PATRIOTIC IAS

THE HINDU NEWSPAPER

DAILY CURRENT AFFAIRS

23 MAY 2025

To watch an in-depth discussion on the topic, click on the YouTube link below: https://www.youtube.com/@PatrioticIAS
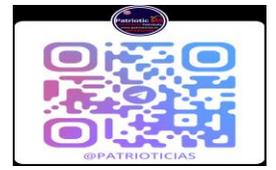
For regular updates on UPSC and PCS preparation, join our Telegram Channel: https://t.me/patrioticIAS

23_05_2025 DAILY CURRENT AFFAIRS

TOPICS COVERED (GS Paper I: History, Society and Geography)

1. **ASI asks archaeologist who was in charge of Keezhadi excavations to rewrite report**

एएसआई ने कीज़ढ़ी उत्खनन के प्रभारी पुरातत्वविद से रिपोर्ट दोबारा लिखने को कहा

2. **Understanding the social, cultural and geographical contexts of Buddhism**

बौद्ध धर्म के सामाजिक, सांस्कृतिक और भौगोलिक संदर्भों को समझना

Drying time

GS Paper I: Agriculture

Stringy delicacy: Special Mewati semia (vermicelli), being dried at a home in Nuh, Haryana on Thursday. R. V. MOORTHY

TELEGRAM CHANNEL: https://t.me/patrioticIAS
YOUTUBE CHANNEL: https://www.youtube.com/@PatrioticIAS
CONTACT: 9971932488

Patriotic IAS
IAS/PCSwali Pathshala
www.patrioticias.in
9971932488

@PATRIOTICIAS

ASI asks archaeologist who was in charge of Keezhadi excavations to rewrite report

GS Paper I: A&C

B. Kolappan
CHENNAI

The Archaeological Survey of India (ASI) has asked archaeologist Amarnath Ramakrishna, who unearthed an ancient civilisation in Keezhadi near Madurai, to resubmit his report about the excavation after making necessary corrections for taking further action.

A letter from the ASI said two experts had suggested corrections in the report submitted by Mr. Ramakrishna, who was in charge of the excavation, to make it "more authentic".

Mr. Ramakrishna studied the ancientness of the objects through accelerator mass spectrometry (AMS) and prepared a 982-page report.

Archaeologist Amarnath Ramakrishna at the Keezhadi excavation site near Madurai in Tamil Nadu. FILE PHOTO

Carbon dating of charcoal found at the Keezhadi site in February 2017 established that the settlement there belonged to 200 BCE.

Mr. Ramakrishna sent his report to the Director General of ASI on January 30, 2023. But, before he sent it, he was transferred to Assam in 2017, and now, he works as Director, Antiquities. After more than two years since the report was submitted, the ASI has asked him to rewrite it.

According to the ASI, three periods require proper nomenclature or re-orientation, and the time bracket of 8th Century BCE to 5th Century BCE for Period I requires concrete justification. "The other two periods also must be determined based on scientific AMS dates and the material recovered with stratigraphical details. The date of the earliest period, in the present state of our knowledge, appears to be very early. It can be, at the maximum, somewhere in pre-300 BCE," said the ASI.

When his opinion was sought, former IAS officer R. Balakrishnan, who authored the book *Journey of a Civilisation: Indus to Vaigai*, said the decision of the ASI seemed to be "unprecedented" and obviously a result of the "pressure of history." "Not digging adequately is considered a tragedy; not letting the reports come out is a greater tragedy. It is simply pathetic," he said.

ASI asks archaeologist who was in charge of Keezhadi excavations to rewrite report

एएसआई ने कीज़ढ़ी उत्खनन के प्रभारी पुरातत्वविद से रिपोर्ट दोबारा लिखने को कहा

The Archaeological Survey of India (ASI) has asked archaeologist Amarnath Ramakrishna, who unearthed an ancient civilisation at Keezhadi near Madurai, to resubmit his excavation report after making necessary corrections.

भारतीय पुरातत्व सर्वेक्षण (एएसआई) ने पुरातत्वविद अमरनाथ रामकृष्ण, जिन्होंने मदुरै के पास

कीज़ढ़ी में एक प्राचीन सभ्यता की खोज की थी, से आवश्यक संशोधन करके अपनी उत्खनन रिपोर्ट फिर से जमा करने को कहा है।

- A letter from the ASI mentioned that **two experts** had recommended corrections to make the report "**more authentic.**"
  एएसआई के पत्र में कहा गया कि **दो विशेषज्ञों** ने रिपोर्ट को "**और अधिक प्रमाणिक**" बनाने के लिए सुधारों की सिफारिश की थी।

- Mr. Ramakrishna had used **accelerator mass spectrometry (AMS)** to study the antiquity of the objects and had prepared a **982-page report**.
  श्री रामकृष्ण ने वस्तुओं की प्राचीनता का अध्ययन करने के लिए **एक्सेलेरेटर मास स्पेक्ट्रोमेट्री (AMS)** का उपयोग किया और **982 पन्नों की रिपोर्ट** तैयार की।

- **Carbon dating** of charcoal found at Keezhadi in **February 2017** showed that the settlement dated back to **200 BCE**.
  फरवरी 2017 में कीज़ढ़ी में पाए गए चारकोल की **कार्बन डेटिंग** से यह साबित हुआ कि यह बस्ती **200 ईसा पूर्व** की है।

- Mr. Ramakrishna submitted his report to the **Director General of ASI** on **January 30, 2023**.
  श्री रामकृष्ण ने अपनी रिपोर्ट **30 जनवरी 2023** को एएसआई के महानिदेशक को सौंपी थी।

- However, before submitting the report, he had been **transferred to Assam in 2017**, and now serves as **Director, Antiquities**.
  हालांकि, रिपोर्ट सौंपने से पहले उन्हें **2017 में असम स्थानांतरित** कर दिया गया था, और अब वे **प्राचीन वस्तुएं विभाग के निदेशक** के रूप में कार्यरत हैं।

- Despite over **two years** since submission, the **ASI has now asked** him to **rewrite** the report.
  रिपोर्ट जमा करने के **दो साल से अधिक समय** बीत जाने के बावजूद, **अब एएसआई ने** उनसे रिपोर्ट **फिर से लिखने** को कहा है।

- The ASI stated that the **time bracket of 8th Century BCE to 5th Century BCE** for **Period I** needs **proper justification**.
  एएसआई ने कहा कि **कालखंड I** के लिए **8वीं सदी ईसा पूर्व से 5वीं सदी ईसा पूर्व** के समय को लेकर **उचित औचित्य** देना जरूरी है।

- The other two periods must also be defined based on **scientific AMS dates** and **material with stratigraphical details**.
  अन्य दो कालखंडों को भी **वैज्ञानिक AMS तारीखों** और **स्तरीकरण विवरणों के साथ सामग्री** के आधार पर निर्धारित किया जाना चाहिए।

- ASI noted that the date of the **earliest period**, in the current understanding, appears to be **pre-300 BCE at the earliest**.
  एएसआई ने यह भी उल्लेख किया कि वर्तमान ज्ञान के अनुसार, **प्रारंभिक कालखंड** की तिथि **300 ईसा पूर्व से पहले** की हो सकती है।

- Former IAS officer **R. Balakrishnan**, author of *Journey of a Civilisation: Indus to Vaigai*, called ASI's move **"unprecedented"** and said it reflects **"pressure of history."**

  पूर्व आईएएस अधिकारी **आर. बालकृष्णन**, जो *Journey of a Civilisation: Indus to Vaigai* के लेखक हैं, ने एएसआई की इस कार्रवाई को **"अभूतपूर्व"** बताया और कहा कि यह **"इतिहास के दबाव"** को दर्शाता है।

- He said, "**Not digging adequately is a tragedy; not letting the reports come out is a greater tragedy**. It is simply **pathetic**."

  उन्होंने कहा, "**ठीक से खुदाई न करना एक त्रासदी है; लेकिन रिपोर्टों को प्रकाशित न होने देना और भी बड़ी त्रासदी है।** यह वास्तव में **दुर्भाग्यपूर्ण** है।"

The superhumans of Mumbai

GS Paper I: A&C

A young girl practises Mallakhamb as monsoon clouds hover over Mumbai, at Shivaji Park. 'Malla' means wrestling and 'khamb' translates to pole. Together, Mallakhamb means wrestling on a pole. This is a form of ancient martial arts intended as a training aid for wrestlers and ancient warriors. EMMANUAL YOGINI

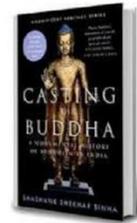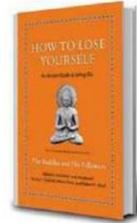**BIBLIOGRAPHY**

GETTY IMAGES

Understanding the social, cultural and geographical contexts of Buddhism

In an era of social media obsession, several writers have turned to Buddhist teachings to underscore the fact that a preoccupation with the self and an 'unremitting' egoism will lead to pain and suffering. Other writers are helping readers discover Buddhism's influence on modern Indian history

GS Paper I: A&C

Sudhirendar Sharma

The world is increasingly getting obsessed with self-promotion and the thinking that it alone can bring about peace and progress. The growing selfie culture is a manifestation of this daily obsession, backed by the technology of the day. Often, a 'perfect' identity is carefully curated on social media with a focus on the self.

Swayed by the glitter of social media, there appears to be no actual pursuit of knowing the inner self. Eventually, this relentless self-promotion is leading to distress. The fear of having less and the desire for more have contributed to a balance sheet of unhappiness.

The illusory self

It's perhaps the right time to re-read the teachings of the Buddha, who argued thousands of years ago that the self is an illusion -- and that our belief in it is the cause of most, if not all, of our sufferings. Poring over ancient Buddhist texts, Jay L. Garfield, Maria Heim, and Robert H. Sharf have teamed together to dismantle notions of the self in *How To Lose Yourself: An Ancient Guide to Letting Go* (Princeton University Press).

Their suggestion? "Better to lose your self!" The writers contend that Buddha had argued for letting go of the self, which allows us to see more clearly the innumerable causes and conditions that come together to create our experience and that make us who we are. "When we allow our fantasies of self to dissolve, we discover instead the radically interdependent nature of our existence."

Opening up another flank of study on the ancient religion, Douglas Ober contests the commonly held belief that Buddhism "all but disappeared" from India after the 13th and 14th centuries, and saw a revival only in the mid to late 19th century. In his book, *Dust on the Throne* (Navayana), he notes that Buddhism had *always* been there, and that two centuries of archaeological excavation and textual scholarship now point to a long, enduring, and "unarchived" Indian Buddhist afterlife that extends to the modern day. Ober's exhaustive research told him that Buddhism had an indelible influence on shaping modern India.

As he writes in the Introduction, 'A Dependent Arising', the theory of Buddhism's "disappearance" from the subcontinent is "little more than a useful fiction, deployed to wash over a more complicated historical terrain involving periodic Buddhist resurgences and trans-regional pilgrimage networks." He shows that Indian's modern Buddhist revival began nearly a century before 1956, when the Indian government celebrated "2,500 years of Buddhism" and when B.R. Ambedkar led half a million followers to convert to Buddhism.

Backstory of a revival

Ober argues that the "revival of Buddhism" in colonial and postcolonial India led to a slew of movements, from Hindu reform movements, the making of Hindu nationalism, Dalit and anti-caste activism, as also Nehruvian secular democracy. He tells the stories of individuals and communities that kept Buddhism alive, not least the incredible account of J.K. Birla, eldest son of entrepreneur B.D. Birla, who financed major Buddhist constructions in pilgrimage centres like Rajgir, Sarnath, Bodh Gaya, and also in new centres of "urban Buddhist activity", including Calcutta, Bombay, and New Delhi.

While Ghanashyam Birla, J.K. Birla's younger brother, sided with Gandhi and Congress, J.K. and his father firmly supported the extreme Hindu right and the Hindu Maha Sabha, although as Ober notes, "they never stopped supporting Gandhi either."

Efforts to resurrect Buddhist archaeological heritage are an ongoing process to help connect its monumental past with its philosophy.

In his book, *Casting the Buddha* (Pan Macmillan India), Shashank Shekhar Sinha traces the Buddhist heritage sites and the cities they are located in to understand their larger geographical, sociocultural, and historical contexts. It is an illustrated history of Buddhist monuments in India, spanning 2,500 years. For the purposes of this book, Sinha writes in the Introduction, 'monumental history' plays on the word 'monument' and discusses Buddhist edifices, sites, and connected histories.

Lives of monuments

A closer look reveals how the "lives of the monuments" resonated with the people and communities around them, including monks, laity, kings, traders, guilds, landlords, agriculturalists, and villagers.

Over time, these structures have acquired different forms and meanings, and have also become important "sites of social and cultural interactions." The buildings are "complex ecosystems" which capture the changing times and give an idea about belief systems, rituals, stories, and folklore. For instance, writes Sinha, the sculptured panels on the gateways of Sanchi not only depict events from the life of the Buddha but also the Jataka tales and the mythical bodhisattvas.

Ober contends that Buddhism was an indispensable part of the daily lives of Indians from many walks of life. "They spent their days reading and reinterpreting Buddhist scriptures, attending and delivering dhamma talks, building and rebuilding Buddhist shrines." The lives of Ambedkar, Birla, Kosambi, Mahavir, Sankritayan, and many other figures "help us realise that there is no one single identity at the heart of modern Indian Buddhism... [it] continues to have an important but often unacknowledged role in Indian society."

As Indians relived the past to find a better present and future, "a classless, casteless, egalitarian society," they found the Buddha, writes Ober. That as a society we have not yet been able to eradicate discrimination and poverty means the debates on issues like "caste, inequality, morality, social order, and belonging" are not over. The quest to grasp the historical Buddha and understand his 'inherent mission' must continue, and this says a lot about our modern times and predicament.

Sudhirendar Sharma is an independent writer, researcher and academic

---

Understanding the social, cultural and geographical contexts of Buddhism

बौद्ध धर्म के सामाजिक, सांस्कृतिक और भौगोलिक संदर्भों को समझना

In an age dominated by social media, many writers are revisiting Buddhist teachings to highlight that excessive self-focus and persistent egoism ultimately lead to suffering. Some authors are also exploring how Buddhism has influenced modern Indian history.

सोशल मीडिया के प्रभुत्व वाले युग में, कई लेखक बौद्ध शिक्षाओं की ओर लौट रहे हैं ताकि यह दिखाया जा सके कि अत्यधिक आत्म-केंद्रितता और लगातार अहंकार अंततः कष्ट का कारण बनते हैं। कुछ लेखक यह भी खोज रहे हैं कि बौद्ध धर्म ने आधुनिक भारतीय इतिहास को कैसे प्रभावित किया है।

- The world is increasingly caught in the belief that **self-promotion** alone ensures **peace** and **progress**. The rise of the **selfie culture**, enabled by technology, reflects this obsession. People build curated identities on social media, which are often illusions of a perfect self.

  दुनिया में यह विश्वास बढ़ता जा रहा है कि केवल **आत्म-प्रचार** से ही **शांति** और **प्रगति** संभव है। **सेल्फी संस्कृति** का उभार, जो तकनीक द्वारा संभव हुआ है, इसी जुनून को दर्शाता है। लोग सोशल मीडिया पर एक आदर्श आत्म-छवि बनाते हैं, जो अक्सर भ्रम होती है।

- This relentless focus on the self rarely includes a deeper **introspection**. Instead, it causes **distress**, fed by the fear of lacking and the desire for more, resulting in growing **unhappiness**.

  यह निरंतर आत्म-केंद्रितता शायद ही कभी गहरी **आत्म-चिंतन** की ओर ले जाती है। इसके बजाय यह **पीड़ा** उत्पन्न करती है, जो कमी के डर और अधिक पाने की इच्छा से पोषित होती है, जिससे **असंतोष** बढ़ता है।

- According to ancient **Buddhist philosophy**, the **self is an illusion**. Thinkers like **Jay L. Garfield**, **Maria Heim**, and **Robert H. Sharf** argue in their book *How To Lose Yourself* that clinging to the self is the root of most **suffering**.

  प्राचीन **बौद्ध दर्शन** के अनुसार, **आत्मा एक माया है**। **जे. एल. गारफील्ड**, **मारिया हाइम** और **रॉबर्ट एच. शार्फ़** जैसे विचारकों का मानना है कि उनकी पुस्तक *हाउ टू लूज़ योरसेल्फ* में बताया गया है कि आत्मा से चिपके रहना अधिकांश **दुखों** की जड़ है।

- They suggest that **letting go of the self** helps one perceive the **interdependent** nature of existence. Once we abandon fantasies of the self, we realise how life is made up of multiple causes and conditions.

  वे सुझाव देते हैं कि **आत्मा को छोड़ देना** हमें अस्तित्व की **पारस्परिक निर्भरता** को समझने में मदद करता है। जब हम आत्म-कल्पनाओं को त्यागते हैं, तो हमें यह समझ आता है कि जीवन कई कारणों और परिस्थितियों से मिलकर बना है।

- Historian **Douglas Ober**, in his book *Dust on the Throne*, challenges the common belief that Buddhism disappeared from India after the **13th-14th centuries** and only revived in the **19th century**. He reveals that **Buddhism** had a continuous yet unarchived presence.

  इतिहासकार **डगलस ओबर** अपनी पुस्तक *डस्ट ऑन द थ्रोन* में इस आम धारणा को चुनौती देते हैं कि **13वीं-14वीं शताब्दियों** के बाद बौद्ध धर्म भारत से गायब हो गया और केवल **19वीं सदी** में पुनर्जीवित हुआ। वे बताते हैं कि **बौद्ध धर्म** लगातार मौजूद था, भले ही उसे दस्तावेज़ नहीं किया गया हो।

- Ober argues that this so-called disappearance is a **fiction**. In fact, **Buddhism** influenced India through **resurgences** and **pilgrimage networks** well before the famous **1956 revival**, when **B.R. Ambedkar** converted along with **500,000 followers**.

  ओबर तर्क देते हैं कि यह तथाकथित गायब होना एक **कल्पना** है। वास्तव में, **बौद्ध धर्म** ने **1956 के पुनरुत्थान** से पहले ही भारत को **पुनरुत्थानों** और **तीर्थयात्रा नेटवर्क** के माध्यम से प्रभावित किया था, जब **बी.आर. अंबेडकर** ने **5 लाख अनुयायियों** के साथ धर्म परिवर्तन किया था।

- He further shows that the revival of **Buddhism** was central to the formation of **Hindu reform movements**, **Dalit activism**, **Hindu nationalism**, and **secular democracy**

under **Jawaharlal Nehru**.

वे आगे दिखाते हैं कि **बौद्ध धर्म का पुनरुद्धार हिंदू सुधार आंदोलनों**, **दलित सक्रियता**, **हिंदू राष्ट्रवाद**, और **जवाहरलाल नेहरू** के तहत **धर्मनिरपेक्ष लोकतंत्र** के गठन में महत्वपूर्ण था।

- Among those who supported Buddhism's revival was **J.K. Birla**, who funded Buddhist monuments in **Rajgir**, **Sarnath**, **Bodh Gaya**, and in urban centers like **Calcutta**, **Bombay**, and **New Delhi**.

  जे.के. बिड़ला उन लोगों में शामिल थे जिन्होंने **बौद्ध धर्म के पुनरुद्धार** को समर्थन दिया और **राजगीर**, **सारनाथ**, **बोधगया** और **कोलकाता**, **बॉम्बे**, और **नई दिल्ली** जैसे शहरों में बौद्ध स्मारकों के निर्माण में योगदान दिया।

- In contrast, his brother **Ghanashyam Birla** supported **Gandhi** and the **Congress**, while J.K. Birla and his father backed the **Hindu Mahasabha**, though they also continued supporting Gandhi.

  इसके विपरीत, उनके भाई **घनश्याम बिड़ला** ने **गांधी** और **कांग्रेस** का समर्थन किया, जबकि **जे.के. बिड़ला** और उनके पिता ने **हिंदू महासभा** का समर्थन किया, हालांकि उन्होंने गांधी को भी समर्थन देना नहीं छोड़ा।

- Efforts to reconnect with **Buddhist archaeological heritage** continue to revive interest in its philosophical and monumental past.

  बौद्ध पुरातात्विक धरोहर से फिर से जुड़ने के प्रयास इसके दार्शनिक और स्मारकीय अतीत में रुचि को फिर से जीवित करने का कार्य कर रहे हैं।

- In his book *Casting the Buddha*, **Shashank Shekhar Sinha** presents a **2,500-year** illustrated history of **Buddhist monuments**, explaining their roles in **social**, **cultural**, and **geographical contexts**.

  अपनी पुस्तक *कास्टिंग द बुद्धा* में, **शशांक शेखर सिन्हा 2,500 वर्षों** के **बौद्ध स्मारकों** का एक चित्रात्मक इतिहास प्रस्तुत करते हैं और उनके **सामाजिक**, **सांस्कृतिक**, और **भौगोलिक संदर्भों** को समझाते हैं।

- These monuments reflect the lives of **monks**, **traders**, **kings**, **guilds**, and **villagers**, showing how they were vital sites for **cultural interaction** and **community engagement**.

  ये स्मारक **भिक्षुओं**, **व्यापारियों**, **राजाओं**, **कर्मकार संघों**, और **गांववासियों** के जीवन को दर्शाते हैं, यह दिखाते हुए कि वे **सांस्कृतिक संपर्क** और **सामुदायिक भागीदारी** के महत्वपूर्ण स्थल थे।

- Structures like **Sanchi** depict not only Buddha's life but also **Jataka tales** and **mythical bodhisattvas**, showing the deep narrative and ritual fabric of Buddhist practice.

  सांची जैसे ढांचे केवल बुद्ध के जीवन को नहीं बल्कि **जातक कथाओं** और **पौराणिक बोधिसत्वों** को भी दर्शाते हैं, जो बौद्ध परंपरा की गहरी कथा और अनुष्ठानिक संरचना को दर्शाते हैं।

- Ober emphasizes that **Buddhism** was a key part of Indian life, reflected in daily activities like reading scriptures and giving **dhamma talks**.

