डॉलर के रक्षा व्यय की योजना की घोषणा की, जिसकी आंशिक पूर्ति अन्य क्षेत्रों में कटौती से की जाएगी।

Questions surrounding the Quad's future

With the U.S. reversing the **U.S. Indo-Pacific Command** back to the **U.S. Pacific Command**, criticisms have been levelled against the relevance of the Quad

CSIR

DATA POINT

Amit Kumar

Last week, Japanese Prime Minister **Sanae Takaichi** was in New Delhi for the **16th India-Japan Annual Summit**, her first visit to India since assuming office. The two sides reaffirmed their commitment to a free and open Indo-Pacific. The reaffirmation, however, comes at a moment when the idea of the Indo-Pacific appears to be losing its principal champion. On June 16, the Pentagon renamed the U.S. Indo-Pacific Command back to the U.S. Pacific Command, reversing a change it had made in 2018.

The renaming of the Command in 2018, although symbolic, recognised the region's growing significance and acknowledged India's centrality to the U.S.'s regional strategy. The reversal suggests that the region no longer enjoys the priority it once did in Washington. In fact, the National Security Strategy released by the U.S. in November 2025 prioritises the Western Hemisphere over the Indo-Pacific and mentions the Quad only in passing. It also assuages Beijing, which has long resented the formulation. Washington's approach to managing its relations with Beijing is undergoing a change under the current administration.

All of this has put the future of the Quad under the scanner. If Washington retreats from the idea, the platform built around it inevitably invites questions about its relevance. These anxieties only add to a set of older concerns. How relevant or securitised is the Quad? Is it doing enough? And the criticisms aren't without substance.

The first criticism entails the hesitation to name China. If the objective is indeed to shape the balance of power in the region, the silence over Beijing's military and economic aggression is bad optics. However, this is largely a normative criticism. One can argue that

the Quad's reluctance to name Beijing is strategic, because positioning itself as an anti-China platform could dissuade smaller countries from associating with it.

Critics highlight the Quad's hesitation to project itself as a security-centric grouping as another of its shortcomings. Given that Beijing poses hard security challenges to the region, any balancing effort has to be primarily security-centric. The extent of the grouping's hesitation is evident in the members' active effort to make an implicit distinction between **Quad** and the **Quadrilateral Security Dialogue (QSD)**. There is a reluctance to use them interchangeably, even as the members acknowledge the grouping's origins to be rooted in the first QSD in 2004.

The Quad's reluctance to elevate the partnership to a 2+2 format – a bilateral ministerial dialogue comprising Foreign and Defence Ministers – is another pain point. Even as each of the four countries has formalised 2+2 meetings bilaterally with one another, the Quad continues to host meetings only at the leaders' and Foreign Ministers' level.

Domain of cooperation

The alleged overwhelming focus on non-security or soft issues is a related criticism. However, a review of the Quad's agenda tells a different story. Even though the Quad assumed its current form in 2017, there was a lull for the first four years. It only picked up steam in 2021 during the COVID-19 pandemic, when the four countries held their first virtual leaders' summit and announced a first set of initiatives. Within six months, the Quad held its first in-person leaders' summit and expanded its areas of cooperation. The list today has grown to 37, of which 23 fall under security-related domains (**Chart 1**). Technology sovereignty, maritime capabilities and secure communications will be key in countering China in the years ahead.

Choosing the right areas of cooperation doesn't necessarily reveal much, though. The type of cooperation and capital flows are key determinants in evaluating the seriousness of the grouping. But a review of the 'type' of cooperation in security-related domains suggests that Quad has a heavy focus on interoperability, data sharing, monitoring, and relief (**Chart 2**). While this is necessary and critically important for any security-focused grouping, Quad's integration efforts are limited to civilian or non-military grade applications. Nonetheless, these integration exercises have dual-use capabilities and can be leveraged for even military-grade purposes.

The Quad's focus on building capacity and resilient supply chains is also significant, especially as these relate to critical and emerging technologies, maritime, and communications – the domains where the bulk of contestation with China is expected.

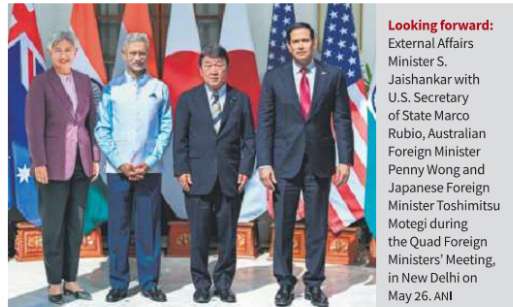
The Quad's security focus is not matched by its funding pattern. Based on what is available in the public domain, health and climate have been the primary beneficiaries (**Chart 3**). One can argue that since most security-related initiatives focus on integration and standard-setting, they do not require the same scale of dedicated funding. But building resilient supply chains would require substantial capital commitment, and that is where the gap is most visible.

The Quad's recent commitment to mobilise \$20 billion towards the Critical Minerals Initiative and Frameword could change this picture. But it remains only a stated target at this point, with no funding committed or allocated. If security issues make up close to two-thirds of Quad's initiatives, the funding allocation must follow suit.

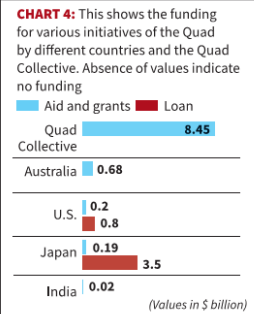
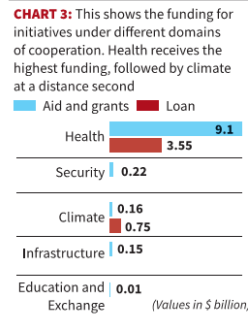
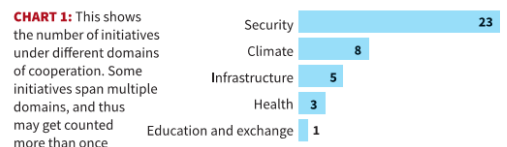
The questions surrounding the Quad's future will not be settled by nomenclature in Washington. They will be settled by whether the grouping backs its security-heavy agenda with capital.

Uncertain course

Amit Kumar is a Staff Research Analyst with the Geostrategy Programme at The Takshashila Institution. The data for the charts were sourced by the author from his Quad Monitor dashboard



Looking forward: External Affairs Minister S. Jaishankar with U.S. Secretary of State Marco Rubio, Australian Foreign Minister Penny Wong and Japanese Foreign Minister Toshimitsu Motegi during the Quad Foreign Ministers' Meeting, in New Delhi on May 26. ANI



07J7. Questions surrounding the Quad's future

क्वाड के भविष्य से जुड़े प्रश्न

- The renaming of the Command in 2018, although symbolic, recognised the region's growing significance and acknowledged **India's centrality** to the U.S.'s regional strategy.
2018 में कमांड का नाम बदलना, भले ही प्रतीकात्मक था, लेकिन इसने क्षेत्र के बढ़ते महत्व को स्वीकार किया और अमेरिका की क्षेत्रीय रणनीति में **भारत की केंद्रीय भूमिका** को मान्यता दी।
- In fact, the **National Security Strategy** released by the U.S. in November 2025 prioritises the **Western Hemisphere over the Indo-Pacific** and mentions the Quad only in passing.
वास्तव में, नवंबर 2025 में अमेरिका द्वारा जारी **राष्ट्रीय सुरक्षा रणनीति** इंडो-पैसिफिक की तुलना में पश्चिमी गोलार्ध को प्राथमिकता देती है और क्वाड का केवल संक्षिप्त उल्लेख करती है।
- It also assuages Beijing, which has long resented the formulation.
यह बीजिंग को भी आश्वस्त करता है, जिसने लंबे समय से इस अवधारणा पर आपत्ति जताई है।
- Washington's approach to managing its relations with **Beijing** is undergoing a change under the current administration.



वर्तमान प्रशासन के तहत बीजिंग के साथ अपने संबंधों को प्रबंधित करने के वाशिंगटन के दृष्टिकोण में बदलाव आ रहा है।

- The Quad's reluctance to elevate the partnership to a **2+2 format** — a bilateral ministerial dialogue comprising Foreign and Defence Ministers — is another pain point.
क्वाड द्वारा साझेदारी को **2+2 प्रारूप** — जिसमें विदेश और रक्षा मंत्रियों की द्विपक्षीय मंत्री स्तरीय वार्ता शामिल होती है — तक न बढ़ाना एक और चिंता का विषय है।
- But a review of the 'type' of cooperation in security-related domains suggests that Quad has a heavy focus on **interoperability, data sharing, monitoring, and relief** (Chart 2).
लेकिन सुरक्षा-संबंधित क्षेत्रों में सहयोग के 'प्रकार' की समीक्षा से पता चलता है कि क्वाड का मुख्य ध्यान अंतर-संचालन क्षमता, डेटा साझाकरण, निगरानी और राहत पर है (चार्ट 2)।

GS Paper III: Economy		07 July 2026
TOPICS COVERED		
07J7	Will record FPI Indian bond flows be sustainable? क्या भारतीय बॉन्ड बाज़ार में रिकॉर्ड एफपीआई निवेश का प्रवाह टिकाऊ रहेगा?	

Will record FPI Indian bond flows be sustainable?

GS III: Economy
NEWS ANALYSIS

Ashokamithran T.
MUMBAI

The overall inflow of foreign investor money into India's bond market crossed a record ₹55,518 crore in June. Experts, however, aired concerns over sustainability of the momentum as the macroeconomic climate had not turned fully conducive.

In early June, the Centre waived Long Term Capital Gains (LTCG) tax on foreign investment in bonds. The RBI and the Centre further expanded the Fully Accessible Route (FAR) to include new long-term Government Securities with 15-year, 30-year, and 40-year tenors, as well as Sovereign Green Bonds.

The steps came in the backdrop of net outflow of foreign funds from Indian capital markets and a constantly depreciating rupee.

"The reforms are poised to attract long-term institutional investors such as pension funds, insurance companies and sovereign wealth funds, leading to more stable and sustained capital inflows. They are also expected to boost foreign exchange inflows and strengthen resilience of India's financial markets," the Ministry of Finance said. The question of whether tax cuts can deliver more inflows is a topic of debate among economists and financial analysts.

"Tax tweaks can serve as a catalyst but rarely override core fundamentals like policy consistency and external conditions. India's progressive liberalisation through the FAR has often mattered more. While taxation was a constraint — especially for debt — it was secondary,"



Inflows stood at ₹55,518 crore in June 2026. AFP

said Lekha Chakraborty, Professor, National Institute of Public Finance and Policy (NIPFP).

The inflows, however, did come and they were across the bond market. FPI investment under general limit debt securities, which contains both corporate bonds and government securities, came in at ₹55,518 crore in June 2026.

Investments under the FAR were the highest since September 2024 when it was introduced. FAR recorded an inflow of ₹21,652 crore in June 2026. Put together, they more than compensated for the significant outflow of ₹49,340 crore from equities.

Many factors at play

"Attributing the recent increase in FPI inflows solely to the removal of capital gains tax or withholding tax would be an oversimplification. A combination of factors has contributed to the improved sentiment in India's debt market," said Venkatakrishnan Srinivasan, managing partner, Rockfort LLP.

"Overall, June has been a positive month for the bond market. The easing of geopolitical concerns surrounding the Strait of Hormuz, expectations of India's possible inclusion in the Bloomberg Global Aggregate Bond Index and improving market senti-

ment on RBI's recent policy steps have all supported investor confidence and foreign investor interest," Mr. Srinivasan continued.

The sustainability of the inflows, which the tax cut was aiming at, cannot be definitely guaranteed as the underlying economic data doesn't suggest that things have changed completely positively for the debt investors.

In all, bond market experts and economists, while certain the inflows cannot be directly attributed to the tax cut, do not discount the benefits of such a move.

Benefits of the tax cut

Benefits of the tax cut include 'diversifying inflows away from equities, deepening debt markets, and supporting external balances,' while fundamentals dominate in determining flows, said Ms. Chakraborty.

However, others in the policy-making space are more careful in evaluating the utility of cutting taxes to bring in capital market investments. Former Finance Secretary S.C. Garg said the move did not have much of a deeper policy thought and was 'more a desperate attempt at bringing in foreign exchange.'

"If you have to try something to get forex and there is no measure available for FDI or FPI in equity, you end up going for FCNR B and government securities," he said.

Now that the tax policy constraint on foreign investment into Indian debt securities has been removed, attention would shift to the macroeconomic climate which would have to be as lucrative for investors to show the same level of interest in bonds as it did in June 2026.

07J7. Will record FPI Indian bond flows be sustainable?

क्या भारतीय बॉन्ड बाज़ार में रिकॉर्ड एफपीआई निवेश का प्रवाह टिकाऊ रहेगा?

- The overall inflow of foreign investor money into India's bond market crossed a record **₹55,518 crore** in June.

भारत के बॉन्ड बाज़ार में विदेशी निवेशकों का कुल प्रवाह जून में रिकॉर्ड ₹55,518 करोड़ से अधिक रहा।

- Experts, however, aired concerns over the sustainability of the momentum as the macroeconomic climate had not turned fully conducive.

हालाँकि, विशेषज्ञों ने इस गति की स्थिरता को लेकर चिंता जताई क्योंकि समष्टि आर्थिक वातावरण अभी पूरी तरह अनुकूल नहीं हुआ है।

- In early June, the Centre waived Long Term Capital Gains (LTCG) tax on foreign investment in bonds.

जून की शुरुआत में केंद्र सरकार ने बॉन्ड में विदेशी निवेश पर दीर्घकालिक पूंजीगत लाभ (LTCG) कर समाप्त कर दिया।

- The RBI and the Centre further expanded the Fully Accessible Route (FAR) to include new long-term Government Securities with 15-year, 30-year, and 40-year tenors, as well as Sovereign Green Bonds.

आरबीआई और केंद्र सरकार ने फुली एक्सेसिबल रूट (FAR) का विस्तार करते हुए 15 वर्ष, 30 वर्ष और 40 वर्ष की अवधि



वाली नई सरकारी प्रतिभूतियों तथा सॉवरेन ग्रीन बॉन्ड्स को इसमें शामिल किया।

- “Tax tweaks can serve as a catalyst but rarely override core fundamentals like policy consistency and external conditions.

“कर संबंधी बदलाव उत्प्रेरक का कार्य कर सकते हैं, लेकिन वे नीतिगत स्थिरता और बाहरी परिस्थितियों जैसे मूलभूत कारकों का स्थान नहीं ले सकते।

- FPI investment under general limit debt securities, which contains both corporate bonds and government securities, came in at ₹55,518 crore in June 2026.

जनरल लिमिट डेट सिक्योरिटीज़, जिसमें कॉरपोरेट बॉन्ड और सरकारी प्रतिभूतियाँ दोनों शामिल हैं, के अंतर्गत एफपीआई निवेश जून 2026 में ₹55,518 करोड़ रहा।

GS Paper III: Science and Technology		07 July 2026
TOPICS COVERED		
07J7	A.P. issues warning to shrimp farms over White Gut Disease आंध्र प्रदेश ने व्हाइट गट डिजीज को लेकर झींगा फार्मों को चेतावनी जारी की	
07J7	Diamond jewellery among payloads to be launched by Vikram-1 rocket विक्रम-1 रॉकेट से प्रक्षेपित किए जाने वाले पेलोड में हीरे के आभूषण भी शामिल	
07J7	Why FDA nod for vepdegestrant is a major shift in cancer therapy वेपडेगेस्ट्रेंट को FDA की मंजूरी कैंसर उपचार में एक बड़ा बदलाव क्यों है	
07J7	Oldest quasars found deepen 'perplexing' space mystery सबसे पुराने क्वासरों की खोज ने 'जटिल' अंतरिक्ष रहस्य को और गहरा किया	
07J7	QUIZ	
07J7	E-rickshaw battery 'hacks' and Bluetooth BMS vulnerabilities ई-रिक्शा बैटरी 'हैक' और ब्लूटूथ BMS कमजोरियाँ	



A.P. issues warning to shrimp farms over White Gut Disease

GS III: S&T
The Hindu Bureau
VIJAYAWADA

Officials of the Fisheries Department of Andhra Pradesh sounded alarm about the outbreak of White Gut Disease (WDG), also known as White Feces Disease (WFD), in shrimp ponds in the State.

Explaining the symptoms of the disease, scientists appealed to the shrimp farmers to take measures to prevent the spread of the disease.

A team of Fisheries Department officials, who collected samples of shrimp, water, faeces and feed, reportedly confirmed the symptoms of the disease in some ponds in West Godavari district.

The team led by Joint Director (Fisheries) D. Srinivas collected samples from the shrimp ponds in Undi mandal. The samples would be sent to laboratories located at Kaikalur and Bhimavaram. The teams collected more samples from the nearby aqua ponds, the Joint Director said.

"Shrimp affected by WGD take in less feed, suffer from stunted growth, have intestines that turn brown, and shows signs of loose shells. Aqua farmers should maintain good hygienic conditions to prevent diseases. We are collecting samples from tanks across the State," an officer of the task force team constituted to check the disease said.

Agriculture and Fisheries Minister Kinjarapu Atchannaidu directed the officials to educate the farmers on preventing the spread of the disease.

07J7. A.P. issues warning to shrimp farms over White Gut Disease

आंध्र प्रदेश ने व्हाइट गट डिजीज को लेकर झींगा फार्मों को चेतावनी जारी की

• Officials of the Fisheries Department of Andhra Pradesh sounded alarm about the outbreak of **White Gut Disease (WGD)**, also known as **White Feces Disease (WFD)**, in shrimp ponds in the State.

आंध्र प्रदेश के मत्स्य विभाग के अधिकारियों ने राज्य के झींगा तालाबों में व्हाइट गट डिजीज (WGD), जिसे व्हाइट फेसीज डिजीज (WFD) भी कहा जाता है, के प्रकोप को लेकर चेतावनी जारी की।

• Explaining the **symptoms** of the disease, scientists appealed to the **shrimp farmers** to take measures to prevent the spread of the disease.

रोग के लक्षणों की जानकारी देते हुए वैज्ञानिकों ने झींगा किसानों से इसके प्रसार को रोकने के लिए आवश्यक उपाय अपनाने की अपील की।

• "Shrimp affected by WGD take in less feed, suffer from **stunted growth**, have **intestines** that turn **brown**, and show signs of **loose shells**."

"WGD से प्रभावित झींगे कम चारा खाते हैं, उनकी वृद्धि रुक जाती है, उनकी आंते भूरी हो जाती हैं तथा उनके खोल ढीले पड़ने के लक्षण दिखाई देते हैं।

• **Aqua farmers** should maintain good **hygienic conditions** to prevent diseases.

जलीय कृषि किसानों को रोगों की रोकथाम के लिए अच्छी **स्वच्छता** बनाए रखनी चाहिए।

• We are collecting samples from tanks across the **State**," an officer of the **task force team** constituted to check the disease said.

रोग की निगरानी के लिए गठित **टास्क फोर्स टीम** के एक अधिकारी ने कहा, "हम पूरे राज्य के तालाबों से नमूने एकत्र कर रहे हैं।"

• **Agriculture and Fisheries Minister Kinjarapu Atchannaidu** directed the officials to educate the farmers on preventing the spread of the disease.

कृषि एवं मत्स्य मंत्री किंजरापु अच्चन्नायडु ने अधिकारियों को किसानों को इस रोग के प्रसार की रोकथाम के उपायों के बारे में जागरूक करने के निर्देश दिए।



Diamond jewellery among payloads to be launched by Vikram-1 rocket

GS III: S&T

Hemanth C.S.
BENGALURU

A diamond jewellery creation mounted on an aluminium base plate and a miniaturised artwork cast in the shape of a rocket using 18K gold are among the payloads which will be launched by India's first privately developed orbital-class rocket, Vikram-1. It is expected to be launched some time between July 12 and August 4.

Skyroot Aerospace on Monday announced that the orbital launch vehicle will carry six payloads.

The rocket will carry technology demonstration payloads from Grahaa Space, Dcubed, and Skyroot's own SCOPE. Also aboard will be the Embrace payload, developed by CosmoServe Space.

During the mission, the robotic arm will remain attached to Vikram-1's payload deck while carrying



Vikram-1, India's first privately developed orbital-class rocket, is expected to be launched soon. PHOTO FOR REPRESENTATION

out its planned demonstration.

Tribute to visionaries

In addition to the technology demonstration payloads, Vikram-1 will carry two payloads celebrating creativity and India's scientific heritage. These include Cosmic Bloom, developed by Cosmos Diamonds, featuring a diamond jewellery creation mounted on an aluminium

base plate, and Microart by Ajay Kumar Mattewada, an 18K gold rocket holding micro-sculptures of Sir C.V. Raman, Dr. Vikram Sarabhai, and Dr. A.P.J. Abdul Kalam — each smaller than a grain of rice.

The artwork pays tribute to three visionaries whose pioneering contributions continue to inspire India's scientific and space journey.

There will be one inter-

national payload developed by Dcubed GmbH, Germany.

"India's space sector is witnessing a remarkable phase of innovation and entrepreneurship. Missions like Vikram-1 are helping expand opportunities for emerging space companies to demonstrate and scale their technologies," said Ramesh Kumar V., co-founder and CEO, Grahaa Space, whose nano-satellite, SOLARAS, will be a part of the mission.

"Mission Aagaman gave us a platform to rapidly send our systems to space and test them. Through this mission with Skyroot, we accelerated our soft-robotic capture technology from concept to flight-ready in just four months, advancing the space debris removal capabilities being developed at CosmoServe Space," said Chiranjeevi Phanindra, founder and CEO of CosmoServe Space.

07J7. Diamond jewellery among payloads to be launched by Vikram-1 rocket

विक्रम-1 रॉकेट से प्रक्षेपित किए जाने वाले पेलोड में हीरे के आभूषण भी शामिल

- A diamond jewellery creation mounted on an aluminium base plate and a miniaturised artwork cast in the shape of a rocket using 18K gold are among the payloads which will be launched by India's first privately developed orbital-class rocket, Vikram-1.

एल्यूमिनियम बेस प्लेट पर स्थापित हीरे के आभूषण की एक कलाकृति तथा

18 कैरेट सोने से रॉकेट के आकार में

बनाई गई एक सूक्ष्म कलाकृति, भारत के

पहले निजी रूप से विकसित ऑर्बिटल-श्रेणी के रॉकेट विक्रम-1 द्वारा प्रक्षेपित किए जाने वाले पेलोड में शामिल हैं।

- It is expected to be launched some time between July 12 and August 4.

इसके 12 जुलाई से 4 अगस्त के बीच किसी समय प्रक्षेपित होने की संभावना है।

- Skyroot Aerospace on Monday announced that the orbital launch vehicle will carry six payloads.

स्काईरूट एयरोस्पेस ने सोमवार को घोषणा की कि यह ऑर्बिटल प्रक्षेपण यान छह पेलोड लेकर जाएगा।

- The rocket will carry technology demonstration payloads from Grahaa Space, Dcubed, and Skyroot's own SCOPE.

यह रॉकेट ग्राहा स्पेस, डीक्यूब्ड (Dcubed) तथा स्काईरूट के अपने SCOPE के प्रौद्योगिकी प्रदर्शन पेलोड को भी लेकर जाएगा।

- Also aboard will be the Embrace payload, developed by CosmoServe Space.

इसके साथ कॉसमोसर्व स्पेस द्वारा विकसित एम्ब्रेस (Embrace) पेलोड भी होगा।

- In addition to the technology demonstration payloads, Vikram-1 will carry two payloads celebrating creativity and India's scientific heritage.

प्रौद्योगिकी प्रदर्शन पेलोड के अतिरिक्त विक्रम-1 रचनात्मकता और भारत की वैज्ञानिक विरासत को समर्पित दो विशेष पेलोड भी लेकर जाएगा।

- These include Cosmic Bloom, developed by Cosmos Diamonds, featuring a diamond jewellery creation mounted on an aluminium base plate, and Microart by Ajay Kumar Mattewada, an 18K gold rocket holding micro-sculptures of Sir C.V. Raman, Dr. Vikram Sarabhai, and Dr. A.P.J. Abdul Kalam — each smaller than a grain of rice.