  ओबर इस बात पर जोर देते हैं कि **बौद्ध धर्म** भारतीय जीवन का एक महत्वपूर्ण हिस्सा था, जो ग्रंथों के अध्ययन और **धम्म उपदेशों** जैसी दैनिक गतिविधियों में परिलक्षित होता था।

- Figures like **Ambedkar**, **Birla**, **Kosambi**, **Sankrityayan**, and others reveal the diversity in the identity of modern Indian Buddhism.

Address : 3rd Floor, KV Tower, Padleyganj Road, Gorakhpur
Email Id : info@patrioticias.in
Contact Number : 9971932488
Website : patrioticias.in

अंबेडकर, **बिड़ला**, **कोसंबी**, **संकृत्यायन** जैसे व्यक्तित्व आधुनिक भारतीय बौद्ध धर्म की विविध पहचान को उजागर करते हैं।

As Indians continue to seek a **casteless**, **egalitarian society**, the **Buddha's message** remains relevant. The **persistence of caste** and **inequality** means debates on **morality**, **belonging**, and **social order** must continue.

जब भारतवासी अब भी एक **वर्गविहीन**, **समानता-आधारित समाज** की तलाश में हैं, तो **बुद्ध का संदेश** आज भी प्रासंगिक है। **जातिवाद** और **असमानता** की निरंतरता दर्शाती है कि **नैतिकता**, **सामाजिक व्यवस्था**, और **अधिकार-बोध** पर चर्चा जारी रहनी चाहिए।

TOPICS COVERED GS Paper II: Polity, Governance, and International Relations)

1. **Cauvery Authority reviews water level in all its reservoirs**

   कावेरी प्राधिकरण ने अपने सभी जलाशयों में जल स्तर की समीक्षा की

2. **No ceasefire: On the Russia-Ukraine war**

   कोई युद्धविराम नहीं: रूस-यूक्रेन युद्ध पर

3. **Use international law to take on Pakistan-backed terror**

   पाकिस्तान समर्थित आतंकवाद से निपटने के लिए अंतर्राष्ट्रीय कानून का उपयोग करें

4. **Misplaced urgency: On the Madras High Court interim order**

   ग़लत समय पर की गई तात्कालिकता: मद्रास उच्च न्यायालय के अंतरिम आदेश पर

5. **Is establishing the truth a problem during a conflict?**

   क्या किसी संघर्ष के दौरान सत्य स्थापित करना एक समस्या है?

Cauvery Authority reviews water level in all its reservoirs

The committee's next meeting has been scheduled for June 10. PTI

GS Paper II: Inter State Dispute

T. Ramakrishnan
CHENNAI

The Cauvery Water Management Authority (CWMA) on Thursday reviewed the storage position of all the reservoirs in the Cauvery river basin.

After chairing a meeting that lasted nearly 45 minutes in New Delhi, the Authority's chairman, Saumitra Kumar Haldar, told *The Hindu* over the phone that the current storage of the reservoirs was better than the long-term average. The Meteorological Department had forecast that the incoming Southwest monsoon would be "above normal".

To a query whether the CWMA had given any direction to Karnataka to ensure the release of water as per the schedule – 9.19 thousand million cubic feet (tmcft) in June and 31.24 tmcft in July – Mr. Haldar replied in the negative, adding, "The monsoon has not yet set in. We will see first the pattern of flows, storage of the reservoirs and requirements."

He pointed out that the Cauvery Water Regulation Committee (CWRC) would meet every 15 days, and the CWMA every month. The Committee's meeting had been scheduled for June 10, two days before Tamil Nadu would commence the release of water from the Mettur reservoir for irrigation.

As on May 20, the realisation by Tamil Nadu stood at 301 tmcft, about 125 tmcft higher than what had been stipulated for the elapsed period (June 1, 2024 to May 20, 2025). On Thursday, Mettur's water level stood at 110.77 ft (full level: 120 ft), with the storage being 79.5 tmcft (capacity: 93.47 tmcft). On the corresponding day in 2024, the storage was 17 tmcft, and the water level 48.76 ft.

As on date, the aggregate storage of four reservoirs in Karnataka stood at 45.7 tmcft, as against its capacity of 114.57 tmcft. On the same day last year, it was around 30 tmcft.

Cauvery Authority reviews water level in all its reservoirs
कावेरी प्राधिकरण ने अपने सभी जलाशयों में जल स्तर की समीक्षा की

The Cauvery Water Management Authority (CWMA) on Thursday reviewed the storage status of all reservoirs in the Cauvery river basin.
कावेरी जल प्रबंधन प्राधिकरण (CWMA) ने गुरुवार को कावेरी नदी बेसिन में स्थित सभी जलाशयों की भंडारण स्थिति की समीक्षा की।

- The meeting in **New Delhi**, chaired by **CWMA Chairman Saumitra Kumar Haldar**, lasted for **about 45 minutes**.
नई दिल्ली में आयोजित यह बैठक, जिसकी अध्यक्षता CWMA के अध्यक्ष सौमित्र कुमार हल्दर ने की, लगभग **45 मिनट** तक चली।

- Mr. Haldar stated that the **current reservoir storage** is **better than the long-term average**.
श्री हल्दर ने कहा कि वर्तमान में **जलाशयों का भंडारण दीर्घकालिक औसत से बेहतर** है।

- The **Meteorological Department** has predicted that the upcoming **Southwest monsoon** would be "**above normal**."
मौसम विभाग ने अनुमान लगाया है कि आने वाला **दक्षिण-पश्चिम मानसून** "**सामान्य से अधिक**" रहेगा।

- When asked if CWMA had issued directions to **Karnataka** to release water as per schedule — **9.19 tmcft in June** and **31.24 tmcft in July** — Mr. Haldar replied in the **negative**.
जब पूछा गया कि क्या CWMA ने **कर्नाटक** को तय कार्यक्रम के अनुसार — **जून में 9.19 टीएमसीएफटी** और **जुलाई में 31.24 टीएमसीएफटी** — पानी छोड़ने का निर्देश दिया है, तो श्री हल्दर ने **इनकार** किया।

- He said, "The **monsoon has not yet begun**. We will first observe the **flow patterns**, **reservoir storage**, and **requirements**."
उन्होंने कहा, "**मानसून अभी शुरू नहीं हुआ है**। हम पहले **प्रवाह की प्रकृति**, जलाशयों की स्थिति, और **आवश्यकताओं** को देखेंगे।"

- The **Cauvery Water Regulation Committee (CWRC)** will meet **every 15 days**, and **CWMA** will meet **monthly**.

कावेरी जल विनियमन समिति (CWRC) की बैठक **हर 15 दिन** में और **CWMA** की बैठक **हर माह** आयोजित की जाएगी।

- The CWRC meeting is scheduled for **June 10**, two days before **Tamil Nadu** is set to release water from the **Mettur reservoir** for irrigation.

  CWRC की बैठक 10 जून को निर्धारित है, जो कि **तमिलनाडु द्वारा सिंचाई के लिए मेट्टूर जलाशय से पानी छोड़ने** से दो दिन पहले है।

- As of **May 20**, the **realisation by Tamil Nadu** stood at **301 tmcft**, which is about **125 tmcft higher** than the stipulated amount for the period **June 1, 2024 to May 20, 2025**.

  20 मई तक, **तमिलनाडु द्वारा प्राप्त जल** की मात्रा **301 टीएमसीएफटी** थी, जो **1 जून 2024 से 20 मई 2025** की अवधि के लिए निर्धारित मात्रा से लगभग **125 टीएमसीएफटी अधिक** थी।

- On Thursday, the **Mettur water level** was **110.77 ft** (full level: **120 ft**) and the **storage** was **79.5 tmcft** (capacity: **93.47 tmcft**).

  गुरुवार को **मेट्टूर जलाशय का जल स्तर 110.77 फीट** (पूर्ण स्तर: **120 फीट**) और भंडारण **79.5 टीएमसीएफटी** (क्षमता: **93.47 टीएमसीएफटी**) था।

- On the **same day in 2024**, the storage was just **17 tmcft** and the water level **48.76 ft**.

  2024 में इसी दिन, जलाशय में **सिर्फ 17 टीएमसीएफटी** जल था और जल स्तर **48.76 फीट** था।

- Currently, the **combined storage** of **four reservoirs in Karnataka** is **45.7 tmcft**, against a total capacity of **114.57 tmcft**.

  वर्तमान में, **कर्नाटक के चार जलाशयों** में कुल **भंडारण 45.7 टीएमसीएफटी** है, जबकि इनकी कुल **क्षमता 114.57 टीएमसीएफटी** है।

- On the **same day last year**, the storage was about **30 tmcft**.

  पिछले वर्ष इसी दिन, भंडारण लगभग **30 टीएमसीएफटी** था।

No ceasefire

Russia is utilising the deepening chasm among Ukraine's key allies

Ukrainian and Russian officials met up in Istanbul, Türkiye, last week, their first direct meeting since March 2022, the year when Russia invaded Ukraine. Little was achieved except for one agreement on swapping 1,000 prisoners of war each. The Ukrainian delegation rightfully complained that Moscow had made "new and unacceptable demands". Russia's posturing, however, seems to be a consequence of the dithering by Kyiv's key ally, the U.S. In the run-up to the meeting, Kyiv, which has been on the back foot in the conflict, losing substantial territory in the east and reeling under failures such as the retreat from the Kursk offensive, had sought a 30-day ceasefire – an outcome that the U.S. was also pushing. While the U.S. has been discernibly less enthusiastic about continuing to arm and support the Ukrainians, during Donald Trump's second term in the White House, Kyiv's European allies had urged Moscow to agree to the ceasefire, or face increased sanctions and the transfer of weapons to Ukraine. After pushing Kyiv to the meeting without the ceasefire as a precondition, Mr. Trump had said on the eve of the Istanbul meet that it would not yield anything until he met directly with Russian President Vladimir Putin. True to his mercurial nature, he went on to say that the conditions of a peace deal – which he has been pushing as a means for the U.S. to exit the conflict – could only be negotiated between Russia and Ukraine, with possible help from the Pope.

Amid this diplomatic uncertainty from Washington, the Russians have shown no inclination to back down from their maximalist demands on rejecting security guarantees for Ukraine in the event of a truce, and for its demilitarisation. This week, Russia continued to launch a barrage of attacks. Kyiv did manage to rally its European allies to support it militarily while imposing fresh sanctions on Russia. But the Ukrainian regime's precarity in its eastern regions is evident with Russia continuing to hold on to significant territory and gaining ground in fresh incursions from the east. With Mr. Trump showing scant regard towards taking a consistent position, and seemingly staking out a line that is different from that of the Europeans, Kyiv might be left with a Hobson's choice – accommodate some of Russia's territorial demands to begin the process of peace or endure the attritional war with limited support. Mr. Putin might have seized the upper hand in the geopolitical dynamics of the war, but its effects have been devastating for Moscow as well. Reason suggests that peace would yield greater dividends than continuing an illegal invasion and this should allow for a fresh impetus for talks leading to a ceasefire. The ball is in the Kremlin's court.

No ceasefire: On the Russia-Ukraine war
कोई युद्धविराम नहीं: रूस-यूक्रेन युद्ध पर

● Ukrainian and Russian officials met in **Istanbul, Türkiye** last week — their first direct meeting since **March 2022**, the year of Russia's invasion of Ukraine.

यूक्रेन और रूस के अधिकारियों ने पिछले सप्ताह **तुर्की के इस्तांबुल** में मुलाकात की — यह उनकी पहली सीधी बैठक थी **मार्च 2022** के बाद, जब रूस ने यूक्रेन पर हमला किया था।

● The only outcome of the meeting was an agreement to swap **1,000 prisoners of war** each.

बैठक का एकमात्र नतीजा यह था कि दोनों देशों ने **प्रत्येक 1,000 युद्धबंदियों** की अदला-बदली पर सहमति जताई।

● The Ukrainian side complained that Russia had made **"new and unacceptable demands"**.

यूक्रेनी पक्ष ने शिकायत की कि रूस ने **"नई और अस्वीकार्य मांगें"** रखी हैं।

● Russia's stance seems to be influenced by the **uncertain support** from Ukraine's key ally, the **U.S.**

रूस की स्थिति पर यूक्रेन के प्रमुख सहयोगी **अमेरिका** से मिल रहे **अनिश्चित समर्थन** का असर दिखाई देता है।

● Ahead of the meeting, Kyiv, weakened by losses in the east and the failed **Kursk offensive**, sought a **30-day ceasefire**, which the **U.S.** also supported.

पूर्वी हिस्सों में नुकसान और **कुर्स्क आक्रमण** की विफलता से कमजोर हुआ **कीव**, बैठक से पहले **30 दिन का युद्धविराम** चाहता था, जिसका **अमेरिका** ने भी समर्थन किया।

● The U.S., however, appeared **less enthusiastic** about continuing to support Ukraine with arms.

हालांकि **अमेरिका** यूक्रेन को हथियारों से समर्थन देने को लेकर **कम उत्साहित** नजर आया।

● During **Donald Trump's second term**, European allies asked Moscow to agree to the ceasefire or face **more sanctions** and **weapons transfer** to Ukraine.

डोनाल्ड ट्रंप के दूसरे कार्यकाल के दौरान, यूरोपीय सहयोगियों ने मॉस्को से युद्धविराम पर सहमति जताने या **अधिक प्रतिबंध** और यूक्रेन को **हथियार हस्तांतरण** का सामना करने की चेतावनी दी।

● Trump stated before the Istanbul meeting that nothing would be achieved until he met **Russian President Vladimir Putin** personally.

इस्तांबुल बैठक से पहले ट्रंप ने कहा कि जब तक वे स्वयं **रूसी राष्ट्रपति व्लादिमीर पुतिन** से नहीं मिलते, तब तक कोई परिणाम नहीं निकलेगा।

● He later said that any **peace deal** could only be negotiated between **Russia and Ukraine**, with possible help from the **Pope**.

बाद में उन्होंने कहा कि किसी भी **शांति समझौते** पर केवल **रूस और यूक्रेन** के बीच ही बातचीत हो सकती है, जिसमें **पोप** की मदद भी हो सकती है।

● In the absence of clear direction from **Washington**, Russia has refused to drop its **maximalist demands**, including **no security guarantees** for Ukraine and its **demilitarisation**.

वॉशिंगटन से स्पष्ट रुख न होने के कारण रूस ने अपनी **अधिकतम मांगें**, जैसे कि यूक्रेन को **सुरक्षा गारंटी नहीं देना** और उसका **असैन्यीकरण**, छोड़ने से इनकार कर दिया है।

● This week, Russia continued to launch a **barrage of attacks**.

इस सप्ताह रूस ने **लगातार हमलों** को जारी रखा।

● Kyiv managed to rally **European support** for fresh **military aid** and **sanctions** on Russia.

कीव ने **यूरोपीय समर्थन** को जुटाते हुए रूस पर **नए सैन्य सहयोग** और **प्रतिबंध** लागू करवाए।

● Despite this, Russia still holds **significant territory** and is advancing through **new incursions from the east**.

इसके बावजूद रूस **महत्वपूर्ण इलाकों** पर काबिज है और **पूर्व से नए आक्रमणों** के ज़रिए आगे बढ़ रहा है।

● With Trump's **inconsistent position**, different from European allies, Kyiv faces a **Hobson's choice** — either concede **some territory** to start peace or face a **prolonged war** with **limited support**.

ट्रंप की **अस्थिर नीति**, जो यूरोपीय सहयोगियों से भिन्न है, के चलते कीव के पास एक **मजबूरी की स्थिति** है — या तो **कुछ क्षेत्र** छोड़कर शांति प्रक्रिया शुरू करे या **सीमित समर्थन** के साथ **लंबा युद्ध** झेले।

● Though **Putin** appears to have the **upper hand**, the war has also been **devastating** for **Moscow**.

हालांकि **पुतिन** को **बढ़त** मिलती दिख रही है, लेकिन यह युद्ध **मॉस्को** के लिए भी **विनाशकारी** रहा है।

● Rationally, **peace** offers more benefits than continuing the **illegal invasion**, and this should lead to a **renewed effort** for a **ceasefire**.

तर्क के आधार पर देखा जाए तो **शांति** से **अवैध आक्रमण** की तुलना में अधिक लाभ मिलते हैं और इससे **युद्धविराम** के लिए **नई कोशिश** होनी चाहिए।

● Now, the responsibility lies with the **Kremlin**.

अब जिम्मेदारी **क्रेमलिन** की है।

Use international law to take on Pakistan-backed terror

GS Paper II: International Relations

Prabhash Ranjan

is Professor and Vice Dean (Research), Jindal Global Law School, O.P. Jindal Global University

Operation Sindoor has powerfully demonstrated India's intent to use kinetic measures to tackle terrorism emanating from Pakistan. In addition to executing "hot pursuits", India possesses other potent non-kinetic strategies, going beyond regular diplomacy, to ensure that Pakistan is held accountable for its continued support of terrorism directed against India. An impactful approach that India has not effectively employed so far is the strategy of "lawfare", or leveraging international law to confront adversaries to accomplish strategic and diplomatic objectives.

Leverage terrorism conventions

A key element of a lawfare strategy against Pakistan should be to deploy international law to highlight Pakistan's sponsorship of cross-border terrorism. This is especially important as India has led the process of adopting a Comprehensive Convention on International Terrorism (CCIT) at the global level. India and Pakistan are parties to numerous terrorism conventions at the regional and international levels. The primary regional treaty is the SAARC Regional Convention on Suppression of Terrorism, while key international treaties include the International Convention for the Suppression of the Financing of Terrorism (ICSFT) and the International Convention for the Suppression of Terrorist Bombings (Terrorist Bombing Convention).

These conventions obligate that states not only criminalise acts of terrorism under their domestic laws and prosecute the perpetrators but also refrain from financing such activities. For instance, Article 2(1) of the ICSFT explicitly classifies terror financing as a crime. Similarly, Article 6 of the Additional Protocol to the SAARC terrorism convention requires states to take measures to prevent, suppress, and eradicate the financing of terrorism.

Pakistan has a long history of sponsoring, abetting, and funding terrorism against India.

A clear and compelling narrative that uses international law and indisputable facts will help India in its fight against cross-border terrorism

Following the terror attacks in Mumbai in 2008, India meticulously gathered evidence to demonstrate Pakistan's active involvement in those attacks, which Islamabad later acknowledged, albeit reluctantly. India needs to consistently publicise proof of Pakistan's role, which includes the Pahalgam terror attack on April 22.

Further, India should utilise all international forums to build a solid legal case against Pakistan for its violations of international law regarding terrorism suppression. India's move to have all-party parliamentary delegations travelling abroad to present India's case on Operation Sindoor is an ideal opportunity to do this. India should identify specific provisions in terrorism conventions, along with various United Nations Security Council Resolutions that sanction terrorism, and customary international law that Pakistan is violating, and highlight these publicly.

Rather than mere diplomatic hyperbole, a clear and compelling narrative entrenched in international law, grounded in indisputable facts and supported by irrefutable evidence will significantly benefit New Delhi's fight against cross-border terrorism.

Use the ICJ

A critical aspect of many terrorism conventions is that they grant jurisdiction to the International Court of Justice (ICJ) to enforce the treaties. For example, Articles 20(1) and 24(1) of the Terrorist Bombing Convention and the ICSFT, respectively, empower a country to refer disputes to the ICJ. These provisions, known as compromissory clauses, help circumvent jurisdictional obstacles in international law, which is based on consent. Thus, countries that are signatories to these treaties are bound by ICJ jurisdiction unless they make specific reservations. Ukraine, for instance, invoked such a clause when it sued Russia before the ICJ for violating the ICSFT.

Given that Pakistan has been sponsoring and abetting terrorism against India and has not taken any action against terror groups operating from its territory, New Delhi has a compelling case against Islamabad under these terrorism conventions, which it can present to the ICJ – just as it did in the Kulbhushan Jadhav case.

Hurdles to overcome

However, there are two significant hurdles. First, Pakistan has not accepted the ICJ's jurisdiction under the ICSFT due to a reservation, which could hinder efforts to hold Pakistan accountable. Nevertheless, India can still file a case with the ICJ to draw global attention to the issue. India should put the ball in the ICJ's court to address Pakistan's jurisdictional argument.

Second, and perplexingly, India has adopted a reservation about the ICJ's jurisdiction under the Terrorist Bombing Convention, while Pakistan has accepted the ICJ's jurisdiction for this convention. This obstacle can be overcome if India withdraws its reservation, allowing it to initiate proceedings against Pakistan at the ICJ for terrorism. The ICJ may likely interpret the provisions of the ICSFT and the Terrorist Bombing Convention narrowly, similar to its approach in the Ukraine vs Russia case decided last year. Therefore, India should have fool-proof evidence and devise its legal strategy accordingly. The dissenting opinion of judges such as Hilary Charlesworth in *Ukraine vs Russia* can come in handy for India. In any case, India should not be overly concerned about the outcome of the legal dispute. Instead, it should utilise the legal proceedings to assiduously promote a global narrative against Pakistan-sponsored terrorism, aligning it with its national objectives.

In sum, international law and courtrooms can also be used to combat terrorism. To accomplish this, India must build state capacity and mainstream international law in statecraft.

The views expressed are personal

Use international law to take on Pakistan-backed terror

पाकिस्तान समर्थित आतंकवाद से निपटने के लिए अंतर्राष्ट्रीय कानून का उपयोग करें

A clear and compelling narrative that uses international law and indisputable facts will help India in its fight against cross-border terrorism.

अंतर्राष्ट्रीय कानून और अखंडनीय तथ्यों का उपयोग करने वाली एक स्पष्ट और प्रभावशाली कहानी भारत को सीमा पार आतंकवाद से लड़ने में मदद करेगी।

- **Operation Sindoor** has powerfully demonstrated India's intent to use **kinetic measures** to tackle terrorism emanating from Pakistan.