इनमें कॉसमोस डायमंड्स द्वारा विकसित कॉस्मिक ब्लूम (Cosmic Bloom) शामिल है, जिसमें

एल्यूमिनियम बेस प्लेट पर स्थापित हीरे के आभूषण की कलाकृति है, तथा अजय कुमार मट्टेवाडा की

माइक्रोआर्ट (Microart) भी शामिल है, जिसमें 18 कैरेट सोने से बना रॉकेट सर सी.वी. रमन, डॉ. विक्रम

साराभाई और डॉ. ए.पी.जे. अब्दुल कलाम की सूक्ष्म मूर्तियों को धारण किए हुए है, जिनमें से प्रत्येक चावल के

एक दाने से भी छोटी है।

- There will be one **international payload** developed by **Dcubed GmbH, Germany**.
इस मिशन में जर्मनी की डीक्यूब्ड GmbH (Dcubed GmbH) द्वारा विकसित एक अंतरराष्ट्रीय पेलोड भी शामिल होगा।
- Missions like **Vikram-1** are helping expand opportunities for emerging **space companies** to demonstrate and scale their technologies,” said **Ramesh Kumar V., Co-founder and CEO of Grahaa Space**, whose **nano-satellite SOLARAS** will be a part of the mission.
विक्रम-1 जैसे मिशन उभरती हुई अंतरिक्ष कंपनियों को अपनी प्रौद्योगिकियों का प्रदर्शन करने और उन्हें आगे बढ़ाने के अवसर प्रदान कर रहे हैं,” ग्राहा स्पेस के सह-संस्थापक एवं मुख्य कार्यकारी अधिकारी रमेश कुमार वी. ने कहा, जिनका नैनो-उपग्रह SOLARAS इस मिशन का हिस्सा होगा।
- “**Mission Aagaman** gave us a platform to rapidly send our systems to **space** and test them.
“मिशन आगमन ने हमें अपने सिस्टम को शीघ्र अंतरिक्ष में भेजने और उनका परीक्षण करने का मंच प्रदान किया।
- Through this mission with **Skyroot**, we accelerated our **soft-robotic capture technology** from concept to **flight-ready** in just **four months**, advancing the **space debris removal** capabilities being developed at **Cosmoserve Space**,” said **Chiranjeevi Phanindra, Founder and CEO of Cosmoserve Space**.
स्काईरूट के साथ इस मिशन के माध्यम से हमने अपनी सॉफ्ट-रोबोटिक कैप्चर तकनीक को केवल चार महीनों में अवधारणा से उड़ान-योग्य अवस्था तक पहुँचाया, जिससे कॉसमोसर्व स्पेस में विकसित की जा रही अंतरिक्ष मलबा हटाने की क्षमता को आगे बढ़ाया गया,” कॉसमोसर्व स्पेस के संस्थापक एवं मुख्य कार्यकारी अधिकारी चिरंजीवी फणिंदर ने कहा।

ORBITAL-CLASS ROCKET

- An orbital-class rocket must accelerate its payload to a speed of about **7.8 kilometres per second (approximately 28,000 km/h)** to enter **Low Earth Orbit (LEO)**.
- This enormous speed requires multiple rocket stages, powerful engines, and precise guidance systems.
- The first stage lifts the rocket through the atmosphere, while the upper stages continue accelerating the payload until orbital velocity is achieved.

Why FDA nod for vepdegestrant is a major shift in cancer therapy

The approval by the U.S. Food and Drug Administration paves the way for drugs designed to remove harmful proteins from cells, rather than simply block them; this is an advance because these drugs can sidestep the barriers to treating diseases that involve hitherto 'undruggable' proteins

GS III: S&T
Manjeera Gowravaram

In May 1, the U.S. Food and Drug Administration (FDA) approved the drug vepdegestrant for patients with *ESR1*-mutated, ER-positive, and HER2-negative advanced breast cancer. It is the world's first therapy that the FDA – whose lead many drug regulators worldwide follow – has approved that is based on PROTAC technology.

The approval paves the way for drugs designed to remove harmful proteins from cells, rather than simply block them. This is an advance because PROTACs can sidestep the barriers to treating diseases that involve hitherto 'undruggable' proteins. Researchers have been developing this technology for more than two decades.

How PROTACs work

'PROTAC' stands for proteolysis-targeting chimaera, which is a kind of molecule. These molecules are designed to remove specific proteins from a cell. A PROTAC has two ends: one binds to the target protein and the other binds to an E3 ligase, an enzyme involved in the cell's protein degradation process. By bringing these components together, the PROTAC causes the target protein to be degraded by the cell. This is called targeted protein degradation.

Conventional drugs work by binding to a protein in a way that prevents it from performing certain roles in the body. This means the drugs or antibodies often need to be present for long periods in the body. PROTACs, however, act like catalysts: while the proteins they target end up being degraded, they themselves are not degraded. After triggering one degradation process, the PROTAC can detach itself and repeat it with another instance of the same protein.

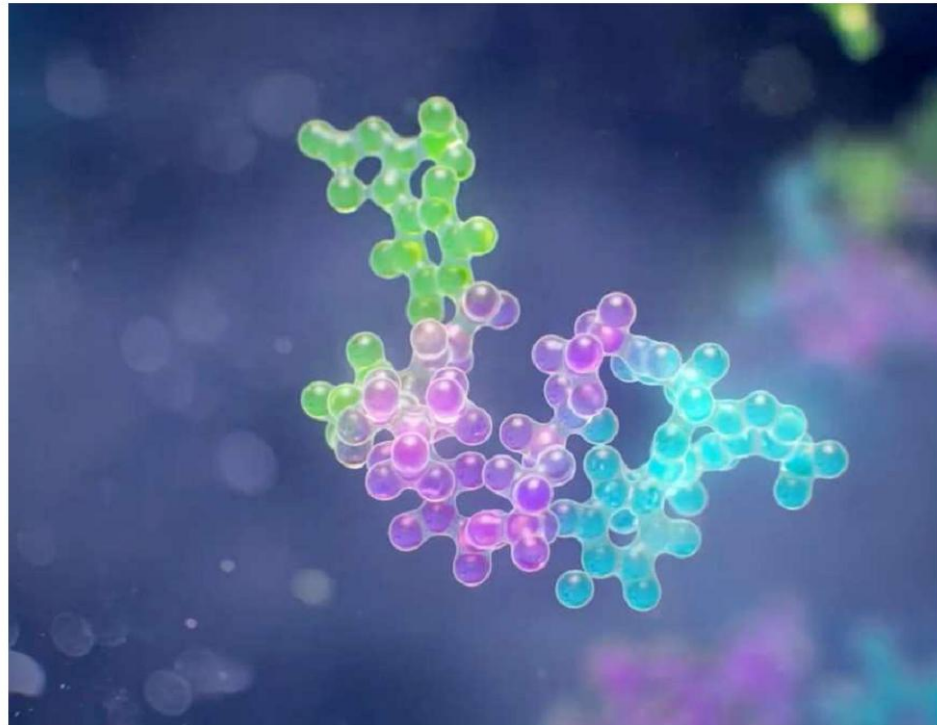
This mechanism allows a single PROTAC molecule to act multiple times. Because PROTACs remove the entire protein from the cell, they may also disrupt other roles the protein plays, such as controlling the activity of other proteins. Conventional drugs, however, usually block only one specific activity of a protein.

Early research to trials

In 2001, two research groups, at Yale University and Caltech, first demonstrated targeted protein degradation. They showed that a particular molecule was capable of recruiting a target protein to the cell's degradation machinery. This molecule was a precursor to PROTACs. In 2003, a follow-up study by the same groups found that the same molecule could work inside cells to degrade proteins related to breast and prostate cancer.

At this stage, these molecules were mainly research tools and not suitable for use as drugs. Among other properties, they were large, unstable, and had poor pharmacological properties. But researchers made rapid progress in the 2010s: they improved the molecules' designs and stabilised the interaction between the PROTAC, the target protein, and the E3 ligase, among other changes. The advances yielded molecules with better selectivity and other properties suited to a good drug.

In 2019, bavdegalutamide, a PROTAC developed by the U.S.-based



An artist's concept of an Arvinas PROTAC molecule. PROTACs are designed to remove specific proteins from a cell. ARVINAS, INC./YOUTUBE

biotechnology company Arvinas, became the first drug of its kind to enter human trials. Bavdegalutamide was designed for patients with metastatic, castration-resistant prostate cancer.

Around the same time, researchers were developing vepdegestrant – developed by Arvinas and Pfizer – as an oestrogen receptor degrader. Vepdegestrant progressed through early-phase trials and began phase 3 trials involving patients with advanced breast cancer. By 2025, the drug had completed late-stage testing as well, with its developers submitting the data to the FDA for regulatory review.

The FDA approval brings the drug's development timeline from initial concept to approval to just over two decades.

Potential and limits

The approval for vepdegestrant was based on results from a phase 3 trial that enrolled 624 patients who had previously been treated with CDK4/6 inhibitors and endocrine therapy – the current standard-of-care.

Among 270 patients with *ESR1*-mutated tumours, the typical length of time the treatment kept the cancer under control was five months for those treated with vepdegestrant versus 2.1 months for patients receiving fulvestrant, an established standard treatment.

Most side effects reported with vepdegestrant were low grade, including musculoskeletal pain, fatigue, nausea, constipation, and lower appetite, plus changes in liver-related enzymes (that resolve on their own) and heart rhythm (e.g. minor abnormalities in an ECG).

Vepdegestrant works by targeting the oestrogen receptor, an important driver of many breast cancers. In patients with

mutations in the *ESR1* gene, the receptor can remain active despite hormone therapy, leading to the cancer resisting the treatment. Vepdegestrant destroys the receptor altogether, giving patients with some advanced forms of breast cancer a new hope. The drug is taken orally once a day, which is more convenient than fulvestrant, which requires intramuscular injections.

Many proteins associated with diseases lack suitable points on their surface where a traditional inhibitor can bind, rendering the protein dysfunctional. PROTACs however need to bind to a protein just enough to bring it into contact with an E3 ligase.

Thus, PROTACs may also be able to target proteins previously considered difficult to treat. And because one PROTAC molecule can degrade multiple copies of a protein, these drugs may work effectively at lower doses than conventional inhibitors.

These potential abilities are why the PROTAC development pipeline is so wide today. Thus far, more than 40 PROTAC candidates have entered clinical trials, targeting more than 200 proteins across different disease areas. While the main focus is still cancer, researchers are also paying more attention to neurodegenerative diseases, inflammatory conditions, and muscle disorders, where abnormal or misfolded proteins contribute to disease.

Challenges to overcome

There are still several challenges to overcome. The PROTAC molecules are generally larger and more structurally complex than traditional small-molecule drugs, which are usually designed to be compact enough to pass through the gut

wall and into the bloodstream after a patient swallows a pill. But because PROTACs are bulkier, they can be harder for the body to absorb and distribute efficiently to different tissues.

Their activity can also vary with concentration. At very high levels, PROTACs may begin binding separately to either the target protein or the E3 ligase instead of bringing the two together in the same complex. As a result, fewer productive interactions occur and the drug can paradoxically become less effective.

Most current PROTACs also rely mainly on just two E3 ligases while human cells are known to have more than 600. Scientists are therefore trying to expand the number of ligases that can be recruited, which could improve tissue specificity and reduce side effects.

Resistance mechanisms may also emerge over time. For example, cancer cells could develop mutations that alter the cellular machinery that PROTACs rely on to destroy proteins, or reduce the availability of E3 ligases themselves, making the drugs less effective.

The FDA approval for vepdegestrant augurs targeted protein degradation as a viable clinical approach. At the same time, the field is still developing, and most PROTAC-based drugs are still going through clinical trials. Further study will determine how widely this new therapeutic pathway can be applied and how it will perform relative to existing treatments across different diseases, including long-term safety and real-world effectiveness across various patient populations.

(Manjeera Gowravaram has a PhD in RNA biochemistry and works as a freelance science writer. gmanjeera@gmail.com)

07J7. Why FDA nod for vepdegestrant is a major shift in cancer therapy वेपडेगेस्ट्रेंट को FDA की मंजूरी कैंसर उपचार में एक बड़ा बदलाव क्यों है

- On May 1, the **U.S. Food and Drug Administration (FDA)** approved the drug **vepdegestrant** for patients with **ESR1-mutated, ER-positive, and HER2-negative advanced breast cancer**.
1 मई को, **अमेरिकी खाद्य एवं औषधि प्रशासन (FDA)** ने **ESR1-म्यूटेटेड, ER-पॉजिटिव और HER2-नेगेटिव उन्नत स्तन कैंसर** के रोगियों के लिए **वेपडेगेस्ट्रेंट** दवा को मंजूरी दी।
- It is the world's first therapy that the FDA — whose lead many drug regulators worldwide follow — has approved that is based on PROTAC technology.**
यह दुनिया की पहली ऐसी थेरेपी है जिसे FDA — जिसका अनुसरण विश्वभर के कई औषधि नियामक करते हैं — ने **PROTAC तकनीक** पर आधारित होने के कारण मंजूरी दी है।
- The **approval paves the way for drugs designed to remove harmful proteins from cells, rather than simply block them.**
यह मंजूरी ऐसी दवाओं के लिए रास्ता खोलती है जिन्हें कोशिकाओं से **हानिकारक प्रोटीन** को केवल रोकने के बजाय हटाने के लिए डिजाइन किया गया है।
- This is an advance because **PROTACs** can sidestep the barriers to treating diseases that involve hitherto 'undruggable' proteins.
यह एक महत्वपूर्ण प्रगति है क्योंकि **PROTACs** उन बीमारियों के उपचार की बाधाओं को दूर कर सकते हैं जिनमें अब तक 'दवा से लक्षित न किए जा सकने वाले' प्रोटीन शामिल होते थे।
- Researchers have been developing this technology for more than **two decades**.
शोधकर्ता इस तकनीक को **दो दशकों** से अधिक समय से विकसित कर रहे हैं।

How PROTACs work

PROTACs कैसे कार्य करते हैं

- '**PROTAC**' stands for proteolysis-targeting chimaera, which is a kind of molecule.
'**PROTAC**' का अर्थ प्रोटियोलिसिस-टारगेटिंग काइमेरा है, जो एक प्रकार का अणु होता है।
- These molecules are designed to remove **specific proteins** from a cell.
इन अणुओं को कोशिका से **विशिष्ट प्रोटीन** हटाने के लिए डिजाइन किया गया है।
- A PROTAC has two ends: one binds to the **target protein** and the other binds to an **E3 ligase**, an enzyme involved in the cell's protein degradation process.
एक PROTAC के दो सिरे होते हैं: एक **लक्षित प्रोटीन** से जुड़ता है और दूसरा **E3 लाइगेज** से जुड़ता है, जो कोशिका की प्रोटीन विघटन प्रक्रिया में शामिल एक एंजाइम है।
- By bringing these components together, the PROTAC causes the target protein to be degraded by the cell.
इन घटकों को एक साथ लाकर, PROTAC लक्षित प्रोटीन को कोशिका द्वारा विघटित करवाता है।
- This is called **targeted protein degradation**.
इसे **लक्षित प्रोटीन विघटन** कहा जाता है।
- Conventional drugs work by binding to a protein in a way that prevents it from performing certain roles in the body.
पारंपरिक दवाएँ किसी प्रोटीन से इस प्रकार जुड़कर कार्य करती हैं कि वह शरीर में अपनी कुछ भूमिकाएँ निभाने से रुक जाता है।
- This means the drugs or antibodies often need to be present for long periods in the body.
इसका अर्थ है कि दवाओं या एंटीबॉडी को अक्सर लंबे समय तक शरीर में उपस्थित रहना पड़ता है।
- PROTACs**, however, act like catalysts: while the proteins they target end up being degraded, they themselves are not degraded.

हालाँकि, **PROTACs** उत्प्रेरक की तरह कार्य करते हैं: जिन प्रोटीनों को वे लक्षित करते हैं वे विघटित हो जाते हैं, लेकिन वे स्वयं विघटित नहीं होते।

- After triggering one degradation process, the PROTAC can detach itself and repeat it with another instance of the same protein.
एक विघटन प्रक्रिया शुरू करने के बाद, PROTAC स्वयं अलग हो सकता है और उसी प्रोटीन के दूसरे रूप के साथ इस प्रक्रिया को दोहरा सकता है।
- This mechanism allows a single PROTAC molecule to act **multiple times**.
यह प्रक्रिया एक अकेले PROTAC अणु को **कई बार** कार्य करने की क्षमता प्रदान करती है।
- Because PROTACs remove the **entire protein** from the cell, they may also disrupt other roles the protein plays, such as controlling the activity of other proteins.
क्योंकि PROTACs कोशिका से **पूरे प्रोटीन** को हटा देते हैं, वे प्रोटीन द्वारा निभाई जाने वाली अन्य भूमिकाओं को भी बाधित कर सकते हैं, जैसे अन्य प्रोटीनों की गतिविधि को नियंत्रित करना।
- Conventional drugs, however, usually block only one specific activity of a protein.
हालाँकि, पारंपरिक दवाएँ सामान्यतः किसी प्रोटीन की केवल एक विशिष्ट गतिविधि को ही अवरुद्ध करती हैं।

Early research to trials

प्रारंभिक अनुसंधान से परीक्षण तक

- In 2001, two research groups, at **Yale University** and **Caltech**, first demonstrated **targeted protein degradation**.
2001 में, **येल विश्वविद्यालय** और **कैलटेक** के दो अनुसंधान समूहों ने पहली बार **लक्षित प्रोटीन विघटन** को प्रदर्शित किया।
- They showed that a particular molecule was capable of recruiting a target protein to the cell's **degradation machinery**.
उन्होंने दिखाया कि एक विशेष अणु किसी लक्षित प्रोटीन को कोशिका की **विघटन प्रणाली** तक पहुँचाने में सक्षम था।
- This molecule was a precursor to **PROTACs**.
यह अणु **PROTACs** का पूर्ववर्ती था।
- In 2003, a follow-up study by the same groups found that the same molecule could work inside cells to degrade proteins related to **breast and prostate cancer**.
2003 में, इन्हीं समूहों द्वारा किए गए एक अनुवर्ती अध्ययन में पाया गया कि यही अणु कोशिकाओं के अंदर कार्य करके **स्तन और प्रोस्टेट कैंसर** से संबंधित प्रोटीन को विघटित कर सकता है।
- At this stage, these molecules were mainly **research tools** and not suitable for use as drugs.
इस चरण में, ये अणु मुख्य रूप से **अनुसंधान उपकरण** थे और दवाओं के रूप में उपयोग के लिए उपयुक्त नहीं थे।
- Among other properties, they were large, unstable, and had poor **pharmacological properties**.
अन्य गुणों के साथ-साथ, वे बड़े, अस्थिर थे और उनमें कमजोर **औषधीय गुण** थे।
- But researchers made rapid progress in the 2010s: they improved the molecules' designs and stabilised the interaction between the **PROTAC**, the target protein, and the **E3 ligase**, among other changes.
लेकिन शोधकर्ताओं ने 2010 के दशक में तेजी से प्रगति की: उन्होंने अन्य परिवर्तनों के साथ-साथ अणुओं की संरचना में सुधार किया और **PROTAC**, लक्षित प्रोटीन तथा **E3 लाइगेज** के बीच अंतःक्रिया को स्थिर बनाया।
- The advances yielded molecules with better **selectivity** and other properties suited to a good drug.
इन प्रगतियों से बेहतर **चयनात्मकता** और एक अच्छी दवा के लिए उपयुक्त अन्य गुणों वाले अणु प्राप्त हुए।
- In 2019, **bavdegalutamide**, a PROTAC developed by the U.S.-based biotechnology company **Arvinas**, became the first drug of its kind to enter human trials.

- 2019 में, अमेरिका स्थित जैव प्रौद्योगिकी कंपनी **Arvinas** द्वारा विकसित **PROTAC bavdegalutamide**, मानव परीक्षणों में प्रवेश करने वाली अपनी तरह की पहली दवा बनी।
- Bavdegalutamide was designed for patients with **metastatic, castration-resistant prostate cancer**.
Bavdegalutamide को **मेटास्टेटिक, कैस्ट्रेशन-प्रतिरोधी प्रोस्टेट कैंसर** वाले रोगियों के लिए तैयार किया गया था।
 - Around the same time, researchers were developing **vepdegestrant** — developed by Arvinas and Pfizer — as an **oestrogen receptor degrader**.
लगभग उसी समय, शोधकर्ता **vepdegestrant** विकसित कर रहे थे — जिसे Arvinas और Pfizer द्वारा विकसित किया गया — एक **एस्ट्रोजन रिसेप्टर विघटक** के रूप में।
 - Vepdegestrant progressed through early-phase trials and began **phase 3 trials** involving patients with advanced breast cancer.
Vepdegestrant प्रारंभिक चरण के परीक्षणों से आगे बढ़ा और उन्नत स्तन कैंसर वाले रोगियों को शामिल करते हुए **चरण 3 परीक्षणों** में प्रवेश किया।
 - By 2025, the drug had completed late-stage testing as well, with its developers submitting the data to the **FDA** for regulatory review.
2025 तक, इस दवा ने अंतिम चरण के परीक्षण भी पूरे कर लिए थे और इसके विकासकर्ताओं ने नियामक समीक्षा के लिए डेटा **FDA** को प्रस्तुत किया।
 - The FDA approval brings the drug's development timeline from initial concept to approval to just over **two decades**.
FDA की मंजूरी ने इस दवा के विकास की समय-सीमा को प्रारंभिक अवधारणा से स्वीकृति तक केवल **दो दशकों से थोड़ा अधिक** तक पहुँचा दिया।

Potential and limits संभावनाएँ और सीमाएँ

- The approval for vepdegestrant was based on results from a **phase 3 trial** that enrolled 624 patients who had previously been treated with **CDK4/6 inhibitors** and endocrine therapy — the current standard-of-care.
Vepdegestrant की मंजूरी एक **चरण 3 परीक्षण** के परिणामों पर आधारित थी, जिसमें 624 ऐसे रोगियों को शामिल किया गया था जिनका पहले **CDK4/6 अवरोधकों** और एंडोक्राइन थेरेपी से उपचार किया गया था — जो वर्तमान मानक उपचार है।
- Among 270 patients with **ESR1-mutated tumours**, the typical length of time the treatment kept the cancer under control was five months for those treated with vepdegestrant versus 2.1 months for patients receiving **fulvestrant**, an established standard treatment.
ESR1-परिवर्तित ट्यूमर वाले 270 रोगियों में, vepdegestrant से उपचार प्राप्त करने वालों में कैंसर को नियंत्रण में रखने की सामान्य अवधि पाँच महीने थी, जबकि स्थापित मानक उपचार **fulvestrant** प्राप्त करने वाले रोगियों में यह 2.1 महीने थी।
- Most side effects reported with vepdegestrant were low grade, including **musculoskeletal pain, fatigue, nausea, constipation, and lower appetite**, plus changes in liver-related enzymes and heart rhythm.
Vepdegestrant के साथ रिपोर्ट किए गए अधिकांश दुष्प्रभाव हल्के स्तर के थे, जिनमें **मांसपेशी-कंकाल दर्द, थकान, मतली, कब्ज और भूख में कमी**, साथ ही यकृत-संबंधी एंजाइम और हृदय गति में परिवर्तन शामिल थे।
- Vepdegestrant works by targeting the **oestrogen receptor**, an important driver of many breast cancers.
Vepdegestrant **एस्ट्रोजन रिसेप्टर** को लक्षित करके कार्य करता है, जो कई स्तन कैंसरों का एक महत्वपूर्ण कारक है।
- In patients with mutations in the **ESR1 gene**, the receptor can remain active despite hormone therapy, leading to the cancer resisting the treatment.