  ऑपरेशन सिंदूर ने पाकिस्तान से उत्पन्न आतंकवाद से निपटने के लिए **बलप्रयोग उपायों** के उपयोग की भारत की मंशा को प्रभावशाली ढंग से प्रदर्शित किया है।

- In addition to executing **"hot pursuits"**, India possesses other potent **non-kinetic strategies** to hold Pakistan accountable for its support of terrorism against India.

  "हॉट परस्यूट" को अंजाम देने के अलावा, भारत के पास **गैर-बलप्रयोग रणनीतियाँ** भी हैं जो पाकिस्तान को भारत के खिलाफ आतंकवाद के समर्थन के लिए जिम्मेदार ठहरा सकती हैं।

- A powerful but underutilised approach is the strategy of **"lawfare"**, which means using **international law** to achieve **strategic and diplomatic objectives**.

  एक प्रभावशाली लेकिन कम उपयोग की गई रणनीति है **"लॉफेयर"**, जिसका अर्थ है **रणनीतिक और कूटनीतिक लक्ष्यों** को प्राप्त करने के लिए **अंतर्राष्ट्रीय कानून** का उपयोग।

Leverage terrorism conventions
आतंकवाद संधियों का लाभ उठाना

- A key part of the **lawfare strategy** should be to deploy **international law** to expose Pakistan's **sponsorship of cross-border terrorism**.

  लॉफेयर रणनीति का एक महत्वपूर्ण हिस्सा होना चाहिए कि **अंतर्राष्ट्रीय कानून** के माध्यम से पाकिस्तान की **सीमा पार आतंकवाद की प्रायोजकता** को उजागर किया जाए।

- India has led the process to adopt a **Comprehensive Convention on International Terrorism (CCIT)** at the global level.

  भारत ने वैश्विक स्तर पर **अंतर्राष्ट्रीय आतंकवाद पर व्यापक सम्मेलन (CCIT)** को अपनाने की प्रक्रिया का नेतृत्व किया है।

- India and Pakistan are both parties to various **regional and international terrorism conventions**.

  भारत और पाकिस्तान दोनों कई **क्षेत्रीय और अंतर्राष्ट्रीय आतंकवाद संधियों** के पक्षकार हैं।

- The main **regional treaty** is the **SAARC Regional Convention on Suppression of Terrorism**.

  मुख्य **क्षेत्रीय संधि** है दक्षिण एशियाई क्षेत्रीय सहयोग संघ (सार्क) की आतंकवाद दमन पर क्षेत्रीय संधि।

- Key **international treaties** include the **International Convention for the Suppression of the Financing of Terrorism (ICSFT)** and the **Terrorist Bombing Convention**.

  महत्वपूर्ण **अंतर्राष्ट्रीय संधियों** में शामिल हैं **आतंकवाद के वित्तपोषण के दमन के लिए अंतर्राष्ट्रीय सम्मेलन (ICSFT)** और **आतंकी बमबारी सम्मेलन।**

- These conventions require states to **criminalise terrorism**, **prosecute offenders**, and **stop terror financing**.

  इन संधियों के तहत देशों को **आतंकवाद को अपराध घोषित करना, अपराधियों का अभियोजन करना, और आतंकवाद को वित्तीय सहायता देना बंद करना** आवश्यक है।

- **Article 2(1) of ICSFT** defines **terror financing** as a **crime**.

  ICSFT के अनुच्छेद 2(1) के अनुसार, **आतंकवाद के लिए वित्तीय सहायता** को **अपराध** माना गया है।

- **Article 6** of the **SAARC Protocol** mandates states to **prevent**, **suppress**, and **eradicate** terror financing.

- सार्क प्रोटोकॉल के अनुच्छेद 6 में देशों को **आतंकवाद के वित्तपोषण को रोकने**, **दमन करने**, और **समाप्त करने** का निर्देश दिया गया है।

- Pakistan has a long record of **sponsoring**, **abetting**, and **funding terrorism** against India.

  पाकिस्तान का भारत के खिलाफ **आतंकवाद को प्रायोजित करने**, **उकसाने**, और **वित्तीय सहायता देने** का लंबा रिकॉर्ड रहा है।

- After the **2008 Mumbai attacks**, India collected strong evidence proving **Pakistan's involvement**, which **Islamabad reluctantly accepted** later.

  2008 मुंबई हमलों के बाद भारत ने **पाकिस्तान की संलिप्तता** के ठोस सबूत जुटाए, जिन्हें **इस्लामाबाद ने बाद में अनिच्छा से स्वीकार किया**।

- India must continuously publicise **Pakistan's involvement**, including in the **Pahalgam attack on April 22**.

  भारत को **22 अप्रैल को पहलगाम हमले** समेत **पाकिस्तान की संलिप्तता** को लगातार उजागर करते रहना चाहिए।

- India should use all **international platforms** to build a strong **legal case** against Pakistan's violations of **international law** on terrorism.

  भारत को सभी **अंतर्राष्ट्रीय मंचों** का उपयोग कर पाकिस्तान के द्वारा **आतंकवाद विरोधी अंतर्राष्ट्रीय कानून** के उल्लंघन पर एक मजबूत **कानूनी मामला** तैयार करना चाहिए।

- Sending **all-party parliamentary delegations abroad** for presenting India's side on **Operation Sindoor** is a great opportunity for this.

  ऑपरेशन सिंदूर पर भारत का पक्ष रखने के लिए **सर्वदलीय संसदीय प्रतिनिधिमंडलों को विदेश भेजना** इस कार्य के लिए एक उत्तम अवसर है।

- India should identify **specific provisions in terrorism conventions**, **UN Security Council Resolutions**, and **customary international law** that Pakistan is violating.

  भारत को यह पहचानना चाहिए कि **आतंकवाद संधियों के विशिष्ट प्रावधान**, **संयुक्त राष्ट्र सुरक्षा परिषद के प्रस्ताव**, और **प्रथागत अंतर्राष्ट्रीय कानून** में कौन-कौन से हिस्से पाकिस्तान द्वारा उल्लंघन किए जा रहे हैं।

- These should be **highlighted publicly** to increase international pressure.

  इनको **सार्वजनिक रूप से उजागर** किया जाना चाहिए ताकि अंतर्राष्ट्रीय दबाव बढ़े।

Use the ICJ
अंतरराष्ट्रीय न्यायालय (ICJ) का उपयोग करें

- A critical aspect of many terrorism conventions is that they grant **jurisdiction to the International Court of Justice (ICJ)** to enforce the treaties.

  कई आतंकवाद संधियों का एक महत्वपूर्ण पहलू यह है कि वे **अंतरराष्ट्रीय न्यायालय (ICJ) को अधिकार क्षेत्र** प्रदान करती हैं ताकि संधियों को लागू किया जा सके।

- For example, **Articles 20(1)** and **24(1)** of the **Terrorist Bombing Convention** and the **ICSFT**, respectively, empower a country to refer disputes to the ICJ.

Page 18

Address : 3rd Floor, KV Tower, Padleyganj Road, Gorakhpur
Email Id : info@patrioticias.in
Contact Number : 9971932488
Website : patrioticias.in

उदाहरण के लिए, **आतंकी बमबारी संधि** और **ICSFT** की **अनुच्छेद 20(1)** और **24(1)** क्रमशः किसी देश को विवादों को ICJ में ले जाने की शक्ति देती हैं।

- These provisions, known as **compromissory clauses**, help circumvent **jurisdictional obstacles** in international law, which is based on consent.

  इन प्रावधानों को **समझौता खंड** कहा जाता है, जो **अंतरराष्ट्रीय कानून में अधिकार क्षेत्र की बाधाओं** को पार करने में मदद करते हैं, जो सहमति पर आधारित होता है।

- Countries that are signatories to these treaties are bound by ICJ jurisdiction unless they make specific **reservations**.

  जो देश इन संधियों पर हस्ताक्षर करते हैं, वे ICJ के अधिकार क्षेत्र के अधीन होते हैं, जब तक कि वे विशेष **आरक्षण** न रखें।

- **Ukraine**, for instance, invoked such a clause when it sued **Russia** before the ICJ for violating the **ICSFT**.

  उदाहरण के लिए, **यूक्रेन** ने ऐसा खंड लागू किया जब उसने **रूस** के खिलाफ **ICSFT** के उल्लंघन को लेकर ICJ में मुकदमा दायर किया।

- Given that **Pakistan** has been **sponsoring and abetting terrorism** against India and has taken no action against terror groups operating from its territory, India has a **compelling case** under these conventions.

  चूंकि **पाकिस्तान** भारत के खिलाफ **आतंकवाद को प्रायोजित और बढ़ावा** देता रहा है और उसने अपनी भूमि से संचालित आतंकी समूहों के खिलाफ कोई कार्रवाई नहीं की है, इसलिए भारत के पास इन संधियों के तहत एक **मजबूत मामला** है।

- India can present this case before the **ICJ**, similar to the approach it took in the **Kulbhushan Jadhav case**.

  भारत इस मामले को **ICJ** के समक्ष रख सकता है, जैसे उसने **कुलभूषण जाधव मामले** में किया था।

Hurdles to Overcome
समाधान योग्य बाधाएँ

- First, **Pakistan** has not accepted ICJ jurisdiction under the **ICSFT** due to a **reservation**, which can hinder India's efforts.

  पहली बाधा यह है कि **पाकिस्तान** ने **ICSFT** के तहत ICJ के अधिकार क्षेत्र को **आरक्षण** के कारण स्वीकार नहीं किया है, जिससे भारत के प्रयासों में बाधा आ सकती है।

- Nevertheless, India can still file a case at the ICJ to draw **global attention** to Pakistan's role in terrorism.

  इसके बावजूद, भारत **वैश्विक ध्यान** आकर्षित करने के लिए ICJ में मामला दायर कर सकता है।

- India should **put the ball in the ICJ's court** to respond to Pakistan's jurisdictional objection.

  भारत को **ICJ के समक्ष मामला प्रस्तुत** करना चाहिए ताकि पाकिस्तान के अधिकार क्षेत्र के तर्क का उत्तर दिया जा सके।

- Second, and more perplexingly, **India** itself has adopted a **reservation** under the **Terrorist Bombing Convention**, while **Pakistan** has accepted ICJ jurisdiction under this convention.

  दूसरी और अधिक जटिल बात यह है कि **भारत** ने खुद **आतंकी बमबारी संधि** के तहत **आरक्षण** अपना रखा है, जबकि **पाकिस्तान** ने इस संधि के अंतर्गत ICJ का अधिकार क्षेत्र स्वीकार किया है।

- This can be resolved if India **withdraws its reservation**, thereby enabling it to initiate **legal proceedings** against Pakistan.

  यह समस्या हल हो सकती है यदि भारत अपना **आरक्षण वापस ले**, जिससे वह **पाकिस्तान के खिलाफ कानूनी कार्यवाही** शुरू कर सके।

- The ICJ may interpret the provisions of the **ICSFT** and **Terrorist Bombing Convention** narrowly, as it did in the **Ukraine vs Russia** case last year.

  ICJ संभवतः **ICSFT** और **आतंकी बमबारी संधि** के प्रावधानों की **सीमित व्याख्या** कर सकता है, जैसा कि उसने पिछले वर्ष **यूक्रेन बनाम रूस** मामले में किया।

- Therefore, India must prepare **fool-proof evidence** and formulate its **legal strategy** carefully.

  इसलिए भारत को **अकाट्य प्रमाण** तैयार करने चाहिए और अपनी **कानूनी रणनीति** सावधानीपूर्वक बनानी चाहिए।

- The **dissenting opinion** of judges such as **Hilary Charlesworth** in the Ukraine case may be useful for India.

  हिलारी चार्ल्सवर्थ जैसे न्यायाधीशों की **विरोधी राय** भारत के लिए उपयोगी हो सकती है।

- India should not be overly concerned about the **outcome** of the case, but should use the **legal process** to build a global narrative against **Pakistan-sponsored terrorism**.

  भारत को मामले के **परिणाम** को लेकर अधिक चिंतित नहीं होना चाहिए, बल्कि उसे **कानूनी प्रक्रिया** का उपयोग **पाकिस्तान-प्रायोजित आतंकवाद** के खिलाफ वैश्विक नैरेटिव बनाने में करना चाहिए।

Conclusion
निष्कर्ष

- International law and **judicial forums** can be powerful tools to combat terrorism.
  अंतरराष्ट्रीय कानून और **न्यायिक मंच** आतंकवाद से लड़ने के प्रभावशाली साधन हो सकते हैं।

- To do this, India must strengthen its **state capacity** and incorporate **international law** into its governance and strategic framework.
  ऐसा करने के लिए भारत को अपनी **राज्य क्षमता** मजबूत करनी होगी और **अंतरराष्ट्रीय कानून** को अपने शासन और रणनीतिक ढांचे में शामिल करना होगा।

TELEGRAM CHANNEL: https://t.me/patrioticIAS
YOUTUBE CHANNEL: https://www.youtube.com/@PatrioticIAS
CONTACT: 9971932488

Patriotic IAS
IAS/PCSwali Pathshala
www.patrioticias.in
9971932488

@PATRIOTICIAS

GS Paper II: State Legislature

Misplaced urgency
The Madras High Court has in effect undermined a Supreme Court ruling

By staying the operation of Tamil Nadu's multiple amended Acts – to the extent that they empower the government to appoint Vice-Chancellors (V-Cs) of 18 State universities – the Madras High Court has effectively halted the momentum that followed last month's landmark Supreme Court verdict, which granted deemed assent to 10 Bills on which the Tamil Nadu Governor had inordinately delayed action. The interim order, delivered by Justices G.R. Swaminathan and V. Lakshminarayanan, effectively restores to the Governor-Chancellor, the powers of appointing V-Cs, which those very Bills had sought to divest. The result is a continuing stalemate: nearly a dozen universities remain headless, with appointments frozen until further judicial intervention. The Vacation Bench, acting on a petition by a lawyer, held that interim relief was justified because the impugned Acts "fall foul of the law" laid down by the Supreme Court in prior rulings on V-C appointments. These include *Professor (Dr.) Sreejith P.S. vs Dr. Rajasree M.S.* (APJ Abdul Kalam Technological University) and *Gambhirdan K. Gadhvi vs The State Of Gujarat* (Sardar Patel University). In both cases, the appointment of V-Cs was quashed for violating Regulation 7.3 of the University Grants Commission (UGC) Regulations, 2018, which govern the composition of search committees and procedures for V-C appointments. The High Court rejected the State's argument that it had adopted the UGC Regulations in 2021 with a caveat excluding Regulation 7.3. The judges held that stripping the Chancellor of appointment powers was plainly unconstitutional – "... is so glaring and obvious that we cannot shut our eyes," they wrote.

What is equally glaring, however, is the misplaced urgency with which the Bench moved to deprive the amended Acts of legal effect. The High Court overlooked the Higher Education Department counsel's submission that the State had mentioned before the Supreme Court seeking urgent listing of a petition to transfer the instant case to itself; and that the Supreme Court had indicated that the High Court may be apprised of this fact. Judicial propriety would suggest that a lower court must exercise restraint in such cases. Moreover, the interim order was passed without affording the State adequate time to file its counter affidavit. In any case, while the current impasse on V-C appointments in Tamil Nadu persists, given the conflicting case precedents – *Kalyani Mathivanan* and *Jagdish Prasad Sharma* among them – the Supreme Court, should it hear the case, must settle, once and for all, the critical question: can UGC Regulations issued by a subordinate authority override State legislation enacted under constitutional authority?

Misplaced urgency: On the Madras High Court interim order
ग़लत समय पर की गई तात्कालिकता: मद्रास उच्च न्यायालय के अंतरिम आदेश पर

The Madras High Court has, in effect, undermined a Supreme Court ruling by staying the operation of Tamil Nadu's amended Acts that empowered the government to appoint Vice-Chancellors (V-Cs) of 18 State universities.

मद्रास उच्च न्यायालय ने तमिलनाडु के संशोधित अधिनियमों के संचालन पर रोक लगाकर, जो 18 राज्य विश्वविद्यालयों के कुलपतियों की नियुक्ति का अधिकार सरकार को देते थे, वास्तव में सुप्रीम कोर्ट के एक फैसले को कमजोर कर दिया है।

- This stay has effectively **halted the momentum** following last month's **landmark Supreme Court verdict**, which granted deemed assent to **10 Bills** delayed by the Governor.

इस रोक के चलते पिछले महीने आए **महत्वपूर्ण सुप्रीम कोर्ट फैसले** के बाद बनी **तेज़ी रुक गई**, जिसमें राज्यपाल द्वारा विलंबित **10 विधेयकों को स्वीकृत** माना गया था।

- The interim order, passed by **Justices G.R. Swaminathan and V. Lakshminarayanan**, restores to the **Governor-Chancellor** the powers to appoint V-Cs, which the Bills had tried to remove.

न्यायमूर्ति जी.आर. स्वामिनाथन और वी. लक्ष्मीनारायणन द्वारा पारित अंतरिम आदेश में **राज्यपाल-कुलाधिपति** को कुलपति नियुक्त करने की **वापसी की शक्ति** दी गई, जिसे विधेयकों के ज़रिए हटाया गया था।

- As a result, **nearly a dozen universities** remain without Vice-Chancellors, with appointments **frozen** until further judicial action.

इसका परिणाम यह है कि **करीब एक दर्जन विश्वविद्यालयों** में अब तक **कुलपतियों की नियुक्तियाँ रुकी** हुई हैं और अगली न्यायिक कार्यवाही तक स्थगित हैं।

- The Vacation Bench held that **interim relief** was warranted because the challenged Acts "**fall foul of the law**" set by the Supreme Court in previous rulings on V-C appointments.

अवकाश पीठ ने माना कि अंतरिम राहत उचित है क्योंकि जिन अधिनियमों को चुनौती दी गई है वे सुप्रीम कोर्ट के पहले के **कुलपति नियुक्ति** मामलों में निर्धारित **कानून का उल्लंघन** करते हैं।

- These include rulings in the **APJ Abdul Kalam Technological University** and **Sardar Patel University** cases, where V-C appointments were quashed for violating **Regulation 7.3 of the UGC Regulations, 2018**.

  इनमें **एपीजे अब्दुल कलाम टेक्नोलॉजिकल यूनिवर्सिटी** और **सरदार पटेल यूनिवर्सिटी** के मामले शामिल हैं, जहां **यूजीसी विनियम 7.3 (2018)** के उल्लंघन पर कुलपति नियुक्तियाँ रद्द कर दी गई थीं।

- The High Court rejected the State's argument that it had adopted the UGC Regulations in **2021** but excluded Regulation 7.3.

  उच्च न्यायालय ने राज्य के इस तर्क को खारिज कर दिया कि उसने **2021 में यूजीसी विनियमों** को स्वीकार किया था लेकिन **नियम 7.3 को छोड़ दिया** था।

- The judges observed that **removing the Chancellor's appointment powers** was "**plainly unconstitutional**" and too obvious to ignore.

  न्यायाधीशों ने माना कि **कुलाधिपति की नियुक्ति की शक्ति को हटाना "स्पष्ट रूप से असंवैधानिक"** है और इतना स्पष्ट है कि इसे अनदेखा नहीं किया जा सकता।

- What is equally striking is the **urgency** with which the Bench acted, **depriving the amended Acts of legal effect**.

  उतनी ही उल्लेखनीय बात यह है कि पीठ ने जिस **तात्कालिकता** से कार्य किया, उससे **संशोधित अधिनियमों को कानूनी प्रभाव से वंचित** कर दिया गया।

- The High Court **ignored** the fact that the State had informed the **Supreme Court** and sought **urgent transfer** of this matter to the apex court.

  उच्च न्यायालय ने यह तथ्य **नज़रअंदाज़ कर दिया** कि राज्य ने **सुप्रीम कोर्ट को सूचित** किया था और इस मामले को **शीघ्र सुप्रीम कोर्ट में स्थानांतरित** करने का अनुरोध किया था।

- **Judicial propriety** demands that a lower court should **exercise restraint** in such matters.

  न्यायिक मर्यादा कहती है कि ऐसी परिस्थितियों में निचली अदालत को **संयम बरतना चाहिए**।

- Moreover, the order was passed without giving the State **adequate time** to submit its **counter affidavit**.

  इसके अलावा, यह आदेश **राज्य को अपना जवाबी हलफनामा दाखिल करने के लिए पर्याप्त समय दिए बिना** पारित कर दिया गया।

- Although the impasse on V-C appointments in Tamil Nadu persists, the **Supreme Court** must settle the key legal issue:

  हालांकि तमिलनाडु में कुलपति नियुक्तियों पर गतिरोध बना हुआ है, लेकिन **सुप्रीम कोर्ट को यह मुख्य कानूनी प्रश्न सुलझाना** होगा:

- Can **UGC Regulations**, issued by a **subordinate authority**, **override State legislation** enacted under **constitutional authority**?

  क्या **यूजीसी के अधीनस्थ प्राधिकरण द्वारा जारी विनियम** संविधान के तहत पारित **राज्य कानून को निष्प्रभावी** कर सकते हैं?

Is establishing the truth a problem during a conflict?

PARLEY

Nirupama Subramanian

Independent journalist who was The Hindu's correspondent in Pakistan from 2006 to 2010

Pratik Sinha

Co-founder, AltNews, a fact-checking website

Parallel to the recent escalation of military tensions between India and Pakistan, misinformation and disinformation surged online, making it increasingly difficult for the public to distinguish fact from fiction. Many media outlets published sensational stories riddled with unverified claims, and disseminated fake pictures and videos. Jingoism often drove the public response. Is establishing the truth a problem during a conflict? Nirupama Subramanian and Pratik Sinha discuss the question in a conversation moderated by **Mandira Moddie**. Edited excerpts:

Are there any rules for reporting during times of military conflict? How do we balance national security implications versus the public's right to know?

Nirupama Subramanian: Indian media houses have not framed rules for coverage of conflicts. This is particularly sad given that independent India has had so many military conflicts with Pakistan and China. We have also had internal conflicts – Maoist insurgencies, secessionist movements, and the militancy in Kashmir, which has elements of war because of the cross-border nature of the violence.