ESR1 जीन में उत्परिवर्तन वाले रोगियों में, हार्मोन थेरेपी के बावजूद रिसेप्टर सक्रिय रह सकता है, जिससे कैंसर उपचार के प्रति प्रतिरोधी हो जाता है।

- Vepdegestrant destroys the receptor altogether, giving patients with some advanced forms of breast cancer a **new hope**.
Vepdegestrant रिसेप्टर को पूरी तरह नष्ट कर देता है, जिससे स्तन कैंसर के कुछ उन्नत रूपों वाले रोगियों को **नई आशा** मिलती है।
- The drug is taken orally once a day, which is more convenient than fulvestrant, which requires **intramuscular injections**.
यह दवा दिन में एक बार मौखिक रूप से ली जाती है, जो fulvestrant की तुलना में अधिक सुविधाजनक है, जिसके लिए **मांसपेशी के अंदर इंजेक्शन** की आवश्यकता होती है।
- Many proteins associated with diseases lack suitable points on their surface where a traditional inhibitor can bind, rendering the protein dysfunctional.
रोगों से जुड़े कई प्रोटीनों की सतह पर ऐसे उपयुक्त स्थान नहीं होते जहाँ पारंपरिक अवरोधक जुड़ सके और प्रोटीन को निष्क्रिय बना सके।
- **PROTACs** however need to bind to a protein just enough to bring it into contact with an **E3 ligase**.
हालाँकि **PROTACs** को प्रोटीन से केवल इतना जुड़ने की आवश्यकता होती है कि वह उसे **E3 लाइगेज** के संपर्क में ला सके।
- Thus, PROTACs may also be able to target proteins previously considered difficult to treat.
इस प्रकार, PROTACs उन प्रोटीनों को भी लक्षित करने में सक्षम हो सकते हैं जिन्हें पहले उपचार के लिए कठिन माना जाता था।
- And because one PROTAC molecule can degrade multiple copies of a protein, these drugs may work effectively at **lower doses** than conventional inhibitors.
और क्योंकि एक PROTAC अणु प्रोटीन की कई प्रतियों को विघटित कर सकता है, ये दवाएँ पारंपरिक अवरोधकों की तुलना में **कम खुराक** में प्रभावी रूप से कार्य कर सकती हैं।
- These potential abilities are why the **PROTAC development pipeline** is so wide today.
इन संभावित क्षमताओं के कारण ही आज **PROTAC विकास प्रक्रिया** इतनी व्यापक है।
- Thus far, more than **40 PROTAC candidates** have entered clinical trials, targeting more than **200 proteins** across different disease areas.
अब तक, **40 से अधिक PROTAC उम्मीदवार** नैदानिक परीक्षणों में प्रवेश कर चुके हैं, जो विभिन्न रोग क्षेत्रों में **200 से अधिक प्रोटीनों** को लक्षित कर रहे हैं।
- While the main focus is still cancer, researchers are also paying more attention to **neurodegenerative diseases, inflammatory conditions, and muscle disorders**, where abnormal or misfolded proteins contribute to disease.
हालाँकि मुख्य ध्यान अभी भी कैंसर पर है, शोधकर्ता **तंत्रिका-अपक्षयी रोगों, सूजन संबंधी स्थितियों और मांसपेशी विकारों** पर भी अधिक ध्यान दे रहे हैं, जहाँ असामान्य या गलत तरीके से मुड़े हुए प्रोटीन रोगों में योगदान करते हैं।

Challenges to overcome

दूर की जाने वाली चुनौतियाँ

- There are still several **challenges** to overcome.
अभी भी कई **चुनौतियाँ** हैं जिन्हें दूर किया जाना बाकी है।
- The **PROTAC molecules** are generally larger and more structurally complex than traditional small-molecule drugs, which are usually designed to be compact enough to pass through the gut wall and into the bloodstream after a patient swallows a pill.
PROTAC अणु सामान्यतः पारंपरिक छोटे-अणु वाली दवाओं की तुलना में बड़े और संरचनात्मक रूप से

अधिक जटिल होते हैं, जिन्हें आमतौर पर इतना छोटा बनाया जाता है कि रोगी द्वारा गोली निगलने के बाद वे आंत की दीवार से होकर रक्त प्रवाह में प्रवेश कर सकें।

- But because **PROTACs** are bulkier, they can be harder for the body to absorb and distribute efficiently to different tissues.
लेकिन क्योंकि **PROTACs** आकार में बड़े होते हैं, इसलिए शरीर के लिए उन्हें अवशोषित करना और विभिन्न ऊतकों तक प्रभावी ढंग से पहुँचाना कठिन हो सकता है।
- Their activity can also vary with **concentration**.
उनकी गतिविधि **सांद्रता** के अनुसार भी बदल सकती है।
- At very high levels, **PROTACs** may begin binding separately to either the target protein or the E3 ligase instead of bringing the two together in the same complex.
बहुत अधिक स्तर पर, **PROTACs** लक्षित प्रोटीन और E3 लाइगेज को एक ही कॉम्प्लेक्स में साथ लाने के बजाय, उनमें से किसी एक से अलग-अलग जुड़ना शुरू कर सकते हैं।
- As a result, fewer productive interactions occur and the drug can paradoxically become less effective.
परिणामस्वरूप, कम प्रभावी अंतःक्रियाएँ होती हैं और विरोधाभासी रूप से दवा कम प्रभावी हो सकती है।
- Most current **PROTACs** also rely mainly on just two E3 ligases while human cells are known to have more than **600**.
वर्तमान में अधिकांश **PROTACs** मुख्य रूप से केवल दो E3 लाइगेज पर निर्भर करते हैं, जबकि मानव कोशिकाओं में **600 से अधिक** E3 लाइगेज पाए जाते हैं।
- Scientists are therefore trying to expand the number of **ligases** that can be recruited, which could improve tissue specificity and reduce side effects.
इसलिए वैज्ञानिक उन **लाइगेजों** की संख्या बढ़ाने का प्रयास कर रहे हैं जिन्हें उपयोग में लाया जा सके, जिससे ऊतक-विशिष्टता में सुधार हो सकता है और दुष्प्रभाव कम हो सकते हैं।
- **Resistance mechanisms** may also emerge over time.
समय के साथ **प्रतिरोध तंत्र** भी विकसित हो सकते हैं।
- For example, cancer cells could develop mutations that alter the cellular machinery that PROTACs rely on to destroy proteins, or reduce the availability of E3 ligases themselves, making the drugs less effective.
उदाहरण के लिए, कैंसर कोशिकाएँ ऐसे उत्परिवर्तन विकसित कर सकती हैं जो उस कोशिकीय प्रणाली को बदल दें जिस पर PROTACs प्रोटीन को नष्ट करने के लिए निर्भर करते हैं, या स्वयं E3 लाइगेज की उपलब्धता को कम कर दें, जिससे दवाएँ कम प्रभावी हो जाती हैं।
- The **FDA approval** for vepdegestrant augurs targeted protein degradation as a viable clinical approach.
वेपडेगेस्ट्रेंट को FDA की मंजूरी लक्षित प्रोटीन विघटन को एक व्यवहार्य नैदानिक दृष्टिकोण के रूप में स्थापित करने का संकेत देती है।
- At the same time, the field is still developing, and most **PROTAC-based drugs** are still going through clinical trials.
साथ ही, यह क्षेत्र अभी भी विकसित हो रहा है और अधिकांश **PROTAC-आधारित दवाएँ** अभी भी नैदानिक परीक्षणों से गुजर रही हैं।
- Further study will determine how widely this new **therapeutic pathway** can be applied and how it will perform relative to existing treatments across different diseases, including long-term safety and real-world effectiveness across various patient populations.
आगे के अध्ययन यह निर्धारित करेंगे कि इस नए **चिकित्सीय मार्ग** को कितने व्यापक रूप से लागू किया जा सकता है और यह विभिन्न बीमारियों में मौजूदा उपचारों की तुलना में कैसा प्रदर्शन करेगा, जिसमें विभिन्न रोगी समूहों में दीर्घकालिक सुरक्षा और वास्तविक परिस्थितियों में प्रभावशीलता भी शामिल है।



Oldest quasars found deepen 'perplexing' space mystery

CS III: S&T
Agence France Presse

The Euclid space telescope has spotted the oldest quasars -- the brightest objects in the universe -- ever discovered, deepening a cosmic mystery that has been puzzling scientists.

A quasar is the intensely luminous core of a distant galaxy powered by a supermassive black hole. As gas spirals into the black hole, extreme amounts of gravitational energy are converted into radiation, making quasars shine with the light of a trillion suns. They provide valuable insights into the early evolution of galaxies and black holes. Because they are so incredibly bright -- and looking deep into space also means looking back in time -- scientists have been hunting for ancient quasars to learn more about the little-understood infancy of the universe.

In a study published on Monday, an international team of astronomers announced they had discovered 31 quasars, including the two oldest observed yet, using the European Space Agency's Euclid telescope, which is at a stable hovering spot around 1.5 million kilometres from the earth. The light from the oldest pair comes from when the universe was roughly 670 million years old, just five percent of its current age of 13.8 billion years.

This beats the team's previous record for oldest -- and therefore most distant -- quasar announced in 2021 by around 20 million years. Previous quasar hunts were mostly carried out with ground-based telescopes, but the launch of Euclid in

Quasars, the intensely luminous cores of galaxies powered by a supermassive black hole, provide insights into the early evolution of galaxies and black holes

2023 "has transformed this field," Daming Yang, the lead author of the study in *Astronomy & Astrophysics*, said.

In just two years, Euclid has doubled the number of ancient quasars known to science, added Yang, a PhD student at Leiden University in the Netherlands.

Cosmic quandary

The newly discovered quasars date back to what is known as the epoch of reionisation. This was when the first stars and galaxies began to form, bringing an end to the cosmic dark ages. "We can use quasars as a lighthouse to study the gas between us and them, so that we can trace how the universe was reionised through this cosmic history," Daming Yang said. The quasars are also the latest example of a problem that has been increasingly baffling scientists.

As more powerful telescopes allow us to see further back in time, galaxies and other cosmic objects have turned out to be far bigger than had been thought possible at such an early age.

"Every step further back in time makes the puzzle more perplexing," study co-author Joseph Hennawi said in a statement about the newly discovered quasars. "These monsters -- weighing billions of times the mass of our sun -- somehow already existed when the universe was in its infancy," he said. "We don't yet have a good understanding of how they grew so massive, so fast." Hoping to find an answer, the scientists are searching for even older quasars. The far-seeing James Webb space telescope also recently observed the newly announced quasars, Daming said, and the team will soon begin sifting through the data it collected.

The team eventually hope to stitch together "a quasar chronicle of the first billion years," Hennawi said.

क्वासर एक दूरस्थ आकाशगंगा का अत्यधिक चमकदार केंद्र होता है, जिसे एक

विशालकाय ब्लैक होल ऊर्जा प्रदान करता है।

- As gas spirals into the black hole, extreme amounts of **gravitational energy** are converted into radiation, making quasars shine with the light of a trillion suns.

जैसे ही गैस ब्लैक होल में घूमते हुए प्रवेश करती है, अत्यधिक मात्रा में **गुरुत्वाकर्षण ऊर्जा** विकिरण में परिवर्तित हो जाती है, जिससे क्वासर खरबों सूर्यों के प्रकाश के समान चमकते हैं।

- They provide valuable insights into the early evolution of **galaxies and black holes**. वे **आकाशगंगाओं और ब्लैक होल** के प्रारंभिक विकास के बारे में मूल्यवान जानकारी प्रदान करते हैं।

- Because they are so incredibly bright -- and looking deep into space also means looking back in time -- scientists have been hunting for ancient quasars to learn more about the little-understood infancy of the universe.

क्योंकि वे अत्यधिक चमकीले होते हैं -- और अंतरिक्ष में गहराई तक देखना समय में पीछे देखने के समान भी होता है -- इसलिए वैज्ञानिक ब्रह्मांड के कम समझे गए प्रारंभिक चरण के बारे में अधिक जानने के लिए प्राचीन क्वासरों की खोज कर रहे हैं।

07J7. Oldest quasars found deepen 'perplexing' space mystery

सबसे पुराने क्वासरों

की खोज ने 'जटिल'

अंतरिक्ष रहस्य को और

गहरा किया

• The **Euclid space telescope** has spotted the oldest quasars -- the brightest objects in the universe -- ever discovered, deepening a cosmic mystery that has been puzzling scientists.

यूक्लिड अंतरिक्ष दूरबीन ने अब तक खोजे गए सबसे पुराने क्वासरों -- ब्रह्मांड की सबसे चमकीली वस्तुओं -- का पता लगाया है, जिससे वह ब्रह्मांडीय रहस्य और गहरा हो गया है जो वैज्ञानिकों को उलझन में डाल रहा है।

• A **quasar** is the intensely luminous core of a distant galaxy powered by a supermassive black hole.



- In a study published on Monday, an **international team of astronomers** announced they had discovered 31 quasars, including the two oldest observed yet, using the European Space Agency's Euclid telescope, which is at a stable hovering spot around 1.5 million kilometres from the earth.
सोमवार को प्रकाशित एक अध्ययन में, **खगोलविदों की एक अंतरराष्ट्रीय टीम** ने घोषणा की कि उन्होंने यूरोपीय अंतरिक्ष एजेंसी की यूक्लिड दूरबीन का उपयोग करके 31 क्वासरों की खोज की है, जिनमें अब तक देखे गए दो सबसे पुराने क्वासर भी शामिल हैं; यह दूरबीन पृथ्वी से लगभग 15 लाख किलोमीटर दूर एक स्थिर स्थान पर स्थित है।
- The light from the oldest pair comes from when the universe was roughly **670 million years old**, just five percent of its current age of 13.8 billion years.
सबसे पुराने जोड़े से आने वाला प्रकाश उस समय का है जब ब्रह्मांड लगभग **67 करोड़ वर्ष पुराना** था, जो इसकी वर्तमान आयु 13.8 अरब वर्षों का केवल पाँच प्रतिशत है।
- This beats the team's previous record for oldest -- and therefore most distant -- quasar announced in 2021 by around **20 million years**.
यह टीम द्वारा 2021 में घोषित सबसे पुराने — और इसलिए सबसे दूर स्थित — क्वासर के पिछले रिकॉर्ड को लगभग **2 करोड़ वर्षों** से पीछे छोड़ देता है।
- Previous quasar hunts were mostly carried out with **ground-based telescopes**, but the launch of Euclid in 2023 "has transformed this field," Daming Yang, the lead author of the study in Astronomy & Astrophysics, said.
पहले क्वासरों की खोज मुख्य रूप से **पृथ्वी-आधारित दूरबीनों** से की जाती थी, लेकिन 2023 में यूक्लिड के प्रक्षेपण ने "इस क्षेत्र को बदल दिया है," एस्ट्रोनॉमी एंड एस्ट्रोफिजिक्स में प्रकाशित अध्ययन के मुख्य लेखक डैमिंग यांग ने कहा।
- In just two years, **Euclid** has doubled the number of ancient quasars known to science, added Yang, a PhD student at Leiden University in the Netherlands.
नीदरलैंड के लीडेन विश्वविद्यालय के पीएचडी छात्र यांग ने कहा कि केवल दो वर्षों में **यूक्लिड** ने विज्ञान को ज्ञात प्राचीन क्वासरों की संख्या को दोगुना कर दिया है।

Cosmic quandary ब्रह्मांडीय दुविधा

- The newly discovered **quasars** date back to what is known as the **epoch of reionisation**.
नए खोजे गए **क्वासर** उस समय से संबंधित हैं जिसे **पुनः आयनीकरण युग** के रूप में जाना जाता है।
- This when the first stars and galaxies began to form, bringing an end to the **cosmic dark ages**.
यह वह समय था जब पहले तारों और आकाशगंगाओं का निर्माण शुरू हुआ, जिससे **ब्रह्मांडीय अंधकार युग** का अंत हुआ।
- "We can use quasars as a **lighthouse** to study the gas between us and them, so that we can trace how the universe was reionised through this cosmic history," Daming Yang said.
डैमिंग यांग ने कहा, "हम क्वासर को एक **प्रकाशस्तंभ** के रूप में उपयोग कर सकते हैं ताकि हमारे और उनके बीच मौजूद गैस का अध्ययन किया जा सके, जिससे हम यह पता लगा सकें कि इस ब्रह्मांडीय इतिहास के दौरान ब्रह्मांड का पुनः आयनीकरण कैसे हुआ।"
- The quasars are also the latest example of a problem that has been increasingly baffling scientists.
ये क्वासर उस समस्या का नवीनतम उदाहरण भी हैं, जो वैज्ञानिकों को लगातार अधिक **उलझन में डाल रही** है।
- As more powerful telescopes allow us to see further back in time, galaxies and other cosmic objects have turned out to be far bigger than had been thought possible at such an early age.
जैसे-जैसे अधिक शक्तिशाली दूरबीनें हमें समय में और पीछे देखने की अनुमति देती हैं, आकाशगंगाएँ और अन्य ब्रह्मांडीय वस्तुएँ इतने प्रारंभिक काल में संभव समझे जाने की तुलना में कहीं अधिक **विशाल** पाई गई हैं।



- “Every step further back in time makes the puzzle more perplexing,” study co-author **Joseph Hennawi** said in a statement about the newly discovered quasars.
नए खोजे गए क्वासरों के बारे में एक बयान में अध्ययन के सह-लेखक **जोसेफ हेनावी** ने कहा, “समय में हर कदम पीछे जाना इस पहली को और अधिक जटिल बना देता है।”
- “These monsters -- weighing billions of times the mass of our sun - somehow already existed when the universe was in its infancy,” he said.
उन्होंने कहा, “ये विशाल पिंड — जिनका द्रव्यमान हमारे सूर्य के द्रव्यमान से अरबों गुना अधिक है — किसी तरह तब भी मौजूद थे जब ब्रह्मांड अपनी प्रारंभिक अवस्था में था।”
- “We don’t yet have a good understanding of how they grew so massive, so fast.”
“हमें अभी तक इस बात की अच्छी समझ नहीं है कि वे इतने कम समय में इतने विशाल कैसे बन गए।”
- Hoping to find an answer, the scientists are searching for even older quasars.
उत्तर खोजने की आशा में, वैज्ञानिक और भी पुराने क्वासरों की खोज कर रहे हैं।
- The far-seeing **James Webb space telescope** also recently observed the newly announced quasars, Daming said, and the team will soon begin sifting through the data it collected.
डामिंग ने कहा कि दूर तक देखने में सक्षम **जेम्स वेब अंतरिक्ष दूरबीन** ने भी हाल ही में घोषित इन क्वासरों का अवलोकन किया है, और टीम जल्द ही इसके द्वारा एकत्र किए गए डेटा का विश्लेषण शुरू करेगी।
- The team eventually hope to stitch together “a **quasar chronicle of the first billion years**,” Hennawi said.
हेनावी ने कहा कि टीम अंततः “**पहले एक अरब वर्षों का क्वासर इतिहास**” तैयार करने की आशा करती है।

Answers to June 30 quiz:

1. Disease caused by a *Treponema pallidum* infection – **Ans: Syphilis**
2. 15th century event that catalysed the spread of smallpox – **Ans: Columbian exchange**
3. First bacterium identified as a human disease’s cause – **Ans: Mycobacterium leprae**
4. Microbe that has caused seven pandemics

- It spreads mainly through sexual contact and can also pass from an infected mother to her unborn child, causing congenital syphilis.
- **Key Features** Syphilis progresses through **primary, secondary, latent, and tertiary stages** if left untreated.
- Early symptoms include a painless sore (chancre), while advanced disease may affect the heart, brain, nerves, and other organs.
- The infection is diagnosed using blood tests and can be effectively cured with **penicillin**, especially in its early stages.
- WHO and national health authorities continue to emphasize early screening and treatment to prevent complications and congenital transmission.

07J7. QUIZ

1. Disease Caused by *Treponema pallidum* Infection – Syphilis

- **Causative Organism** *Treponema pallidum* is a spiral-shaped bacterium (spirochete) that causes **syphilis**, a sexually transmitted infection (STI).

2. Fifteenth-Century Event that Catalysed the Spread of Smallpox – Columbian Exchange

- **Meaning** The **Columbian Exchange** refers to the large-scale transfer of plants, animals, people, microbes, and goods between the Americas and Europe following Christopher Columbus’s voyages beginning in **1492**.
- **Significance** One of its most devastating consequences was the introduction of **smallpox** and other Old World diseases into the Americas.



- Indigenous populations had no prior immunity, resulting in catastrophic epidemics that caused millions of deaths and profoundly transformed the demographic, social, and political landscape of the American continents.
- Smallpox was eventually eradicated worldwide in **1980** following the successful global vaccination campaign led by the WHO.

3. First Bacterium Identified as the Cause of a Human Disease – *Mycobacterium leprae*

- **Discovery** *Mycobacterium leprae* was identified in **1873** by the Norwegian physician **Gerhard Armauer Hansen**, making it the **first bacterium proven to cause a human disease**.
- The disease it causes is **leprosy (Hansen's disease)**.
- **Importance** The bacterium primarily affects the **skin, peripheral nerves, eyes, and upper respiratory tract**. It grows extremely slowly, and symptoms may appear years after infection.
- Today, leprosy is completely curable through **multidrug therapy (MDT)** provided free of cost under WHO-supported programmes. Early diagnosis and treatment prevent disability and interrupt disease transmission.

4. Microbe that Has Caused Seven Pandemics Since the Nineteenth Century – *Vibrio cholerae*

- **Causative Organism** *Vibrio cholerae* is a comma-shaped bacterium that causes **cholera**, an acute diarrhoeal disease transmitted mainly through contaminated water and food.
- **Pandemic History**
Since **1817**, the world has experienced **seven cholera pandemics**, all caused by *Vibrio cholerae*.
- The ongoing seventh pandemic began in **1961** and is primarily associated with the **El Tor biotype**. Cholera can lead to severe dehydration and death within hours if untreated.
- Rapid oral rehydration therapy, intravenous fluids in severe cases, improved sanitation, safe drinking water, and oral cholera vaccines remain the principal strategies for prevention and control.

5. Rapidly Mutating Virus that Constantly Changes its Genetic Makeup – Human Immunodeficiency Virus (HIV)

- **Nature of the Virus** Human Immunodeficiency Virus (HIV) is a **retrovirus** that attacks the body's **CD4 T-lymphocytes**, weakening the immune system and, if untreated, leading to **Acquired Immunodeficiency Syndrome (AIDS)**.
- **The reason for Rapid Mutation** HIV mutates rapidly is because its enzyme **reverse transcriptase** frequently makes copying errors while replicating viral RNA into DNA.
- This high mutation rate enables the virus to evade immune responses and develop resistance to certain drugs if treatment is inadequate.
- Although no curative vaccine is currently available, **combination antiretroviral therapy (ART)** effectively suppresses viral replication, allowing people living with HIV to lead long and healthy lives while significantly reducing transmission.



E-rickshaw battery 'hacks' and Bluetooth BMS vulnerabilities

The misuse of battery management apps exposed security flaws in imported e-rickshaw battery systems, rather than problems with the apps themselves; stronger supply chain oversight and security standards, not app bans, are needed to address such vulnerabilities

GS III: S&T
Karan Saini

The story so far:

Over the last week, social media has been flooded with videos depicting individuals using mobile applications such as BAT-BMS, Lossigy and Epoch-i-ion to wirelessly disable the batteries of e-rickshaws using Bluetooth. The videos have largely been shared as "pranks" — however cruel, unethical and unlawful they may be — while some have speculated that the applications were designed for high-tech sabotage by China's manufacturers. The reality is far less dramatic, yet still worth understanding carefully.

How are battery management systems diagnosed?

Applications such as BAT-BMS exist to allow fleet owners and service technicians to easily diagnose battery problems such as overvoltage or undervoltage. In most vehicles, battery management and diagnostics require physical access to the module and the use of a computer or other device to gather information.

Over time, manufacturers have begun equipping these modules with Bluetooth capabilities, making diagnostics and repairs easier without requiring extensive disassembly. Applications such as BAT-BMS are typically developed alongside the battery management systems they support and are almost certainly not intended to sow chaos by disabling as many vehicles as possible. Instead, they search for specific devices advertising themselves as battery management modules over Bluetooth, connect to one device at a time, display

diagnostic information, and provide basic debugging functions.

How are e-rickshaws built and why imported electronics matter?

The BAT-BMS application is specifically designed to discover and connect to Battery Management System (BMS) modules manufactured by a Chinese electronics company, Jiabaida. A seven-year-old public discussion on the open source code sharing platform GitHub documented a lack of authentication in Jiabaida BMS modules, with the author even providing a hacky workaround for this obvious security flaw.

Over time, this vulnerability appears to have been discovered and subsequently exploited by individuals who began popularising its misuse. In particular, some users circulated short-form "prank" videos demonstrating how it could be used to disable e-rickshaw batteries.