The only rules we have are the basic rules for journalism – your responsibility is to inform the public with accuracy, verify your information from the government and the adversary, and collect information from multiple sources. These are all ways to get as close to the truth as possible. In other words, this is what is meant by being objective. Many people understand objective to be the same as neutral. You can take sides and still be objective, right? And these are all pathways to that. Then, of course, the commitment to your viewers and readers that you don't spread misinformation – at least not knowingly. You have to know the difference between propaganda and real (information). During a conflict, there is an element of national security – you're not supposed to give out troop movement.

But during conflicts, especially in those that involve your own country versus another, these rules are the first casualty. In India, we have seen this loss of objectivity even when the government battles sections of its own citizens – in Kashmir or in the north-east or in the Maoist insurgency-hit States. Journalists become instruments through which the government wants to keep the national morale up. And they just drop their commitment of informing the public. Loyalty to the nation is demanded by the government. The danger is that this can also become loyalty to those in power.

Pratik, how did Operation Sindoor play out on social media?

Pratik Sinha: What I have seen over the last few years is that while there may be some amounts of misinformation happening unknowingly, most of it is fairly strategised across multiple layers. The communication strategy also depends on who needs to set the narrative. On day one (of Operation Sindoor), when the strikes happened, there were videos from Pakistan, even before we all woke up, of people being injured and of broken buildings. Compare this to 2019 when the Balakot strikes happened. Some (in India) claimed then that (a former Pakistani diplomat had stated that) 300 terrorists had been killed in the strikes (but his comments were misreported). Not one image of an injured or dead person was spread then. But this time, it was Pakistan which got into the race of narrative-building first, because it was Pakistan which felt the need to set a narrative.

On day two, things started to change. In India, when propaganda happens, it is not just on social media; many mainstream media channels said that we have attacked Karachi port or reached Islamabad. Then social media began amplifying that by saying we have gone far inside Karachi. By day three, there was just a crazy amount of misinformation on Indian social media and (sections of) the mainstream media.

When someone says Karachi port has been attacked, no one in Karachi is watching this because Indian channels are blocked there; it is Indian viewers who are reacting to this. Almost all war propaganda is directed at a country's own citizens.

We saw a lot of dramatic representations of war from the TV studios. What are the

Foreign Secretary Vikram Misri speaks during a special briefing on 'Operation Sindoor', in New Delhi. PTI

> What I have seen over the last few years is that while there may be some amounts of misinformation happening unknowingly, most of it is fairly strategised across multiple layers.
> **PRATIK SINHA**

pressures for journalists these days?

NS: Actually, this should be the best time for journalists, for journalism. But unfortunately this is also the worst time for journalism. There was some really cringe stuff we got to see on TV. Channels have discovered that demonising Islam and Muslims garners good TRPs. So a military conflict with Pakistan is like a halwa for them. I don't think TV channels are able to present the horrors of war as such. For instance, I would have liked to know what actually happens in a nuclear conflict. Nuclear weapons are discussed like firecrackers. People do not understand that these are weapons of mass destruction. I don't think I saw anything on TV that could explain to me what the nuclear threshold is, what escalation means, what deterrence means, or what may happen if there is a nuclear conflagration. There was no discussion on the cost of war either. They were presenting this conflict as some kind of entertainment in the skies and people seemed happy to watch this because they felt that it didn't affect them.

The other pressure is external. The government demands loyalty by using punitive measures such as filing cases, shutting down news organisations, blocking online news organisations, and threatening mainstream media with a loss of advertisement revenue. Journalists are getting the message that they should not try to find out what is happening on the other side. But what is happening with your adversary is important to understand. What are the people in Pakistan thinking? I am learning that there will be consequences if you keep contacts with people there.

The other thing is the power differential in a military conflict. With China, we saw during both the Doklam crisis and in Ladakh in 2020 that the media was very restrained, very well behaved. With Pakistan, it's open season because of that power differential.

The normative role of media is to ask questions to power. But even asking questions is seen as a problem sometimes. Doesn't the public have the right to know?

NS: I think there is an expectation that in these kinds of situations, journalists must suspend their questioning of the government because all that matters is that you boost the war effort. Even citizens don't want journalists to question the government, and governments are only going to give out information that is favourable to them. Governments will justify this as something to do with troop morale. I can imagine that for a soldier hearing about losses when he is in the middle of a war can be really crushing. But why is the government not providing information about losses even now? We still don't know the full extent of what we lost when China made incursions into Indian territory in 2020. Because if this is made public, questions will be asked of the government, the government will be made accountable, and that may impact on the politics of the country. This is why they want to control the information.

During Operation Sindoor, X announced that it had received orders from the Union government to block some 8,000 accounts in India, including those of news organisations and prominent X users. How can the public hope to understand any issue when differing viewpoints are suppressed?

PS: The simple answer is that we cannot and the reason for blocking is that we should only get a selective view. This has been in the making for a very long time. It's just that during this conflict, we saw an extreme version of it. For example, Hindutva Watch, which does critical work in documenting hate crimes and hate speech, has been blocked in India for the longest time. Conflict time makes it convenient to suppress criticism. Under the garb of nationalism, anyone who is critical is being termed anti-national.

The Indian media is in a time of crisis. I'm talking about the entire ecosystem, which includes social media, YouTube, and all other platforms. The way our Foreign Secretary got trolled depicts what we have become as a society. And on top of that, there is no access to well-rounded information.

NS: To imagine that by blocking people on X you block out news completely is absurd. Yes, you may block out some actors, but the fact that India suffered some losses was in every respectable news report across the world. There was no way that the government could control all that. There is a limit to which it can control the narrative; it can't control it entirely.

To listen to the full interview
Scan the code or go to the link
www.thehindu.com

Is establishing the truth a problem during a conflict?
क्या किसी संघर्ष के दौरान सत्य स्थापित करना एक समस्या है?

During the recent escalation in military tensions between India and Pakistan, a surge of misinformation and disinformation flooded the internet, making it increasingly difficult for the public to distinguish between fact and fiction.

हाल में भारत और पाकिस्तान के बीच सैन्य तनाव बढ़ने के दौरान, इंटरनेट पर गलत और भ्रामक जानकारी की बाढ़ आ गई, जिससे जनता के लिए सच्चाई और झूठ में फर्क करना मुश्किल हो गया। कई मीडिया संस्थानों ने सनसनीखेज खबरें प्रकाशित कीं जिनमें असत्यापित दावे, फर्जी तस्वीरें और वीडियो शामिल थे।

- Numerous **media outlets** published **sensational stories** filled with **unverified claims**, including **fake photos and videos**. In such emotionally charged environments, **jingoism** often shaped public reactions, raising serious concerns about the **credibility of information** during conflicts.

- ऐसे भावनात्मक माहौल में, **अंधराष्ट्रवाद** अक्सर जन प्रतिक्रियाओं को प्रभावित करता है, जिससे संघर्ष के दौरान **जानकारी की विश्वसनीयता** पर गंभीर सवाल उठते हैं।

Rules for Reporting in Conflict Situations
संघर्ष की स्थिति में रिपोर्टिंग के नियम

- Nirupama Subramanian points out that **Indian media houses** have not developed any **specific guidelines** for reporting during **military conflicts**, despite the fact that **independent India** has faced multiple wars with **Pakistan and China** and also experienced long-standing **internal conflicts** such as **Maoist insurgencies**, **secessionist movements**, and **militancy in Kashmir**. Instead, the only guiding principles remain the **basic rules of journalism** — ensuring **accuracy**, **verifying information** from **multiple sources**, including both the **government** and the **adversary**, and avoiding **misinformation**. According to her, this approach allows journalists to stay as close to the **truth** as possible.

- निरुपमा सुब्रमण्यम का मानना है कि **भारतीय मीडिया संस्थानों** ने **सैन्य संघर्षों** के दौरान रिपोर्टिंग के लिए कोई **विशिष्ट दिशानिर्देश** नहीं बनाए हैं, जबकि स्वतंत्र भारत ने **पाकिस्तान और चीन** के साथ कई युद्धों और **नक्सली विद्रोह**, **अलगाववादी आंदोलन**, और **कश्मीर में उग्रवाद** जैसे **आंतरिक संघर्षों** का अनुभव किया है। इसके बजाय, केवल **पत्रकारिता के बुनियादी नियमों** को मार्गदर्शक माना जाता है — जैसे **सटीक जानकारी देना**, **सरकार और विरोधी दोनों से जानकारी की पुष्टि करना**, और **गलत जानकारी से बचना**। उनके अनुसार, यही तरीका पत्रकारों को **सत्य के करीब** ले जाता है।

- She clarifies that being **objective** does not mean being **neutral**. A journalist can **take sides**, but must remain committed to **truth and facts**. However, during a conflict, especially when it involves the **Indian state versus its own citizens** — such as in **Kashmir**, the **northeast**, or **Maoist areas** — these standards are often the first to be discarded. Media then becomes a vehicle to **boost national morale**, and the commitment to informing the public truthfully is abandoned in favour of **government narratives**. This tendency can blur the line between **loyalty to the nation** and **loyalty to those in power**.

- वह स्पष्ट करती हैं कि **निष्पक्षता** का मतलब **तटस्थता** नहीं है। एक पत्रकार **पक्ष ले सकता है**, लेकिन उसे **सत्य और तथ्यों के प्रति प्रतिबद्ध** रहना चाहिए। हालांकि संघर्ष के दौरान, खासकर जब मामला **भारतीय राज्य और अपने नागरिकों** के बीच हो — जैसे **कश्मीर**, **पूर्वोत्तर**, या **नक्सल प्रभावित क्षेत्र**, तब ये मानदंड सबसे पहले टूटते हैं। मीडिया तब केवल **राष्ट्रीय मनोबल** को बढ़ाने का साधन बन जाती है, और जनता को **सत्य रूप से सूचित करने की प्रतिबद्धता** को **सरकारी दृष्टिकोण** के पक्ष में त्याग दिया जाता है। यह प्रवृत्ति **राष्ट्र के प्रति निष्ठा** और **सत्ता में बैठे लोगों के प्रति निष्ठा** के बीच की रेखा को धुंधला कर देती है।

Propaganda and Narrative-building on Social Media
सोशल मीडिया पर प्रचार और कथानक निर्माण

- Pratik Sinha explains that most **misinformation** is no longer accidental — it is **strategically planned** across **multiple layers**, depending on who needs to control the **narrative**. During **Operation Sindoor**, as early as day one, **videos from Pakistan** emerged showing **injured people** and **damaged buildings**. This stood in stark contrast to the **2019 Balakot airstrikes**, when **no visual evidence** of the damage was shared despite loud claims from India.

- प्रतीक सिन्हा बताते हैं कि अब अधिकतर **गलत जानकारी** संयोगवश नहीं होती — यह **सुनियोजित रूप से** और **कई स्तरों पर** फैलाई जाती है, इस पर निर्भर करता है कि **कथानक को नियंत्रित** करने की ज़रूरत किसे है। **ऑपरेशन सिंदूर** के पहले ही दिन, **पाकिस्तान से वीडियो** सामने आए जिनमें **घायल लोग** और **नष्ट इमारतें** दिखाई गईं। यह **2019 के बालाकोट हवाई हमलों** के बिल्कुल विपरीत था, जब भारत की ओर से बड़े दावे किए गए थे लेकिन **कोई दृश्य प्रमाण** नहीं दिखाया गया था।

- This time, **Pakistan** acted swiftly to shape the **narrative**. By the second day, **mainstream Indian news channels** began reporting that **Karachi port** had been attacked and **Indian forces** had reached **Islamabad**. This was followed by **social media amplification**, with users claiming deep strikes into **Karachi**. By day three, **Indian social media** and parts of the **mainstream press** were flooded with **misinformation**.

- इस बार **पाकिस्तान** ने तेजी से प्रतिक्रिया देकर **कथानक** को आकार देना शुरू किया। दूसरे दिन तक, **भारतीय मुख्यधारा मीडिया** ने रिपोर्ट करना शुरू कर दिया कि **कराची पोर्ट** पर हमला हुआ है और **भारतीय सेना इस्लामाबाद** तक पहुंच गई है। इसके बाद, **सोशल मीडिया** पर यह प्रचार और बढ़ा, जिसमें उपयोगकर्ताओं ने **कराची में गहराई तक हमले** का दावा किया। तीसरे दिन तक, **भारतीय सोशल मीडिया** और **कुछ मुख्यधारा मीडिया** में **गलत जानकारी** की बाढ़ आ गई थी।

- Sinha notes that such **war propaganda** is rarely meant for the **enemy nation**. Instead, it is primarily directed at the **domestic audience**, to generate **support**, **nationalistic fervour**, and **public morale**.

- सिन्हा यह भी बताते हैं कि ऐसा **युद्ध प्रचार** शायद ही कभी **दुश्मन देश** के लिए होता है। इसके बजाय, यह मुख्य रूप से **अपने देश की जनता** के लिए होता है ताकि **समर्थन**, **राष्ट्रवादी भावना**, और **जन मनोबल** उत्पन्न किया जा सके।

Pressures on Journalists During Wartime Reporting
युद्धकालीन रिपोर्टिंग के दौरान पत्रकारों पर दबाव

- TV channels often dramatize war instead of presenting its realities. This should be the **best time for journalism**, but ironically it has become the **worst**.
  टीवी चैनल अक्सर युद्ध को नाटकीय रूप में दिखाते हैं, जबकि इसकी वास्तविकता नहीं दिखाते। यह

Address : 3rd Floor, KV Tower, Padleyganj Road, Gorakhpur
Email Id : info@patrioticias.in
Contact Number : 9971932488
Website : patrioticias.in

पत्रकारिता के लिए **सबसे अच्छा समय** होना चाहिए, लेकिन विडंबना है कि यह **सबसे बुरा समय** बन गया है।

- Certain media houses have discovered that **demonising Islam and Muslims** boosts their **TRPs**, making conflict with **Pakistan** appear like **entertainment**.

   कुछ मीडिया चैनलों ने यह समझ लिया है कि **इस्लाम और मुसलमानों को बदनाम करना** उनके **टीआरपी** को बढ़ाता है, जिससे **पाकिस्तान** के साथ संघर्ष को **मनोरंजन** की तरह दिखाया जाता है।

- There was no explanation on TV about what a **nuclear conflict** means, the concept of **deterrence**, **escalation**, or the **cost of war**.

   टीवी पर यह नहीं बताया गया कि **परमाणु युद्ध** क्या होता है, **डिटरेंस**, **एस्केलेशन**, या **युद्ध की लागत** क्या होती है।

- People were made to feel the war didn't **affect** them, making it easier to treat it as a spectacle.

   लोगों को यह महसूस कराया गया कि युद्ध का उन पर कोई **प्रभाव** नहीं पड़ता, जिससे इसे तमाशे की तरह दिखाना आसान हो गया।

- **External pressures** are growing, where the **government** punishes media through **cases**, **shutdowns**, **online blocks**, and threats to **ad revenue**.

   बाहरी दबाव बढ़ रहे हैं, जहां **सरकार** मीडिया पर **मुकदमे**, **बंद**, **ऑनलाइन ब्लॉक** और **विज्ञापन राजस्व** के नुकसान की धमकी के जरिए दबाव डालती है।

- Journalists are discouraged from reporting on the **other side** (like Pakistan), even though understanding the **adversary** is crucial.

   पत्रकारों को **दूसरी तरफ** (जैसे पाकिस्तान) की रिपोर्टिंग करने से हतोत्साहित किया जाता है, जबकि **विरोधी** को समझना आवश्यक है।

- Even **maintaining contact** with people in Pakistan is seen as problematic and carries **consequences**.

   पाकिस्तान के लोगों से **संपर्क बनाए रखना** भी समस्याग्रस्त माना जाता है और इसके **परिणाम** भुगतने पड़ सकते हैं।

- In conflicts with **China**, like during the **Doklam crisis** and **Ladakh 2020**, media was much more **restrained** compared to its aggressive tone towards **Pakistan**.

   चीन के साथ संघर्षों जैसे **डोकलाम संकट** और **लद्दाख 2020** के दौरान, मीडिया बहुत **संयमित** था, जबकि **पाकिस्तान** को लेकर उसका रवैया आक्रामक रहा।

The Media's Normative Role and Public's Perception
मीडिया की आदर्श भूमिका और जनता की धारणा

- There's public and governmental expectation that during wars, journalists should **not question the government**, but instead **support the war effort**.

   सरकार और जनता की यह अपेक्षा होती है कि युद्ध के समय पत्रकार **सरकार से सवाल न पूछें**, बल्कि **युद्ध प्रयासों** का समर्थन करें।

- Even **citizens** resist questioning the government, believing it may affect **troop morale**.

  यहां तक कि **नागरिक** भी सरकार से सवाल पूछने का विरोध करते हैं, क्योंकि इससे **सैनिकों का मनोबल** प्रभावित हो सकता है।

- But the government still does not provide full information on **losses**, like during the **2020 China incursions**.

  लेकिन सरकार अब तक **नुकसानों** की पूरी जानकारी नहीं देती, जैसे **2020 में चीन की घुसपैठ** के दौरान हुआ।

- The reason is that revealing the truth would invite **questions**, create **accountability**, and possibly affect **politics**.

  इसका कारण यह है कि सच बताने से **सवाल** उठेंगे, **जवाबदेही** बनेगी, और **राजनीति** पर असर पड़ेगा।

Information Suppression and Blocking of Voices
सूचना का दमन और आवाज़ों को ब्लॉक करना

- During **Operation Sindoor**, platform X said it had received orders to **block 8,000 accounts** in India, including media and prominent users.

  ऑपरेशन सिंदूर के दौरान, प्लेटफॉर्म X ने कहा कि उसे भारत में **8,000 खातों को ब्लॉक** करने का आदेश मिला, जिनमें मीडिया और प्रमुख यूज़र्स शामिल थे।

- **Differing viewpoints** are suppressed under the guise of **nationalism**, and **critics** are labeled as **anti-national**.

  विभिन्न दृष्टिकोणों को **राष्ट्रवाद** के नाम पर दबा दिया जाता है, और **आलोचकों** को **देशद्रोही** कहा जाता है।

- The **entire media ecosystem**, including **social media and YouTube**, is in **crisis**.

  पूरी मीडिया व्यवस्था, जिसमें **सोशल मीडिया और यूट्यूब** शामिल हैं, **संकट** में है।

- The **trolling** of the **Foreign Secretary** during this period reflects societal decline.

  इस दौरान **विदेश सचिव** का **ट्रोल** किया जाना हमारे समाज की गिरावट को दर्शाता है।

- There is no **access to well-rounded information**, making it difficult for the public to understand **complex issues**.

  संतुलित जानकारी की कमी के कारण, आम जनता के लिए **जटिल मुद्दों** को समझना मुश्किल हो गया है।

- Even by blocking people on X, **complete news blackout** is not possible.

  यह मानना गलत है कि X पर लोगों को ब्लॉक करके **पूरी खबरों** को रोका जा सकता है।

- The **fact of India's losses** was reported globally, beyond the government's control.

  भारत की क्षति की जानकारी **दुनिया भर के प्रतिष्ठित मीडिया** में प्रकाशित हुई, जिसे सरकार **नियंत्रित** नहीं कर सकी।

GS Paper III: Economy, S&T, Environment, DM, IS)

1. **New drugs arrive on the block, but AMR threats continue**

   नई दवाएं आई हैं, लेकिन एएमआर का खतरा बना हुआ है

2. **Tariff wars and a reshaping of AI's global landscape**

   टैरिफ युद्ध और एआई के वैश्विक परिदृश्य का पुनर्निर्माण

3. **ED crossed all limits with raid on T.N. govt. body: SC**

   तमिलनाडु की सरकारी संस्था पर छापे को लेकर ईडी ने सारी सीमाएं पार कीं: सुप्रीम कोर्ट

4. **Why India Needs Stable Urban Forests**

   भारत को स्थायी शहरी वनों की आवश्यकता क्यों है

5. **Net FDI slumps 96% in FY25 to $353 mn, gross FDI robust**

   वित्तीय वर्ष 2024-25 में शुद्ध FDI में 96% की गिरावट, सकल FDI मजबूत

New drugs arrive on the block, but AMR threats continue

While the launch of Nafithromycin — the first antibiotic to be developed in the past 30 years globally — is a welcome step, experts warn that addressing antimicrobial resistance is no longer optional, and tackling it requires a multifaceted approach with a shared sense of responsibility

GS Paper III: S&T

Soujanya Padikkal

In 2020, 58-year-old Viswanathan, recovering from a stroke, sought physiotherapy from an Ayurvedic practitioner, hoping to regain mobility. However, this treatment caused wounds on his leg. As a diabetic with an already weakened immune system this marked the beginning of his battle with antimicrobial resistance (AMR).

After a year of battling infections, he was given a last-resort antibiotic that damaged his kidneys. Hospital-acquired infections further complicated his condition, and ultimately, he died in April, 2021.

Antibiotics, known to save millions of lives, are now making headlines for the opposite reason. AMR occurs when microorganisms like bacteria evolve to develop resistance against the very drugs designed to kill them. AMR contributed to 1.27 million deaths globally and in India caused 2,97,000 deaths in 2019 based on a report by the Institute of Health Metrics and Evaluation (IHME), University of Washington. The public health impact of bacterial AMR has been significant. According to a study published in *The Lancet*, 1.91 million people could die directly from AMR and 8.22 million deaths associated with AMR could occur globally in 2050.

A leading cause for AMR is the misuse and overuse of antibiotics across various sectors. While only about 30% of all antibiotics are used to treat humans, the majority are used in livestock, agriculture and aquaculture. In countries like India, selling antibiotics without prescription also contributes on a large scale to resistance. The recent ban on using colistin as a growth promoter in the poultry industry in India has made significant inroads in curbing resistant strains from emerging.

The World Health Organization (WHO) has declared AMR as one of the top 10 global health threats.

A new antibiotic after 30 years

In its effort to tackle AMR, Mumbai-based pharmaceutical company Wockhardt, with support from the Biotechnology Industry Research Assistance Council (BIRAC) has launched Nafithromycin marketed as 'Miqnaf' to treat Community-Acquired Bacterial Pneumonia (CABP). It is a once-a-day, three-day treatment for CABP with a 97% success rate. It is India's first indigenously-developed antibiotic in its class. It was also the first antibiotic to be developed in the last 30 years, globally.

"Nafithromycin is a part of our overall drug discovery programme which we started about 25 years ago," said Habil Khorakiwala, founder-chairman, Wockhardt. "[While] Azithromycin and other drugs were there, there was no new drug coming [up] and resistance was developing on [the other] end,"he added. The drug was developed over a span of 15 years.

With slow progress in research, no new drugs have been developed in the past three decades globally. "After the initial boom and the "golden age" of antibiotics (from 1940 to 1960), the field was marked by a sharp decline in new antibiotic approvals for decades," said Tomislav Mestrovic, affiliate associate professor of Health Metrics Sciences, at IHME, responding to questions via mail.

It is no wonder then that with the development of Nafithromycin, India has reached a milestone given it has the highest burden of bacterial infections.

Gaps in healthcare system

While scientific advancements like Nafithromycin are promising, it is also important for us to recognise the gaps within India's healthcare system that prevent effective treatment against AMR.

Vysakh, Mr. Viswanathan's son, a PhD scholar in Poland, said a communication gap exists between medical professionals and the patient's family members. A lapse he believes the medical community also needs to address is the quality of equipment being used. "Another pitfall that happens is diagnostic issues," he pointed out. "It took at least one week to get a proper antibiogram delivered and to figure out [which] bacteria is causing infection and to [administer] the specific antibiotic. So this was a big problem". He also added that there was an issue of accountability within the system.

Vysakh's family's plight is unfortunately a common scenario across the healthcare system. "Understaffing of healthcare professionals combined with high patient loads makes it difficult to ensure adherence to best stewardship practices," said Dr. Mestrovic, while speaking about the key challenges India faces in implementing effective antimicrobial stewardship across its healthcare network.

Apart from these issues, India also faces the added challenge of self-medication by people, selling of antibiotics without prescriptions and lack of a proper regulatory framework. "[In] a lot of low-to-middle income countries you can go to a pharmacy and they will give you an antibiotic without any prescription," said François Franceschi, head of asset evaluation and development and serious bacterial infections project leader, Global Antibiotic Research & Development Partnership (GARDP), as he recalled his experience at a pharmacy in Mumbai.

Despite antibiotics being prescription drugs in India they are sold over-the-counter, contributing significantly to the resistance problem. "Part of the action plans that [are] trying to be implemented in many countries is [to] stop letting people buy antibiotics without prescription. That's a big step and that should happen because otherwise, you know, you are fighting a battle that you're going to lose,"said Dr. Franceschi.

Government action

The Indian government is working on multiple fronts to combat AMR including establishing AMR surveillance networks, developing a National Action Plan and promoting public awareness. "The implementation of the National Action Plan on AMR in 2017 marked a key milestone in aligning the country's efforts with the global strategy, and this is the right path forward," said Dr. Mestrovic.

Promoting public awareness is a key aspect that needs to be addressed from the very beginning. It is not uncommon to see people take antibiotics for a viral fever which is not only ineffective but adds to resistance. "Public awareness about AMR remains low, leading to patient demand for antibiotics even when not needed which is not characteristic only for India, but much wider," said Dr.

Despite antibiotics being prescription drugs in India they are sold over-the-counter, contributing significantly to the resistance problem

Mestrovic. The pressing need to educate people about the dangers of inappropriately using antibiotics resonates with all the experts in the field.

Resistance is a natural phenomenon in microorganisms. But it happens over time, through genetic changes and adaptations. However, the widespread and excessive use of antibiotics across sectors has accelerated the process. It is quite natural to wonder then what the future of the new antibiotics that are being developed looks like. "Long-term effectiveness of new antibiotics depends not only on scientific advancement, but also on responsible global stewardship from day one," said Dr. Mestrovic. "Patient education and public awareness are indispensable in the fight against AMR, especially when we are talking about the misuse and overuse of antibiotics."

Education, innovation and regulation need to progress parallelly to curb AMR. "I think it's very important that governments recognise that we need to do something now or we are going to be facing a problem that is much bigger in the future," said Dr. Franceschi. "We need to be multiple steps ahead of [pathogens]".

Nafithromycin is a start and will be launched in the market for a month in the coming few months. The development of antibiotics is a long and resource-intensive process. "Many large pharmaceutical companies exited the antibiotic space because the return on investment was too low compared to chronic disease drugs leading to what many called the "antibiotic innovation gap," said Dr. Mestrovic.

Institutions like Bangalore Bioinnovation Centre (BBC) and the

Centre for Cellular and Molecular Platforms (C-CAMP) and companies like Wockhardt, Orchid Pharma and Bugworks in India are among the few companies that focus on antibiotic development.

Given the low return on investment, it is mostly small pharma companies taking on the challenge of developing new antibiotics during this crisis. And the path is not easy, especially when it comes to clinical trial approval by the Central Drugs Standard Control Organization (CDSCO). "We expect the regulators and the government as a whole to have a much better appreciation of fundamental drug research and make more enabling policies for us," said Dr. Khorakiwala.

Accessibility and affordability are other important factors in the development of new antibiotics. Wockhardt's strategy is to price its drugs based on the purchasing power of different countries. For example, the price of a drug in India could be up to 80% less than the price in the United States. "Accessibility is as important as finding a new drug", added Dr. Khorakiwala.

For Vysakh, the issue is deeply personal. His story is a reminder of the harsh reality of AMR – a silent threat unnoticed by many. And his experience sheds light on the challenges families face in healthcare facilities in India. "I would really love to see two major changes – diagnostics and proper quality control for the equipment used," he said. He also believes education has to be the first step in this fight against AMR.

Emerging resistance

Infectious diseases experts have also flagged emerging resistance to newer drug formulations too, more recently. Abdul Ghafur, founder, AMR Declaration Trust, in a letter to the Drugs Controller General of India cautioned that misuse of newer molecules is leading to initial signs of resistance as reported by *The Hindu*. Ceftazidime-avibactam – a potent antibiotic, he claimed, is losing efficacy due to extensive, irrational, and uncontrolled use. Experts say that it is more than ever before, important for the government to lead antibiotic stewardship, at this stage, as newer molecules are finally enter the market.

Addressing AMR is no longer optional and tackling it requires a multifaceted approach with a shared sense of responsibility to make a difference. "Combating AMR is not just a scientific or medical challenge, it is a collective responsibility that requires coordinated action across sectors, as well as sustained investment and empowered communities," said Dr. Mestrovic. "We have the right tools, knowledge and innovation to make a difference, but success depends on translating awareness into action at every level – from policymakers and researchers to the medical community and the public."

(Soujanya Padikkal is a freelance content provider based in Hyderabad souji_padikkal@yahoo.co.in)

The Indian picture

The public health impact of antimicrobial resistance has been significant and it has reportedly caused

2,97,000 deaths in India in 2019

What is the National Programme on AMR?

1. The National Programme on AMR containment was initiated in 2013

2. It is being coordinated by the National Centre for Disease Control

3. As of March 2024, 50 medical colleges/laboratories in 27 States and 6 UTs were involved in AMR surveillance

The NARS-Net sentinel sites conduct laboratory-based AMR surveillance of nine priority bacterial pathogens:

1. Staphylococcus aureus | 2. Enterococcus species | 3. Escherichia coli | 4. Klebsiella species | 5. Pseudomonas species | 6. Acinetobacter species | 7. Salmonella enterica serotype Typhi and Paratyphi 8. Shigella species | 9. Vibrio cholerae

In-patient Department | Outpatient Department | Emergency Department

Where is AMR taking place in India?

In 2023 data, a majority of isolates were from patients admitted in hospital wards whereas the least number of isolates belonged to patients from the emergency department. Almost a third of the isolates were from people visiting outpatient clinics. About 12% of the priority pathogens were from ICUs

AMR in hospitals: 31%, 3%, 53%

SOURCE: ANNUAL REPORT OF NATIONAL ANTIMICROBIAL SURVEILLANCE NETWORK (NARS-NET), REPORTING PERIOD: JANUARY – DECEMBER 2023

नई दवाएं आई हैं, लेकिन एएमआर का खतरा बना हुआ है

The launch of Nafithromycin, the first antibiotic to be developed globally in the past 30 years, is seen as a welcome step.

पिछले 30 वर्षों में वैश्विक स्तर पर विकसित की गई पहली एंटीबायोटिक दवा नफिथ्रोमाइसिन का लॉन्च एक स्वागत योग्य कदम माना जा रहा है।

- However, experts warn that **addressing Antimicrobial Resistance (AMR)** is no longer optional and requires a **multifaceted** and **responsible** approach.
  हालांकि विशेषज्ञों का कहना है कि **एंटीमाइक्रोबियल रेजिस्टेंस (एएमआर)** से निपटना अब विकल्प नहीं रह गया है और इसके लिए **बहुआयामी** और **जिम्मेदाराना** दृष्टिकोण की आवश्यकता है।

A personal case of AMR
एएमआर का एक व्यक्तिगत मामला

- In **2020**, 58-year-old Viswanathan, after a stroke, sought Ayurvedic physiotherapy which caused leg wounds.
  2020 में, 58 वर्षीय विश्वनाथन ने स्ट्रोक के बाद आयुर्वेदिक फिजियोथेरेपी ली, जिससे उनके पैर में घाव हो गए।
- Being diabetic and immunocompromised, he developed **AMR infections**.
  मधुमेह और कमजोर प्रतिरक्षा प्रणाली के कारण उन्हें **एएमआर संक्रमण** हो गया।
- After a year of infections, a **last-resort antibiotic** damaged his kidneys.
  एक वर्ष तक संक्रमण से जूझने के बाद, उन्हें दी गई **अंतिम विकल्प वाली एंटीबायोटिक** ने उनकी **किडनी को नुकसान** पहुंचाया।
- He died in **April 2021** due to complications from hospital-acquired infections.
  अप्रैल 2021 में **अस्पताल में हुए संक्रमण** के कारण उनकी मृत्यु हो गई।

The rising impact of AMR
एएमआर का बढ़ता प्रभाव

- Antibiotics that once saved lives are now failing due to **microbial resistance**.
  एक समय जीवन बचाने वाली **एंटीबायोटिक दवाएं** अब **सूक्ष्मजीवों की प्रतिरोधक क्षमता** के कारण असफल हो रही हैं।
- In **2019**, AMR contributed to **1.27 million deaths globally** and **2,97,000 deaths in India**, as per **IHME**.
  2019 में **आईएचएमई** के अनुसार, एएमआर के कारण **दुनियाभर में 12.7 लाख** और **भारत में 2,97,000** मौतें हुईं।

- By **2050**, AMR could cause **1.91 million direct deaths** and **8.22 million associated deaths** annually.

  2050 तक, एएमआर के कारण **19.1 लाख प्रत्यक्ष मौतें** और **82.2 लाख संबंधित मौतें** हो सकती हैं।

Causes behind AMR
एएमआर के कारण

- A major cause is the **misuse and overuse** of antibiotics in **livestock, agriculture, and aquaculture**.

  एक मुख्य कारण **एंटीबायोटिक्स का दुरुपयोग और अधिक उपयोग** है, विशेषकर **पशुपालन, कृषि और मत्स्य पालन** में।

- Only **30%** of antibiotics are used for human treatment.

  केवल **30% एंटीबायोटिक** ही मनुष्यों के इलाज के लिए उपयोग होती हैं।

- In India, **over-the-counter sales** without prescription contribute heavily to resistance.

  भारत में **बिना पर्ची के बिकने वाली दवाएं** प्रतिरोध को बढ़ावा देती हैं।

- A recent **ban on colistin** in poultry has helped curb resistant strains.

  हाल ही में मुर्गी पालन में **कोलिस्टिन के उपयोग पर प्रतिबंध** से प्रतिरोधी बैक्टीरिया को रोकने में मदद मिली है।

- **WHO** has listed **AMR among top 10 global health threats**.

  डब्ल्यूएचओ ने एएमआर को **शीर्ष 10 वैश्विक स्वास्थ्य खतरों** में शामिल किया है।

Launch of Nafithromycin: A milestone
नफिथ्रोमाइसिन का लॉन्च: एक उपलब्धि

- Mumbai-based **Wockhardt**, supported by **BIRAC**, launched **Nafithromycin** as 'Miqnaf' to treat **Community-Acquired Bacterial Pneumonia (CABP)**.

  मुंबई की **वॉकहार्ट कंपनी** ने **बिरैक** के सहयोग से **नफिथ्रोमाइसिन** को '**मिकनाफ**' नाम से **सीएबीपी** के इलाज के लिए लॉन्च किया।

- It is a **once-a-day**, **three-day** treatment with a **97% success rate**.

  यह **एक दिन में एक बार**, तीन दिन का उपचार है, जिसकी **सफलता दर 97%** है।

- This is **India's first indigenously-developed antibiotic** in its class and **the first globally in 30 years**.

  यह **भारत में इस श्रेणी की पहली स्वदेशी रूप से विकसित एंटीबायोटिक** है और **30 वर्षों में वैश्विक स्तर पर पहली** है।

- The drug took **15 years** to develop.

  इस दवा को विकसित करने में **15 वर्ष** लगे।

Challenges in healthcare system
स्वास्थ्य प्रणाली में चुनौतियां

- Despite breakthroughs like Nafithromycin, **gaps in India's healthcare** hinder effective AMR treatment.

  नफिथ्रोमाइसिन जैसी सफलताओं के बावजूद, भारत की **स्वास्थ्य प्रणाली की खामियां** एएमआर के प्रभावी उपचार में बाधा बनती हैं।

- Vysakh, Viswanathan's son, pointed out **communication gaps**, **poor equipment**, and **delays in diagnosis**.

  विश्वनाथन के बेटे **व्यासाख** ने **संचार की कमी**, **खराब उपकरण**, और **निदान में देरी** की समस्याएं बताईं।

- It took **a week** to receive a proper **antibiogram** to identify the bacteria and prescribe the correct antibiotic.

  बैक्टीरिया की पहचान और **सटीक दवा निर्धारित करने** के लिए एक **सप्ताह** लगा।

- He also mentioned a **lack of accountability** within the system.

  उन्होंने **प्रणाली में जवाबदेही की कमी** की भी बात की।

Additional challenges in India
भारत में अतिरिक्त चुनौतियां

- Dr. Mestrovic highlighted that **high patient loads** and **insufficient training** prevent adherence to best practices.

  डॉ. मेस्ट्रोविक ने बताया कि **अत्यधिक रोगियों की संख्या** और **प्रशिक्षण की कमी** के कारण सर्वोत्तम अभ्यासों का पालन कठिन होता है।

- Problems also include **self-medication**, **sale of antibiotics without prescription**, and **weak regulation**.

  समस्याओं में **स्व-चिकित्सा**, **बिना पर्ची के दवाओं की बिक्री**, और **कमजोर नियमन** शामिल हैं।

- François Franceschi from **GARDP** shared that in many **low-to-middle income countries**, people can get antibiotics from pharmacies **without prescription**.

  गार्डपी के फ्रांकोइस फ्रांसेस्की ने कहा कि **निम्न और मध्यम आय वाले देशों** में लोग **बिना पर्ची के** फार्मेसी से एंटीबायोटिक ले सकते हैं।

- This contributes significantly to **antibiotic resistance**.

  यह **एंटीबायोटिक प्रतिरोध** में भारी योगदान देता है।

- He emphasized that stopping over-the-counter sales is a **critical step** in fighting AMR.

  उन्होंने **बिना पर्ची के बिक्री रोकना** एएमआर से लड़ने में एक **महत्वपूर्ण कदम** बताया।

Government Action to Combat AMR
एएमआर से निपटने के लिए सरकारी कार्रवाई

- The Indian government is working on **multiple fronts** to tackle **Antimicrobial Resistance (AMR)**, including building **surveillance networks**, developing a **National Action Plan**, and promoting **public awareness**.

  भारत सरकार **एंटीमाइक्रोबियल रेसिस्टेंस (AMR)** से निपटने के लिए **कई मोर्चों** पर काम कर रही है, जिसमें **निगरानी नेटवर्क** बनाना, **राष्ट्रीय कार्य योजना** विकसित करना और **जन जागरूकता** को बढ़ावा देना शामिल है।

- The **implementation** of the **National Action Plan on AMR** in **2017** was a **milestone** in aligning India's efforts with global strategies.

  2017 में **एमआर पर राष्ट्रीय कार्य योजना** का **कार्यान्वयन** भारत के प्रयासों को वैश्विक रणनीति से जोड़ने में एक **महत्वपूर्ण उपलब्धि** था।

- Promoting **public awareness** is crucial from the beginning because misuse of antibiotics for **viral infections** is common and contributes to resistance.

  जन जागरूकता को शुरू से बढ़ावा देना आवश्यक है क्योंकि **वायरल संक्रमणों** के लिए एंटीबायोटिक्स का गलत उपयोग आम है और इससे **प्रतिरोध** बढ़ता है।

- Public awareness about **AMR** is still **low**, causing **patient demand** for antibiotics even when they're unnecessary — a trend seen globally, not just in India.

  एमआर के बारे में **जन जागरूकता** अभी भी **कम** है, जिससे मरीजों द्वारा एंटीबायोटिक्स की **अनावश्यक मांग** होती है — यह केवल भारत नहीं बल्कि **दुनिया भर में** देखा गया रुझान है।

- Resistance develops **naturally** in microbes over time through **genetic adaptations**, but the **excessive use** of antibiotics has **accelerated** the process.

  सूक्ष्मजीवों में प्रतिरोध समय के साथ **आनुवंशिक अनुकूलन** के माध्यम से **स्वाभाविक रूप से** विकसित होता है, लेकिन एंटीबायोटिक्स के **अत्यधिक उपयोग** ने इस प्रक्रिया को **तेज़** कर दिया है।

- The **effectiveness** of new antibiotics in the long term depends on **scientific advancement** and **responsible global stewardship**.

  नई एंटीबायोटिक्स की दीर्घकालिक **प्रभावशीलता वैज्ञानिक प्रगति** और **जिम्मेदार वैश्विक प्रबंधन** पर निर्भर करती है।

- **Patient education** and **public awareness** are **essential** to fight AMR, especially regarding the **misuse and overuse** of antibiotics.

  मरीजों की शिक्षा और **जन जागरूकता** एएमआर से लड़ने के लिए **अनिवार्य** हैं, विशेष रूप से एंटीबायोटिक्स के **गलत और अत्यधिक उपयोग** के संबंध में।

Need for Education, Innovation, and Regulation
शिक्षा, नवाचार और विनियमन की आवश्यकता

- **Education**, **innovation**, and **regulation** must progress **together** to control AMR.

  एएमआर को नियंत्रित करने के लिए **शिक्षा**, **नवाचार** और **विनियमन** को **साथ-साथ** बढ़ाना होगा।

- Governments need to **act now** or face a much **bigger problem** in the future.

  सरकारों को **अब कार्रवाई** करनी चाहिए वरना भविष्य में यह **बहुत बड़ी समस्या** बन जाएगी।

- **Naftomycin**, a new antibiotic, will be **launched** in the market in the **coming few months**.

  नेफ्टोमाइसिन, एक नई एंटीबायोटिक, अगले **कुछ महीनों** में बाजार में **लॉन्च** की जाएगी।

Challenges in Antibiotic Development
एंटीबायोटिक विकास में चुनौतियाँ

- Developing antibiotics is a **long and resource-intensive** process.

  एंटीबायोटिक्स का विकास एक **लंबी और संसाधन-सघन** प्रक्रिया है।

- Many **big pharma companies** left the antibiotic sector due to **low returns** compared to drugs for **chronic diseases**.

  कई **बड़ी फार्मा कंपनियों** ने **दीर्घकालिक बीमारियों** की दवाओं की तुलना में **कम मुनाफे** के कारण एंटीबायोटिक क्षेत्र छोड़ दिया।

- This has led to the so-called **"antibiotic innovation gap"**.

  इससे **"एंटीबायोटिक नवाचार अंतराल"** की स्थिति उत्पन्न हुई है।

- In India, institutions like **Bangalore Bioinnovation Centre (BBC)**, **C-CAMP**, and companies like **Wockhardt**, **Orchid Pharma**, and **Bugworks** are focusing on **antibiotic development**.

  भारत में **बैंगलोर बायोइनोवेशन सेंटर (BBC)**, **सी-कैम्प**, और **वॉकहार्ट**, **ऑर्किड फार्मा**, **बगवर्क्स** जैसी कंपनियाँ **एंटीबायोटिक विकास** पर ध्यान दे रही हैं।

- **Small pharmaceutical companies** are now leading the way, but **clinical trial approvals** from **CDSCO** are still a challenge.

  अब **छोटी फार्मा कंपनियाँ** इस क्षेत्र में आगे बढ़ रही हैं, लेकिन **सीडीएससीओ** से **क्लीनिकल ट्रायल की मंज़ूरी** अब भी एक चुनौती है।

- There's a demand for the government to **support basic drug research** and implement **enabling policies**.

  सरकार से **मूल दवा अनुसंधान** को समर्थन देने और **सहायक नीतियाँ** लागू करने की माँग की जा रही है।

Accessibility and Affordability
सुलभता और वहनयोग्यता

- **Accessibility** and **affordability** are key to successful antibiotic development.

  सुलभता और **वहनयोग्यता** एंटीबायोटिक विकास की सफलता के लिए आवश्यक हैं।

- **Wockhardt** uses a pricing strategy based on the **purchasing power** of different countries.

  वॉकहार्ट विभिन्न देशों की **क्रय शक्ति** के आधार पर मूल्य निर्धारण की रणनीति अपनाती है।

- For instance, a drug in **India** may cost up to **80% less** than in the **United States**.