Almost all of the components that make up e-rickshaws are imported from China. In fact, one could order almost all the parts required to assemble one from consumer websites such as Alibaba Group or AliExpress. Of course, one could go even further and import a fully pre-assembled e-rickshaw from China through these platforms, though the shipping fees and Customs duties might eat into your margin. Most manufacturers import the electronic components required to assemble e-rickshaws from China, leaving only the fabrication and assembly of the aluminium frame and chassis to be done domestically.

When technology is blamed for system vulnerabilities

It appears that whenever something goes

wrong, the government is quick enough to attribute blame to digital platforms. Telegram was ordered to be blocked during the re-NEET period, reportedly to protect individuals from fraudsters claiming to sell leaked examination question papers in advance. Similarly, following viral "prank" incidents, the government directed Google and Apple to remove several popular battery management apps from their respective app stores.

In both cases, the government has chosen to restrict access to applications rather than address the underlying issues in a meaningful way. While the two applications are fundamentally different — one being a widely used communication platform with social media features, and the other a set of utilities for diagnosing battery issues — the reasoning behind both decisions appears similar.

In essence, when a particular technology becomes associated with harm, restricting access to that technology is seen as a way to eliminate the harm itself.

Hypothetically, if the re-NEET examination were to be compromised, the breach would have to occur at the source or during transit — during question formulation, printing, or transport. The breach would not originate from, nor be enabled by, the Telegram platform itself. Blocking Telegram in this hypothetical scenario would only temporarily disrupt the sale of leaked question papers until sellers migrate to another platform of choice. Similarly, restricting battery management applications does not make vulnerable BMS modules any more secure. If anything, it might further inconvenience users who have been

affected and are trying to restore functionality to their vehicles.

How should supply chain regulation be structured?

Contrary to popular belief, regulatory frameworks governing e-rickshaws do exist. Gazette notifications GSR 709(E) dated 8.10.2014 and S.O. 2590(E) dated 8.10.2014 define requirements related to overall dimensions, tyres, brakes, horns, and vehicle identification number standards, but do not provide detailed standards for electronic components.

Globally, as security risks become increasingly associated with the supply chains, various strategies have been adopted to address vulnerabilities before a product reaches the assembly line. These include vetting suppliers, auditing the firmware of electronic components, and tracing the origin and capabilities of individual parts. Such measures can be mandated through regulation. A simple Google search conducted seven years ago could have alerted e-rickshaw manufacturers to the security issues in the BMS modules they use.

Frameworks that establish standards, as well as responsibilities and liabilities for manufacturers, should ideally extend to all products containing electronic components, not just vehicles or specifically e-rickshaws. While sourcing parts from the cheapest available source might be suitable for building a quick prototype, the long-term production and marketing of products should require greater effort and due diligence than simply placing a few orders and setting up an assembly line.

(Karan is an independent security researcher from New Delhi, India)

07J7. E-rickshaw battery 'hacks' and Bluetooth BMS vulnerabilities

ई-रिक्शा बैटरी 'हैक' और ब्लूटूथ BMS कमजोरियाँ

- The misuse of **battery management apps** exposed security flaws in imported e-rickshaw battery systems, rather than problems with the apps themselves; stronger supply chain oversight and security standards, not app bans, are needed to address such vulnerabilities. **बैटरी प्रबंधन ऐप्स** के दुरुपयोग ने ऐप्स की समस्याओं के बजाय आयातित ई-रिक्शा बैटरी प्रणालियों में सुरक्षा कमजोरियों को उजागर किया; ऐसी कमजोरियों से निपटने के लिए ऐप प्रतिबंधों के बजाय मजबूत आपूर्ति श्रृंखला निगरानी और सुरक्षा मानकों की आवश्यकता है।
- Over the last week, social media has been flooded with videos depicting individuals using mobile applications such as **BAT-BMS, Lossigy and Epoch-i-ion** to wirelessly disable the batteries of e-rickshaws using Bluetooth. पिछले सप्ताह के दौरान, सोशल मीडिया ऐसे वीडियो से भर गया है जिनमें लोग **BAT-BMS, Lossigy और Epoch-i-ion** जैसे मोबाइल एप्लिकेशन का उपयोग करके ब्लूटूथ के माध्यम से ई-रिक्शा की बैटरियों को वायरलेस तरीके से बंद करते दिखाई दे रहे हैं।
- The videos have largely been shared as "pranks" — however cruel, unethical and unlawful they may be — while some have speculated that the applications were designed for high-tech sabotage by China's manufacturers. इन वीडियो को मुख्य रूप से "मजाक" के रूप में साझा किया गया है — भले ही वे क्रूर, अनैतिक और गैरकानूनी हों — जबकि कुछ लोगों ने अनुमान लगाया है कि इन एप्लिकेशन को चीन के निर्माताओं द्वारा उच्च तकनीकी तोड़फोड़ के लिए डिज़ाइन किया गया था।

- The reality is far less dramatic, yet still worth understanding carefully.
वास्तविकता इससे कहीं कम नाटकीय है, लेकिन फिर भी इसे सावधानीपूर्वक समझना आवश्यक है।

How are battery management systems diagnosed?

बैटरी प्रबंधन प्रणालियों का निदान कैसे किया जाता है?

- Applications such as **BAT-BMS** exist to allow fleet owners and service technicians to easily diagnose battery problems such as overvoltage or undervoltage.
BAT-BMS जैसे एप्लिकेशन फ्लीट मालिकों और सेवा तकनीशियनों को ओवरवोल्टेज या अंडरवोल्टेज जैसी बैटरी समस्याओं का आसानी से निदान करने की सुविधा देने के लिए मौजूद हैं।
- In most vehicles, battery management and diagnostics require physical access to the module and the use of a computer or other device to gather information.
अधिकांश वाहनों में, बैटरी प्रबंधन और निदान के लिए मॉड्यूल तक भौतिक पहुँच और जानकारी एकत्र करने के लिए कंप्यूटर या किसी अन्य उपकरण के उपयोग की आवश्यकता होती है।
- Over time, manufacturers have begun equipping these modules with **Bluetooth capabilities**, making diagnostics and repairs easier without requiring extensive disassembly.
समय के साथ, निर्माताओं ने इन मॉड्यूलों को **ब्लूटूथ क्षमताओं** से लैस करना शुरू कर दिया है, जिससे व्यापक रूप से खोलने की आवश्यकता के बिना निदान और मरम्मत आसान हो गई है।
- Applications such as BAT-BMS are typically developed alongside the **battery management systems** they support and are almost certainly not intended to sow chaos by disabling as many vehicles as possible.
BAT-BMS जैसे एप्लिकेशन सामान्यतः उन **बैटरी प्रबंधन प्रणालियों** के साथ विकसित किए जाते हैं जिनका वे समर्थन करते हैं और लगभग निश्चित रूप से उनका उद्देश्य अधिक से अधिक वाहनों को बंद करके अव्यवस्था फैलाना नहीं होता है।
- Instead, they search for specific devices advertising themselves as battery management modules over Bluetooth, connect to one device at a time, display diagnostic information, and provide basic debugging functions.
इसके बजाय, वे ब्लूटूथ के माध्यम से स्वयं को बैटरी प्रबंधन मॉड्यूल के रूप में प्रदर्शित करने वाले विशिष्ट उपकरणों को खोजते हैं, एक समय में एक उपकरण से जुड़ते हैं, निदान संबंधी जानकारी दिखाते हैं और मूलभूत डिबगिंग कार्य प्रदान करते हैं।

How are e-rickshaws built and why imported electronics matter?

ई-रिक्शा कैसे बनाए जाते हैं और आयातित इलेक्ट्रॉनिक्स क्यों महत्वपूर्ण हैं?

- The **BAT-BMS application** is specifically designed to discover and connect to Battery Management System (BMS) modules manufactured by a Chinese electronics company, Jiabaida.
BAT-BMS एप्लिकेशन को विशेष रूप से चीनी इलेक्ट्रॉनिक्स कंपनी जियाबैदा द्वारा निर्मित बैटरी मैनेजमेंट सिस्टम (BMS) मॉड्यूल को खोजने और उनसे जुड़ने के लिए डिजाइन किया गया है।
- A seven-year-old public discussion on the open source code sharing platform **GitHub** documented a lack of authentication in Jiabaida BMS modules, with the author even providing a hacky workaround for this obvious security flaw.
ओपन सोर्स कोड साझा करने वाले प्लेटफॉर्म **GitHub** पर सात वर्ष पुरानी एक सार्वजनिक चर्चा में जियाबैदा BMS मॉड्यूल में प्रमाणीकरण की कमी को दर्ज किया गया था, जिसमें लेखक ने इस स्पष्ट सुरक्षा कमजोरी के लिए एक अस्थायी समाधान भी प्रदान किया था।
- Over time, this vulnerability appears to have been discovered and subsequently exploited by individuals who began popularising its misuse.
समय के साथ, ऐसा प्रतीत होता है कि इस कमजोरी का पता लगाया गया और बाद में कुछ लोगों ने इसका दुरुपयोग करना शुरू कर दिया।

- In particular, some users circulated short-form “prank” videos demonstrating how it could be used to disable **e-rickshaw batteries**.
विशेष रूप से, कुछ उपयोगकर्ताओं ने छोटे “मजाकिया” वीडियो प्रसारित किए जिनमें दिखाया गया कि इसका उपयोग **ई-रिक्शा बैटरियों** को बंद करने के लिए कैसे किया जा सकता है।
- Almost all of the components that make up e-rickshaws are imported from **China**.
ई-रिक्शा बनाने वाले लगभग सभी घटक **चीन** से आयात किए जाते हैं।
- In fact, one could order almost all the parts required to assemble one from consumer websites such as Alibaba Group or AliExpress.
वास्तव में, कोई भी व्यक्ति ई-रिक्शा को जोड़ने के लिए आवश्यक लगभग सभी पुर्जों को अलीबाबा ग्रुप या अलीएक्सप्रेस जैसी उपभोक्ता वेबसाइटों से मंगा सकता है।
- Of course, one could go even further and import a fully pre-assembled e-rickshaw from China through these platforms, though the shipping fees and Customs duties might eat into your margin.
निश्चित रूप से, कोई इन प्लेटफॉर्मों के माध्यम से चीन से पूरी तरह तैयार ई-रिक्शा भी आयात कर सकता है, हालाँकि शिपिंग शुल्क और सीमा शुल्क लाभ को कम कर सकते हैं।
- Most manufacturers import the **electronic components** required to assemble e-rickshaws from China, leaving only the fabrication and assembly of the aluminium frame and chassis to be done domestically.
अधिकांश निर्माता ई-रिक्शा को जोड़ने के लिए आवश्यक **इलेक्ट्रॉनिक घटकों** को चीन से आयात करते हैं, जबकि एल्युमिनियम फ्रेम और चैसिस का निर्माण तथा असेंबली ही घरेलू स्तर पर की जाती है।

When technology is blamed for system vulnerabilities ?

जब प्रणाली की कमजोरियों के लिए तकनीक को दोष दिया जाता है

- It appears that whenever something goes wrong, the government is quick enough to attribute blame to **digital platforms**.
ऐसा प्रतीत होता है कि जब भी कुछ गलत होता है, सरकार जल्दी से इसका दोष **डिजिटल प्लेटफॉर्मों** पर डाल देती है।
- Telegram** was ordered to be blocked during the re-NEET period, reportedly to protect individuals from fraudsters claiming to sell leaked examination question papers in advance.
री-NEET अवधि के दौरान **टेलीग्राम** को ब्लॉक करने का आदेश दिया गया था, कथित रूप से लोगों को उन धोखेबाजों से बचाने के लिए जो पहले से लीक हुए परीक्षा प्रश्नपत्र बेचने का दावा कर रहे थे।
- Similarly, following viral “prank” incidents, the government directed **Google and Apple** to remove several popular battery management apps from their respective app stores.
इसी प्रकार, वायरल “प्रेक” घटनाओं के बाद, सरकार ने **गूगल और एप्पल** को अपने संबंधित ऐप स्टोर से कई लोकप्रिय बैटरी प्रबंधन ऐप हटाने का निर्देश दिया।
- In both cases, the government has chosen to restrict access to applications rather than address the **underlying issues** in a meaningful way.
दोनों मामलों में, सरकार ने **मूल समस्याओं** को सार्थक तरीके से हल करने के बजाय एप्लिकेशन तक पहुँच को सीमित करने का विकल्प चुना है।
- While the two applications are fundamentally different — one being a widely used **communication platform with social media features**, and the other a set of utilities for diagnosing battery issues — the reasoning behind both decisions appears similar.
हालाँकि दोनों एप्लिकेशन मूल रूप से अलग हैं — एक व्यापक रूप से उपयोग किया जाने वाला **सोशल मीडिया सुविधाओं वाला संचार प्लेटफॉर्म** है और दूसरा बैटरी समस्याओं का निदान करने वाले उपकरणों का समूह है — फिर भी दोनों निर्णयों के पीछे का तर्क समान प्रतीत होता है।
- In essence, when a particular technology becomes associated with harm, restricting access to that technology is seen as a way to eliminate the **harm itself**.