  उदाहरण के लिए, भारत में एक दवा की कीमत **संयुक्त राज्य अमेरिका** की तुलना में **80% तक कम** हो सकती है।

- "**Accessibility** is as important as **finding a new drug**," said **Dr. Khorakiwala**.
  "**नई दवा खोजने** जितनी ही **सुलभता** भी महत्वपूर्ण है," **डॉ. खोराक़ीवाला** ने कहा।

A Personal Story and Diagnostic Challenges
एक व्यक्तिगत अनुभव और डायग्नोस्टिक चुनौतियाँ

- For **Vysakh**, AMR is a **personal issue**, highlighting the **difficulties** families face in Indian healthcare.
  व्यासाख के लिए, एएमआर एक **व्यक्तिगत मुद्दा** है, जो भारत की स्वास्थ्य सेवाओं में **परिवारों की कठिनाइयों** को उजागर करता है।
- He stressed the need for **diagnostics** and proper **quality control** for medical equipment.
  उन्होंने **नैदानिक परीक्षणों** और **उपकरणों की गुणवत्ता नियंत्रण** की आवश्यकता पर जोर दिया।
- **Education**, he believes, should be the **first step** in fighting AMR.
  उनका मानना है कि **शिक्षा** एएमआर से लड़ाई में **पहला कदम** होनी चाहिए।

Emerging Resistance and Policy Concerns
उभरता प्रतिरोध और नीतिगत चिंताएँ

- Experts are noticing **emerging resistance** even to **new drug formulations**.
  विशेषज्ञ देख रहे हैं कि **नई दवा संरचनाओं** में भी **प्रतिरोध उभर रहा है**।
- **Abdul Ghafur**, founder of **AMR Declaration Trust**, has warned the **Drugs Controller General of India** about **misuse** of newer antibiotics.
  एएमआर डिक्लेरेशन ट्रस्ट के संस्थापक **अब्दुल ग़फूर** ने भारत के **ड्रग कंट्रोलर जनरल** को **नई एंटीबायोटिक्स के दुरुपयोग** के बारे में चेतावनी दी है।
- **Ceftazidime-avibactam**, a **powerful antibiotic**, is already **losing efficacy** due to **irrational use**.
  सेफ्टाजिडाइम-एविबैक्टम, एक **शक्तिशाली एंटीबायोटिक**, पहले ही **अनियंत्रित उपयोग** के कारण **प्रभावशीलता खो रही है**।
- Government-led **antibiotic stewardship** is now more critical than ever.
  सरकार द्वारा संचालित **एंटीबायोटिक प्रबंधन** अब पहले से कहीं अधिक **महत्वपूर्ण** है।

Call for Coordinated Action
समन्वित कार्रवाई की आवश्यकता

- Addressing AMR is **not optional**; it needs a **multi-sectoral approach** and **shared responsibility**.
  एएमआर से निपटना अब **विकल्प नहीं** है; इसके लिए **बहु-क्षेत्रीय दृष्टिकोण** और **साझा जिम्मेदारी** की आवश्यकता है।

- "Combating AMR is not just a **scientific or medical** issue but requires **coordinated action**, **investment**, and **community empowerment**," said **Dr. Mestrovic**.

  "**एएमआर से लड़ना** केवल **वैज्ञानिक या चिकित्सकीय** चुनौती नहीं है बल्कि इसके लिए **समन्वित प्रयास**, **निरंतर निवेश**, और **समुदाय को सशक्त बनाना** जरूरी है," **डॉ. मेस्त्रोविक** ने कहा।

- We have the **tools**, **knowledge**, and **innovation**, but the key lies in **translating awareness into action**.

  हमारे पास **उपकरण**, **ज्ञान**, और **नवाचार** हैं, लेकिन सफलता **जागरूकता को कार्रवाई में बदलने** पर निर्भर करती है।

TELEGRAM CHANNEL: https://t.me/patrioticIAS
YOUTUBE CHANNEL: https://www.youtube.com/@PatrioticIAS
CONTACT: 9971932488

Patriotic IAS
IAS/PCSwali Pathshala
www.patroticias.in
9971932488

Tariff wars and a reshaping of *AI's global landscape*

GS Paper III: Economics

In the aftermath of the presidential election in the United States in 2024, renewed implementation of substantial tariffs could lead to a fundamental restructuring of global technology supply chains that power artificial intelligence (AI) development. While established players recalibrate, countries such as India are finding themselves in a precarious, yet potentially advantageous, position – as the "third option" in the technological rivalry between the U.S. and China.

The tariffs have raised the costs of imported components that are critical to AI infrastructure. In 2024, electronics imports to the U.S. alone were nearly $486 billion, with data processing machine imports costing around $200 billion, sourced largely from tariff-affected countries such as Mexico, Taiwan, China, and Vietnam. These tariffs risk making the U.S. the most expensive place in the world to build AI infrastructure, driving companies to relocate data centre construction abroad, ironically to China.

The first wave of the Trump tariffs, between 2018-20, resulted in a price increase for imported semiconductor components. The current tariff regime has expanded this to as high as 27% on critical AI hardware components in 2025, particularly affecting specialised AI accelerators and advanced logic chips, components that constitute the computational foundation.

Economics behind the scenes

Economic theory suggests such tariff policies should stimulate domestic production through import substitution. Indeed, some reports project that the U.S. will more than triple its domestic semiconductor manufacturing capacity from 2022 to 2032, which is the largest projected growth rate globally. However, classical Ricardian trade theory reminds us that comparative advantage remains operative even under protectionist regimes. The specialised nature of AI hardware production means that it has to deal with dispersed technical capabilities, creating inevitable inefficiencies when global supply chains are artificially segmented.

This protectionist approach often comes at the cost of economic efficiency and innovation. The tariffs disrupt global supply chains, increase production costs, and create uncertainty that discourages investment. Empirical studies show that a one standard deviation increase in tariffs can reduce output growth by 0.4% over five years, and reversing the recent U.S. tariffs could

Arindam Goswami

is a Research Analyst in the High-Tech Geopolitics Programme at The Takshashila Institution, Bengaluru

> There could be an impact on economic efficiency and innovation, but some countries could find themselves in a precarious, yet potentially advantageous, position

have led to a 4% cumulative output gain. In the context of AI – where innovation cycles are rapid and dependent on access to cutting-edge technology and global collaboration – such disruptions can slow technological progress and reduce productivity.

Tariffs may shield domestic firms from competition, reducing their incentive to innovate, and limit access to advanced imported technologies that are necessary for AI advancement. This is consistent with what economists call a "deadweight loss", where the diminished trade volume creates economic inefficiencies that benefit neither producers or consumers.

Rapid expansion in AI chip demand will require massive increases in data centre power capacity, from about 11 GW in 2024 to potentially 68 GW by 2027 and 327 GW by 2030. Failure to meet these infrastructure needs could undermine the U.S.'s competitiveness in AI.

Research demonstrates that access to expensive, advanced computational infrastructure serves as a primary determinant of innovation capacity in AI, leading to a stratification effect. Moreover, tariffs imposed by developed countries can reduce technology transfer rates, temporarily changing innovation incentives, which can in turn, slow down the overall pace of AI innovation. On the other hand, tariffs by developing countries can speed up technology transfer but affect relative wages and innovation differently. This is a complex interplay that can increase global inequalities in AI capabilities.

Where India stands

This could create unexpected opportunities for India, which has positioned itself as a strategic "third option" in the U.S.-China technological competition. Indian IT exports growth rates have been around 3.3% to 5.1% year-over-year in recent years. AI and digital engineering segments are among the fastest-growing areas within India's tech sector. The Indian government has launched significant AI-related programmes, and increased semiconductor design, fabrication and technology investments, with several billion dollars in semiconductor fab proposals and multinational research and development centres such as AMD's $400 million design campus in Bengaluru.

India's comparative advantage lies in lower labour costs and specialised knowledge domains.

India produces approximately 1.5 million engineering graduates annually, with a lot of them showing considerable aptitude for AI development.

India depends heavily on imported hardware components and international collaborations for this. Tariffs and supply chain disruptions that raise costs of AI infrastructure could slow down India's global ambitions in AI. However, India might also benefit indirectly if companies seek alternatives to China for manufacturing and data centre locations.

The economic reshaping catalysed by these tariff policies has accelerated what economists call "capital substitution effects". As hardware costs rise, companies increasingly shift toward optimising existing resources through algorithmic efficiency, model compression techniques and hardware improvements rather than raw computational power. The tariff environment has effectively created these price signals. The cost of using AI models is falling dramatically (by about 40 times a year) due to this. Therefore, while tariffs may increase upfront infrastructure costs, consumer-level AI applications might not see immediate price hikes.

Tariff structures interact with differential regulatory environments uniquely to create novel competitive dynamics. Lenient data protection regulations, broad digital access, and data availability can partially offset hardware cost disadvantages through greater access to training data. Regulatory and economic factors can defy simplistic analysis.

Decentralised AI development

Tariff changes have led to the development of specialised AI hardware that is designed specifically for particular applications rather than general-purpose computation. This "application-specific integrated circuit" (ASIC) approach represents an architectural shift. To optimise data centre infrastructure for AI inference, over 50% of workload accelerators could be custom ASICs by 2028, up from 30% in 2023.

Ironically, policies intended to strengthen domestic technological capabilities could inadvertently accelerate the decentralisation of AI development. Historical analogies suggest that technologies facing market constraints often evolve toward more distributed implementations. The mainframe-to-personal computer transition of the 1980s offers an instructive parallel.

Tariff wars and a reshaping of AI's global landscape
टैरिफ युद्ध और एआई के वैश्विक परिदृश्य का पुनर्निर्माण

In the aftermath of the 2024 U.S. presidential election, major tariffs could lead to a significant restructuring of global technology supply chains that support AI development.

2024 के अमेरिकी राष्ट्रपति चुनाव के बाद, बड़े टैरिफ लागू होने से एआई विकास को समर्थन देने वाली वैश्विक प्रौद्योगिकी आपूर्ति शृंखलाओं में बड़ा पुनर्गठन हो सकता है।

- While traditional powers adjust, countries like **India** find themselves in a **precarious yet advantageous position** — as a "**third option**" in the tech rivalry between the **U.S. and China**.

  जहाँ परंपरागत शक्तियाँ समायोजन कर रही हैं, वहीं **भारत** जैसे देश खुद को एक **संवेदनशील लेकिन संभावित रूप से लाभदायक स्थिति** में पा रहे हैं — **अमेरिका और चीन** के बीच तकनीकी प्रतिस्पर्धा में एक "**तीसरे विकल्प**" के रूप में।

- The new tariffs have increased the cost of importing **critical AI components**.

  नए **टैरिफ** ने **महत्वपूर्ण एआई घटकों** के आयात की लागत बढ़ा दी है।

- In **2024**, the U.S. imported nearly **$486 billion** worth of electronics, including **$200 billion** in data processing machines — largely from **tariff-hit countries** like **Mexico, Taiwan, China, and Vietnam**.

  2024 में, अमेरिका ने लगभग **$486 बिलियन** मूल्य का इलेक्ट्रॉनिक्स आयात किया, जिसमें से **$200 बिलियन डेटा प्रोसेसिंग मशीनों** पर खर्च हुआ — जिनमें से अधिकांश **मेक्सिको, ताइवान, चीन और वियतनाम** जैसे टैरिफ प्रभावित देशों से आए।

- These tariffs risk making the **U.S.** the most **expensive place** in the world to build **AI infrastructure**, prompting companies to shift **data centre** construction — ironically, even to **China**.

  इन टैरिफों से **अमेरिका** में **एआई इंफ्रास्ट्रक्चर** बनाना दुनिया में सबसे **महंगा स्थान** बन सकता है, जिससे कंपनियाँ **डेटा सेंटर** का निर्माण **चीन** जैसे देशों में स्थानांतरित कर सकती हैं।

Expansion of Tariffs and Their Economic Effects
टैरिफ का विस्तार और इसके आर्थिक प्रभाव

- The **Trump-era tariffs (2018–20)** raised prices for **semiconductor components**.

  ट्रंप युग के टैरिफ (2018–20) ने **सेमीकंडक्टर घटकों** की कीमतें बढ़ा दी थीं।

- In **2025**, the new tariff regime has extended up to **27%** on **critical AI hardware**, such as **AI accelerators** and **advanced logic chips**.

  2025 में, नए टैरिफ नियमों के तहत **महत्वपूर्ण एआई हार्डवेयर** पर **27%** तक शुल्क लगाया गया है, जैसे कि **एआई एक्सेलेरेटर** और **एडवांस्ड लॉजिक चिप्स**।

- These components are vital to the **computational foundation** of AI systems.

  ये घटक **एआई प्रणालियों की गणनात्मक नींव** के लिए आवश्यक हैं।

Economic Theories and Efficiency Impacts
आर्थिक सिद्धांत और दक्षता पर प्रभाव

- Tariff policies are meant to **stimulate domestic production** through **import substitution**.

  टैरिफ नीतियाँ **आयात प्रतिस्थापन** के माध्यम से **घरेलू उत्पादन को प्रोत्साहित** करने के लिए बनाई जाती हैं।

- Some reports suggest the **U.S. semiconductor capacity** will **triple** from **2022 to 2032**, the highest projected growth globally.

  कुछ रिपोर्टों के अनुसार, **अमेरिका की सेमीकंडक्टर क्षमता 2022 से 2032** तक **तीन गुना** हो सकती है, जो वैश्विक स्तर पर सबसे अधिक वृद्धि है।

- However, according to **Ricardian trade theory**, **comparative advantage** still applies even in **protectionist** scenarios.

  हालाँकि, **रिकार्डियन व्यापार सिद्धांत** के अनुसार, **तुलनात्मक लाभ संरक्षणवादी** नीतियों में भी लागू होता है।

- Artificially segmenting **global supply chains** can lead to **inefficiencies**.

  वैश्विक आपूर्ति शृंखलाओं को कृत्रिम रूप से विभाजित करना **अप्रभाविता** को जन्म दे सकता है।

Consequences for Innovation and Growth
नवाचार और विकास पर परिणाम

- These tariffs may reduce **economic efficiency**, disrupt **global supply chains**, and raise **production costs**.

  ये टैरिफ **आर्थिक दक्षता** को घटा सकते हैं, **वैश्विक आपूर्ति शृंखलाओं** को बाधित कर सकते हैं, और **उत्पादन लागत** बढ़ा सकते हैं।

- A one standard deviation increase in tariffs could cut **output growth** by **0.4% over five years**.

  टैरिफ में एक मानक विचलन की वृद्धि से **पाँच वर्षों में आउटपुट वृद्धि** में **0.4%** की गिरावट हो सकती है।

- Reversing recent U.S. tariffs might have led to a **4% cumulative output gain**.

  हालिया अमेरिकी टैरिफों को उलटने से **4% संचयी उत्पादन लाभ** हो सकता था।

- In **AI**, where **rapid innovation** and **global collaboration** are crucial, such disruptions slow **technological progress** and reduce **productivity**.

  एआई के क्षेत्र में, जहाँ **तेज़ नवाचार** और **वैश्विक सहयोग** महत्वपूर्ण होते हैं, इस तरह की रुकावटें **तकनीकी प्रगति** को धीमा कर देती हैं और **उत्पादकता** को कम करती हैं।

- Tariffs can shield local firms from **foreign competition**, which may reduce **innovation incentives** and limit access to **advanced technologies**.

  टैरिफ स्थानीय कंपनियों को **विदेशी प्रतिस्पर्धा** से बचा सकते हैं, जिससे **नवाचार के प्रोत्साहन** कम हो सकते हैं और **उन्नत तकनीकों** तक पहुंच सीमित हो सकती है।

- This results in **deadweight loss**, benefiting neither **consumers** nor **producers**.

  इससे **डेडवेट लॉस** होता है, जिससे न तो **उपभोक्ताओं** और न ही **उत्पादकों** को लाभ होता है।

Infrastructure Demands and Global Inequality in AI
इन्फ्रास्ट्रक्चर की मांग और एआई में वैश्विक असमानता

- AI chip demand will drive **data centre power capacity** from **11 GW in 2024** to **68 GW by 2027**, and possibly **327 GW by 2030**.

  एआई चिप की मांग **डेटा सेंटर पावर क्षमता** को **2024** में **11 GW** से **2027** तक **68 GW** और **2030** तक **327 GW** तक बढ़ा सकती है।

- Failing to meet this demand could reduce the **U.S.'s competitiveness in AI**.

  इस मांग को पूरा करने में विफल रहने से **एआई में अमेरिका की प्रतिस्पर्धा** घट सकती है।

- Access to **expensive computational infrastructure** is crucial for **AI innovation**, often creating **stratification** among countries.

  महंगी गणनात्मक संरचना तक पहुंच **एआई नवाचार** के लिए महत्वपूर्ण है, जो अक्सर देशों के बीच **स्तरीकरण** उत्पन्न करती है।

- Tariffs in **developed countries** reduce **technology transfer** and slow **innovation**, while tariffs in **developing countries** may boost **tech transfer** but impact **wages and innovation** differently.

  विकसित देशों में टैरिफ **प्रौद्योगिकी हस्तांतरण** को कम करते हैं और **नवाचार** को धीमा करते हैं, जबकि **विकासशील देशों** में ये **टेक ट्रांसफर** को बढ़ा सकते हैं लेकिन **वेतन और नवाचार** को अलग तरह से प्रभावित करते हैं।

- This complex interplay could increase **global inequality** in **AI capabilities**.

  यह जटिल परस्पर क्रिया **एआई क्षमताओं** में **वैश्विक असमानता** को बढ़ा सकती है।

Where India stands
भारत की स्थिति

- This could create **unexpected opportunities** for India, which has positioned itself as a strategic **"third option"** in the **U.S.-China technological competition**.

  यह भारत के लिए **अप्रत्याशित अवसर** पैदा कर सकता है, जिसने खुद को **अमेरिका-चीन तकनीकी प्रतिस्पर्धा** में एक रणनीतिक **"तीरे विकल्प"** के रूप में स्थापित किया है।

- **Indian IT exports** growth rates have been around **3.3% to 5.1% year-over-year** in recent years.

  हाल के वर्षों में **भारतीय आईटी निर्यात** की वृद्धि दर **3.3% से 5.1% प्रति वर्ष** के बीच रही है।

- **AI** and **digital engineering** segments are among the **fastest-growing areas** within India's tech sector.

  एआई और **डिजिटल इंजीनियरिंग** क्षेत्र भारत के तकनीकी क्षेत्र में सबसे **तेजी से बढ़ते क्षेत्रों** में से हैं।

- The Indian government has launched significant **AI-related programmes**, and increased **semiconductor design**, **fabrication**, and **technology investments**.

  भारतीय सरकार ने कई महत्वपूर्ण **एआई-संबंधी कार्यक्रम** शुरू किए हैं और **सेमीकंडक्टर डिज़ाइन**, **निर्माण**, और **प्रौद्योगिकी निवेश** में वृद्धि की है।

- Several billion dollars in **semiconductor fab proposals** and **multinational R&D centres** have emerged, such as **AMD's $400 million** design campus in **Bengaluru**.

सेमीकंडक्टर फैब प्रस्तावों में कई **अरब डॉलर** का निवेश और **मल्टीनेशनल आर एंड डी सेंटर** जैसे कि बेंगलुरु में AMD का $400 मिलियन डिज़ाइन परिसर शामिल हैं।

- India's **comparative advantage** lies in **lower labour costs** and **specialised knowledge domains**.

   भारत की **तुलनात्मक बढ़त** इसके **कम श्रम लागत** और **विशेषीकृत ज्ञान क्षेत्रों** में है।

- India produces approximately **1.5 million engineering graduates annually**, many of whom show considerable **aptitude for AI development**.

   भारत हर साल लगभग **15 लाख इंजीनियरिंग स्नातक** तैयार करता है, जिनमें से कई में **एआई विकास की उल्लेखनीय क्षमता** होती है।

- India depends heavily on **imported hardware components** and **international collaborations** for AI development.

   भारत **आयातित हार्डवेयर घटकों** और **अंतरराष्ट्रीय सहयोग** पर बहुत अधिक निर्भर है।

- **Tariffs** and **supply chain disruptions** that raise the cost of AI infrastructure could **slow down India's global ambitions** in AI.

   टैरिफ और **आपूर्ति शृंखला में रुकावटें** जो एआई इन्फ्रास्ट्रक्चर की लागत बढ़ाती हैं, भारत की **वैश्विक एआई महत्वाकांक्षाओं** को धीमा कर सकती हैं।

- However, India might **benefit indirectly** if companies seek **alternatives to China** for **manufacturing** and **data centre locations**.

   हालांकि, अगर कंपनियाँ **निर्माण** और **डेटा सेंटर स्थानों** के लिए **चीन के विकल्प** तलाशती हैं, तो भारत को **अप्रत्यक्ष रूप से लाभ** हो सकता है।

Capital substitution effects

पूंजी प्रतिस्थापन प्रभाव

- The economic reshaping driven by tariffs has accelerated what economists call **"capital substitution effects"**.

   टैरिफ के कारण हुआ आर्थिक पुनर्गठन अर्थशास्त्रियों द्वारा कहे गए **"पूंजी प्रतिस्थापन प्रभाव"** को तेज कर रहा है।

- As **hardware costs rise**, companies shift toward optimising resources through **algorithmic efficiency**, **model compression techniques**, and **hardware improvements**.

   जैसे-जैसे **हार्डवेयर की लागत बढ़ती है**, कंपनियाँ **अल्गोरिदमिक दक्षता**, **मॉडल संपीड़न तकनीक** और **हार्डवेयर सुधार** के माध्यम से संसाधनों को अनुकूलित करने की ओर बढ़ रही हैं।

- These tariffs have effectively created **price signals** that are reshaping AI strategy.

   इन **टैरिफों** ने प्रभावी रूप से **मूल्य संकेत** बनाए हैं जो एआई रणनीति को पुनः परिभाषित कर रहे हैं।

- The **cost of using AI models** is falling rapidly — by about **40 times a year**.

   एआई मॉडलों के उपयोग की लागत तेजी से घट रही है — लगभग **सालाना 40 गुना** तक।

- So while **upfront infrastructure costs** may rise, **consumer-level AI applications** might not see **immediate price hikes**.

इसलिए जहाँ **प्रारंभिक इन्फ्रास्ट्रक्चर लागत** बढ़ सकती है, वहीं **उपभोक्ता स्तर की एआई एप्लिकेशन** में **तुरंत मूल्य वृद्धि** नहीं देखी जाएगी।
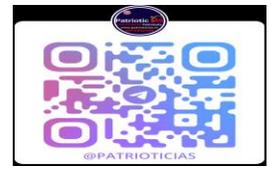
Regulatory and economic interplay
नियामक और आर्थिक परस्पर क्रिया

- **Tariff structures** interact with **different regulatory environments** in unique ways, creating **new competitive dynamics**.
  टैरिफ संरचनाएं विभिन्न **नियामक वातावरणों** के साथ मिलकर **नई प्रतिस्पर्धात्मक गतिशीलताएं** बनाती हैं।
- **Lenient data protection regulations**, **broad digital access**, and **data availability** can partly offset **hardware cost disadvantages**.
  उदार डेटा सुरक्षा नियम, **व्यापक डिजिटल पहुँच**, और **डेटा उपलब्धता हार्डवेयर लागत की असुविधाओं** को कुछ हद तक संतुलित कर सकती हैं।
- **Regulatory and economic factors** can defy **simplistic analysis** and produce **unforeseen outcomes**.
  नियामक और आर्थिक कारक अक्सर **सरल विश्लेषण** से परे होते हैं और **अप्रत्याशित परिणाम** उत्पन्न कर सकते हैं।

Decentralised AI development
विकेंद्रीकृत एआई विकास

- **Tariff changes** have led to the rise of **specialised AI hardware** designed for specific uses, rather than **general-purpose computation**.
  टैरिफ में बदलाव ने विशिष्ट उपयोगों के लिए डिज़ाइन किए गए **विशेषीकृत एआई हार्डवेयर** को बढ़ावा दिया है, जो **सामान्य प्रयोजन की गणना** से अलग है।
- This shift is based on **"application-specific integrated circuits (ASICs)"**, representing a major **architectural transition**.
  यह परिवर्तन **"एप्लिकेशन-स्पेसिफिक इंटीग्रेटेड सर्किट्स (ASICs)"** पर आधारित है, जो एक प्रमुख **आर्किटेक्चरल बदलाव** को दर्शाता है।
- By **2028**, over **50% of workload accelerators** in data centres could be **custom ASICs**, up from **30% in 2023**.
  2028 तक डेटा सेंटर्स में **50% से अधिक वर्कलोड एक्सेलेरेटर कस्टम ASICs** हो सकते हैं, जो **2023 में 30%** थे।
- Ironically, policies aimed at **domestic tech capability** may unintentionally **accelerate decentralisation** of AI development.
  विडंबना यह है कि जो नीतियाँ **घरेलू तकनीकी क्षमताओं** को मजबूत करने के लिए बनाई गई थीं, वे **एआई विकास के विकेंद्रीकरण** को तेज कर सकती हैं।

- **Historical examples**, like the **1980s mainframe-to-PC transition**, show that **technological constraints** often lead to **distributed innovation**.

ऐतिहासिक उदाहरण, जैसे कि **1980 के दशक में मेनफ्रेम से पीसी में बदलाव**, दिखाते हैं कि **तकनीकी सीमाएँ** अक्सर **वितरित नवाचार** को जन्म देती हैं।

ED crossed all limits with raid on T.N. govt. body: SC

CJI raps Central agency for 'violating the federal structure of the country', questions the legality of targeting State-run TASMAC; he asks why ED stepped in despite the T.N. govt. filing multiple FIRs

GS Paper III

The Hindu Bureau
NEW DELHI

The Supreme Court on Thursday orally criticised the Directorate of Enforcement for "crossing all limits" and stayed investigation conducted by the Central agency following raids on the Tamil Nadu State Marketing Corporation (TASMAC) offices.

"How can a corporation commit an offence? The ED is crossing all limits," Chief Justice of India B.R. Gavai said, addressing Additional Solicitor-General S.V. Raju, who appeared for the Central agency.

"You are totally violating the federal structure of the country," Justice Gavai remarked.

The court was hearing a petition filed by the State

Under scanner: An ED search at the residence of TASMAC Managing Director in Chennai on May 16. B. VELANKANNI RAJ

of Tamil Nadu and TASMAC against a Madras High Court order in April, rejecting a plea to stay the ED investigation and its raids on the corporation.

'Phones cloned'
Senior advocate Mukul Rohatgi, for TASMAC, claimed that its employees' phones have been cloned. "There is something called privacy," he submitted.

Mr. Sibal, for Tamil Nadu, said the State itself had registered 41 FIRs against liquor outlet operators over corruption allegations.

The ED had entered the scene in 2025 and proceeded to raid TASMAC headquarters to confiscate the phones and devices found there.

"How can a criminal offence be made out against the corporation? You may register FIRs against the individuals, but against the corporation, in a criminal matter?" the CJI asked.

Mr. Raju defended the ED, saying that the investigation involved fraud worth ₹1,000 crore, adding that politicians were involved in the case.

The court queried why the ED had to intervene despite the State having filed multiple FIRs, asking about the predicate offence which had prompted the ED to swoop in.

Mr. Raju sought time to file a detailed response and was given a fortnight.

ED crossed all limits with raid on T.N. govt. body: SC
तमिलनाडु की सरकारी संस्था पर छापे को लेकर ईडी ने सारी सीमाएं पार कीं: सुप्रीम कोर्ट

The Supreme Court on Thursday orally criticised the Directorate of Enforcement (ED) for "crossing all limits" and stayed the investigation conducted by the

Central agency following raids on the Tamil Nadu State Marketing Corporation (TASMAC) offices.

गुरुवार को सुप्रीम कोर्ट ने प्रवर्तन निदेशालय (ईडी) की आलोचना की कि उसने "सारी सीमाएं पार कर दी हैं" और तमिलनाडु राज्य विपणन निगम (TASMAC) के कार्यालयों पर छापों के बाद की जा रही जांच पर रोक लगा दी।

- Chief Justice of India **B.R. Gavai** questioned the legality of the ED's actions and said, "**How can a corporation commit an offence?** The ED is crossing all limits."

  भारत के मुख्य न्यायाधीश बी.आर. गवई ने ईडी की कार्रवाई की वैधता पर सवाल उठाते हुए कहा, "**कोई निगम अपराध कैसे कर सकता है?** ईडी सारी सीमाएं पार कर रही है।"

- Justice Gavai also remarked that the ED was "**totally violating the federal structure of the country**."

  न्यायमूर्ति गवई ने यह भी टिप्पणी की कि ईडी "**देश की संघीय संरचना का पूरी तरह उल्लंघन** कर रही है।"

- The court was hearing a petition filed by the **State of Tamil Nadu** and **TASMAC** against a **Madras High Court order in April**, which had rejected their plea to stay the ED investigation and raids.

  अदालत **तमिलनाडु राज्य** और **TASMAC** द्वारा दायर उस याचिका की सुनवाई कर रही थी, जो **अप्रैल में मद्रास उच्च न्यायालय के आदेश** के खिलाफ थी जिसमें ईडी की जांच और छापेमारी पर रोक की मांग को खारिज कर दिया गया था।

'Phones cloned'
'फोन क्लोन किए गए'

- Senior advocate **Mukul Rohatgi**, appearing for TASMAC, claimed that employees' phones had been **cloned**, stating "There is something called **privacy**."

  वरिष्ठ अधिवक्ता मुकुल रोहतगी, जो TASMAC की ओर से पेश हुए, ने दावा किया कि कर्मचारियों के फोन **क्लोन किए गए**, और कहा "**गोपनीयता** नाम की भी कोई चीज होती है।"

- **Kapil Sibal**, representing Tamil Nadu, said the **State had already filed 41 FIRs** against liquor outlet operators over **corruption allegations**.

  कपिल सिब्बल, जो तमिलनाडु का प्रतिनिधित्व कर रहे थे, ने कहा कि राज्य ने **41 एफआईआर पहले ही दर्ज कर रखी हैं**, जो शराब दुकानों के संचालकों के खिलाफ **भ्रष्टाचार के आरोपों** को लेकर हैं।

- He questioned why the ED had intervened in **2025** despite the State already taking legal action.

  उन्होंने सवाल उठाया कि **2025 में** राज्य द्वारा कानूनी कार्रवाई किए जाने के बावजूद ईडी ने हस्तक्षेप क्यों किया।

- The ED proceeded to **raid TASMAC headquarters** and **confiscated phones and devices** found there.

  ईडी ने **TASMAC मुख्यालय पर छापा मारा** और वहां से **फोन और उपकरण जब्त कर लिए।**

- CJI Gavai again asked, "**How can a criminal offence be made out against a corporation?** You may file FIRs against individuals, but not against a corporation in a criminal matter."

  मुख्य न्यायाधीश गवई ने फिर पूछा, "**किसी निगम के खिलाफ आपराधिक मामला कैसे बनाया जा सकता है?** आप व्यक्तियों के खिलाफ एफआईआर दर्ज कर सकते हैं, लेकिन आपराधिक मामले में किसी निगम के खिलाफ नहीं।"

- **ASG S.V. Raju**, defending the ED, said the case involved **₹1,000 crore fraud** and **politicians were involved**.

  अतिरिक्त सॉलिसिटर जनरल एस.वी. राजू, जो ईडी की ओर से पेश हुए, ने कहा कि यह मामला **₹1,000 करोड़ की धोखाधड़ी** से जुड़ा है और इसमें **राजनीतिज्ञ भी शामिल** हैं।

- The court questioned why ED stepped in despite the State filing **multiple FIRs**, and asked what was the **predicate offence** that led the ED to take action.

  अदालत ने सवाल किया कि राज्य द्वारा **कई एफआईआर दर्ज करने के बावजूद** ईडी ने हस्तक्षेप क्यों किया, और पूछा कि वह कौन सा **मूल अपराध (predicate offence)** था जिससे ईडी को कार्रवाई करनी पड़ी।

- Mr. Raju sought time to file a **detailed response** and the court granted him **two weeks**.

  श्री राजू ने **विस्तृत जवाब दाखिल करने** के लिए समय मांगा और अदालत ने उन्हें **दो सप्ताह** का समय दिया।

Why India needs stable urban forests

What role do urban forests play in combating air pollution and climate change? What is the impact of urbanisation on forests like Kancha Gachibowli? What are the areas of concern? Where do courts stand? What does the Nagar Van Yojana aim to achieve by 2027?

GS Paper III: Environment

EXPLAINER

Dev Nath Pathak
Vibha S Bharadwaj

The story so far:

One of Hyderabad's last remaining urban forests, Kancha Gachibowli, faced the threat of extinction when the Telangana government decided to give away 400 acres of its land for industrial development. Justifying its move by claiming ownership over the forest, the government alleged that protesting students were misled by real estate interests. However, the Supreme Court took cognisance of the felling of 100 acres of trees and reprimanded the State government. This issue highlighted the vulnerability of urban forests and environmentally insensitive models of urban development.

Why do urban forests matter?

Urban forests – such as Kancha Gachibowli in Hyderabad, Aarey in Mumbai, Turahalli in Bengaluru, Neela Hauz and the Ridge in Delhi, and Dol Ka Baadh in Jaipur – are significant for healthy urban living. The National Green Tribunal issued a notice to the Madhya Pradesh government against the rampant felling of trees in Bhopal. Similarly, the High Court had to intervene in the case of indiscriminate tree felling in Allahabad in Uttar Pradesh. Many such instances from across India emphasise a need to understand that the urban forests matter to public life.

Studies worldwide have underlined the importance of urban forests in coping with the built concrete environment and the emissions from automobile vehicles. They help mitigate climate change, reduce the urban heat island effect, and control stormwater runoff, erosion, and flooding. Urban forests also sequester carbon and absorb pollutants. The density of green spaces in cities ensures the longevity and survival of the endangered birds and animals.

Students of the University of Hyderabad raise slogans during their protest on April 1. PTI

Diminishing urban forests in India's metropolitan cities spell severe consequences. For example, in November 2024, the Central Pollution Control Board (CPCB) reported alarming levels of the air quality index (AQI) in Delhi at 494. Other cities such as Chennai, Hyderabad, and Bengaluru had AQI levels above 100. The CPCB mentions PM 2.5 and PM 10 pollutants – mostly from vehicle emissions and construction dust – as the main causes. Urban forests can serve as a safeguard against toxic urban air. A 2006 study by the U.S. Department of Agriculture Forest Service showed that one hectare of trees can remove around one ton of air pollutants.

Urban social and cultural life is otherwise fraught with speed and risk. A sense of romance, repose, relaxation, and nature-sensitive recreation is due to proximity to urban forests. The sustained preservation and consistent creation of urban forests can make Indian cities breathable and urban living beautiful.

Why are judicial interventions important?

Urban forests have featured in policies, missions, and judicial interventions in India. Both the National Forest Policy of 1988 and the National Mission for Green India of 2014 underlined the imperative of increasing afforestation and social forestry. The Smart Cities Mission and Atal Mission for Rejuvenation and Urban Transformation, launched in 2015, integrated smart urban designs with ecological and social development.

Besides, the judicial interventions play important roles in promoting and protecting urban forests. The landmark Godavarman case in 1996 broadened the definition of forests to enhance the protection of urban greenery. Consequently, in 2004, the apex court issued interim orders to all the States in India for the identification, scrutiny, and mapping of forests across their territories. The aim was to generate a comprehensive forest inventory in order to enhance conservation efforts.

Another instance of judicial intervention was in 2015 when the Delhi High Court directed the Delhi government to notify and protect the Delhi Ridge, also known as the Aravalli leopard wildlife corridor. Similarly, the apex court issued a stay order on the tree felling in Aarey in Mumbai in 2020 in response to the petitions by the citizens who conducted the Save Aarey Forest movement. Equally significant is the instance of the civil society and concerned citizens protesting against the felling of trees in the biodiversity-rich areas of the Baran district in Rajasthan. The Rajasthan High Court took *suo motu* cognisance of the matter in 2024.

The judicial interventions are requisite in the protection of forests and instilling awareness among the citizens. And, so are provisions in the Constitution of India, such as Article 21 (Right to Life), which includes the right to a healthy environment. Equally important are Articles 48A and 51A(g), ensuring the promotion and improvement of the natural environment.

What is the main goal of the Nagar Van Yojana?

Prime Minister Narendra Modi duly observed the importance of wildlife and biodiversity conservation on the occasion of World Wildlife Day on March 3, 2025. Such a spirit is conducive to the drive to protect urban forests, too.

The Ministry of Environment, Forest and Climate Change (MoEF&CC) of the Government of India had rolled out the Nagar Van Yojana (urban forest scheme) in 2020. The objective was to promote and grow forest spaces in urban areas. The Nagar Van Yojna envisages developing a thousand urban forests by the year 2027. According to the India State of Forest Report 2023, the scheme has resulted in an increase of 1445.81 km of tree and forest cover.

Why is the threat to urban forests concerning?

Rapidly urbanising India grapples with the consequences of abysmal regard for environmental conservation and sustainability. The threat to urban forests is a challenge to our biomedical, social, and cultural well-being. It is imperative that we, the people, play a role as citizens and civil society.

The Supreme Court order directing the Telangana government to restore the forested area of Kancha Gachibowli augurs well for a holistic soul searching. The mushrooming concrete jungles in the cities shall not devour the urban forests.
Dev Nath Pathak, Associate Dean, Faculty of Social Sciences, South Asian University, Delhi & Vibha S Bharadwaj, Young Scholar, Christ University, Bangalore

THE GIST

▼ Urban forests such as Kancha Gachibowli face threats from environmentally insensitive urban development and industrial expansion.

▼ They play a crucial role in mitigating climate change effects, reducing air pollution, and sustaining biodiversity in metropolitan cities.

▼ Policy initiatives like Nagar Van Yojana and judicial interventions are essential for conservation and ensuring the right to a healthy environment.

Why India Needs Stable Urban Forests
भारत को स्थायी शहरी वनों की आवश्यकता क्यों है

Threat to Kancha Gachibowli Forest in Hyderabad
हैदराबाद में कांचा गाचीबोवली वन को खतरा

- Kancha Gachibowli, one of the **last remaining urban forests** in Hyderabad, was threatened with extinction when the **Telangana government allocated 400 acres** of its land for **industrial development**.

  हैदराबाद का कांचा गाचीबोवली, जो अंतिम शहरी वनों में से एक है, को खतरा तब हुआ जब तेलंगाना सरकार ने इसके 400 एकड़ क्षेत्र को औद्योगिक विकास के लिए आवंटित कर दिया।

- The government claimed ownership over the forest and alleged that **protesting students** were influenced by **real estate interests**.

  सरकार ने इस वन पर अपनी **मालिकाना हक** जताया और आरोप लगाया कि विरोध कर रहे छात्र **रियल एस्टेट हितों** से प्रभावित हैं।

- The **Supreme Court** took cognisance of the **felling of 100 acres** of trees and **reprimanded** the State government.

  सुप्रीम कोर्ट ने 100 एकड़ पेड़ों की कटाई को संज्ञान में लिया और राज्य सरकार को **फटकार लगाई**।

- This incident highlights the **vulnerability of urban forests** and the **environmentally insensitive** models of urban development.

  यह घटना शहरी वनों की **कमजोरी** और **पर्यावरण-असंवेदनशील** शहरी विकास मॉडल को उजागर करती है।

Importance of Urban Forests
शहरी वनों का महत्व

- Urban forests like **Kancha Gachibowli (Hyderabad)**, **Aarey (Mumbai)**, **Turahalli (Bengaluru)**, **Neela Hauz and the Ridge (Delhi)**, and **Dol Ka Baadh (Jaipur)** are crucial for **healthy urban living**.

  कांचा गाचीबोवली (हैदराबाद), आरे (मुंबई), तुरहल्ली (बेंगलुरु), नीला हौज और रिज (दिल्ली), डोल का बाढ़ (जयपुर) जैसे शहरी वन **स्वस्थ शहरी जीवन** के लिए आवश्यक हैं।

- The **National Green Tribunal** issued a notice to **Madhya Pradesh** over rampant tree felling in **Bhopal**, and similar judicial interventions occurred in **Allahabad**.

  राष्ट्रीय हरित अधिकरण ने **भोपाल** में अंधाधुंध पेड़ काटने पर **मध्य प्रदेश** सरकार को नोटिस जारी किया और **इलाहाबाद** में भी न्यायिक हस्तक्षेप हुआ।

- Urban forests help **mitigate climate change**, reduce the **urban heat island effect**, and control **stormwater runoff, erosion**, and **flooding**.

  शहरी वन **जलवायु परिवर्तन को कम** करते हैं, **शहरी हीट आइलैंड प्रभाव** घटाते हैं, और **जलभराव, कटाव**, व **बाढ़** को नियंत्रित करते हैं।

- They also **sequester carbon**, **absorb pollutants**, and provide habitats for **endangered birds and animals**.

  ये **कार्बन को अवशोषित**, **प्रदूषकों को सोखते** हैं और **लुप्तप्राय पक्षियों व जानवरों** के लिए आवास उपलब्ध कराते हैं।

Impact of Urbanisation on Forests and Air Quality
शहरीकरण का वनों और वायु गुणवत्ता पर प्रभाव

- Diminishing urban forests in metros have **severe consequences**. In **November 2024**, **Delhi's AQI** reached **494**, while **Chennai**, **Hyderabad**, and **Bengaluru** reported AQI levels above **100**.

महानगरों में घटते शहरी वन के गंभीर परिणाम हैं। नवंबर 2024 में दिल्ली का AQI 494 तक पहुंच गया, जबकि चेन्नई, हैदराबाद, और बेंगलुरु में यह 100 से अधिक था।

- **PM 2.5** and **PM 10** pollutants from **vehicle emissions** and **construction dust** were cited as the main causes.

    वाहनों से निकलने वाले धुएं और निर्माण की धूल से उत्पन्न **PM 2.5 और PM 10** मुख्य कारण बताए गए।

- A **2006 study** by the **U.S. Department of Agriculture Forest Service** revealed that **one hectare** of trees can remove about **one ton of air pollutants**.

    2006 में अमेरिकी कृषि विभाग की एक रिपोर्ट में बताया गया कि **एक हेक्टेयर पेड़** लगभग **एक टन वायु प्रदूषक** हटा सकते हैं।

- Urban forests provide a space for **relaxation, recreation**, and foster **nature-sensitive lifestyles** amidst fast-paced city life.

    शहरी वन **आराम, मनोरंजन** और **प्रकृति-संवेदनशील जीवनशैली** को बढ़ावा देते हैं जो तेज़ रफ्तार शहरी जीवन में जरूरी है।

Judicial and Policy Interventions
न्यायिक और नीतिगत हस्तक्षेप

- The **National Forest Policy (1988)** and the **National Mission for Green India (2014)** emphasized increasing **afforestation** and **social forestry**.

    राष्ट्रीय वन नीति (1988) और हरित भारत मिशन (2014) ने वनरोपण और सामाजिक वनीकरण को बढ़ावा देने पर ज़ोर दिया।

- The **Smart Cities Mission** and **Atal Mission for Rejuvenation and Urban Transformation (2015)** aimed to integrate **smart urban design** with **ecological planning**.

    स्मार्ट सिटीज मिशन और अटल मिशन फॉर रीजुवेनेशन एंड अर्बन ट्रांसफॉर्मेशन (2015) ने स्मार्ट शहरी डिज़ाइन को पारिस्थितिकी योजना से जोड़ने का लक्ष्य रखा।

- Judicial interventions have been **crucial**. In the **1996 Godavarman case**, the **definition of forests** was expanded to strengthen protection.

    न्यायिक हस्तक्षेप महत्वपूर्ण रहे हैं। 1996 के गोडावर्मन मामले में वन की परिभाषा का विस्तार किया गया ताकि सुरक्षा मजबूत हो सके।

- In **2004**, the **Supreme Court** ordered all States to identify, map, and scrutinise forest areas to generate a **comprehensive forest inventory**.