मूल रूप से, जब कोई विशेष तकनीक नुकसान से जुड़ जाती है, तो उस तकनीक तक पहुँच को प्रतिबंधित करना नुकसान को समाप्त करने का तरीका माना जाता है।

- Hypothetically, if the **re-NEET examination** were to be compromised, the breach would have to occur at the source or during transit — during question formulation, printing, or transport. काल्पनिक रूप से, यदि **री-NEET परीक्षा** से समझौता हुआ होता, तो उल्लंघन स्रोत पर या परिवहन के दौरान — प्रश्न निर्माण, छपाई या परिवहन के समय — होना पड़ता।
- The breach would not originate from, nor be enabled by, the **Telegram platform** itself. यह उल्लंघन न तो स्वयं **टेलीग्राम प्लेटफॉर्म** से उत्पन्न होता और न ही इसके द्वारा सक्षम किया जाता।
- Blocking Telegram in this hypothetical scenario would only temporarily disrupt the sale of leaked question papers until sellers migrate to another platform of choice. इस काल्पनिक स्थिति में टेलीग्राम को ब्लॉक करना केवल लीक हुए प्रश्नपत्रों की बिक्री को अस्थायी रूप से बाधित करता, जब तक कि विक्रेता किसी अन्य प्लेटफॉर्म पर स्थानांतरित नहीं हो जाते।
- Similarly, restricting **battery management applications** does not make vulnerable BMS modules any more secure. इसी प्रकार, **बैटरी प्रबंधन एप्लिकेशनों** को प्रतिबंधित करने से कमजोर BMS मॉड्यूल अधिक सुरक्षित नहीं हो जाते।
- If anything, it might further inconvenience users who have been affected and are trying to restore functionality to their vehicles. बल्कि, यह उन उपयोगकर्ताओं के लिए और अधिक असुविधा पैदा कर सकता है जो प्रभावित हुए हैं और अपने वाहनों की कार्यक्षमता को पुनः स्थापित करने का प्रयास कर रहे हैं।

How should supply chain regulation be structured?

आपूर्ति श्रृंखला विनियमन की संरचना कैसी होनी चाहिए?

- Contrary to popular belief, regulatory frameworks governing **e-rickshaws** do exist. लोकप्रिय धारणा के विपरीत, **ई-रिक्शा** को नियंत्रित करने वाले नियामक ढाँचे मौजूद हैं।
- Gazette notifications **GSR 709(E) dated 8.10.2014** and **S.O. 2590(E) dated 8.10.2014** define requirements related to overall dimensions, tyres, brakes, horns, and vehicle identification number standards, but do not provide detailed standards for electronic components. राजपत्र अधिसूचनाएँ **GSR 709(E) दिनांक 8.10.2014** और **S.O. 2590(E) दिनांक 8.10.2014** कुल आयामों, टायरों, ब्रेकों, हॉर्न और वाहन पहचान संख्या मानकों से संबंधित आवश्यकताओं को परिभाषित करती हैं, लेकिन इलेक्ट्रॉनिक घटकों के लिए विस्तृत मानक प्रदान नहीं करती हैं।
- Globally, as **security risks** become increasingly associated with the supply chains, various strategies have been adopted to address vulnerabilities before a product reaches the assembly line. वैश्विक स्तर पर, जैसे-जैसे **सुरक्षा जोखिम** आपूर्ति श्रृंखलाओं से अधिक जुड़ते जा रहे हैं, किसी उत्पाद के असेंबली लाइन तक पहुँचने से पहले कमजोरियों को दूर करने के लिए विभिन्न रणनीतियाँ अपनाई गई हैं।
- These include **vetting suppliers, auditing the firmware of electronic components, and tracing the origin and capabilities of individual parts**. इनमें आपूर्तिकर्ताओं की जाँच, इलेक्ट्रॉनिक घटकों के फर्मवेयर का ऑडिट और व्यक्तिगत भागों की उत्पत्ति एवं क्षमताओं का पता लगाना शामिल है।
- Such measures can be mandated through **regulation**. ऐसे उपायों को **विनियमन** के माध्यम से अनिवार्य किया जा सकता है।
- A simple Google search conducted seven years ago could have alerted e-rickshaw manufacturers to the security issues in the **BMS modules** they use. सात वर्ष पहले की गई एक साधारण गूगल खोज भी ई-रिक्शा निर्माताओं को उनके द्वारा उपयोग किए जाने वाले **BMS मॉड्यूल** की सुरक्षा समस्याओं के प्रति सतर्क कर सकती थी।
- Frameworks that establish standards, as well as **responsibilities and liabilities for manufacturers**, should ideally extend to all products containing electronic components, not

just vehicles or specifically e-rickshaws.

मानकों को स्थापित करने वाले ढाँचे, साथ ही निर्माताओं की जिम्मेदारियाँ और जवाबदेही, आदर्श रूप से केवल वाहनों या विशेष रूप से ई-रिक्शा तक सीमित न रहकर सभी इलेक्ट्रॉनिक घटकों वाले उत्पादों तक विस्तारित होने चाहिए।

- While sourcing parts from the cheapest available source might be suitable for building a quick prototype, the long-term production and marketing of products should require greater **effort and due diligence** than simply placing a few orders and setting up an assembly line.
हालाँकि सबसे सस्ते उपलब्ध स्रोत से पुर्जे लेना एक त्वरित प्रोटोटाइप बनाने के लिए उपयुक्त हो सकता है, लेकिन उत्पादों के दीर्घकालिक उत्पादन और विपणन के लिए केवल कुछ ऑर्डर देने और असेंबली लाइन स्थापित करने से अधिक प्रयास और उचित जाँच-पड़ताल की आवश्यकता होनी चाहिए।

GS Paper III: Internal Security	07 July 2026
TOPICS COVERED	
07J7	'Karnataka govt. plotting to derail HMT revival package' 'कर्नाटक सरकार एचएमटी पुनरुद्धार पैकेज को विफल करने की साजिश रच रही है'

'Karnataka govt. plotting to derail HMT revival package'

GS III: Industry
The Hindu Bureau
BENGALURU

Union Minister for Heavy Industries and Steel H.D. Kumaraswamy on Monday accused the Congress government in Karnataka of conspiring to derail the Centre's efforts to revive Hindustan Machine Tools (HMT), alleging that the State government was using the Forest Department to create obstacles just when a special revival package for the public sector enterprise was nearing a crucial stage. He said HMT would challenge the order before the court.

Responding to media reports that the State Forest Department had issued a notice to HMT and set a deadline for returning its land in two areas, Mr.



H.D. Kumaraswamy

Kumaraswamy questioned the timing and legality of the action.

"The matter is pending before the court. At such a sensitive stage, the State government, through the Forest Department, has issued a notice and has imposed a deadline. This amounts to interference with judicial proceedings and is contrary to law," he

said. He added that Bengaluru Urban Deputy Conservator of Forests N. Ravindra Kumar had ordered the HMT to immediately surrender 430 acres of land to the Forest Department on the grounds that it constituted forest land.

"With the objective of breathing new life into HMT, I have been making efforts to convince the Prime Minister and the Union Finance Minister to approve a special package. Just when the package was close to being announced, the State government, with malicious intent, got such a notice issued," he alleged.

The Union Minister said a meeting on the proposed package was scheduled for the following week and a decision to revive the enterprise was imminent.

107J7. 'Karnataka govt. plotting to derail HMT revival package'

‘कर्नाटक सरकार एचएमटी पुनरुद्धार पैकेज को विफल करने की साजिश रच रही है’

- **Union Minister for Heavy Industries and Steel H.D. Kumaraswamy** on Monday accused the **Congress government** in **Karnataka** of conspiring to derail the Centre's efforts to revive **Hindustan Machine Tools (HMT)**.
केंद्रीय भारी उद्योग एवं इस्पात मंत्री एच.डी. कुमारस्वामी ने सोमवार को कर्नाटक की कांग्रेस सरकार पर हिंदुस्तान मशीन टूल्स (HMT) के पुनरुद्धार के लिए केंद्र के प्रयासों को विफल करने की साजिश रचने का आरोप लगाया।
- He alleged that the **State government** was using the **Forest Department** to create obstacles just when a **special revival package** for the **public sector enterprise** was nearing a crucial stage.
उन्होंने आरोप लगाया कि राज्य सरकार वन विभाग का उपयोग कर सार्वजनिक क्षेत्र के उपक्रम के लिए प्रस्तावित विशेष पुनरुद्धार पैकेज के महत्वपूर्ण चरण में बाधाएँ उत्पन्न कर रही है।
- He said **HMT** would challenge the order before the **court**.
उन्होंने कहा कि एचएमटी इस आदेश को अदालत में चुनौती देगा।
- Responding to media reports that the **State Forest Department** had issued a **notice** to **HMT** and set a deadline for returning its land in two areas, **Mr. Kumaraswamy** questioned the timing and legality of the action.
मीडिया रिपोर्टों में राज्य वन विभाग द्वारा एचएमटी को नोटिस जारी कर दो क्षेत्रों की भूमि लौटाने की समय-सीमा निर्धारित किए जाने पर प्रतिक्रिया देते हुए श्री कुमारस्वामी ने इस कार्रवाई के समय और वैधता पर प्रश्न उठाया।
- “The matter is pending before the **court**.
“यह मामला अदालत में लंबित है।
- At such a sensitive stage, the **State government**, through the **Forest Department**, has issued a **notice** and has imposed a deadline.
ऐसे संवेदनशील समय में राज्य सरकार ने वन विभाग के माध्यम से नोटिस जारी कर समय-सीमा निर्धारित कर दी है।
- This amounts to interference with **judicial proceedings** and is contrary to **law**,” he said.
यह न्यायिक कार्यवाही में हस्तक्षेप के समान है और कानून के विरुद्ध है,” उन्होंने कहा।
- He added that **Bengaluru Urban Deputy Conservator of Forests N. Ravindra Kumar** had ordered **HMT** to immediately surrender **430 acres** of land to the **Forest Department** on the grounds that it constituted **forest land**.
उन्होंने आगे कहा कि बेंगलुरु शहरी उप वन संरक्षक एन. रविंद्र कुमार ने एचएमटी को तत्काल 430 एकड़ भूमि वन विभाग को सौंपने का आदेश दिया है, यह कहते हुए कि वह वन भूमि है।
- “With the objective of breathing new life into **HMT**, I have been making efforts to convince the **Prime Minister** and the **Union Finance Minister** to approve a **special package**.
“एचएमटी में नई जान फूंकने के उद्देश्य से मैं प्रधानमंत्री और केंद्रीय वित्त मंत्री को विशेष पैकेज स्वीकृत करने के लिए लगातार प्रयास कर रहा हूँ।
- Just when the package was close to being announced, the **State government**, with malicious intent, got such a **notice** issued,” he alleged.
जैसे ही यह पैकेज घोषित होने के करीब पहुँचा, राज्य सरकार ने दुर्भावनापूर्ण मंशा से ऐसा नोटिस जारी करवा दिया,” उन्होंने आरोप लगाया।
- The **Union Minister** said a meeting on the proposed **package** was scheduled for the following week and a decision to revive the **enterprise** was imminent.
केंद्रीय मंत्री ने कहा कि प्रस्तावित पैकेज पर अगले सप्ताह बैठक निर्धारित है और उपक्रम के पुनरुद्धार पर निर्णय शीघ्र लिया जाने वाला है।