    2004 में, सुप्रीम कोर्ट ने सभी राज्यों को वनों की पहचान, मानचित्रण, और जांच का आदेश दिया ताकि समग्र वन सूची तैयार हो सके।

Judicial Interventions for Urban Forests
शहरी वनों के लिए न्यायिक हस्तक्षेप

- Another instance of judicial intervention was in **2015**, when the **Delhi High Court** directed the Delhi government to notify and protect the **Delhi Ridge**, also known as the **Aravalli leopard wildlife corridor**.

  2015 में एक और न्यायिक हस्तक्षेप का उदाहरण तब देखने को मिला जब **दिल्ली हाईकोर्ट** ने दिल्ली सरकार को **दिल्ली रिज**, जिसे **अरावली तेंदुआ वन्यजीव गलियारा** भी कहा जाता है, को अधिसूचित करने और संरक्षित करने का निर्देश दिया।

- Similarly, the **Supreme Court** issued a **stay order** on the tree felling in **Aarey** (Mumbai) in **2020**, responding to petitions by citizens involved in the **Save Aarey Forest movement**.

  इसी तरह **2020** में **सुप्रीम कोर्ट** ने मुंबई में **आरे** में पेड़ों की कटाई पर रोक लगाने का आदेश जारी किया, जो **सेव आरे फॉरेस्ट मूवमेंट** से जुड़े नागरिकों की याचिकाओं के जवाब में था।

- Equally significant was the protest by civil society and concerned citizens against the **tree felling in Baran district**, Rajasthan, a **biodiversity-rich area**.

  राजस्थान के **बारां जिले** में जैवविविधता से भरपूर क्षेत्र में **पेड़ों की कटाई** के खिलाफ नागरिक समाज और जागरूक नागरिकों का विरोध भी उतना ही महत्वपूर्ण था।

- The **Rajasthan High Court** took **suo motu cognisance** of the matter in **2024**.

  2024 में **राजस्थान हाईकोर्ट** ने इस मामले का **स्वत: संज्ञान** लिया।

- Judicial interventions are crucial in the **protection of forests** and for **spreading awareness** among citizens.

  वनों की सुरक्षा और नागरिकों में **जागरूकता फैलाने** के लिए न्यायिक हस्तक्षेप अत्यंत आवश्यक हैं।

- Provisions in the **Constitution of India** also support forest protection, especially **Article 21** (Right to Life), which includes the **right to a healthy environment**.

  भारतीय संविधान में भी वन संरक्षण का समर्थन करने वाले प्रावधान मौजूद हैं, विशेषकर **अनुच्छेद 21** (जीवन का अधिकार), जिसमें **स्वस्थ पर्यावरण का अधिकार** शामिल है।

- **Articles 48A** and **51A(g)** further ensure the **promotion and improvement** of the **natural environment**.

  अनुच्छेद 48A और **51A(g)** भी **प्राकृतिक पर्यावरण के संवर्धन और सुधार** को सुनिश्चित करते हैं।

Main Goal of the Nagar Van Yojana

नगर वन योजना का मुख्य उद्देश्य

- On **March 3, 2025**, **Prime Minister Narendra Modi** highlighted the importance of **wildlife and biodiversity conservation** on the occasion of **World Wildlife Day**.

  3 मार्च 2025 को **प्रधानमंत्री नरेंद्र मोदी** ने **विश्व वन्यजीव दिवस** के अवसर पर **वन्यजीव और जैव विविधता संरक्षण** के महत्व को रेखांकित किया।

- This spirit also aligns with the drive to **protect urban forests**.

  यह भावना **शहरी वनों की सुरक्षा** के अभियान से भी मेल खाती है।

- The **Ministry of Environment, Forest and Climate Change (MoEF&CC)** launched the **Nagar Van Yojana** in **2020** to promote and increase **forest spaces in urban areas**.

पर्यावरण, वन और जलवायु परिवर्तन मंत्रालय (MoEF&CC) ने 2020 में **नगर वन योजना** की शुरुआत की, जिसका उद्देश्य **शहरी क्षेत्रों में वन क्षेत्र को बढ़ावा देना और विकसित करना** है।

- The scheme aims to develop **1,000 urban forests** by the year **2027**.
  यह योजना **2027** तक **1,000 शहरी वनों** के विकास का लक्ष्य रखती है।

- According to the **India State of Forest Report 2023**, the scheme has led to an increase of **1445.81 km²** in **tree and forest cover**.
  इंडिया स्टेट ऑफ फॉरेस्ट रिपोर्ट 2023 के अनुसार, इस योजना के तहत **1445.81 वर्ग किलोमीटर** में **पेड़ों और वन क्षेत्र** की वृद्धि हुई है।

Why is the Threat to Urban Forests Concerning?
शहरी वनों के लिए खतरा क्यों चिंता का विषय है?

- India is urbanising rapidly, but it shows **abysmal concern** for **environmental conservation and sustainability**.
  भारत तेजी से शहरीकरण कर रहा है, लेकिन **पर्यावरण संरक्षण और स्थिरता** के लिए इसकी **चिंता बेहद कम** है।

- The threat to **urban forests** is a challenge to our **biomedical, social, and cultural well-being**.
  शहरी वनों के लिए खतरा हमारे **जैव-चिकित्सकीय, सामाजिक और सांस्कृतिक कल्याण** के लिए एक चुनौती है।

- It is **imperative** that citizens and civil society play an active role in protecting these forests.
  इन वनों की सुरक्षा में नागरिकों और नागरिक समाज की **सक्रिय भूमिका अनिवार्य** है।

What is the need of the hour in autism care?

What causes autism? How can we improve early diagnosis and access to intervention?

GS Paper III: S&T

Zubeda Hamid

The story so far:

Last month, U.S. Health Secretary Robert F. Kennedy Jr. announced a massive testing and research effort to identify the "environmental toxins" that he said were behind the growing "epidemic" of autism in the U.S. He said the Department of Health and Human Services would launch a series of new studies focusing on environmental substances. Calling autism "preventable", he said there would be some answers by September this year. Some of Mr. Kennedy's remarks came following the release of a new report from the Centers for Disease Control and Prevention showing that rates of autism had increased from 1 in 36 children in 2020 to 1 in 31 in 2022.

What is autism?

Autism Spectrum Disorders (ASD), according to the World Health Organization (WHO), are a diverse group of conditions. They are characterised by some degree of difficulty with social interaction and communication. Other characteristics are atypical patterns of activities and behaviours. Characteristics of autism may be detected in early childhood, but autism is often not diagnosed until much later.

What does the existing research say?

Existing research points to multiple factors, possibly both genetic and environmental factors. Research has also shown that the MMR vaccine, that was linked to autism in a now widely debunked study, does not cause autism, nor do other childhood vaccines increase the risk of autism.

Is it preventable?

Prevention strategies may be complex, says Sheffali Gulati, child neurologist, Department of Paediatrics, AIIMS New Delhi, due to the interplay of multiple factors, many of which remain unknown as yet; autism is not caused by one specific gene or one specific environmental factor. "In general, in healthcare, prevention consists of primary, secondary, and tertiary prevention. Here, if primary prevention may not be fully possible as of yet, as more research is needed to understand what is causing autism, it is important to focus on secondary and tertiary prevention, which consists of early diagnosis and picking up of cases as well as interventions to help," she said.

"We've come a long way in understanding autism, and what we know from decades of research is that genetics plays a role, with heritability estimates as high as 91% in some studies (Tick et al., JAMA, 2016). While certain environmental exposures may influence development in utero, such as advanced parental age or prenatal exposure to air pollutants, there is no single environmental toxin scientifically proven to cause autism (Sandin et al., JAMA, 2014; Becerra et al., EHP, 2013). Autism is not a disease in the classical form. It is a developmental difference shaped by a complex interplay of biology and environment. While some individual risk factors have been identified, none offer a path to broad prevention. Framing autism in this way is scientifically inaccurate and socially irresponsible. This kind of language risks placing blame on parents and caregivers, particularly mothers, for outcomes far beyond their control. It reinforces stigma and creates shame where there should be support," says (via email) Tyler Evans, Adjunct Associate Professor, University of Southern California Keck School of Medicine, Department of Population and Public Health Sciences.

Is autism on the rise?

"The prevalence of ASD is growing," says Ennapadam S. Krishnamoorthy, neuropsychiatrist and founder, Buddhi Clinic, Chennai, "and this is attributed to several factors, including recognition of the condition, as well as the criteria becoming more inclusive – the focus in the early years was on the more severe cases, but today, many of the less severe cases also fall under the autism framework." Also, he said, apart from genetic propagation, there are a number of environmental factors today that could also be contributing to the rise, triggers that could be making ASD manifest.

Overall, says Gita Sankaran, founder, WeCAN, a resource centre for autism in Chennai, there has been an increase in the number of diagnoses of individuals on the mild end of the spectrum, primarily because of increased awareness and access to information about ASD. As the population increases, however, there has been a proportionate increase in the total number of cases.

What should be done for ASD care and support?

At this point, says Dr. Krishnamoorthy, we are far from diagnosing every case early and intervening early, and so, this should still be the priority.

More psycho-education for families across the board, and a more realistic approach to interventions based on the needs of each child, are also vital, said Dr. Sankaran.

Dr. Krishnamoorthy also raised the importance of combating misinformation, particularly related to autism being caused by vaccines, which, he said, had led to a drop in vaccination rates and could precipitate epidemics. "But crucially, more focus has to be given to maternal health during pregnancy. A lot of our current efforts in this direction are to do with communicable diseases, but non-communicable diseases, especially mental health, are not talked about enough. What can mothers and families do to ensure optimal environments for the growing foetus and for infants and toddlers? There has to be more awareness and more attention given to this area."

Need of the Hour in Autism Care
ऑटिज़्म देखभाल में समय की आवश्यकता

- **U.S. Health Secretary Robert F. Kennedy Jr. recently announced a major testing and research effort to identify environmental toxins believed to be behind the growing "autism epidemic" in the U.S.**

  अमेरिका के स्वास्थ्य सचिव रॉबर्ट एफ. कैनेडी जूनियर ने हाल ही में एक बड़े परीक्षण और अनुसंधान प्रयास की घोषणा की, जिसका उद्देश्य अमेरिका में बढ़ती "ऑटिज़्म महामारी" के पीछे माने जा रहे पर्यावरणीय विषाक्त पदार्थों की पहचान करना है।

- He called **autism "preventable"** and said there would be some answers by **September 2025**.

  उन्होंने **ऑटिज़्म को "रोकथाम योग्य"** कहा और यह भी कहा कि **सितंबर 2025** तक कुछ उत्तर मिल सकते हैं।

- This announcement followed a **CDC report** showing **autism rates increased** from **1 in 36 children in 2020** to **1 in 31 in 2022**.

  यह घोषणा **CDC रिपोर्ट** के बाद आई, जिसमें बताया गया कि **ऑटिज़्म की दर 2020 में 36 में 1 बच्चे से बढ़कर 2022 में 31 में 1 बच्चे** तक पहुंच गई।

What is Autism?

ऑटिज़्म क्या है?

- According to the **World Health Organization (WHO)**, **Autism Spectrum Disorders (ASD)** are a diverse group of conditions characterised by **difficulty in social interaction and communication**.

  विश्व स्वास्थ्य संगठन (WHO) के अनुसार, **ऑटिज़्म स्पेक्ट्रम विकार (ASD)** विभिन्न प्रकार की स्थितियाँ हैं जो **सामाजिक संपर्क और संचार में कठिनाई** से पहचानी जाती हैं।

- They also show **atypical behaviour patterns**, and although symptoms may appear in **early childhood**, diagnosis often occurs much **later**.

  इनमें **असामान्य व्यवहार पैटर्न** भी शामिल होते हैं, और यद्यपि लक्षण **प्रारंभिक बचपन** में दिखाई दे सकते हैं, लेकिन **निदान अक्सर बाद में** होता है।

What Does Existing Research Say?

मौजूदा शोध क्या कहता है?

- Current research suggests that both **genetic and environmental factors** may contribute to autism.

  वर्तमान शोध से पता चलता है कि **आनुवंशिक और पर्यावरणीय कारक** दोनों ऑटिज़्म में योगदान कर सकते हैं।

- The widely debunked claim linking **MMR vaccine** to autism has been proven **false**, and **no childhood vaccine** increases autism risk.

  MMR वैक्सीन को ऑटिज़्म से जोड़ने वाला दावा **झूठा साबित** हुआ है, और **कोई भी बचपन का टीका** ऑटिज़्म का जोखिम नहीं बढ़ाता।

Is Autism Preventable?

क्या ऑटिज़्म को रोका जा सकता है?

- According to **Dr. Shefali Gulati** from **AIIMS**, primary prevention is difficult due to the **unknown causes**, but **secondary and tertiary prevention** through **early diagnosis and intervention** are crucial.

  AIIMS की **डॉ. शेफाली गुलाटी** के अनुसार, **अज्ञात कारणों** के कारण प्राथमिक रोकथाम कठिन है, लेकिन **प्रारंभिक निदान और हस्तक्षेप** के माध्यम से **द्वितीयक और तृतीयक रोकथाम** महत्वपूर्ण है।

- Studies show **genetics** play a major role with **heritability estimates as high as 91%**.

  अध्ययनों से पता चलता है कि **आनुवंशिकी** की बड़ी भूमिका है और **विरासत का अनुमान 91%** तक है।

- Some **environmental factors** like **advanced parental age** or **air pollution during pregnancy** may contribute, but **no specific toxin** has been proven to cause autism.

कुछ **पर्यावरणीय कारक**, जैसे **अभिभावकों की उम्र अधिक होना** या **गर्भावस्था के दौरान वायु प्रदूषण**, योगदान कर सकते हैं, लेकिन **कोई विशिष्ट विषाक्त पदार्थ** ऑटिज़्म का कारण सिद्ध नहीं हुआ है।

- Framing autism as a disease caused by toxins is **scientifically inaccurate** and promotes **stigma and parental guilt**.

 ऑटिज़्म को विषाक्त पदार्थों से उत्पन्न रोग के रूप में दिखाना **वैज्ञानिक रूप से गलत** है और इससे **कलंक और माता-पिता में अपराधबोध** बढ़ता है।

Is Autism on the Rise?
क्या ऑटिज़्म बढ़ रहा है?

- According to **Dr. Ennapadam S. Krishnamoorthy**, autism prevalence is increasing due to **broader diagnostic criteria** and **increased awareness**.

 डॉ. एन.एस. कृष्णमूर्ति के अनुसार, ऑटिज़्म की व्यापकता बढ़ रही है क्योंकि **निदान की परिभाषा विस्तृत हुई है** और **जागरूकता बढ़ी है**।

- **Milder cases** are now included, which were previously **unnoticed**.

 अब **हल्के मामलों** को भी शामिल किया जा रहा है, जो पहले **अनदेखे** रह जाते थे।

- As population grows, the **absolute number of autism diagnoses** is increasing proportionately.

 जैसे-जैसे जनसंख्या बढ़ती है, **ऑटिज़्म निदानों की कुल संख्या** भी उसी अनुपात में बढ़ रही है।

What Should Be Done for ASD Care and Support?
ASD देखभाल और समर्थन के लिए क्या किया जाना चाहिए?

- **Early diagnosis and intervention** must remain the **top priority**, as we still miss many early cases.

 हमें अभी भी कई प्रारंभिक मामले नहीं मिल पाते, इसलिए **प्रारंभिक निदान और हस्तक्षेप** को **शीर्ष प्राथमिकता** दी जानी चाहिए।

- Families need more **psycho-education** and **individualized interventions** based on each child's needs.

 परिवारों को अधिक **मनोवैज्ञानिक शिक्षा** और प्रत्येक बच्चे की आवश्यकताओं के अनुसार **व्यक्तिगत हस्तक्षेप** की आवश्यकता है।

- **Misinformation** linking autism with **vaccines** must be actively countered to prevent drops in **vaccination rates**.

 ऑटिज़्म को **वैक्सीन से जोड़ने वाली गलत जानकारी** का विरोध करना आवश्यक है ताकि **टीकाकरण दर** में गिरावट न आए।

- **Maternal health** during pregnancy needs more focus, especially on **non-communicable and mental health** concerns.

गर्भावस्था के दौरान **मातृ स्वास्थ्य** पर अधिक ध्यान देना चाहिए, विशेषकर **गैर-संचारी और मानसिक स्वास्थ्य** विषयों पर।

- **Families and mothers** need support in creating **optimal environments** for foetal, infant, and toddler development.

  परिवारों और माताओं को भ्रूण, शिशु और छोटे बच्चों के विकास के लिए **उत्तम वातावरण** तैयार करने में सहयोग मिलना चाहिए।

Net FDI slumps 96% in FY25 to $353 mn, gross FDI robust

Net foreign direct investment (FDI) was dragged down by a surge in money being repatriated out by foreign companies and increased foreign investments by Indian companies;
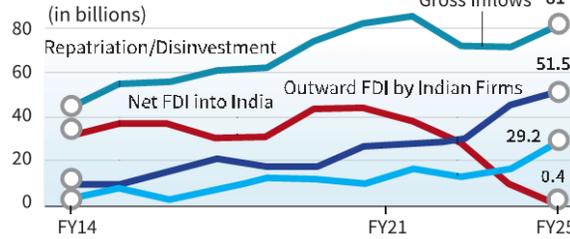
GS Paper III: FDI

T.C.A. Sharad Raghavan
NEW DELHI

Net foreign direct investment (FDI) into India plunged by more than 96% to just $353 million in 2024-25 compared with the previous year, latest data from Reserve Bank of India shows.

Net FDI is basically gross FDI, which is the total money coming in, minus the money being repatriated by foreign firms doing business in India and outward FDI by Indian companies.

While gross FDI into In-

Crash since pandemic

While in the pandemic year FY21 India's net FDI was $44 billion, this fell to just $353 million in FY25 (in billions)

Gross Inflows 81
Repatriation/Disinvestment 51.5
Net FDI into India
Outward FDI by Indian Firms 29.2
0.4

FY14   FY21   FY25

Source: RBI

dia remained strong, the net FDI figure was dragged down by increased repatriation of money back to their home countries by foreign companies doing business here, and higher foreign investments by Indian companies.

The data, released as part of the RBI's May edition of its monthly bulletin, shows repatriation and foreign investments by Indian firms have increasingly played a part in lowering India's net FDI figures ever since the pandemic.

So, where the net FDI figure stood at $44 billion in the pandemic year of 2020-21, it fell to $38.6 billion the next year, $28 billion in 2022-23, $10.1 billion in 2023-24, and finally to just $353 million ($0.4 billion) in 2024-25.

Net FDI slumps 96% in FY25 to $353 mn, gross FDI robust

वित्तीय वर्ष 2024-25 में शुद्ध FDI में 96% की गिरावट, सकल FDI मजबूत

Net foreign direct investment (FDI) into India plunged by more than 96% to just $353 million in 2024-25 compared with the previous year, latest data from the Reserve Bank of India shows.

Page 55

Address : 3rd Floor, KV Tower, Padleyganj Road, Gorakhpur
Email Id : info@patrioticias.in
Contact Number : 9971932488
Website : patrioticias.in

TELEGRAM CHANNEL: https://t.me/patrioticIAS
YOUTUBE CHANNEL: https://www.youtube.com/@PatrioticIAS
CONTACT: 9971932488

Patriotic IAS
IAS/PCSwali Pathshala
www.patrioticias.in
9971932488

@PATRIOTICIAS

भारत में शुद्ध प्रत्यक्ष विदेशी निवेश (FDI) पिछले वर्ष की तुलना में 2024-25 में 96% से अधिक गिरकर केवल $353 मिलियन रह गया, जैसा कि भारतीय रिज़र्व बैंक के नवीनतम आंकड़े दिखाते हैं।

- Net FDI is basically gross FDI, which is the total money coming in, minus the money being repatriated by foreign firms doing business in India and outward FDI by Indian companies.

  शुद्ध FDI मूलतः सकल FDI होता है, जो कुल आने वाला पैसा है, जिससे भारत में व्यवसाय कर रही विदेशी कंपनियों द्वारा वापस भेजे गए पैसे और भारतीय कंपनियों द्वारा विदेश में किए गए निवेश को घटाया जाता है।

- While gross FDI into India remained strong, the net FDI figure was dragged down by increased repatriation of money back to their home countries by foreign companies doing business here, and higher foreign investments by Indian companies.

  जहां भारत में सकल FDI मजबूत रहा, वहीं शुद्ध FDI की संख्या विदेशी कंपनियों द्वारा अपने देश वापस पैसे भेजने की बढ़ी हुई मात्रा और भारतीय कंपनियों द्वारा विदेश में निवेश के कारण कम हुई।

- The data, released as part of the RBI's May edition of its monthly bulletin, shows repatriation and foreign investments by Indian firms have increasingly played a part in lowering India's net FDI figures ever since the pandemic.

  RBI के मई महीने के मासिक बुलेटिन के हिस्से के रूप में जारी आंकड़े दिखाते हैं कि महामारी के बाद से भारतीय कंपनियों द्वारा पैसा वापस भेजना और विदेश में निवेश भारत के शुद्ध FDI आंकड़ों को कम करने में बढ़ती भूमिका निभा रहे हैं।

So, where the net FDI figure stood at **$44 billion** in the pandemic year of **2020-21**, it fell to **$38.6 billion** the next year, **$28 billion** in **2022-23**, **$10.1 billion** in **2023-24**, and finally to just **$353 million ($0.4 billion)** in **2024-25**.

जहां महामारी के वर्ष **2020-21** में शुद्ध FDI का आंकड़ा **$44 बिलियन** था, वह अगले वर्ष घटकर **$38.6 बिलियन**, फिर **2022-23** में **$28 बिलियन**, **2023-24** में **$10.1 बिलियन**, और अंत में **2024-25** में केवल **$353 मिलियन ($0.4 बिलियन)** रह गया।